



27th International Conference of
Alzheimer's Disease International
7-10 March 2012
ExCeL London, UK

SCIENCE FACT FICTION

Abstract Booklet



www.adi2012.org



**Alzheimer's
Society** | Leading the
fight against
dementia

To search this Abstract document:

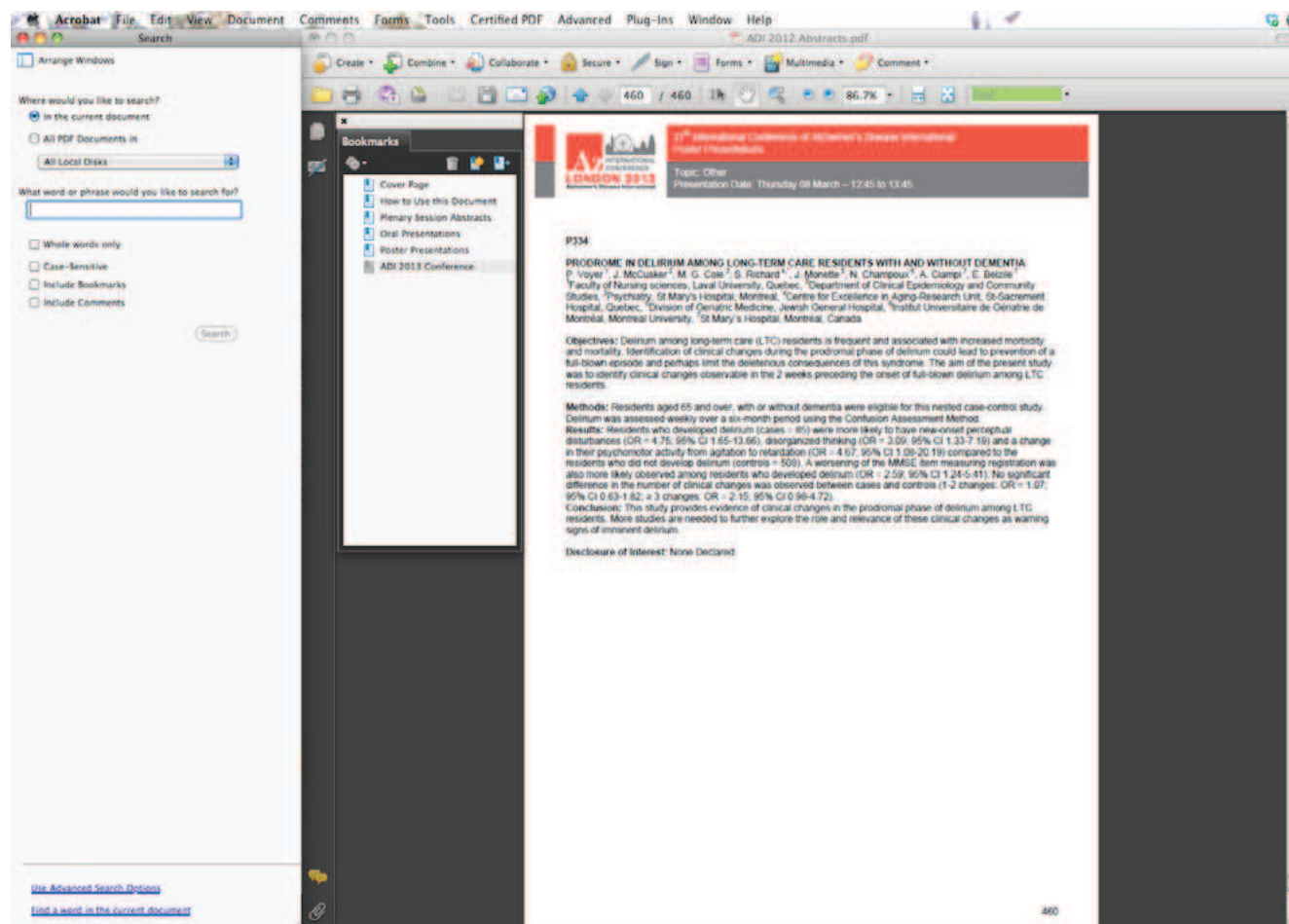
Click the search button below.

Enter your term in the search box. You can enter full or partial text for a speaker's name, abstract number, category or topic. Clicking the search button will then list all successful matches for the search term, and clicking on any of the results in the list will take you immediately to the appropriate page.

The search window can be shown at any time by selecting "Edit > Search" from the top file menu, or using the following shortcut keys:

"Shift - Control - F" on a Windows operating system

"Shift - Command - F" on an Apple operating system



PL01

Alzheimer's Associations as Agents of Change

G Rees, Alzheimer's Australia

The role played by Alzheimer's organisations has changed dramatically over the last 10 years. Arguably the challenges we will face over the coming 10 years represent an opportunity for revolution rather than evolution in the role of Alzheimer's organisations as agents of change. A change is needed both in the priorities we set ourselves and the force with which we communicate and advocate our messages at the political and community levels.

The change process has started in earnest in the last decade at the international and national levels. ADI through the publication of the World Alzheimer's Reports has started to provide an essential social and economic dimension to understanding the worldwide dementia epidemic. Alzheimer's organisations in developed countries have become increasingly strident and confident in their call for dementia to be embraced as a national health priority. Less developed countries are constrained by their political environments and resources.

So what are the challenges for Alzheimer's organisations as agents of change for people living with dementia in the next ten years?

First, to address the pervasive negative social attitudes towards people with dementia that lead to social rejection, internalised shame and social isolation. The fear of dementia needs to be translated into action as has been the case with cancer. At the international level a report on stigma might be a natural sequel to the World Alzheimer's Report 2010.

Second, to insist that dementia is a chronic disease like any other that has to be addressed within a public health framework which includes a focus on reducing future numbers of people with dementia. An essential part of this is to recognise that dementia is not an aged care issue alone but one that impacts on all aspects of health policy including primary care, acute care, risk reduction and investment in research.

Third, to inform and articulate a consumer view point on the future clinical definition of dementia. And in particular on the position we take in respect of early diagnosis.

Fourth, Alzheimer's organisations should be prepared to inform difficult debates about end of life issues including euthanasia and sexuality even if they stop short of gaining a consensus on what options should be available within differing cultures.

Fifth, to be well informed about the lessons that can be learnt from the experience of developing countries in providing access to care and support to people with dementia including the balance between community and residential care. We should do more to share ideas that will generate dementia friendly services and communities.

All of this good work is dependent on approaches to marketing and branding that break new ground in the way we convey our messaging, the force with which we deliver them and the commercialisation of our brands. After a decade of hard work we have much of the intellectual capital we need— now to tell the story more effectively. This is the key for Alzheimer's organisations as agents of change in the next decade.

PL02

Preparing for the Dementia Epidemic: a Government Response

Paul Burstow

In England (where the number of people receiving a formal diagnosis is only 40% of those who have the condition) the Department of Health introduced a national dementia strategy in 2009. The Minister of State for Health and Social Care has been asked to address the conference on the objectives for this strategy and its implementation since 2009, concentrating on the policies adopted by the Coalition government since it came to power in May 2010, the principal objectives for the strategy and how he sees it meeting the needs of people living with dementia in the future.

He will be responding to the scene setting and a description of the task of Alzheimer organisations around the world as agents for change.

PL03

Global Research for Global Action

Martin Prince

King's College London (Institute of Psychiatry), London, United Kingdom

Co-Director, Centre for Global Mental Health

The last 15 years has seen an upsurge in interest in and awareness of the dementia epidemic as a global phenomenon. The work of ADI's 10/66 Dementia Research Group in China, India, Latin America and Africa, combined with recent evidence from other research groups has shown clearly that the age-specific prevalence of dementia is little different in those regions compared with high income countries. Earlier studies may have underestimated the prevalence and incidence of dementia, particularly in regions with low awareness of this emerging public health problem. ADI's World Alzheimer Report 2009 estimates 36 million people with dementia in 2010, nearly doubling every 20 years to reach 115 million by 2050. However, this epidemic will be concentrated in the world's rapidly developing middle income country regions that are currently not well prepared to meet its challenges.

The global impact of dementia is enormous, in respect to the associated societal costs (over USD 600 billion per year according to ADI's World Alzheimer Report 2010), disability, dependence (needs for care) and carer strain. In the 10/66 studies, dementia emerges as by far the leading non-communicable disease contributor to disability and dependence among older people in LMIC. Still, the global health chronic disease agenda focuses more on preventing premature deaths among the middle-aged from heart disease, diabetes and cancer, while neglecting dementia and other diseases of the brain and mind that drive needs for care, and costs among older people.

The research community, working in partnership with ADI, the World Health Organization (WHO) and other stakeholders, has described the problem clearly. Three annual ADI World Alzheimer Reports (2009-2011) have focused on prevalence and numbers, economic cost, and the case for earlier intervention. These will be complemented by an authoritative report to be released by WHO on World Health Day 2012.

We now need 'action research' that demonstrates to intergovernmental and national policymakers the case for intervention, and guides their strategies. This should include:

1. working, costed models of accessible packages of care for people with dementia and their caregivers – the WHO Mental Health Gap Action Plan (mhGAP) provides a framework, but this needs to be implemented and shown to be a feasible and cost effective approach to reducing the treatment gap
2. simple primary-care based programs, addressing the unmet needs of people with dementia and other chronic health conditions who are frail, vulnerable, and currently very underserved in most health systems.
3. sustainable models of long-term care, that empower, support and incentivize family and other informal caregivers to provide high quality home-based care, and reduce the risk and avoid the cost of institutionalization
4. continued efforts to develop more and better treatments for dementia and Alzheimer's disease; these should include a focus on evaluating and implementing psychosocial interventions, as well as pharmacological options
5. a renewed effort to strengthen the evidence for prevention options, the only strategy likely to reduce the expected future toll of cases
6. continued monitoring of the course of the epidemic, and access to and coverage of services, through government-sponsored national epidemiological research programs; only in this way will be clear about progress towards the twin goals of prevention and closing the treatment gap.

While all countries should support national programs, there is also a need for more international collaboration in commissioning, funding and implementing research, and in collating and responding to the evidence.

PL04

Diagnosis of Early Alzheimer's Disease: Implications for Drug Development

Paul Aisen, USA

Despite the identification of promising targets and plausible drugs, multiple large clinical trials of putative disease-modifying agents for Alzheimer's disease (AD) have failed. While efforts to find the best possible drug candidates must continue, there is growing awareness that the strategy for clinical development of such drugs must also be improved. To date, nearly all trials have been conducted in individuals with a diagnosis of AD according to traditional guidelines, requiring the presence of dementia. But compelling evidence suggests that dementia is a very late phase of the disease, lagging perhaps 15 years behind initial amyloid deposition in brain. Presumably, the earliest feasible intervention will yield the greatest long-term clinical benefits. Growing understanding of the biomarker trajectories across the full spectrum of AD has allowed reconsideration of AD diagnostic criteria. In particular, it is now possible to accurately identify individuals with brain amyloid long before the onset of any symptoms. Further, plausible trial designs can be envisioned that could lead to drug studies in such asymptomatic individuals that may provide sufficient evidence of efficacy for preliminary regulatory approval.

PL05

Diagnosing Early Alzheimer's Disease: the IWG Criteria

B Dubois¹, L De Souza¹, O Uspenskaya¹, M Sarazin¹

¹ Institut de la Mémoire et de la Maladie d'Alzheimer (IM2A), Salpêtrière University Hospital, AP-HP, UPMC, 47 bd de l'Hôpital, Paris, France.

Objectives: Historically, Alzheimer's Disease (AD) has been conceptualized as a “dual clinicopathological entity”. Accordingly, the diagnosis of AD can not be clinically certified and needs a post-mortem confirmation to be ascertained. Therefore, the diagnosis of AD can only be clinically “probable”, and it can only be made when the disease is advanced and reaches the threshold of dementia. Since the publication of the NINCDS-ADRDA criteria in 1984, there is an unprecedented growth of scientific knowledge about the disease. Distinctive and reliable biomarkers of AD are now available that may change the definition of the disease and the conceptual framework for its diagnosis, at least for research purposes.

Methods: In 2007, the International Working Group published the framework for New Research Criteria (1) for AD. Subsequently, this International Working Group provided a clarification and a restatement of the definition of AD and related states at the origin of a “new lexicon” (2).

Results: Based on this new lexicon, AD is now considered solely as a clinical and symptomatic entity that encompasses both predementia and dementia phases. Moreover, the diagnosis can now be established *in vivo*, based on a dual clinico-biological entity. The diagnostic framework relies now on the evidence of a specific phenotype consisting of an amnesic syndrome of the hippocampal type associated with a confirmatory biomarker from structural MRI, molecular neuro-imaging with PET and/or cerebrospinal fluid analyses. In addition, preclinical states of AD are recognized including:

- 1- Asymptomatic at-risk state for AD : this state can be identified in cognitively normal individuals by evidence of amyloidosis either in the brain (with PET amyloid tracers) or in the CSF;
- 2- Presymptomatic AD: this state applies to individuals who will develop AD because they carry a monogenic AD mutation.

This new conceptual framework had been recently reinforced by the NIA/AA criteria (3) although these criteria still consider: 1) AD as a dementia; 2) and the existence of MCI.

Conclusions: With these new criteria, the entire course of AD from the asymptomatic to the prodromal/dementia stages is now captured. They recognize importance of biomarkers for the knowledge of the natural history, the diagnosis and for clinical trials. Although this new conceptual framework is mainly used for research purposes and clinical trials, their application in clinical practice may evolve rapidly.

PL06

Is Early Diagnosis of Alzheimer's Disease Possible without Biomarkers?

Patricio Fuentes

Cognitive Neurology and Dementia Unit, Neurology Service, Hospital del Salvador and Geriatrics Section, Clinical Hospital University of Chile, Santiago, Chile

The appearance in specific brain areas of neuritic plaques and neurofibrillary tangles in years preceding the clinical manifestations and the obligation to establish these neuropathological findings for definitive diagnosis are key features of Alzheimer's disease (AD). Dubois et al, have proposed that it is possible to recognize the pre-dementia stage of AD adopting a multidimensional approach including identification of a specific amnesic disorder of the hippocampal type, the atrophy of medial temporal structures, abnormal CSF biomarkers and specific pattern in functional neuroimaging with PET. The memory defect, according to this proposed approach, would not be sufficient for the diagnosis of the prodromal stage of AD, requiring addition of biomarkers. The cost and compliance of these procedures remains to be determined, mainly in the less developed countries. There are reports showing that some cognitive markers are robust predictors of conversion from mild cognitive impairment (MCI) to AD, that low performance in instrumental activities of daily living (IADLs) may constitute an early marker of the disease and that even quantitative gait measures predict future risk of dementia in initially non-demented older adults. This presentation will discuss about the possibility of making diagnosis of AD without dementia, in the clinical setting, without the use of biomarkers.

PL07

The Impact of Dementia on My Life

Helga Rohra

H Rohra –Stepping out of the shadow (2011) – Mabuse Publishing House, Frankfurt/Germany

Objectives: Dementia is a new way of life, more than a clinical diagnosis. We still have many abilities, Listen to us, talk to us and include us in decisions about us. Do not forget we are the experts. I make the best of my life and am an active promoter of presenting the new consciousness of dementia patients. I speak up for all of us. I fight for our rights in this society. My slogan, our slogan worldwide: "Nothing about us without us!"

My address is to the doctors: Talk to us not about us! Do not consider only the patient, see the whole person.

I also address the carers: Foster our abilities do not refer to our impairments.

All those knowing us: Please do not treat us as children we are still the same person even with dementia.

To all my friends being diagnosed: Step out of the shadow. We are still the best!

Results: Make the audience think deeply about a diagnosis like dementia and its many implications.

Appeal to the ethic responsibility of each of us who are in a good health. Presenting the challenge of dementia for our society.

Conclusions: Each of the audience makes his own, but he will be touched and ponder more about the topic.

PL08

How Does the Media Manage its Responsibilities?

Fiona Phillips

Fiona Phillips is a journalist, probably best known for her work on breakfast television, for GMTV. In recent years she has also become well known as a campaigner on dementia issues and has made several television programmes on the subject, illustrating the issue with the impact on her own family - both her mother and father were diagnosed with the condition.

Fiona will be speaking on the manner in which broadcasters depict dementia and the way in which she used the medium to raise awareness of the issue; the impact on the individual and upon family carers.

PL09

Cognitive Stimulation Therapy

M Orrell

University College London and North East London Foundation Trust

Objectives: This presentation provides a brief overview of new developments in Cognitive Stimulation Therapy.

Methods: Techniques to stimulate cognition in older people with dementia are widely used around the world.

Perhaps the most well known is Cognitive Stimulation Therapy as developed by Spector et al. who carried out the original randomised controlled trial comparing a twice-weekly cognitive stimulation therapy group with treatment as usual for older people with dementia. 201 people were in the study and an intention to treat showed the intervention group improved relative to the group on the ADAS-Cog ($p < 0.01$), and the Quality of Life-AD scale ($p < 0.05$). Using a criterion of 4 points or more improvement on the ADAS-Cog the Number Needed to Treat was 6 for the intervention group, similar to the level of improvement found with antidementia drugs.

Results: New results will be presented on the updated 2012 Cochrane review by Woods et al., which looked at randomised controlled trials (RCTs) of cognitive stimulation as an intervention for dementia from a search of the Specialized Register of the Cochrane Dementia and Cognitive Improvement Group. Cognition improved on the ADAS-Cog and MMSE, and cognitive stimulation also improved depressive symptoms and quality of life. There was no effect on activities of daily living. Qualitative methods have been used both to refine the CST package, and to investigate the experiences of the people attending CST groups, their carers and the group facilitators. Themes identified in the analyses were positive experiences of being in the group and changes experienced in everyday life providing evidence for the mechanisms of change. These findings help contribute to the development of the new CST manual. In addition, new results from the largest ever study of maintenance CST will be presented looking at the long term effects on quality of life and cognition.

Conclusions: Cognitive stimulation approaches improve cognition in people with dementia but further research is needed to look at length and intensity of treatment and home based CST programmes. Training and manualisation of approaches should improve the delivery of treatment.

PL10

The Science of Using Therapeutic Activities as Interventions for Neuropsychiatric Behaviours

L Buettner¹

¹University of North Carolina at Greensboro, Community and Therapeutic Recreation Department

Objectives: Participants will be able to:

1. Describe the typical lived experience for People with Dementia (PwD)
2. Explain how mixed behaviours and mood changes complicate our treatment approaches
3. List three examples of individualized non-pharmacological approaches and describe potential behavioural and quality of life outcomes.

Methods: This study used an experimental design with one intervention and one delayed intervention control group. Following the collection of baseline assessment data on days 1-5, participants were randomly assigned to one of the two groups. Six participants were involved at a time, three in the treatment group and three in the delayed intervention control group. We evaluated the daily routine of 107 individuals in five different care settings. We also assessed agitation and apathy levels along with physical and cognitive function and leisure interests to provide information for the person centred intervention. Therapeutic recreation intervention were then prescribed to calm individuals with agitation and (or) to alert individuals with apathy at the time of day that was found to be most problematic. Each participant received two weeks of daily recreational therapy. Each participant was re-assessed by blinded nurse evaluators for neuropsychiatric symptoms immediately after the two week intervention.

Results: There was a significant relationship between levels of baseline activity participation and targeted neuropsychiatric symptoms. Participants with limited activity participation were much more likely to demonstrate apathy, agitation, or a mix of apathy and agitation. There was a significant relationship between no medications and poly medications with neuropsychiatric symptoms. Those with poly medications had the most symptoms. We found a significant relationship between levels of baseline activity participation and the unit type or living arrangement. The special care nursing home unit and special care assisted living unit demonstrated the poorest levels of activity engagement for participants with neuropsychiatric symptoms. In response to the recreational therapy intervention those participants with no medications and with poly medications showed the most significant change. Female participants with agitated behaviours responded significantly better to the recreation therapy than did males. The response to the recreational therapy interventions of both males and females with apathetic behaviours was highly significant.

Conclusions: Recreational therapy is highly effective tool in treating targeted neuropsychiatric symptoms in nursing homes and assisted living settings. Ironically the individuals with most behavioural symptoms are offered the fewest opportunities for an active life. Person centred time-limited recreation therapy has the potential to both reactivate these individuals and treat targeted symptoms without added medications.

PL11

Cognitive Training for Dementia Care and Prevention

R Kawashima¹

¹Institute of Development, Aging and Cancer, Tohoku University, 4-1 Seiryochō, Aobaku, Sendai, Japan

Objectives: In general, recent cognitive training has received increasing interest as a solution to age-related cognitive decline. Although the general public's interest in cognitive or brain training is increasing, the generalizing or transfer effect of such training remains unclear. With regard to changes of cognitive functions during aging, it is important to note that although cognitive functions related to semantic knowledge do not decline during aging, cognitive functions requires the function of the prefrontal cortex, particularly the executive function decline linearly during aging. We previously demonstrated that a plastic change is induced in the brain structure of healthy young subjects, in addition to the improvement of their non-trained cognitive functions (transfer effects), through cognitive intervention using an intensive adoptive training of working memory (1). The purpose of this study was to examine the beneficial effects of a new cognitive intervention program designed for dementia care (2) and prevention of dementia (3), named Learning Therapy, the concepts of which are derived from our working memory training. The materials for the training program were two tasks in arithmetic and Japanese language, which were systematized basic problems in reading and arithmetic. Reading aloud is accomplished by the combination of several cognitive processes, for example, recognition of the visually presented words, conversion to phonological representation from graphic representation of words, analysis of the meaning of words, and control of pronunciation. Solving arithmetic problems is also accomplished by many cognitive processes, for example, recognition of visually presented numbers, performance of arithmetic operations, and control of hand movements. It is obvious that both reading aloud and solving arithmetic problems require working memory. In addition, both reading aloud and solving arithmetic problems can be very simple and easy, so that even people with senile dementia can understand, perform, and continue the tasks prepared.

Methods: Study 1; 16 individuals in the experimental group and 16 in the control group were recruited from a nursing home. All of the individuals in both groups had a clinical diagnosis of dementia Alzheimer type. Study2; we performed a single-blind, randomized controlled trial on cognitive intervention in 124 community-dwelling seniors (62 for intervention and 62 for control groups). In both studies, the daily training program using reading and arithmetic tasks was carried out approximately 5 days a week, 15 to 20 minutes a day for the intervention groups. We did not designate a placebo intervention for the control groups. Neuropsychological measures were determined prior to and after six months of the intervention (post-test) by mini-mental state examination (MMSE), and frontal assessment battery at bed side (FAB) in both the intervention and control groups at the same time.

Results: Study1; after 6 months of training, the FAB score of the experimental group showed a statistically significant improvement. The FAB score of the control group decreased slightly over the 6-month period, and the difference between the scores of the experimental and control groups was statistically significant. We also observed the restoration of communication and independence in the experimental group. Study 2; the FAB score showed a statistically significant improvement in the post-test compared with the pre-test, such improvement was maintained up to 6 months of follow-up tests in only the experimental group.

Conclusions: In general, aging is considered negatively as the loss of something that people have in their youth or a form of regression. As a result, a false image that aging is something like an illness or ugly, and that young people are superior to the elderly in many respects, has been formed. However, we consider that aging means that people can grow and become wiser as they reach later stages of life. We call this concept smart aging and have proposed the concept to society. Generally, many people tend to lose their sense of purpose in life when they lose their connection with society, triggered by, for example, retirement, leading to a decrease in their quality of life. However, we believe that the quality of life can be increased up until the last moment if one pays careful attention to the following four factors, i.e., cognitive stimulation, regular exercise, balanced nutrition, and relationship with society, and if a social system to realize this for everyone can be established. Here, we proposed a smart but less expensive system for cognitive stimulation. The results of our investigations indicate that the transfer effect of cognitive intervention by reading and solving arithmetic problems was demonstrated, and are convincing evidence that cognitive training has the beneficial effects of maintaining and improving cognitive functions of dementia patients and healthy seniors.

PL12

Reflections on Epidemiology of Dementia and Related Conditions from a Public Health Perspective

C Brayne¹

¹ Department of Public Health and Primary Care, Institute of Public Health, University of Cambridge, Cambridge, UK

To provide a reflective view of epidemiological research into dementia and the strength and weaknesses of the state of current knowledge. This will cover the first population based studies in Europe and the US, the increasing awareness of dementia as a societal issue and the role played by such studies in this awareness. The diagnostic classification systems allowed a flowering of research across the world and these had multiple ambitions: to describe dementia and cognition better in specific populations, to look for variation which might assist aetiological understanding, to provide better evidence of the conditions contributing to the clinical syndrome, assessing impact and context of dementia across the world, to assist the move towards prevention, future modelling and a sound foundation for novel methodologies most particularly in imaging and molecular advances. Potential contribution to population health and its future health will be considered.

PL13

Prevention of Alzheimer's disease, is it possible?

Miia Kivipelto, Aging Research Center, Karolinska Institutet, Gävlegatan 16, Sweden

Epidemiological studies indicate that Alzheimer's disease (AD) is a multi-factorial disease with several modifiable risk factors. However, evidence from randomized controlled trials (RCT) showing efficacy of lifestyle/vascular interventions in preventing or postponing dementia/AD onset is still lacking. This presentation will illustrate the current status and future directions in AD prevention and present new data from Cardiovascular Risk Factors, Aging and Dementia (CAIDE) study and Nordic multi-domain RCTs meant to delay cognitive impairment.

CAIDE study has linked several vascular, lifestyle related, dietary and psychosocial factors to dementia and AD. Long-term cohort studies have revealed the importance of life-course perspective when assessing risk factors for AD; risk factor profiles at midlife and late-life are different. Previous preventive trials with single agents in elderly or cognitively impaired persons have yielded disappointing results. Possible reasons for this and future directions in preventive interventions will be summarized. The Finnish Geriatric Intervention Study to Prevent Cognitive Impairment and Disability (FINGER) is ongoing multi-domain intervention designed to delay cognitive impairment among risk individuals. The 2-year intervention has four main components: nutritional guidance; exercise; cognitive training and social activity; monitoring/management of vascular risk factors. Data and experiences from FINGER study and results from another Nordic lifestyle interventions (DR's EXTRA) will be presented. European Dementia Prevention Initiative is a recently established network between ongoing multi-domain RCTs in Europe (FINGER, MAPT, preDIVA) and will provide valuable information for planning future large international prevention trials.

Multifactorial etiology of AD points the importance of multi-domain interventions (pharmacological and non-pharmacological) to effectively delay dementia onset. As many persons are affected, relatively small effects of an integrative intervention on common risk factors may have a huge public health impact. There may be critical time window for certain interventions and there are complex gene-environmental interactions. Usage of biomarkers may help in identifying different risk phenotypes and in monitoring effects of the interventions. International collaboration is necessary to initiate future large-scale dementia prevention studies that are needed to formulate evidence-based preventive measures in cognitive decline and dementia.

SS01

ADI PREVENTION WORKGROUP SPONSORED WORKSHOP: THE PRE MILD COGNITIVE IMPAIRMENT (MCI), SUBJECTIVE COGNITIVE IMPAIRMENT (SCI) STAGE OF PROGRESSIVE COGNITIVE DECLINE

B. Reisberg^{1,*}, A. Burns² and ADI Prevention Workgroup

¹Department of Psychiatry, NEW YORK UNIVERSITY SCHOOL OF MEDICINE, New York, United States, ²School of Medicine, University of Manchester, Manchester, United Kingdom

Objectives: There is increasing recognition that the process of Alzheimer's disease (AD) begins long before dementia becomes evident. Dementia is marked by evident cognitive decline and deficits in complex daily functioning. Mild cognitive impairment (MCI), preceding dementia in AD, was originally described and defined in the 1980s (Reisberg, et al., Drug Development Research, 1988). MCI has subsequently become an increasingly studied and recognized entity (e.g., Petersen, et al., Neurology, 2001; Winblad, et al., Journal of Internal Medicine, 2004; Albert, et al., Alzheimer's & Dementia, 2011).

Presently, clinical symptoms associated with eventual cognitive decline to mild cognitive impairment and ultimately, the dementia of AD, are being increasingly recognized and studied. In general, these clinical symptoms are self reported. Various names for these self-reported, pre-MCI symptoms, are currently being suggested, including, subjective memory impairment (Jessen, et al., Archives of General Psychiatry, 2010) and subjective cognitive impairment (Reisberg, et al., Alzheimer's & Dementia, 2008), among others. This workshop will highlight and review some of the major current investigations indicating the markers and prognosis of this pre-MCI clinical entity. Additionally, an older subject with pre-MCI, self-evident deficits, will be interviewed, and all workshop participants will have the opportunity to learn the fundamentals of pre-MCI clinical assessment methodology.

Disclosure of Interest: B. Reisberg Grant/Research Support from: U.S. Department of Health and Human Services grants AG03051 and AG08051, from the National Institute on Aging of the U.S. National Institutes of Health; by grant NCR001 RR00096 from the General Clinical Research Center Program and by Clinical and Translational Science Institute grant 1UL1RR029893 from the National Center for Research Resources of the U.S. National Institutes of Health; by the Fisher Center for Alzheimer's Disease Research Foundation; by a grant from Mr. William Silberstein; by the Leonard Litwin Fund for Alzheimer's Disease Research; by the Woodbourne Foundation, the Louis J. and June E. Kay Foundation, the Stringer Foundation, and by the Hagedorn Fund., Conflict with: Dr. Reisberg is the developer and copyright holder of some of the rating instruments discussed and used in this symposium., A. Burns Conflict with: A. Burns is the national clinical director for dementia in England.

SS02

SUBJECTIVE MEMORY IMPAIRMENT: THE PRE-MCI STAGE OF AD

F. Jessen^{1, 2,*}

¹Department of Psychiatry, University of Bonn, ²German Center for Neurodegenerative Diseases (DZNE), Bonn, Germany

Objectives: Subjective memory impairment (SMI), defined by the report of memory worsening with fully intact performance on standard cognitive tasks, is a potential early clinical sign of AD. Its role as a predictor of AD dementia and as a clinical indicator for AD is a current topic in dementia early recognition research. These questions are addressed within the longitudinal population-based German Study on Aging, Cognition and Dementia (AgeCoDe) and in memory clinic samples with SMI

Methods: Within AgeCoDe over 3000 individuals over 75 years of age without dementia at baseline are followed longitudinally to identify risk factors and predictors for dementia. Currently, the fifth follow-up (18 months intervals) is conducted. In this cohort the prediction of AD dementia by the presence of SMI is investigated. Structural and functional brain imaging is used to detect biomarker indicators for AD and neuronal mechanisms related to SMI.

Results: The presence of SMI in fully unimpaired individuals is associated with a significant risk increase for AD dementia at follow-up. The particular sequence of SMI followed by amnesic MCI is associated with a drastic risk increase for dementia at later time points. If SMI is associated with the worries (concerns), the risk for AD dementia at follow-up is doubled as compared with SMI without worries. SMI with worries (concerns) is associated with the same risk for future AD dementia as early MCI (eMCI; performance between 1.0-1.5 SD on a memory test). Late MCI (LMCI, performance <1.5 SD on a memory test) is associated with greater risk for AD dementia than SMI with concerns or eMCI.

Structural imaging reveals evidence for medial temporal lobe volume loss in SMI. Functional imaging (FDG-PET) shows patterns of hypometabolism in SMI that resemble patterns in AD. Functional MRI provides evidence for neuronal compensation in the presence of hippocampal damage.

Conclusion: Epidemiological studies show that SMI is associated with an increased risk for AD dementia. Brain imaging studies reveal evidence for AD-type pathology and functional compensation in SMI. These data support SMI as the first clinical sign at the pre-MCI stage of AD.

Disclosure of Interest: F. Jessen Consultant of: Frank Jessen has received consultation fees and lecture honoraria from Pfizer, Esai, Novartis, Janssen, GE Healthcare, Lilly, AC Immune

SS03

SUBJECTIVE COGNITIVE IMPAIRMENT (SCI): THE PRE-MILD COGNITIVE IMPAIRMENT (MCI) STAGE OF EVENTUAL ALZHEIMER'S DISEASE: AN OVERVIEW OF CURRENT KNOWLEDGE AND NEW DATA

B. Reisberg^{1,*}, R. S. Osorio¹, M. B. Shulman¹, C. L. Torossian¹, I. M. Monteiro¹, A. Khan¹, A. K. Roy¹, I. Lobach¹

¹Aging and Dementia Research Center and Alzheimer's Disease Center, New York University School of Medicine, New York, United States

Objectives: In 1982, we described 7 major clinically manifest stages of brain aging and progressive Alzheimer's disease (AD) with the Global Deterioration Scale (GDS) (Reisberg, et al., American Journal of Psychiatry, 1982). These stages have been widely used to enhance public and scientific understanding of the brain aging and AD process. For example, the Alzheimer's Association has used these stages since 2003 to explicate the AD clinical process to the world (www.alz.org/AboutAD/stages.asp). Importantly, the first three of these GDS stages occur prior to the advent of the dementia of AD. The GDS 3 stage is one in which there are subtle behaviorally manifest deficits which may be noted by intimates, co-workers, or on an intensive clinical interview. We coined the terminology "mild cognitive impairment" (MCI), in 1988, for this stage on the occasion of our publication demonstrating significant decrements in performance on numerous psychometric tests for these persons (Reisberg, et al., Drug Development Research, 1988). The GDS also described a pre-MCI, GDS 2 stage, in which persons have subjective deficits in cognition and/or functioning, but do not have observable deficits to others. We have termed this GDS stage 2 "subjective cognitive impairment" (SCI) (Reisberg, et al., Neuropsychopharmacology, 2005). Studies in recent years have demonstrated physiologic differences between SCI persons and age-matched persons free of subjective or observable cognitive deficits (GDS stage 1, no cognitive impairment [NCI]), in, for example, urinary cortisol levels (Wolf, et al., Neurobiology of Aging, 2005), neurometabolism (Mosconi et al., Biological Psychiatry, 2008), and a CSF AD profile (Visser, et al., Lancet Neurology, 2009). Recently, using MCI as well as dementia as an outcome, we demonstrated that SCI persons have 4.5 × the risk of decline over a 7 year mean follow-up interval, as a demographically controlled, healthy cohort free of subjective cognitive impairment (Reisberg, et al., Alzheimer's & Dementia, 2010). In 1986 we estimated that the SCI stage lasts a mean of ~15 years prior to MCI in otherwise healthy persons (Reisberg, Geriatrics, 1986). This estimated duration was supported by a 9 year prospective study of outcome of GDS 2 persons published 20 years later (Pritchett, et al., Neurobiology of Aging, 2008, see Reisberg and Gauthier, International Psychogeriatrics, 2008, for temporal analysis results). Since prevention trials of SCI subjects are likely to have duration of ~2 years, we now report outcomes at the 2 year, post baseline follow-up, from our previously published longitudinally followed cohort with outcomes previously described over a 7 year mean interval (Reisberg, et al., 2010).

Methods: Subjects with GDS stage 2 at baseline from our previously reported, 7 year outcome cohort were selected if they: (1) were otherwise healthy at baseline, (2) were followed from 1.5 to 3.0 years after their baseline evaluation.

Results: 98 subjects fulfilled the selection criteria. At baseline, mean age was 67.1 ± 8.8 years (range 40 to 87 years); there were 63 women and 35 men; mean educational level was 15.6 ± 2.6 years; and mean MMSE was 28.9 ± 1.2. Subjects were followed over 2.13 ± 0.30 years. At follow up, the mean GDS stage was 2.16 ± 0.59. The change in GDS from baseline to follow-up was significant (p < 0.01, Wilcoxon Rank Sum Test). Mean change in GDS stage per year was 0.075.

The mean change in GDS stage per year of 7.5% is very close to the estimated change in GDS per annum, forwarded in our 1986 publication for GDS stage 2, as a stage lasting a mean of ~15 years. If these estimates were perfect, then a 6.67% change per year would be anticipated. The observed change in the present 2 year study differed from the 1986 estimate of change by <1%.

Conclusion: Measurable, significant changes in GDS stage for a healthy aging cohort were observed. The observed changes were very close to those estimated from clinical observations published 25 years ago. They are also consistent with prior observations from our 9 year prospective longitudinal study of the outcome of persons presenting at GDS stage 2 at baseline (Reisberg & Gauthier, 2008). We conclude that AD prevention studies in the SCI stage are feasible using the Global Deterioration Scale and other sensitive indicators of continuing clinical and pathologic change.

Disclosure of Interest: B. Reisberg Grant/Research Support from: from U.S. Department of Health and Human Services grants AG03051 and AG08051, from the National Institute on Aging (NIA) of the U.S. National Institutes of Health (NIH); by grant NCR001 RR00096 from the General Clinical Research Center Program and by Clinical and Translational Science Institute grant 1UL1RR029893 from the National Center for Research Resources of the U.S. National Institutes of Health; by the Fisher Center for Alzheimer's Disease Research Foundation; by a grant from Mr. William Silberstein; by the Leonard Litwin Fund for Alzheimer's Disease Research; by the Woodbourne Foundation, the Louis J. and June E. Kay Foundation, the Stringer Foundation, and by the Hagedorn Fund.,

Conflict with: Dr. Reisberg is the developer and copyright holder of some of the rating instruments discussed and used herein., R. Osorio Grant/Research Support from: NIA/NIH grant AG08051, M. Shulman Grant/Research Support from: NIA/NIH grant AG08051 and from the Leonard Litwin Fund and the Woodbourne Foundation, C. Torossian Grant/Research Support from: NIA/NIH grant AG08051, I. Monteiro Grant/Research Support from: NIA/NIH grant AG08051, A. Khan: None Declared, A. Roy: None Declared, I. Lobach Grant/Research Support from: NIA/NIH grant AG08051

SS04

INTERVIEW OF AN OLDER PERSON FOR THE ASSESSMENT OF SUBJECTIVE COGNITIVE IMPAIRMENT (SCI), MILD COGNITIVE IMPAIRMENT (MCI), AND DEMENTIA: USAGE OF CLINICAL RATING INSTRUMENTS: THE BRIEF COGNITIVE RATING SCALE (BCRS), AND THE GLOBAL DETERIORATION SCALE

B. Reisberg^{1,*} and ADI Prevention Workgroup

¹Department of Psychiatry, NEW YORK UNIVERSITY SCHOOL OF MEDICINE, New York, United States

Objectives: Clinical rating instruments are currently available which can distinguish the levels of overall cognitive functioning in ostensibly “normal” older persons with subjective cognitive deficits, as well as persons with mild cognitive impairment level deficits, and deficits associated with dementia psychopathologic capacity. These rating instruments, which will be discussed and used in this workshop, are the Brief Cognitive Rating Scale (Reisberg and Ferris, *Psychopharmacology Bulletin*, 1988) and the Global Deterioration Scale (Reisberg et al., *American Journal of Psychiatry*, 1982). After a review of the usage of the above measures, a subject (volunteer) will be interviewed and rated. All participants in the workshop will rate the subject on the scales. At the conclusion of the workshop, the evaluations performed will be discussed by all of the attendees. The objective is that all attendees will become familiar with the assessment and identification of subjective cognitive impairment.

Methods: The Brief Cognitive Rating Scale and the Global Deterioration Scale are the major elements of a staging system known as the “GDS Staging System” (Reisberg et al., *Neuroscience Research Communications*, 1993). Each of the elements of this staging system are enumerated in optimally concordant, ordinal, 7 stage, scales. Specifically, a score of 1 corresponds to “no subjective or objective impairment,” on the measure (axis), a score of 2 corresponds to “subjective impairment only,” a score of 3 corresponds to mild or subtle deficits, and scores of 4 to 7 correspond to moderate to severe deficits. These elements are optimally concordant with the corresponding stages of brain aging and progressive Alzheimer's disease, specifically: stage 1: No Subjective or Objective Cognitive Deficit (NCI); stage 2: Subjective Cognitive Impairment (SCI); stage 3: Mild Cognitive Impairment (MCI); and stages 4 to 7 corresponding to Mild, Moderate, Moderately Severe, and Severe Alzheimer's Disease (AD), respectively. This staging system has been used in the worldwide pivotal trial approvals of rivastigmine for mild to moderate AD (Corey-Bloom et al., *International Journal of Geriatric Psychopharmacology*, 1998 and Rösler et al., *British Medical Journal*, 1999) and memantine for moderate to severe AD (Reisberg et al., *New England Journal of Medicine*, 2003). In these trials, sensitivity to current pharmacologic treatments of mild to severe AD have been demonstrated. In a 7-year prospective study of SCI, the BCRS and the GDS, have also demonstrated sensitivity to change in SCI (Reisberg, et al., *Alzheimer's & Dementia*, 2010). A subject will be interviewed. The BCRS (axis 1 to 5, attached) and the GDS (attached) scales will be scored by workshop participants. The findings will be discussed.

Conclusion: At the conclusion of the session, the participants should have an understanding of the procedures for the clinical identification and assessment of SCI.

Disclosure of Interest: B. Reisberg Grant/Research Support from: U.S. Department of Health and Human Services grants AG03051 and AG08051, from the National Institute on Aging (NIA) of the U.S. National Institutes of Health (NIH); by grant NCRRM01 RR00096 from the General Clinical Research Center Program and by Clinical and Translational Science Institute grant 1UL1RR029893 from the National Center for Research Resources of the U.S. National Institutes of Health; by the Fisher Center for Alzheimer's Disease Research Foundation; by a grant from Mr. William Silberstein; by the Leonard Litwin Fund for Alzheimer's Disease Research; by the Woodbourne Foundation, the Louis J. and June E. Kay Foundation, the Stringer Foundation, and by the Hagedorn Fund., Conflict with: Dr. Reisberg is the developer and copyright holder of some of the rating instruments discussed and used herein.

OC001

EFFECTS OF LIQUORICE ON BETA-AMYLOID AGGREGATION AND TOXICITY IN CAENORHABDITIS ELEGANS.

P. Link^{1,*}, M. Wink¹

¹Institute of Pharmacy and Molecular Biotechnology, University Heidelberg, Heidelberg, Germany

Objectives: To test liquorice (*Glycyrrhiza glabra*) extracts and pure substances contained in these extracts for their effects on beta-amyloid (A β) aggregation and toxicity.

Methods: Transgenic *Caenorhabditis elegans* strains expressing human A β in their muscle cells were used as a model organism. The number of A β aggregates in the head region of CL2006 worms was counted after staining the worms with thioflavin S. Toxicity was assessed in a paralysis assay using the strain CL4176.

Results: Treatment with 100 μ g/ml methanolic extract of liquorice root decreased the number of A β aggregates by 30 % in comparison to the control. The methanolic and also the water extract prolonged the survival time in the paralysis assay. The pure substances isoliquiritigenin, glycyrrhetic acid and glycyrrizic acid showed significant effects, too, by decreasing the number of A β aggregates by 30, 19 and 15 % of the control respectively.

Conclusion: Extracts of liquorice root and the compounds found in this plant can decrease the number of A β aggregates and counteract A β toxicity. Further research is needed to test the possible use of these substances in therapy of Alzheimer's Disease.

Disclosure of Interest: None Declared

OC002

ELND005 (SCYLLO INOSITOL) EFFECTS ON EMERGENCE OF NEUROPSYCHIATRIC SYMPTOMS (NPS) IN MILD/MODERATE ALZHEIMER'S DISEASE: RESULTS FROM A 78 WEEK PHASE 2 STUDY

S. Abushakra^{1,*}, R. Jones², C. Lyketsos³, G. Crans¹

¹Elan Pharmaceuticals, San Francisco, United States, ²The RICE Centre, Royal United Hospital, Bath, United Kingdom, ³Johns Hopkins Medical Institutions, Baltimore, United States

To evaluate the effects of ELND005 on the emergence of at least 2 new NPS over a 78 week study period in M/M AD patients enrolled in a Phase 2 study.

This was a post hoc analysis of data from Study AD201, a dose ranging, 78 week study in M/M AD (MMSE 16–26), which randomized 353 patients to either placebo (n=83) or 1 of 3 oral ELND005 doses (250mg: n=88, 1000mg: n=89, 2000mg: n=91; all BID). Due to safety findings leading to early discontinuation of the 2 high dose arms, the main efficacy analyses only compared the 250mg and placebo arms. In the M/M population, the co-primary cognitive and functional endpoints were not significantly better on treatment (Salloway et al. Neurology 2011). NPS were assessed using the NPI (Neuropsychiatric Inventory, Cummings et al., 1994). Emergence of a new NPS was defined as a score of 0 at baseline that became >0 at any subsequent visit, for any of the 12 NPI items. P values were not adjusted for multiplicity testing.

In Mild AD, the 3 most frequently emerging NPS on placebo were: depression, appetite changes, and agitation; while in Moderate AD they were: apathy, aberrant motor behavior, and agitation. The proportions of M/M patients who developed ≥2 new NPS on placebo and 250mg was 72% and 55% (p=0.033, N=79/82, respectively); in Moderate patients, these proportions were 71% and 59% (p=0.332, N=35/39, respectively), and in Mild patients they were 73% and 51% (p=0.048, N=44/43, respectively). In Mild patients, the effects were especially evident on depression and anxiety, followed by appetite change and apathy.

These results suggest that ELND005 may significantly reduce the emergence of new NPS. The treatment effects were especially evident on the affective cluster including depression and anxiety. Reducing the emergence of behavioral pathology is clinically relevant since NPS are frequently associated with increased morbidity, caregiver burden, and healthcare costs. The potential of ELND005 to reduce emergence of behavioral pathology in Mild AD further supports its potential as an effective oral treatment for AD.

Disclosure of Interest: None Declared

OC003

LONG LASTING MEMORIES: COGNITIVE AND PHYSICAL TRAINING USING NEW TECHNOLOGIES IN MILD COGNITIVE IMPAIRMENT. USEFULNESS AND IMPLEMENTATION IN THE COMMUNITY

M. A. Franco Martin ^{1,*}, F. Gonzalez Palau ¹, E. Parra ¹, M. Bernate ¹, R. Losada ¹, Y. Ruiz ¹, A. Solis ¹, T. Cid ¹, C. Turuelo ¹

¹Fundacion INTRAS, Zamora, Spain

Objectives: LLM is an European Project that aims to deliver an effective solution against age-related cognitive decline, and to allow the recovery of higher cognitive functions in people who show cognitive impairment related to Mild Cognitive Impairment and Mild Dementia.

The objective of this study was to determine the effectiveness of Long Lasting Memories cognitive and physical training in the improvement of cognitive function in healthy elderly and mild cognitive impaired subjects

Methods: Volunteer sample of 170 participants (N control= 78; N experimental= 92) was recruited from residential facilities, community centers and memory clinics. 50 healthy elderly and 42 subjects with Mild Cognitive Impairment (mean age = 75,9 years, SD=8,4, age range= 60-92 years) were administered LLM during 12 weeks program.

Cognitive exercises were provided by GRADIOR specialized software. Physical Training was based on FitForAll innovative game platform. All participants were assessed with a neuropsychological battery of cognitive test before and after the intervention or the control period. Wilcoxon test was used to calculate pretest-posttest differences

Results: Between the pre and post measurement time points, DCL and healthy experimental group increased their performance in HVT-R (immediate recall, $z = .003$; delayed recall $z = .019$) and general cognition measured with Spanish version of MMSE (MEC 35; $z = .030$), while there was a decrease of performance in the control group.

Healthy experimental group also showed improvements in working memory measured with Digit Span Test (WMS; $z = .018$) attention and processing speed, measured with the Color Trail Test part A and B ($z = .029$). Experimental groups showed a decrease in depressive symptoms ($z = .008$).

Conclusion: Primary results support the effectiveness of LLM cognitive and physical training in improving cognitive functions. LLM is a promising solution against age-related cognitive decline, and for the recovery of higher cognitive functions in people who show cognitive impairment related to Mild Cognitive Impairment.

Disclosure of Interest: None Declared

OC004

NOVEL PRONEUROGENIC COMPOUND THAT LOWERS SYNAPTIC A β 42 GENERATION IN VITRO SHOWS COGNITIVE BENEFIT AND REDUCED HIPPOCAMPAL LEVELS OF INSOLUBLE AND OLIGOMERIC AB IN VIVO IN ALZHEIMER'S MOUSE MODEL

S. Gandy^{1,2,*}, J. W. Steele³, C. Barlow⁴, M. Ehrlich³, S. H. Kim³

¹Psychiatry & Neurology, Mount Sinai, New York, ²Neurology, James J Peters VA Medical Center, Bronx NY,

³Neurology, Mount Sinai, New York, ⁴BrainCells, La Jolla CA, United States

Objectives: We previously reported that activation of Group II metabotropic glutamate receptors (Gp II mGluR: mGluR 2, 3) triggers production of A β 42 peptides from isolated synaptic terminals in vitro and that synaptic A β 42 generation is selectively suppressed by Gp II mGluR antagonist pretreatment (Kim et al., J Neurosci, 2010), drugs that also stimulate neurogenesis and enhance cognition. Objective here was to test the drug in transgenic mice.

Methods: Old (18 month old) and young (6 month old) "oligomer-and-plaque-forming" mice (Dutch APP693Q x PS1 Δ exon 9; Gandy et al., Ann Neurol, 2010) were treated with either BCI-838 (orally active Gp II mGluR antagonist, 5mg/kg p.o.) or vehicle.

Results: After 3 wks of BCI-838 treatment of 18 month-old Dutch APP693Q x PS1 Δ exon 9 micemice, the levels of prefibrillar A β oligomers detected by the A11 antibody were decreased in extracts of hippocampi from the drug-treated mice compared to their vehicle-treated counterparts ($p \leq 0.01$). In young Dutch APP693Q x PS1 Δ exon 9 mice, fibrillar A β oligomer levels detected by the OC antibody were decreased in the drug-treated young mice compared to their age-matched controls ($p \leq 0.01$). Next, "oligomer-only" mice (Dutch APP693Q) and wildtype littermates (7-10 months old) were given BCI-838 or vehicle p.o. for 3 months. Reduction in anxiety was seen in BCI-838 treated oligomer-only mice in the elevated plus maze (% time in open arm where more time in open arm means less anxiety; NonTg+Veh, 14.0% \pm 1.4; Tg+Veh, 9.3% \pm 1.4; NonTg+BCI-838, 16.4% \pm 2.6; Tg+BCI-838, 17.1% \pm 3.6; $p=0.086$ for Tg+Veh vs Tg+BCI838). BCI-838 treatment was associated with improved memory in both contextual and cued fear conditioned tasks [contextual fear conditioning, NonTg+Veh, 21.3% \pm 11.7; Tg+Veh, 8.9% \pm 10.6; NonTg+BCI838, 43.6% \pm 9.4; Tg+BCI-838, 36.7% \pm 11.9]; [cued fear conditioning, NonTg+Veh, 53.5% \pm 5.7; Tg+Veh, 54.6% \pm 4.9; NonTg+BCI-838, 68.5% \pm 6.4, Tg+BCI-838, 73.8% \pm 4.0; $p=0.01$ for Tg+Veh vs Tg+BCI-838).

Conclusion: We propose that GpII mGluR antagonists may be promising compounds for the prevention or treatment of AD because of their unique combination of synaptic A β 42 and A β oligomer-lowering activity coupled with both pro-cognitive and pro-neurogenic activity.

Disclosure of Interest: None Declared

OC005

PEPTIDE INHIBITOR NANOPARTICLES (PINPS) - A SURPRISINGLY EFFECTIVE INHIBITOR OF ABETA AGGREGATION

M. Taylor¹, G. Jones¹, M. Fleeman¹, M. Gregori², M. Masserini², D. Allsop^{1,*}

¹Biomedical and Life Sciences, University of Lancaster, Lancaster, United Kingdom, ²Experimental medicine, University of Milano-Bicocca, Milan, Italy

Objectives: Various pathological, biochemical and genetic evidence suggests that the aggregation of β -amyloid ($A\beta$) is a seminal event in the development of Alzheimer's disease (AD). Therefore, abrogating this aggregation process at an early stage should slow or even stop progress of the disease. We are applying nanotechnology for the development of a new therapy for AD and present data regarding retro-inverted peptide inhibitor nanoparticles (PINPs) that show high affinity for $A\beta$ 1-42 and a potent ability to prevent its aggregation in vitro.

Methods: To make PINPs, a retroinverted peptide inhibitor was covalently attached to liposomes, which were made by extruding a mixture of cholesterol/sphingomyelin/lipid maleimide through a polycarbonate filter. The aggregation of $A\beta$ in the presence of PINPs was measured by using a thioflavin T assay and an immunoassay. Cell viability in the presence of $A\beta$ and/or PINPs was assessed by using an MTT assay. The binding affinity of PINPs for $A\beta$ was estimated using Surface Plasmon Resonance (SPR) spectroscopy.

Results: Thioflavin T aggregation assay data showed that PINPs had a clear inhibitory effect on $A\beta$ 1-42 aggregation at molar ratios as low as 1:500 PINPs (total lipids): $A\beta$. Since the inhibitory retro-inverted peptide is only present at 2.5% of the total lipids, this ratio is equivalent to only 1:20,000 of the inhibitory peptide to $A\beta$. The effects seen in the thioflavin T assay were supported by immunoassay data.

In addition, SPR data suggested that the PINPs could bind to $A\beta$ fibrils with a dissociation constant (K_d) in the range of 14-45 nM (i.e. with high affinity).

The PINPs were also found to be non-toxic to cultured SHSY-5Y neuroblastoma cells, at levels of up to 10 μ M, and could protect against the toxic effects of pre-aggregated $A\beta$ 1-42 (5 μ M) at concentrations at least as low as 0.01 μ M, or 1:500 molar ratio of PINPs: $A\beta$.

Conclusion: The results presented here show that PINPs are highly effective at reducing the aggregation of $A\beta$ in vitro. They are also non toxic to cultured neuroblastoma cells and can protect these cells against the toxic effect of pre-aggregated $A\beta$. We now intend to test PINPs in vivo with a view to developing them as a potential new therapy for AD.

Disclosure of Interest: None Declared

OC006

TARGETING SPECIALIST CHALLENGING BEHAVIOUR INTERVENTIONS IN AGED CARE HOMES: CAN SEVERE CHALLENGING BEHAVIOURS BE IDENTIFIED?

K. Roberts-Stride^{1,*}, I. James², R. Watson³, C. Whitaker⁴, G. Stokes⁵, C. Hart⁶, E. Moniz-Cook¹

¹Psychology, The University of Hull, Hull, ²Psychology, The University of Newcastle, Newcastle, ³Medicine, Dentistry and Health, The University of Sheffield, Sheffield, ⁴NWORTH, University of Bangor, Bangor, ⁵Director of Dementia Care, Bupa Care Services, Leeds, ⁶Older Adults Mental Health, Humber NHS Foundation Trust, Hull, United Kingdom

Objectives: The causes of challenging behaviour are often idiosyncratic and can be associated with the way a caregiver understands the resident's 'unmet need'. However, as health care services develop specialist teams to support staff caring for older people in care homes, there is a need to identify those with severe challenging behaviours in order to target specialist interventions towards these residents. The present study explored whether there are hierarchical groups of challenging behaviours in residents living in aged care homes.

Methods: Cross sectional data for 2185 residents living in 63 UK care homes using the Challenging Behaviour Scale (CBS) were collected. Dichotomous scoring was used to determine the incidence (i.e. presence/absence) of 25 commonly reported problematic behaviours. A combined technique employing Mokken scaling and cluster analysis was undertaken to explore whether it is possible to identify hierarchical groups of challenging behaviours. Mokken scaling (unlike the more usual deterministic Guttman scaling) is a method of analysing data sets for hierarchical sub-sets of items which conform to local stochastic independence and unidimensionality.

Results: While few of the residents surveyed were being treated for challenging behaviour, the prevalence of problematic behaviours was high (87.5%). The most common clusters of behaviours were those related to reduced initiation (apathy), agitation (or aggression) and social 'disinhibition'. The results also revealed a hierarchical model, with six groups, where at the top of the hierarchy behaviours from each cluster were present. Behaviours at the top of the hierarchy were: Sexual behaviour, spitting and dangerous behaviour, inappropriate urination, spitting, clinging and self harm. The item 'physical aggression' dropped out of this model.

Conclusion: We conclude that it is possible to identify residents with severe challenging behaviour in care homes. Clinical interventions need to be developed to address 'unmet need' in residents showing physical aggression as well as for those with behaviours at the top of the hierarchy we identified.

Disclosure of Interest: None Declared

OC007

ACTIVATION OF ENDOTHELIUM IN ALZHEIMER'S BRAIN INVOLVES SOLUBLE AGGREGATES OF THE AMYLOID-BETA PROTEIN

F. J. Gonzalez-Velasquez¹, J. W. Reed², J. W. Fuseler³, J. A. Kotarek², D. D. Soto-Ortega¹, M. A. Moss^{2,*}

¹Biomedical Engineering, ²Chemical Engineering, ³School of Medicine, University of South Carolina, Columbia, United States

Objectives: Alzheimer's disease is characterized by amyloid plaques in the brain parenchyma and cerebrovasculature. These deposits are comprised primarily of the fibrillar form of the amyloid- β protein. Monomeric amyloid- β self-associates to form soluble aggregates and, subsequently, insoluble fibrils that deposit within amyloid plaques. Vascular accumulation of amyloid- β occurs in the basement membrane and initiates a cascade of events culminating in a weakening of the vessel wall that may lead to stroke as a result of cerebral hemorrhage. We have employed human brain microvasculature endothelial cell (HBMVEC) monolayers to assess the physiological effect of various amyloid- β preparations.

Methods: Amyloid- β monomer, fibril, and soluble aggregates were prepared and isolated using a combination of size exclusion chromatography and centrifugation; aggregate size was characterized using dynamic light scattering. HBMVECs were treated with amyloid- β monomer, soluble aggregates of varying size, or fibrils and assessed for their ability to adhere and transmigrate monocyte cells, for their permeability to albumin, and for their activation of NF- κ B.

Results: Experimental data demonstrates that isolated soluble amyloid- β aggregates selectively activate endothelial monolayers for both adhesion and subsequent transmigration of monocyte cells, as well as increased permeability, in the absence of endothelial cell death. In contrast, unaggregated monomer and mature fibril fail to induce any change in endothelial adhesion, transmigration, or permeability. Correlations between aggregate size and observed increases in both adhesion and monolayer permeability illustrate that smaller soluble aggregates are more potent activators of endothelium. Immunocytochemistry and inhibition experiments further reveal that NF- κ B signaling cascades are involved in amyloid- β stimulation of endothelium.

Conclusion: These results support previous studies demonstrating heightened neuronal activity of soluble amyloid- β aggregates, and further show that soluble aggregates also selectively exhibit activity in a vascular cell model.

Disclosure of Interest: None Declared

OC009

HERPES SIMPLEX VIRUS TYPE 1 (HSV1) AND ALZHEIMER'S DISEASE: THE CASE FOR ANTIVIRAL TREATMENT

R. Itzhaki^{1*}, A. L. Frost¹, C. Preston², M. Wozniak¹

¹Faculty of Life Sciences, University of Manchester, Manchester, ²MRC-University of Glasgow Centre for Virus Research, Glasgow, United Kingdom

Objectives: Our ultimate aim is to use antiviral agents to treat Alzheimer's disease (AD), based on our research implicating HSV1 as a cause of the disease. AD afflicts around 18 million people worldwide and the numbers will rise with increasing longevity. There is no effective therapy. AD brains show abnormal protein deposits, amyloid plaques and neurofibrillary tangles (NFT), the main components of which are β -amyloid (A β) and abnormally phosphorylated tau (P-tau), respectively. These are thought to be central to disease pathogenesis, but their causes are unknown. We discovered that HSV1 resides latently in many elderly brains (J. Med. Virol., 1991, et seq.), that in carriers of the type 4 allele of the apolipoprotein E gene (APOE- ϵ 4), it confers a strong risk of AD (Lancet, 1997), and that it reactivates in brain, possibly recurrently (J. Med. Virol., 2005). (Significantly, APOE- ϵ 4 is a risk for cold sores, which are caused usually by HSV1 (Lancet, 1997.)) Recently, we linked HSV1 directly to the abnormalities of AD brain. Infection causes intracellular deposition of A β , in cultured cells and mouse brain (Neurosci. Lett., 2007), and formation of P-tau in cultured cells (J Alz. Dis., 2009). Studies by several other groups have substantiated our data (see review: Ther. Adv. in Neurol Disord 2010). Further, in AD brains, most of the viral DNA is specifically located within plaques (J. Pathol., 2009). This co-localization, and the HSV1-induced A β deposition, strongly implicates HSV1 in the formation of toxic A β products and plaques.

Methods: We investigated the effect of several antiviral agents, including acyclovir (ACV), on HSV1-infected cells in culture. Currently available anti-HSV1 antiviral agents would prevent directly only HSV1-induced damage that depends on viral DNA synthesis, but also other viral damage by decreasing viral spread. We examined this by finding the stage(s) of the virus replication cycle required for A β and P-tau formation, using ACV and HSV1 mutants that progress only partly through the cycle.

Results: We found that the agents indeed greatly reduce HSV1-induced A β and AD-like tau deposition, thus substantiating their proposed use for AD (PLoS One, 2011).

Conclusion: Antiviral agents such as ACV could be used for slowing disease progression in AD; they are safe and relatively inexpensive. Further, ACV, unlike other treatments of AD, would not target normal cell products.

Disclosure of Interest: None Declared

OC010

MECHANISMS RESPONSIBLE FOR BETA-AMYLOID- DEPENDENT REDUCTION OF ERYTHROCYTE DEFORMABILITY

F. MISITI ^{1,*}, C. CARELLI-ALINOVI ^{1,2}, B. SAMPAOLESE ³, B. GIARDINA ^{2,3}

¹Health and Motor Sciences Dept., University of Cassino, Cassino (FR), ²Catholic University, Biochemistry Inst., School of Medicine, ³CNR-ICRM c/o Biochemistry Inst. Catholic University, Rome, Italy

Objectives: Until few years ago, most studies of Alzheimer's disease (AD) investigated the effects of this syndrome in the CNS. Only recently, the identification of the precursor protein (APP) in platelets and leukocytes and amyloid beta peptide in the blood has evidenced the necessity of extending studies on extra-neuronal cells, particularly platelets and erythrocytes. Growing evidence suggests that many abnormalities in vascular could be responsible for the AD. In particular, the reduced deformability of erythrocytes is one of the most suspected events associated to vascular abnormalities in AD. At this regard NO was proposed to be a regulatory factor of RBC mechanical properties since inhibitors of endogenous NO synthesis induce decreased erythrocyte deformability. The present study aimed at investigating the effects of amyloid beta peptide in the alterations of RBC rheologic behaviour modulated by NO signalling pathway.

Methods: Istochemistry, colorimetric assays, microscope observation

Results: Preliminary studies showed that in human erythrocytes, eNOS (erythrocyte nitric oxide synthase) activity is partially inhibited following to exposure to amyloid-beta peptide. Concurrently, amyloid beta peptide significantly reduced erythrocyte deformability and Ache activity, whereas the NO donors, were able to reverse the effects of amyloid beta peptide. To further characterize the mechanism behind Amyloid beta-induced eNOS inhibition, different components of the putative NO signalling pathway were also evaluated (PKC α -AChE activities).

Conclusion: These results provide support for the hypothesis that erythrocyte deformability is regulated by NO and indicate that the hemorheological abnormalities found in AD patients may be explained by the amyloid beta peptide- mediated effects on eNOS linked-pathway (AChE->>PKC->>eNOS) that could result in a decrease of erythrocyte deformability. These events could contribute to the vascular alterations associated with AD disease.

References: ·Carvalho et al. J. Appl. Toxicol. 24, 419-427 (2004)

·Bor-Kucukatay et al. Am.J. Physiol Heart Circ Physiol 284:H1577-H1584 (2003)

·Kleinbongard et al.Blood, 107:2943 (2006)

·Misiti et al. Biochem Cell Biol. 86(6):501-8 (2008).

·Janoshazi et al.Neurobiology of aging 27 (2006):245-251

Disclosure of Interest: None Declared

OC011

PHYSICAL ACTIVITY AND COGNITIVE STIMULATION IMPROVES COGNITION AND INCREASES PLASMA BDNF LEVELS IN HEALTHY OLDER ADULTS

T. shah^{1,2}, G. Verdile^{1,2,3}, H. Sohrabi^{2,3}, C. Cheetham⁴, E. Putland^{2,3}, C. Gregory^{2,3}, A. Mondal^{2,3}, R. Martins^{1,2,3,*}

¹School of Psychiatry and Clinical Neurosciences, University of Western Australia, ²The Center of Excellence for Alzheimer's Disease Research and Care, Edith Cowan University, Perth, ³School of Medicine, Edith Cowan University, Perth, ⁴School of Sports, Science, Exercise & Health, University of Western Australia, Perth, Australia

Objectives: To examine the effects of physical activity and cognitive stimulation on memory functioning and on plasma brain derived neurotrophic factor (BDNF) in the elderly.

Methods: 221 healthy community-dwelling older adults (MMSE \geq 24) aged 50 to 85 years were randomized into a physical activity group, a brain training group, a combination of physical activity and brain training group and a control group. The intervention consisted of 16 weeks of home-based physical activity program under the supervision of exercise physiologists that included 3 days/week of walking for 60 minutes/day with 2 days/week of resistance training and brain training included use of two computerized software programs (Posit Science, USA) for 5 days/week for 60 minutes /day for duration of 16 weeks. The combined group did a combination of physical activity and brain training for 5 days/week for 16 weeks. All individuals were genotyped for APOE, were assayed for plasma BDNF (Millipore, USA) and all the subjects also underwent a battery of neuropsychological tests that included Cambridge Cognitive Examination-Revised, Rey Auditory Verbal Learning Test, Controlled Oral Word Association Test and a computerised cognitive assessment package namely CogState (CogState, Australia) at baseline and at 16 weeks post intervention.

Results: Primary statistical analysis using paired t test examined the within-group's pre and post intervention performances. The paired t test showed significant improvement in CAMCOG-R scores for all the three intervention groups (physical activity group, n=45, p=0.003, cognitive stimulation group, n=45, p=0.001, combined group, n= 46, p=0.000). No significant improvement was observed for the control group (n=50, p=0.426). Plasma BDNF levels rose to significant levels within the combined group only (n=45, p=0.002) doing the paired t test. This was not seen in the physical activity group (n=47, p=0.114), the brain training group (n=47, p=0.086) or the control group (n=49, p=0.354).

Conclusion: Our preliminary analysis demonstrates that activity-physical or mental, or a combination of both-improves cognition from baseline. We found that a lifestyle intervention consisting of a combined physical and mental activity increases plasma BDNF in the healthy elderly population.

Disclosure of Interest: T. shah Grant/Research Support from: Posit Science, USA; CogState, Australia, G. verdile: None Declared, H. sohrabi: None Declared, C. cheetham: None Declared, E. putland: None Declared, C. gregory: None Declared, A. mondal: None Declared, R. martins: None Declared

OC012

THE RELATIONSHIP BETWEEN HOMOCYSTEINE AND INCIDENT DEMENTIA IN ELDERLY AFRICAN AMERICANS AND ELDERLY NIGERIANS.

O. Baiyewu ^{1,*} and On behalf of Indianapolis-Ibadan Dementia Research Group

¹Psychiatry, College of Medicine, University of Ibadan, Ibadan, Nigeria

Objectives: Homocysteine is a biomarker that has been shown to be a risk factor for dementia and Alzheimer's disease in various studies. However there is no known study on this relationship in Africa. The aim of the study is to look at baseline homocysteine levels and incident dementia in two populations, African American and Nigerians.

Methods: This report is from the longitudinal study on risk factors for dementia and Alzheimer's disease in the Indianapolis –Ibadan Dementia Research Project. This report includes the 2001, 2004, and 2007 waves of the study. Blood samples were collected in 2001 for measuring levels of homocysteine, folate and vitamin B₁₂. The project consisted of a screening phase and a clinical assessment phase. The Community Screening Interview for Dementia (CSI-D) was administered to all subjects in the screening phase.. Scores on the CSI-D were classified into good, intermediate and poor performance for selecting subjects for clinical assessment. Diagnoses were made based on individual clinical examination with physical and neurological examination, modified CERAD neuropsychological battery, and structured informant interview for history, symptoms, and daily function. Multivariate logistic regression models were used to examine the association between homocysteine, folate, and vitamin B₁₂ and dementia. Proportional odds ratios were used to examine the association between homocysteine with folate, vitamin B₁₂ and other demographic characteristics.

Results: Analyses included 800 subjects from Indianapolis who were diagnosed either incident dementia in (2004, 2006, or 2007) or CSI-D good performance in 2007. In Ibadan there were 606 subjects either with incident dementia or good performance in 2007. In the final model for Indianapolis higher baseline levels of homocystiene were associated with increased probability of developing dementia ($p=0.022$). Results for incident Alzheimer's disease were similar to those for dementia.

For the Yoruba subjects in Ibadan, higher baseline levels of homocysteine were also associated with increased probability of incident dementia ($p=0.027$) Results for Alzheimer's disease were similar.

Conclusion: Higher baseline levels of homocysteine conferred risk for incident dementia and Alzheimer's disease in the African Americans and the Yoruba Nigerians, populations living in very different environments.

Supported by NIA grant RO1 AG009956-15.

Disclosure of Interest: None Declared

LD1

Battling for a Diagnosis and Treatment

Jennifer Bute

I have prepared a talk of about 1500 words covering a short introduction on myself, what alerted me to something being wrong and since when I kept a detailed record of events from 2004. This is what led to seeing the 1st neurologist who said nothing was wrong and no investigations were done, how things got worse, the referral to a 2nd different neurologist who did scans (not perfect!) and nothing else no dementia tests.

How I gave up work, still with no diagnosis how I was eventually referred to a 3rd neurologist who gave me a diagnosis in 2009 over 5 years after the first referral.

Treatment with Aricept and how I was almost taken off it and then came to be on Memantine as well and what a tremendous benefit both have been

How I view the future with confidence and purpose

LD2

Battling Diagnosis and Early Treatment

Carol Cronk

As a Person With Dementia, this presentation outlines my experiences related to the diagnosis and early treatment from the beginning of my dementia journey up to the point of being involved in an experimental drug trial.

Diagnosis: How we relate to emotional circumstances is mostly due to our learned experiences, in my case, living through my father's Alzheimer's illness.

Early Treatment: Initially my neurologist was not supportive of taking any medication to combat the symptoms because of the early stage of my disease. My refusal to do nothing won out and I started on medication.

Consequences of Commencement of Inhibitor Medication: For Australia, a repeat Mini Mental Status Exam with demonstrated improvement in score is required to continue the government subsidy for the medication costs.

Overcoming Diagnosis Dilemmas: Our connection with Alzheimer's Australia in Western Australia to receive support, education, and counselling assisted us with acceptance of the diagnosis. Consequently, we have become strong advocates to advance the cause and the current "Fight Dementia" campaign throughout Australia.

OC013

AN INTEGRATED DEMENTIA CARE AND RESOURCE CENTRE - DEVELOPING AND SHARING RESOURCES TO IMPROVE QOL OF PEOPLE WITH DEMENTIA AND CARERS

K. H. Goh ^{1,2,3,*}, F. Shamsuddin ⁴ and DBrain Project

¹The Dementia Society (Perak), Ipoh, ²ADFM, Kuala Lumpur, ³Niche Frontiere, Ipoh, ⁴Computer Science, IIUM, Kuala Lumpur, Malaysia

Objectives: Dementia in SE Asia is expected to double in the next 20 years, 2.48m (2010) to 5.3m (2030). Malaysia is also an aged nation by 2020. With a population of 28.3m (2010), the number of dementia cases is estimated at 70,000. Although there are 4 daycare centres, dementia awareness is still lacking. The latest centre in Perak is developing into a Centre of Excellence for dementia and QOL improvement. Developing nations lack funds and resources to provide adequate care services and facilities. Thus dementia organisations need to develop and share resources.

Under a government grant, a 2-year project (DBrain) was initiated in 2009 to develop an integrated Dementia resource environment. The outcomes of DBrain include a unique Grid-Cloud computer integrated environment and a Dementia portal linked to university grid-based computing facilities for research activities that require extensive computer processing capability e.g. predictive gene, drug/herbal analyses, simulation of dementia diseases. It is also integrated with a Hospital Information System, a Real-time Data server and multiagents offering online diagnostics, therapeutic and treatment consultations. The assistive multiagents include:

(i) A transformer wheelchair for patients with dementia and low mobility. The device is transformable from a bed, to a wheelchair, and also to a vertical-standing position, allowing user to talk to people at eye-to-eye level thus increasing self-esteem. It eliminates the need of a caregiver to lift patient out of bed, and adaptable for use in multi-terrain manoeuvres. A mounted Apple iPad tablet computer allows interactive online video, and usage as a Virtual Medicine Reminder, Virtual Companion, and with cognitive and reminiscence games.

(ii) A patient tracker, for indoor/outdoor monitoring of dementia patients via online Google maps and indoor maps. Embedded intelligent software enables safety monitoring and socio-metric studies.

(iii) A Medicine Reminder that checks prescription against the patient's health records, and online monitoring of compliance to medication schedule.

The benefits and availability of shared resources of the integrated system will be elaborated further with videos/pictures of the Grid-Cloud Integrated environment and patented multi-agents during the presentation.

Disclosure of Interest: None Declared

OC014

ASSISTIVE TECHNOLOGY AS AN ALTERNATIVE TO PHYSICAL RESTRAINTS IN NURSING HOMES FOR PEOPLE WITH DEMENTIA

S. Zwijsen^{1,*}, M. F. Depla¹, S. te Boekhorst¹, A. L. Francke^{2,3}, C. M. Hertogh¹

¹Nursing home medicine, VUMC - EMGO+, Amsterdam, ²NIVEL, Netherlands Institute for Health Services Research, Utrecht, ³Department of Public and Occupational Health, VUMC - EMGO+, Amsterdam, Netherlands

Objectives: To reduce traditional physical restraints, the use of assistive technology (AT) is proposed as an alternative. The number of nursing homes implementing AT devices, such as acoustic or visual monitoring devices, is steadily rising. However, insight into the utility and effect of AT use in the nursing home care for people with dementia was lacking. This mixed methods study explored perceived utility and effects of AT as an alternative to traditional restraint use in nursing home care for people with dementia.

Methods: Seven nursing homes were involved in this study. Three of these nursing homes had a policy to promote AT use and already used much AT. The other four did not have such a policy, but often also used some form of AT. Perceived utility:

Semi-structured interviews were held with nine key persons (e.g. managers, physicians) of the nursing homes. Also, interviews were held with eight relatives and eight focus group discussions with nursing home staff were conducted. Furthermore, 271 nurses and nurse assistants filled in a questionnaire on their perspective on restraint and AT use.

Effects on quality of life:

Data on quality of life of 254 residents with AT or physical restraints was provided by their professional caregivers

Results: Perceived utility:

The term restraint is ambiguous to caregivers, which creates difficulties when forcing back restraint use. Also, AT seems to be used supplementary to existing measures rather than as an alternative. Moreover, due to technical shortcomings and organisational difficulties AT is not being used as an alternative to traditional physical restraints yet.

Effects:

Physical restraints (mainly fixation by using a belt, tabeltop or restrictive chair) were almost exclusively used in residents with low ADL independency. After adjustment for the cofounders age, sex and stage of dementia, no significant differences regarding quality of life between highly ADL dependent residents with AT and with physical restraints were found.

Conclusion: Quality of life of highly ADL dependent nursing home residents with dementia seems to be unrelated to the use of AT as opposed to physical restraints, such as fixation. Currently, AT isn't always used as an alternative to restraints. A better supported and more useable description of restraints and a clear policy and education on alternatives to restraint use could lead to AT use as an alternative to restraints.

Disclosure of Interest: None Declared

OC015

DESIGNING SOFTWARE FOR ELDERLY SUFFERING FROM COGNITIVE IMPAIRMENTS

M. Boulay^{1,2}, M. Pino^{1,2,*}, A.-S. Rigaud^{1,2} and RNTS-ANR-TANDEM project

¹Broca Hospital, Assistance Publique - Hôpitaux de Paris, ²Research team EA 4468 Paris Descartes University, Paris, France

Objectives: Our medical team has developed a software application for cognitive training, bound for elderly suffering from cognitive impairments, such as Mild Cognitive Impairment (MCI) and Alzheimer's Disease (AD). In this paper we describe the iterative process of usability testing of our application, following the principle of user-centered design. Results of two sets of evaluations are outlined and discussed.

Methods: Evaluations were conducted at two different times. The first set (1) was carried out to evaluate the first version of the software. The second one (2) was held a few months later, with the upgraded version of the application.

Population

(1) Seven people aged between 78 and 87 ($m=82.4$), with mild to moderate AD ($MMSE=16-24$) according to NINCDS-ADRDA diagnosis criteria (McKhann et al., 1984), were recruited.

(2) Fifteen people aged between 66 and 88 ($m=78.2$), with AD ($n=3$), MCI ($n=8$) and without cognitive impairment ($n=4$), took part in the second set of evaluations.

Materials and procedure

(1) Testing sessions were performed on a laptop equipped with a mouse. The user-test included: One exploratory session and four testing sessions with the same set of 15 exercises.

(2) Testing sessions were performed on a touch-screen laptop. The user-test included a unique session with nine exercises to perform.

Usability Evaluation Criteria

The following objective performance measures were assessed: time to complete each exercise, number of errors due to manipulation, number of help requests.

Results: (1) Results suggest that all participants experienced different degrees of difficulty in manipulating some specific components and/or in performing tasks during the sessions. The prototype software was not completely suitable for users with AD, and ergonomic changes have been made to make the program usable by the largest number of patients suffering from cognitive deficits.

(2) Results indicate that the upgraded version of the application could be used in an autonomous way, almost without help or guidance from the examiner. The t-test analysis performed on three variables (time, manipulation errors, help requests) shows no significant difference between the groups, which demonstrate that the whole interface (software + touch-screen) is adapted to elderly with and without cognitive impairments.

Conclusion: This study is an example of successful design process, involving end-users and applying the concept of iterative evaluations.

Disclosure of Interest: None Declared

OC016

ENHANCING VERBAL COMMUNICATION BETWEEN ALZHEIMER'S DISEASE PATIENTS AND CAREGIVERS: LINGUISTIC AND SOCIAL STRATEGIES

R. Alegria ^{1,2,*}, C. M. Santana ¹, C. P. Gallo ¹, M. G. Bolso ¹, C. M. Bottino ¹, M. I. Nogueira ²

¹School of Medicine, ²Neuroscience and Behavior, Institute of Psychology, University of São Paulo, Sao Paulo, Brazil

Objectives: Communication between Alzheimer's disease patients and caregivers can be enhanced using some linguistic and social strategies. To increase and improve verbal communication, It is recommended to have activity-based approaches, linguistic and memory aids during the interaction between patients and caregivers. The interventions to improve verbal communication are shown to be effective until patients get severe stage.

Objective: to enhance verbal communication between patients and caregivers.

Methods: We analyzed, compared and did interventions with the discourse performance of twenty five Alzheimer's disease patients and twenty five healthy controls. The patients were eleven men and fourteen women aged 72 and older, and the controls were eleven male and fourteen female, aged 65 and older. All patients were from PROTER- Old Age Program - ambulatory care of the Institute of Psychiatry of the School of Medicine of the University of São Paulo. The patients and controls had 4 to 26 years of schooling; their Mini Mental State Exam (MMSE) scores 13 to 30. Moreover, the controls were also assessed with SRQ-20- Self reporting Questionnaire. Each discourse of patients and controls was recorded during 20 minutes and analyzed by the computational tool Stalex, based on mathematical-statistical-computer assisted program which mainly distinguish the results of preferential, basic and differential vocabulary in order to verify the frequency of words in the discourses. After that, we compared the results and verify the abstract, concrete and the most used words the AD patients conveyed to use in the social interactions.

Results: The results of the frequency analysis of the words in the discourses showed that using linguistic strategies can be effective to enhance and improve communication between Alzheimer's disease patients and caregivers. On the other hand, using the words that are more frequent can be effective tools to socialize.

Conclusion: It is required to do more studies for the effectiveness of improvement and increasing verbal communication between Alzheimer's disease patients and caregivers

Disclosure of Interest: None Declared

OC017

INVOLVING PEOPLE WITH DEMENTIA IN THE DEVELOPMENT OF AT GUIDE – AN ONLINE TOOL TO SUPPORT DECISION MAKING AROUND ASSISTIVE TECHNOLOGY

N. Savitch^{1,*}, D. Brooks², S. Wey³

¹Innovations in Dementia CIC, Exeter, ²Trent DSDC, Leicester, ³Centre for Enabling Environments and Assistive Technology, York St John University, York, United Kingdom

Objectives: Many people with dementia do not use assistive technology. There are a variety of reasons for this: they may not realise that certain technologies are available, they may have difficulty defining or articulating the problems they are having, or they may not like to admit to themselves or others that they are experiencing problems.

This paper will describe the results of a project that involved people with dementia in the design of a new on-line tool that gives people with dementia and their carers access to information about assistive technologies. This system (called AT Guide) combined the atdementia.org.uk website developed by Trent DSDC, which is the primary information resource about assistive technology in the UK, with the easy-to-use AskSara tool developed by the Disabled Living Foundation to enable disabled people to find information about suitable assistive technology products. The tool encourages people with dementia to talk about their wishes and the problems they are experiencing and thus allows them to be more involved in the choice of technology that will help them.

In order for the AT Guide tool to be used, it was vital that people with dementia were involved in all aspects of its development.

A methodology was established by the authors that focussed primarily on the needs of people with dementia rather than the technology. Rather than start with the products that are available we worked with people with dementia to discuss their goals and aspirations.

We will describe a variety of innovative and flexible user consultation methods that enabled people with dementia to:

- Contribute to a database of tips and advice for other people with dementia
- Discuss the relative merits of different types of assistive technology
- Feed in their feelings about the ethics of some technologies
- Refine the language used in the guide – to ensure that it was easy to understand but not patronising
- Ensure that images used were helpful and not distracting or confusing

We will present what people with dementia told us about the design of the tool and explore how our methods and the findings might be used by others designing technologies for people with dementia.

Disclosure of Interest: None Declared

OC018

“A CHANGING MELODY IS THE MOST IMPORTANT THING WE DO”: LEARNING FROM REGIONAL EXPERIENCES

S. Dupuis^{1,*}, L. Loiselle¹

¹Murray Alzheimer Research and Education Program, UNIVERSITY OF WATERLOO, Waterloo, Canada

Objectives: In 2002, the Murray Alzheimer Research and Education Program (MAREP) partnered with the Alzheimer Societies of Canada and Ontario, and the Dementia Advocacy and Support Network International to create a forum specifically designed by and for people living with dementia – *A Changing Melody* (ACM). ACM was conceived out of the need to develop meaningful partnerships between persons with dementia, their families, and other care partners and provide safe spaces where all involved in dementia care could learn with and from each other. Between 2002 and 2008, persons with dementia, family members and professionals worked together to plan, implement and evaluate five national ACM forums. In 2008 a tool-kit was introduced to assist local Chapters and organisations in planning and implementing their own regional ACM forums. Since then over 20 regional or virtual ACM forums have been held in Canada. The purpose of this presentation is to share information on the regional forums by examining the experience for the organisers, exploring challenges and how they were addressed, and identifying strategies used in developing strong authentic partnerships in dementia care.

Methods: As part of a larger grounded theory study that has been examining the ACM process and authentic partnerships over the past 10 years, active interviews were conducted with 12 committee members who had been directly involved in the planning and implementation of a regional or virtual ACM. Interviews were between 1 and 1.5 hours in length, audio taped and transcribed verbatim. Thematic analysis guided by the constant comparative method was conducted by two researchers independently and then together to identify common and divergent themes in the data.

Results: 10 enabling factors emerged that reflected strategies necessary to overcome challenges, including: *witnessing to believing in the cause, having/becoming a champion, committing and recommitting to authentic partnership principles, balancing diverse needs, responding proactively to fears, supporting inclusion in alternative ways, leveraging resources through existing and new partnerships, balancing financial costs with accessibility, allowing the process to lead, and maintaining open and honest communication.*

Conclusion: The findings demonstrate the feasibility of the ACM and authentic partnerships in dementia care and provide key insights to inform future authentic partnership initiatives.

Disclosure of Interest: None Declared

OC019

CASE MANAGEMENT OF PEOPLE WITH DEMENTIA AND CAREGIVERS (THE COMPAS STUDY): THE DESIGN OF A MULTIFACETED STUDY COMPARING DUTCH CASE MANAGEMENT MODELS IN DEMENTIA.

J. Macneil Vroomen^{1,*}, L. D. van Mierlo², P. van der Ven³, J. Bosmans², F. Meiland², E. Moll van Charante¹, H. P. van Hout⁴, S. De Rooij¹

¹AMC Medical Center, ²VU University Medical Center, Amsterdam, ³VU University Medical Centre, Amsterdam,

⁴VU University Medical Centre, Amsterdam, Netherlands

Objectives: Dementia care in the Netherlands is in the process of improving coordination of care via case management. The Netherlands is a fertile ground for emerging and existing case management models although it is unclear whether case management is more effective than usual care and which case management model is most beneficial for improving patient functioning at the patient and caregiver level, and at what cost for society. The objective is to describe the design of this study that compares two case management models against usual care. We plan to investigate clinical and cost outcomes as well as conduct a process evaluation by means of defining facilitators and barriers for implementation of these case management models in the Netherlands.

Methods: Design: a prospective, observational, controlled, cohort study among dementia- informal caregiver dyads in several regions of the Netherlands to measure outcomes of case management, and a qualitative study design for the process evaluation. Inclusion criteria for the cohort study are: individuals with a dementia diagnosis, who are community-dwelling, not terminally-ill, not anticipated to be admitted for long term care facilities within 6 months, and who have an informal caregiver with sufficient language proficiency. Dementia-informal caregiver dyads will be followed up for two years. The primary outcome measure is the Neuropsychiatric Inventory scale for people with dementia and the General Health Questionnaire for their caregivers. Costs are measured from a societal perspective using cost diaries. Quality of care indicators are used to measure the care process in participants. For the qualitative study on facilitators and barriers of implementation, purposive sampling methods will be used to ensure a wide variation in respondents. Semi-structured interviews will be performed with key figures.

Results: Baseline data will be presented at the conference.

Conclusion: What distinguishes this study from other case management studies is its ability to simultaneously describe the care processes and implementation of two case management models and compare the outcomes of the case management models with usual care in geographically related, similar regions.

Disclosure of Interest: None Declared

OC020

FIRST LINK- ACCELERATING INNOVATION IN COMMUNITY-BASED DEMENTIA CARE

G. Carey^{1,*}

¹Alzheimer Society of Ontario, Toronto, Canada

Objectives: This session describes the evolution of the First Link program, a unique and successful initiative to partner with primary care and other health providers to reach persons with dementia and their families as early in the disease process as possible. The project now covers 86% of the population of Ontario, Canada's largest province and has expanded to 3 other provinces. New data comparing the program development in 2 provinces will be presented and tools to promote and consolidate innovations in Ontario will also be outlined. Early evidence shows a reduced interval from diagnosis to service of more than 100% .

Priority Areas

First Link provides the following:

- Care coordination: Linking the patient and family members to community services for non-medical management from the point of diagnosis and throughout the continuum of the disease
- Organizing and coordinating dementia education training sessions: for family physicians as given by physician experts through the Champlain Dementia Network; for allied health professionals through collaboration with our community partners; for patients and family members through the Alzheimer Society of Ottawa
- Providing active follow-up and monitoring of patients and their family caregivers to assist in reducing the number of patient crises and family caregiver stressors and overall help improve their quality of life.
- Maintaining statistics and evaluating patient and family caregiver outcomes.

Securing Innovation

Service level agreements, common data collection, annual skills exchanges, staff training in critical skills areas and a shared value proposition are some of the tools that have developed to support and sustain the growth of the First Link initiative in Ontario, where the Alzheimer Society operates in a federation with 39 members. Common service satisfaction tools are now being introduced.

As well, partnerships have developed in a unique way with Family Health Teams some of which operate primary-care based Memory Clinics (Lee, et al., JAGS, July 2010). The session will report on recent research about these partnerships. This work will be compared to a German study examining general practitioner training and the use of family support services. (Donath et al., BMC Health Services Research, 2010).

Impact

The research process to assess client and system impact more fully will be outlined.

Disclosure of Interest: G. Carey Employee of: CEO of the Alzheimer Society of Ontario

OC021

INTELLECTUAL DISABILITY AND DEMENTIA.COMMUNICATION STRATEGIES TO ENABLE INCLUSION IN RESEARCH

K. Watchman ^{1,*}

¹School of Health in Social Science, University of Edinburgh, Edinburgh, United Kingdom

Objectives: The incidence of dementia in some people with Down syndrome is known to be high. It can occur at a much younger age and has a quicker progression rate. This may result in a person with Down syndrome developing dementia in their thirties or forties. People with other forms of intellectual disability (ID) may develop Alzheimer's disease, or another type of dementia, at a slightly younger age. This issue has reached greater prominence as people with Down syndrome and other forms of ID are now living for much longer. This longer life expectancy brings with it an increased awareness of the incidence of dementia but not of how it is experienced by people with ID and dementia from their own perspective. This is usually due to pre existing difficulties in communication and cognitive impairment in people with ID and the perceptions of carers and researchers over a person's ability to take part in research. This differs in the general population where we regularly hear the voice of people with dementia, particularly in the early stages. This may be taking part in a research project that supports their inclusion or self advocating. The same profile is not given to people with ID and dementia.

During my PhD, using a narrative case study approach, I spent over 100 hours with three people who had Down syndrome and dementia over a three year period. I will focus on the communication methods I used with each person to explore their enable their inclusion in research and how far each was successful.

Findings showed that inclusion in research is not only possible for people with ID and dementia, it is essential. This is to ensure that we hear what people want and need rather than relying on carer's perceptions or making assumptions about what we think is in a persons best interest.

Disclosure of Interest: None Declared

OC022

THE HOSPITAL DEMENTIA SERVICES PROJECT: THE STATEWIDE EFFECTS OF PERSON-BASED AND HOSPITAL-BASED FACTORS ON OUTCOMES OF HOSPITALISATION FOR PEOPLE WITH DEMENTIA

B. Draper^{1,*}, N. Chan², R. Karmel², D. Gibson³, A. Peut², C. Hudson², P. Anderson², K. Bail³, L. Grealish³

¹University of NSW, Sydney, ²Australian Institute of Health & Welfare, ³University of Canberra, Canberra, Australia

Objectives: To determine the influence of hospital and community aged care and dementia services on outcomes of hospitalisation for people with dementia in the state of New South Wales (NSW), Australia.

Methods: The Hospital Dementia Services project includes people aged 50 years and over who had at least one overnight stay in a NSW public hospital that ended in the year to June 2007 (N=252,719). Data from three sources were integrated to provide information about each patient and their first hospital stay. For demographic and clinical information, data were extracted from the NSW Admitted Patient Data Collection. Data about the availability of hospital aged care and dementia services and staff were obtained through a survey of NSW public hospitals (n =163, response rate 82%). Regional provision levels of community care and residential care were extracted from the Aged and Community Care Management Information System. Multiple linear and logistic regression analyses were undertaken to determine patient characteristics, hospital services and regional service provision factors associated with outcomes (mortality, placement into residential care, length of stay) of hospitalisation for people with and without dementia.

Results: Dementia was significantly associated with higher risk of mortality, placement into residential care and longer stays even after allowing for other factors. For people with dementia, having access to specialist aged care medical staff was associated with shorter stays but not risk of mortality or placement, while access to aged care nursing staff was associated with shorter stays and lower risk of mortality but not placement. The presence of delirium policies was associated with shorter stays, and lower risks of mortality and placement. There was no relationship between the presence of dementia policies and these outcomes. Higher regional provision levels of residential care was associated with higher risk of placement into care, while higher provision levels of community packages was related to shorter stays.

Conclusion: People with dementia have worse outcomes of hospitalisation than people without dementia. Findings suggest that specialist aged care staff, policies and higher regional provision levels of aged care are associated with better outcomes of hospitalisation for people with dementia.

Disclosure of Interest: B. Draper Grant/Research Support from: NHMRC, N. Chan Employee of: AIHW, R. Karmel Employee of: AIHW, Grant/Research Support from: NHMRC, D. Gibson Grant/Research Support from: NHMRC, A. Peut Employee of: AIHW, Grant/Research Support from: NHMRC, C. Hudson Employee of: AIHW, P. Anderson Employee of: AIHW, K. Bail: None Declared, L. Grealish: None Declared

OC023

PERSON CENTRED CARE: AN INSIDER'S VIEW

K. Swaffer^{1,*}

¹Student, University of South Australia, Magill, Australia

Objectives: There is a thin veil between people with dementia being treated with dignity as opposed to being treated like morons. This presentation will discuss my experience of Person Centred Care (PCC) from pre-diagnosis to diagnosis of a younger onset fronto temporal dementia, through the maze of gaining medical, community and service provider support following such a diagnosis. It will consider my personal experience of PCC in day care respite and with In Home Care Packages. My observation of PCC from a family carer's perspective of my father in law's experience living with advanced frontal lobe dementia in a residential care setting will also be presented. Throughout these experiences, it is clear the goal of walking the talk is a long way from being realised. However I will also discuss the amount of effort I see being made by service providers in Australia to improve the experience PCC for people living with and caring for people with dementia, and the efforts being made to walk the talk of PCC in all settings. The changes brought on by dementia are relentless, yet most people don't see them as disabilities but as external symptoms, and so seek to treat the symptoms. That is, not needs to be met, but problems to be managed. And so, we are regularly defined by the symptoms of our disease – forgetful, confused, aggressive, odd behaviour, absconders or refusing to communicate, rather than the people we still are... mothers, fathers, lovers, daughters, wives or husbands, employees or employers, grandmothers, aunties. It is a tragedy that so many just see our deficits. It seems to me that dementia care is caring for people who often do not know they need care, and don't want to be in care. No wonder we may become angry and upset! Walking the talk is imperative for this to change, so finally, based on my Insider's View this presentation will attempt to outline what it is we all need to do to achieve this goal.

Disclosure of Interest: None Declared

W1

The Alzheimer Movement: Using Advocacy to Generate Awareness and Change

Chair: Michael Splaine, Policy Adviser ADI

Featuring: Alan Arnette, Seven Summits Climb for Alzheimer's

Kate Fearnley, Alzheimer Scotland

Meera Pattabiraman Alzheimer's Disease and Related Disorders Society, India

Marc Wortmann, Executive Director, ADI

Toby Williamson, Mental Health Foundation

Martin Sewell, Scottish Dementia Working Group

This workshop will use a lively case study discussion on techniques to use public awareness events to generate support for the dementia cause such as the 7 Summit Climb for Alzheimer's. Specific advocacy campaigns from India and Scotland will be shared, and participants will get a brief on two new awareness opportunities in 2012—Country Reports and the release on World Health Day of a World Health Organization (WHO) report on dementia.

W2

THE 7 SUMMITS CLIMB FOR ALZHEIMER'S: AN INTEGRATED CAMPAIGN ENGAGING ADVOCACY TO RAISE AWARENESS OF THE BURDEN OF ALZHEIMER'S

E. Rose ^{1,*}

¹Communication & Public Affairs, Janssen Alzheimer Immunotherapy, South San Francisco, United States

Objectives: In November 2010, mountain climber and Alzheimer's disease advocate Alan Arnette set out on The 7 Summits Climb for Alzheimer's, a year-long journey to scale the highest peak on each continent to raise awareness of the growing prevalence and caregiver burden of the disease. As of October 1, 2011, Arnette has climbed six and summited five of the six as follows: Mt. Vinson, Aconcagua, Everest, Denali, Elbrus and Kilimanjaro. The remaining climb, Carstensz Pyramid, is scheduled for the fall of 2011. On each climb Arnette has sent a message of hope and support to members of the Alzheimer's community.

Arnette cared for his mother, Ida Arnette, who passed away from the disease in 2009. His experience transformed him into a champion for the fight against Alzheimer's, and he has devoted his life to being an advocate.

The Alzheimer's Immunotherapy Program of Janssen Alzheimer Immunotherapy and Pfizer Inc. is funding his climbs, and all money Arnette raises goes directly to the organizations he has selected: the Alzheimer's Association to advance research and provide support for all those affected, the Cure Alzheimer's Fund to advance Alzheimer's research and the National Family Caregivers Association to provide support for family caregivers. These organizations are instrumental in spreading the word about the economic and emotional burden of this devastating disease to those impacted by Alzheimer's and their family caregivers.

The partners have leveraged all of their own organizations' communications tools, including Twitter, Facebook, blogs, newsletters and e-blasts to generate awareness among members. Through these channels Arnette has created a sense of community, sharing updates about his efforts and giving the advocacy groups a champion to rally around in the fight against Alzheimer's.

Conclusion: The campaign is proving to be a valuable vehicle to raise awareness of Alzheimer's, the importance of an early and prompt diagnosis and the urgent need for funding. His inspiring and extraordinary personal quest provides a unique platform to engage with advocacy organizations and raise awareness within the general public. He has already achieved much and plans to continue to strive to reach for new peaks, motivating and empowering communities to take action and let their voices be heard.

Disclosure of Interest: E. Rose Employee of: Janssen AI

W3

DEMENTIA ENGAGEMENT AND EMPOWERMENT

T. Williamson^{1,*} and Members of the Dementia Engagement & Empowerment Project Reference Group

¹Development & Later Life, Mental Health Foundation, London, United Kingdom

Objectives: The presentation will report on the findings and activities from the Dementia Engagement and Empowerment Project (DEEP) and enable people with dementia to speak directly about their experiences. DEEP is investigating the ways that people with dementia are currently engaged in groups and projects influencing service and policy development at local, regional and national levels across the UK and what they would like to do in the future.

The project is actively involving a range of people with dementia, many of whom make up a reference group that will grow throughout the project. The reference group will ensure that the project remains relevant to what people with dementia want. It is anticipated that members of the reference group attending the Congress will be involved in this presentation.

DEEP is collecting information from groups of people with dementia across the UK during 2011. At the beginning of October 2011 there have already been 96 responses received to the survey collecting this information. The information will be shared between groups to gain an understanding of the similarities and differences between groups. For example: the aims of the group; how the groups operate; the achievements and impact of the groups: pitfalls and challenges; the type of support needed for the groups to work well.

The project will also be holding an event early in 2012, which will bring groups of people with dementia together, and will be designed by people with dementia.

At the end of project people living with dementia will have a report, and a film that is being made as part of the project. This information can be used to enable people and groups to talk to each other and to form an action plan of how they might work together in the future, as a possible network of groups, led by people living with dementia. DEEP is collaboration between the Mental Health Foundation, Innovations in Dementia, and the Alzheimer's Society, and is funded by the Joseph Rowntree Foundation.

The presentation will be relevant to anyone interested in the active involvement and leadership by people living with dementia.

Disclosure of Interest: None Declared

W4

PEOPLE WITH DEMENTIA IN SCOTLAND HAVE LEARNED TO SPEAK UP AND HAVE THEIR VOICES HEARD

M. Sewell^{1,*}, D. Weeks²

¹Scottish Dementia Working Group, ALZHEIMER SCOTLAND, Glasgow, ²Scottish Dementia Working Group, Perth, United Kingdom

Objectives: This presentation, given by a member of the Scottish Dementia Working Group, will focus on several key areas of the development of the group from its formation in 2002 through to their positive achievements over this time, noting that 2012 is the tenth birthday of the group.

The group was formed by some like-minded people with dementia in partnership with sympathetic professionals working in the field of dementia research and care. They believed that the voice of people with dementia would be heard more clearly if people with dementia learned to speak out for themselves. The group then developed a partnership with Alzheimer Scotland, and although under their umbrella, the Scottish Dementia Working Group continues to be an independent voice of people with dementia in Scotland and as a national campaigning group has grown both in stature and in power.

This presentation will address the challenges of living with dementia, alongside learning the craft of campaigning and the reasons why people become involved with the group. It will also describe the benefits of membership as well as the personal cost that comes with the work that is demanded of the members. This work includes meetings with government ministers, being involved in the training of professionals, speaking at conferences, campaigning on issues of both medical and social nature in order to improve services for people with dementia, producing DVDs and contributing to information-giving materials, being involved in groups working to reduce stigma and prejudice, raising awareness of dementia, membership of key strategic groups influencing the Scottish Dementia Strategy and being involved in the monitoring and implementation of this new Strategy.

The group has had major achievements to date which include the influencing of government priorities in Scotland in areas such as early diagnosis and improving care of people with dementia in general hospitals. Members have appeared on television, radio and national and local press to have their voices heard and were invited to write a foreword to the Scottish Dementia Strategy.

The presentation will conclude with looking at the possibility of having a good life despite the diagnosis of dementia.

Disclosure of Interest: None Declared

OC027

LOW BMI PREDICTS INCIDENT ALZHEIMER'S DISEASE IN OLDER ADULTS WITH AMNESTIC MILD COGNITIVE IMPAIRMENT. A 3-YEAR PROSPECTIVE COHORT STUDY

L.-W. Chu^{1,2,3,*}, C. Chan⁴, Y. Song^{3,5}

¹Department of Medicine, Queen Mary Hospital, ²Research Centre of Heart, Brain, Hormone & Healthy Aging, LKS Faculty of Medicine, ³Alzheimer's Disease Research Network, SRT Healthy Aging, ⁴Department of Medicine, LKS Faculty of Medicine, ⁵Department of Biochemistry, LKS Faculty of Medicine, THE UNIVERSITY OF HONG KONG, Hong Kong, Hong Kong, China

Objectives: Weight loss is associated with subsequent development of Alzheimer's disease (AD). Previous cross-sectional study suggests lower body mass index (BMI) in AD patients than persons with amnesic mild cognitive impairment (aMCI) or normal cognition. The objective of the present prospective study was to investigate BMI as a predictor of progression to AD in older adults with aMCI.

Methods: *Design:* A three-year prospective cohort study; *Setting:* Ambulatory setting. *Subjects:* Chinese older adults, aged 55 to 93 years old, with aMCI by the Petersen's criteria. *Measurements:* Baseline demographic, BMI and clinical factors, and apolipoprotein E genotype. All subjects were followed for three years. AD was diagnosed by the NINCDS-ADRDA criteria for probable AD.

Results: 138 Chinese older adults with aMCI were recruited. 25.4% (n=35) of them progressed to Alzheimer's disease by the end of three years. In multivariate logistic analyses, after adjustment for age, sex and apolipoprotein E genotype, low BMI and ischemic heart disease (IHD) were independent predictors of progression to AD. IHD increased the risk (RR =3.17, 95% CI 1.01, 9.13), and BMI reduced the risk (RR=0.88, 95% CI 0.77, 0.99). Age but not apolipoprotein E genotype also increased the risk.

Conclusion: In older adults, low BMI predicts an increased risk of AD. Low BMI represents a preclinical somatic sign of pre-AD among aMCI older adults.

Disclosure of Interest: None Declared

OC028

SCREENING FOR MEMORY IMPAIRMENT IN COMMUNITY DWELLING OLDER ADULTS IN RURAL NIGERIA: USE OF THE SHORT BLESSED MEMORY TEST

R. Uwakwe^{1,*}, I. A. Modebe², I. Njelita³, T. Mbachii⁴

¹Mental Health, ²Public Health, Faculty of Medicine Nnamdi Azikiwe University, ³Community Medicine, Nnamdi Azikiwe University Teaching Hospital, Nnewi, ⁴Family Medicine, Beluchukwu Hospital, Enugu-Ukwu Njikoka, Nigeria

Objectives: Screening asymptomatic seniors for memory deficit may aid early dementia diagnosis.

This study examines the utility of the Short Blessed memory test in community dwelling older adults in rural Nigeria.

Methods: This was part of a pilot test for the study of cognitive impairment in asymptomatic community dwelling older adults in Njikoka Local Council of Anambra State, South Eastern Nigeria. The six item short Blessed Memory test was administered to 50 participants in a Dunukofia Social Centre, near Abagana, Njikoka. The memory phrase was changed to a local language name and address.

Results: The participants were aged 55-95 years, mean 74.9±9.5, 38 (72%) were females, 5(10%) were dependent and 60% had no formal education. Four (8%), correctly repeated the name and address after five minutes without any error; 20(40%), 22 (44%), 3(6%), and 5 (10%) had no error in counting 20 backwards, counting the months of the year backwards, naming the present year, and naming the current month respectively. No participant was able to correctly state the time within one hour error margin. Over all, the participants scored a range of 12- 21 on the Blessed test, with a mean of 17±3.6. Occupational (p=0.003) and educational status (p=0.003) but not gender (p=0.22) were positively associated with Blessed score.

Conclusion: The sense of time in Nigeria is different from what it is in developed countries and no participant was able to state the exact time within one hour error margin. Similarly, one of the worst performances was in stating the present year (only 6% correctly stated this). Surprisingly only 8% correctly recalled a local name five minutes after its first presentation. The best performance was in counting the months and 20 backwards.

The unmodified six item Blessed short memory test can not be used to screen for cognitive impairment in community older adults in Nigeria.

Disclosure of Interest: None Declared

OC029

TEMPORAL CHANGES IN FUNCTIONAL GENE GROUP EXPRESSION OCCUR EARLY IN ALZHEIMER'S DISEASE PROGRESSION

S. Barbash^{1,*}, H. Soreq¹

¹Biological Chemistry, Hebrew University of Jerusalem, Jerusalem, Israel

Objectives: The progression of Alzheimer's disease (AD) notably involves multiple changes in hippocampal transcripts belonging to different functional gene groups. In our current study, we wished to compare the significance of quantifying the change in individual transcripts or in the corresponding gene groups, identify changes in molecular functions following stratification by cognitive deterioration and arrange the well-established AD-associated events by the order of their occurrence along disease progression.

Methods: Unlike previous analyses, which largely identified transcripts drastically modified in AD, we subjected 100 publicly available Microarray datasets to threshold-independent analysis (distribution comparison) which does not miss those transcripts whose levels were only slightly changed. This is most relevant for functional tests; thus, if each cytokine in a group is marginally up-regulated, they may together cause inflammation; such situations will be ignored by threshold-dependent approaches but will be identified by a threshold-independent approach. We stratified the cohort by cognitive deterioration and measured for each group the dissimilarity within itself using two separate approaches: either by measuring threshold-dependent change in single transcripts or by assessing the shift in gene groups, calculated using the threshold independent approach.

Results: We found AD progression in different patients to be accompanied by highly variable changes in single transcripts which however lead to similar changes in gene groups. Stratification by patients' cognitive deterioration presented hippocampal-specific mRNA alterations which involve progressively changed gene categories and indicate changes in epigenetic state and microRNA profiles. Moreover, we found early-onset decline in alternative splicing, protein folding and transport transcripts.

Conclusion: Gene groups reflect progressive hippocampal alterations in cognitively stratified AD more reliably than single genes. Focusing on identified early processes and not as single genes, may offer greater diagnostic strength.

Disclosure of Interest: None Declared

OC030

THE LONDON ADSID PROJECT – A CLINICAL RESEARCH DATABASE OF DEMENTIA IN OLDER ADULTS WITH DOWN SYNDROME AND INTELLECTUAL DISABILITIES

A. Strydom^{1,*}, K. Courtenay²

¹Mental Health Sciences, UCL, ²Barnet Enfield Haringey Mental Health NHS Trust, London, United Kingdom

Objectives: Alzheimer's disease may affect up to 50% of adults with Down Syndrome (DS) over the age of 50. Dementia is more common in older adults with Intellectual Disabilities (ID). Little is known about the course of dementia in these populations except that it is the strongest predictor of mortality in adults with DS. Many aspects of the management of dementia in adults with DS or ID remain uncertain. A dementia special interest group of health practitioners involved in the assessment and management of dementia in the DS and ID population in London was established in 2009. It has led to a research collaboration to form a clinical registry aimed at studying the natural history and care needs associated with dementia in DS and ID, and the outcome of treatment in routine clinical settings.

Methods: We developed a common dataset, database, and security protocols. We addressed data protection issues with support from the National Information Governance Board. The initial focus has been on retrospective data from clinical assessments of dementia in people with DS.

Results: The registry now contains data on approximately 300 older adults with DS of whom 25% have been diagnosed with dementia. 54.8 years is the average age of diagnosis. 32.9% of those with dementia have since died. The average age of death for those with dementia is 59.6 years. 68% of dementia cases have been offered treatment with acetylcholine esterase inhibitors.

Conclusion: The ADSID registry is supported by two London biomedical Universities (UCL and KCL) and by clinical teams from all parts of London and surrounding counties. The registry will be a valuable resource for both exploratory and explanatory research in the future.

Disclosure of Interest: None Declared

OC031

THE PRESENCE OF BEHAVIOURAL AND PSYCHOLOGICAL SYMPTOMS AND PROGRESSION TO DEMENTIA IN THE COGNITIVELY IMPAIRED OLDER POPULATION

R. Van Der Linde^{1,*}, B. C. Stephan¹, F. E. Matthews², C. Brayne¹, G. M. Savva³

¹Department of Public Health and Primary Care, ²MRC Biostatistics Unit, University of Cambridge, Cambridge, United Kingdom, ³The Irish Longitudinal Study on Ageing, Trinity College Dublin, Dublin, Ireland

Objectives: Behavioural and psychological symptoms (BPS) are common in the demented and non-demented older population and may be an indication of early dementia. We explored the predictive effect of the presence of BPSD on the 2-year progression to dementia in a cognitively impaired population aged 65 and over without dementia at baseline.

Methods: The Medical Research Council Cognitive Function and Ageing Study is a longitudinal study of ageing representative of the population aged 65 and over of England and Wales. 12 symptoms were measured in 2,024 participants without dementia at baseline. Symptoms included depression, apathy, anxiety, feelings of persecution, hallucination, agitated behaviour, elation, irritability, sleep problems, wandering, confabulation and misidentification. The number of BPS was scored and four categories were defined: 0, 1, 2-3 and 4 or more BPS. The odds of progression to dementia for each individual BPS and number of BPS in those with MMSE score 0-26 were investigated with multivariate logistic regression, stratified by general cognitive function and adjusting for socio-demographic factors, cognitive function and health factors

Results: Wandering and persecution were independently associated with progression to dementia after adjustment for socio-demographic factors, cognitive domains and other BPS. When stratifying by cognitive function, those with low cognition (MMSE 0-18) and 4 or more BPS were more likely to progress to dementia than those without BPS.

Conclusion: We have shown that some psychiatric symptoms are associated with increased short-term progression to dementia in those with low cognition. The predictive effect of BPS in dementia progression could potentially have implications for risk stratification of those at high risk of progression to dementia, but further studies are needed to establish how non-cognitive symptoms can be used alongside memory, other cognitive impairment and health variables.

Disclosure of Interest: None Declared

OC032

THE PREVALENCE OF BEHAVIOURAL AND PSYCHOLOGICAL SYMPTOMS OF DEMENTIA IN RURAL TANZANIA

S.-M. Paddock^{1,2,*}, A. Longdon³, A. Kisoli⁴, C. Dotchin^{5,6}, W. K. Gray⁶, F. Dewhurst⁶, M. Dewhurst⁷, A. Teodorczuk⁶, R. Walker⁶

¹Institute of Neuroscience, Newcastle University, Newcastle Upon Tyne, ²Hadrian Clinic, Northumbria Tyne and Wear NHS Trust, Newcastle upon Tyne, ³South Devon Healthcare Trust, Exeter, United Kingdom, ⁴Hai District Hospital, Boma'ngombe, Tanzania, United Republic of, ⁵Institute of Ageing and Health, Newcastle University, Newcastle Upon Tyne, ⁶Northumbria Healthcare Trust, North Shields, ⁷Northumbria Healthcare Trust, Newcastle Upon Tyne, United Kingdom

Objectives:

Behavioural and psychological symptoms of dementia (BPSD) are common in Western countries, and recognised as a major contributor to disease burden and caregiver strain. There is little data on the prevalence and manifestations of BPSD in sub-Saharan Africa, despite evidence that the prevalence of dementia is set to rise due to demographic transitions.

Our aim was to estimate the prevalence and pattern of BPSD symptoms and associated caregiver distress in rural Tanzania.

Methods:

Prevalent cases of dementia (aged 70 and over) were identified during a community based door-to-door study in six rural villages in Tanzania. Following cognitive screening, all 'probable dementia' cases, 50% of 'possible dementia' cases and 5% of 'no dementia' cases underwent a detailed clinical assessment.

The 12 item neuropsychiatric inventory (NPI-Q) assesses BPSD and associated caregiver distress over the preceding 30 days and was administered as part of clinical assessment.

75 individuals with dementia by DSM-IV clinical criteria were identified. NPI-Q data was compared to that obtained from 163 individuals assessed as having no dementia following clinical assessment. Individuals with mild cognitive impairment (MCI) or other psychiatric diagnoses such as schizophrenia were excluded from the analysis .

Results:

Of the 75 dementia cases, at least one current BPSD symptom was reported in 88% compared to 60% of the 163 'no dementia' cases. There was a significant difference in total number of symptoms (Mann-Whitney U = 3926.0, Z=-4.519, p< 0.001 2 tailed), total severity score (U = 3884.5, Z = -4.576, p< 0.001 2 tailed) and total caregiver distress score (U=4065.5, Z= -4.208, p<0.001 2 tailed) between individuals diagnosed with DSM-IV dementia and those without.

In dementia cases, the most frequent symptoms reported were anxiety (46.7%), agitation (37.3%), night time behavioural disturbance (34.7%), irritability (33.3%) and depression (32.0%). These matched the symptoms reported as most distressing by the caregivers. 50% of cases reported three or more BPSD.

Conclusion:

The frequency of BPSD in dementia in this rural Tanzanian population is high and comparable to that from Western prevalence studies. This is likely to have a significant impact on quality of life for people with dementia and their carers in settings where specialist advice and interventions are not available.

Disclosure of Interest: None Declared

OC033

A SYSTEMATIC REVIEW OF THE QUALITY AND REPORTING STANDARDS OF LONGITUDINAL BIOMARKER STUDIES IN DEMENTIA AND RECOMMENDATIONS

C. W. Ritchie^{1,*}, L. Flicker², A. Noel-Storr³, R. McShane³

¹Cochrane Dementia and Cognitive Improvement Group, Imperial College London, London, United Kingdom,

²University of Western Australia, Perth, Australia, ³Cochrane Dementia and Cognitive Improvement Group, University of Oxford, Oxford, United Kingdom

Objectives: For licensing purposes, the FDA suggested in 2008 that the gold standard against which imaging biomarkers is assessed should be histopathology. However, there is frequent discordance between histopathology and symptoms. The perspective of patients and purchasers of healthcare is focused on symptoms. This is reflected in the widespread use of 'progression from MCI to dementia' as a complementary, clinically meaningful gold standard. The AAA and NIA's proposed new diagnostic criteria incorporates biomarkers for Alzheimer's disease. The Cochrane Dementia Group systematically reviewed the literature on biomarker use for diagnostic prediction of Alzheimer's disease and other dementias in mild cognitive impairment.

Methods: MEDLINE was searched from 2000 to 2011 and results screened for inclusion criteria: 1. Biomarker of interest used (abeta, tau, PET, or sMRI); 2. MCI at baseline; 3. Longitudinal design. From each potentially relevant paper, the following was extracted: Numbers with MCI at baseline; confirmation of longitudinal aspect; numbers who "converted" to dementia; whether it included data from which the test's diagnostic sensitivity and specificity could be calculated. Each study underwent QUADAS and STARD assessments, evaluating methodology and reporting.

Results: Key results: 142 studies, from 19104 references, met the inclusion criteria; 2. From papers clearly reporting it, the total number diagnosed with MCI at baseline who converted to clinical dementia was 3428 across biomarkers considered; 3. Around half clearly reported diagnostic test accuracy data on conversion to dementia over time (though follow-up times varied greatly); 4. In 63% it was unclear whether decisions about conversion to dementia were made without knowledge of scan/test; 5. From all studies of PET based amyloid imaging that reported conversion, total number converting was 61.

Conclusion: Critical evaluation of the evidence base for biomarkers is of major importance to the field of dementia. Without it, there is a risk that future clinical care and research will be built on assumptions about diagnostic validity which are wrong. On the basis of our experience of systematically reviewing this literature, and because systematic review require well operationalised definitions of study quality, we sought to tailor the STARD criteria specifically for dementia diagnostic tests.

Disclosure of Interest: None Declared

OC034

CORTICAL CHANGES ASSOCIATED WITH DEPRESSION IN ALZHEIMER'S DISEASE: SURFACE-BASED MRI MORPHOMETRIC STUDY.

A. Lebedev^{1,*}, D. Aarsland¹, M. K. Beyer²

¹Psychiatry, ²Stavanger University Hospital, Stavanger, Norway

Objectives: Depression is common in Alzheimer's disease (AD) with important clinical implications, but the etiology is not known. Here we investigate structural cortical changes associated with Depression in AD;

Methods: People with mild probable AD according to NINCDS-ADRDA criteria from three centres in Western Norway were included and underwent comprehensive clinical assessment. Montgomery-Åsberg Depression Rating Scale (MADRS) and the depression subitem of the Neuropsychiatric Inventory (NPI-d) were used to evaluate depression. A battery of neuropsychological tests was administered. Only those with a Mini-Mental State Examination score of 20 or more were included.

45 images were collected from two 1.5 Tesla MRI machines with harmonized protocols using T1-weighted rapid three-dimensional gradient-echo technique (MP-RAGE) and afterwards underwent automatic preprocessing steps for white and grey matter surface reconstruction in software Freesurfer. As a result three different measurements were provided for the subsequent analysis: cortical thickness, sulcus depth and curvature.

After the preprocessing three General Linear Models (for each measurement) were implemented to investigate changes associated with Depression;

Results: Mean [\pm SD] age was 76 \pm 6,55, 23,7% were male and mean MMSE score was 24,18 \pm 3,25.

We revealed a number of cortical changes associated with depression. Thus, negative correlation between MADRS scores and cortical thickness was found in lateral frontal and parietal areas ($p < 0.05$), whereas positive correlation was identified in left dorsal anterior cingulate and angular regions.

Conclusion: Depression was associated with abnormalities in frontal and parietal cortices. These findings in some ways overlap with changes identified in other age-related disorders as well as in properly affective disorders like Major Depression and suggest unity of depression pathogenesis across disorders especially in old age.

Disclosure of Interest: None Declared

OC035

DIET, NEUROIMAGING BIOMARKERS AND ALZHEIMER'S DISEASE: DATA FROM THE AUSTRALIAN IMAGING, BIOMARKERS AND LIFESTYLE STUDY OF AGEING

S. Gardener^{1,2}, S. R. Rainey-Smith^{1,2}, Y. Gu³, K. Taddei^{1,2}, S. M. Laws^{1,2}, V. B. Gupta^{1,2}, D. Ames^{4,5}, K. A. Ellis^{4,5,6}, R. Head⁷, S. L. Macaulay⁸, C. L. Masters^{6,9}, C. C. Rowe¹⁰, C. Szoek⁸, P. M. Clifton^{11,12}, J. B. Keogh¹³, N. Scarmeas³, R. N. Martins^{1,2,14,*} and the AIBL Research Group.

¹Centre of Excellence for Alzheimer's Disease Research and Care, School of Medical Sciences, Edith Cowan University, Joondalup, ²McCusker Alzheimer's Research Foundation, Perth, Australia, ³Department of Neurology, Columbia University, New York, United States, ⁴National Ageing Research Institute, Parkville, ⁵Academic Unit for Psychiatry of Old Age, Department of Psychiatry, The University of Melbourne, St. Vincent's Aged Psychiatry Service, St George's Hospital, Victoria, ⁶Mental Health Research Institute, The University of Melbourne, Parkville, ⁷CSIRO, Preventative Health, Adelaide, ⁸CSIRO, Preventative Health Flagship, CMSE, ⁹Centre for Neuroscience, The University of Melbourne, Parkville, ¹⁰Department of Nuclear Medicine & Centre for PET, Austin Health, Heidelberg, ¹¹Department of Medicine and Department of Biomedical Science, University of Adelaide, ¹²Nutritional Interventions, Baker IDI Heart and Diabetes Institute, ¹³Sansom Institute for Health Research, Division of Health Sciences, University of South Australia, Adelaide, ¹⁴School of Psychiatry and Clinical Neurosciences, University of Western Australia, Perth, Australia

Objectives: Alzheimer's disease (AD) is the most common form of senile dementia and currently affects over 28 million people worldwide. Due to an increase in life expectancy and subsequent increase in ageing populations, this figure is predicted to rise to more than 90 million by 2050. It is hypothesised that current AD therapies are ineffective because they are administered late, when the disease process is advanced. Earlier detection combined with intervention strategies could reduce disease effects. Indeed, it has recently been predicted that a modest one year delay in AD onset could reduce the number of cases predicted for 2050 by over 10%. Diet represents one potential intervention strategy accessible to all. The Mediterranean diet (MeDi), due to its correlation with a low morbidity and mortality for many chronic diseases, has been widely recognised as a healthy eating model. In fact, recent reports suggest that adherence to the MeDi may affect not only the risk of AD, but also of pre-dementia syndromes and their progression to overt dementia. However, the investigation of dietary factors, AD risk and disease course, is a relatively young field of research and there is a critical need for data collected from a well-characterised ageing cohort; our aim is to address this deficit.

Methods: Our work reports data collected from the Australian Imaging, Biomarkers and Lifestyle (AIBL) Study of Ageing; a cohort that has garnered international attention. Food frequency questionnaires were used to evaluate the intake of foods and beverages including components reported as potentially beneficial for AD and cognition. These measures were then analysed in conjunction with Pittsburgh compound B positron emission tomography (PiB-PET), magnetic resonance imaging (MRI), blood biomarker, and cognitive data collected from the participants.

Results: Our findings suggest that in an Australian population, MeDi is associated with a protective effect. Furthermore, for the very first time, we demonstrate a strong association between MeDi adherence and amyloid accumulation in the brain.

Conclusion: To our knowledge this represents the most comprehensive study of its kind, and the first to assess the relationship between PiB-PET-determined amyloid burden and diet.

Disclosure of Interest: None Declared

OC036

IMPAIRED THALAMUS CONNECTIVITY PATTERN IN ALZHEIMER'S DISEASE AND MILD COGNITIVE IMPAIRMENT: A RESTING STATE FMRI STUDY

B. Zhou ^{1,*}, Y. Liu ², X. Zhang ¹, L. Wang ¹ and Cognitive Disorder Diagnosis Work Group of Chinese PLA General Hospital

¹Department of Neurology, Institute of Geriatrics and Gerontology, Chinese PLA General Hospital, ²LIAMA Center for Computational Medicine, National Laboratory of Pattern Recognition, Institute of Automation, Chinese Academy of Sciences, Beijing, China

Objectives: To study whether the functional connectivity (FC) pattern of thalamo-cortical network in patients with Alzheimer's disease (AD) and mild cognitive impairment (MCI) of FC follows the disease-severe related alteration.

Methods: In the present study, resting state functional MRI data were obtained from 30 patients with AD, 26 patients with MCI and 26 subjects with normal cognition (NC). Firstly, the altered functional connectivity pattern in AD was evaluated by comparing to NC. Secondly, the MCI subjects were involved so that to evaluate how different illness stage affect the functional connectivity pattern of thalamus. Finally, a correlation analysis was performed between the strength of FC of the identified regions and various clinical variables so as to evaluate the relationship between the strength of FC and the cognitive abilities of the MCI and AD patients

Results: Compared with NC, AD patients showed decreased FC between the left thalamus and several regions of brain including right posterior/middle cingulate cortex (PCC/MCC.R), left medial prefrontal cortex (MPFC.L) and right superior frontal gyrus / medial prefrontal cortex (SFG/MPFC.R). For the right thalamus, decreased FC was found in SFG/MPFC.R, PCC/MCC.R and right hippocampus (Hip.R). We also found increased FC between the bilateral thalamus and many regions of brain including inferior temporal gyrus (ITG), medial temporal gyrus (MTG), SFG, postcentral gyrus (PoCG), paracentral lobule (PCL), inferior frontal gyrus (IFG) and insula (INS). A similar FC map was presented when MCI subjects were involved in the following analysis. Significant correlation between the fitted FC strength and clinical variables were also detected.

Conclusion: Reduced FC in AD/MCI group may indicate impaired default network and correlate with poorer cognitive function of AD/MCI. Increased FC may indicate the presence of a compensatory mechanism. The results support the hypothesis of disconnection substrate in AD.

References: Aggleton, J.P., O'Mara, S.M., Vann, S.D., Wright, N.F., Tsanov, M., Erichsen, J.T., 2010. Hippocampal-anterior thalamic pathways for memory: uncovering a network of direct and indirect actions. *Eur J Neurosci* 31, 2292-2307.

Wang, Z., Jia, X., Liang, P., Qi, Z., Yang, Y., Zhou, W., Li, K., 2011. Changes in thalamus connectivity in mild cognitive impairment: Evidence from resting state fMRI. *Eur J Radiol*.

Disclosure of Interest: B. Zhou Grant/Research Support from: Natural Science Foundation of China (No. 60831004), Y. Liu Grant/Research Support from: the National High Technology Research and Development Program of China (863 Program, 2009AA02Z302), X. Zhang: None Declared, L. Wang: None Declared

OC037

THREE YEAR FOLLOW UP RESULTS FROM THE AUSTRALIAN IMAGING BIOMARKERS AND LIFESTYLE STUDY OF AGEING

D. Ames^{1,*}, K. Ellis², C. Masters³, R. Martins⁴, C. Rowe⁵, C. Szoek⁶, L. Macauley⁷, T. O'Meara⁷, A. T. A. investigators⁷, S. Rainey Smith⁸, K. Taddei⁸

¹National Ageing Research Institute, Royal Melbourne Hospital,, ²Psychiatry, University of Melbourne, ³Director, Mental Health Research institute, Parkville, ⁴Director, MCusker Research Institute, Perth, ⁵Austin PET centre, Austin Hospital, Heidelberg, ⁶NARI, ⁷CSIRO, Parkville, ⁸McCusker AD research Foundation, Edith Cowan University, Perth, Australia

Objectives: To enhance knowledge about the nature, pathophysiology and course of emergent Alzheimer's disease with specific reference to improving pre-symptomatic disease diagnosis

Methods: 1112 volunteers (211 with Alzheimer's disease (AD), 133 with Mild Cognitive impairment (MCI) and 768 cognitively healthy controls (HC)) were assessed at baseline, 18 months and 3 years with a comprehensive 2 hour cognitive battery, demographic, health and medication data were collected, 80 ml of blood was drawn, lifestyle, diet and other questionnaires were completed and 288 subjects underwent serial brain amyloid imaging with PiB PET.

Results: 90% of the cohort were reassessed at 18 months and a further 10% were lost through attrition at 3 years. Of MCI subjects who were amyloid scan PiB positive, 74% developed Alzheimer's disease after 3 years whereas only 10% of scan negative MCI subjects did so. Plasma amyloid levels were not strongly predictive of an AD diagnosis. Plasma APOE levels were related to diagnostic category. Intense exercise correlated with better cognitive function and a more favourable A beta 40/42 ratio in plasma. Concerns about memory among HC subjects were best predicted by affective status (presence of depressive symptoms).

Conclusion: This cohort represents a unique and fruitful resource for AD research and has yielded over 21 peer reviewed publications to date. Up to date results will be presented in March

References: -

Disclosure of Interest: None Declared

LD3

LIVING WITH DEMENTIA - LIFE STORY. THE "PORTRAIT OF A LIFE" TOOLKIT

DEVELOPED BY SOUTH WEST YORKSHIRE PARTNERSHIP NHS FOUNDATION TRUST COLLABORATIVE.

PRESENTERS: SUZANNE WIGHTMAN - SENIOR MANAGER AND PETER J S ASHLEY - PATRON

This multimedia toolkit was developed some 2½ years ago with the aid of award funding from the Mental Health Foundation; it was then launched in 2010. This was achieved by obtaining one of the awards from over 300 applicants. Well over 150 of these toolkits have been sold to Care Homes and other Health and Social Care establishments for providing intellectual stimulation for people with dementia (also learning disabilities and other form of mental illness) along with their carers, both family and professional. These toolkits are in use in the following countries and regions, the UK, Europe, North America, Australasia and the Far East. A new and revolutionary follow-up and complimentary system is in the final stages of development which will be launched in the near future.

'Portrait of a Life' is innovative, supporting individuals, family carers and care staff to undertake life story work; it contains a variety of training materials and resources in a range of multimedia formats. It helps understand the importance of life story work including; the evidence base, the risks and the benefits, consent and ethics and how to sustain life story work in practice. Individuals with experience of life story work have provided expert contributions to the toolkit, the presenters and a small dedicated and experienced team of practitioners along with contributions from academic leads such as Professor Dawn Brooker, Dr Graham Stokes, Professor Mike Nolan and Toby Williamson. The models promoted within the toolkit support the user to understand person-centred care and relationship-centred care in addition to the CARER model which promotes working in partnership with the individual and their families to explore life histories and develop a life story for the future; it provides intellectual stimulation for the person with dementia.

Additionally, the toolkit can be used by organisations or academic institutions to provide practical and theoretical training and education in an accessible format.

© South West Yorkshire Partnership NHS Foundation Trust and P J S Ashley

LD4

Hungarian special teacher psychiatrist and autodidact futurist: Living with AD since 2006

István Kappéter

It seems that my brain has large reserves for replacing damaged functions. I inherited from my many ancestors the necessary skills to live an innovative life. I grew up in two loving families, I have thought independently since childhood (as Ciompi). During the communist era I was “declared” alien to the ruling working class, thus I had to work a lot and to change my duties.

I had pseudo-hallucinations of bizarre heads since 1995. I did not know then, that this is the sign of Léwy body type dementia.

In March, 2005 me and my wife often recognized my severe mistakes in recalling simple names, putting in order the data and orientation in new places. We urgently consulted excellent specialists of AD. Their examinations, typical brain abnormalities on MRI, and psychological examination proved very probable the AD. I'm taking cholesterinaze inhibitor daily, since April 2005. I learned to use tools to help me cope with difficulties.

My loving wife ensures that I continue to find pleasure in life. She learned how to treat me, and is willing to face all difficulties. My colleagues at work like me and help me when I am not quick enough. I win publishers to publish my writings easier than before, when I stated many strange opinions – and was not modest and thorough enough.

I joined the Hungarian Alzheimer Society and together with Chairwoman Eva Himmer, we try to convince, particularly the professionals, of the urgent need to examine people who lose ability of quick recalling and orientation. If a “mild cognitive impairment plus” is diagnosed, it should be treated without delay. We also teach the relatives coping methods.

OC038

DOES IMPROVEMENT IN QUALITY OF CARE LEAD TO BETTER QUALITY OF LIFE? - RESULTS FROM A LONGITUDINAL STUDY IN GERMAN SHARED-HOUSING ARRANGEMENTS

K. Wolf-Ostermann^{1,*}, A. Worch¹, S. Meyer¹, J. Gräske¹

¹Alice Salomon University Berlin, Berlin, Germany

Objectives: Shared-Housing Arrangements (SHA) are a specific German kind of small-scale living facilities for elderly care-dependent persons with dementia, being served by community care services and disconnected from residential facilities. It is often claimed that SHA are beneficial to people with dementia and Quality of Life (QoL) is seen as a major outcome. We investigate if a guided quality development process in SHA leads to verifiable improvement of residents' QoL.

Methods: Using a longitudinal experimental design, residents of SHA in Berlin/Germany were surveyed for one year: at baseline and follow-up after 12 months. In total, 104 residents in 36 SHA were included into the study. We used a cluster-randomised design with the "interventional" group of SHA being guided through a quality developing process. Face- to-face interviews with residents and nursing staff were used to assess outcomes. Primary outcomes included proxy-rated dementia-specific QoL (QUALIDEM), secondary outcomes – besides socio-demographic data – cognitive (MMSE) and physical functioning (Extended Barthel Index).

Results: Residents in SHA are mostly female (73%) with a mean age of 79 years, living in SHA for nearly three years on average. At baseline the mean MMSE of all residents was about 11.5 points (out of 30) and nearly 90% have a severe stage of dementia (GDS ≥ 6). QoL assessed showed moderate to high results (67 points out of 100 on average), showing a negative correlation with severity of dementia. No statistically significant differences between intervention and control group could be established concerning neither physical and cognitive functioning nor QoL at baseline. Further results will be presented concerning the development of residents' QoL during follow up.

Conclusion: Guided quality development in SHA needs to be tailored to given conditions of structural and procedural features. It should be organized decentrally in order to show substantial results in terms of physical and psychosocial health outcomes of residents. The study results will add some clarification as to whether or not claims of improvement of QoL in SHA due to quality development processes are viable.

Disclosure of Interest: None Declared

OC039

EXPLORATION OF INSTITUTIONAL DEMENTIA CARE: SOCIAL ENGAGEMENT AND THE USE OF PHYSICAL RESTRAINTS

J. Wilkie^{1,*}

¹Centennial Centre for Mental Health, Ponoka, Alberta, Canada

Objectives: Social engagement is an important indicator of quality of life. For individuals with dementia, entering an institution can accelerate their exclusion from the social world of their healthy peers (Kitwood, 1997). This study examined social engagement and physical restraint use in 72 elderly individuals diagnosed with dementia (35 males and 37 females) who were being cared for in a Canadian psychiatric in-patient setting. The specific research questions were: 1) how frequently are individuals with dementia constructively engaged, passively engaged, self engaged, or not socially engaged at all with other individuals in their environment; 2) does social engagement differ across the weekday, evening, or weekend nursing shift; and 3) which individual variables uniquely and jointly predict social engagement?

Methods: Staff completed the Bristol Activities of Daily Living Scale as a measure of activity of daily living (ADL) dependency and the Cohen-Mansfield Agitation Inventory as a measure of behavioral disturbance frequency. Physical restraint use was defined as any mechanical device attached to the body that restricts mobility or use of a limb. Direct observations of the participant's social engagement occurred on three separate nursing shifts for 15 minute time intervals. Observers used the Menorah Park Engagement Scale to gather observation data.

Results: Observation of social engagement revealed 12% constructive engagement, 5% passive engagement, 38% self engagement, and 46% non engagement. With ADL dependency set as the covariate, a repeated measures ANCOVA indicated engagement did not differ across the three shifts. Hierarchical linear regression analyses were used to show that: 1) greater independence in ADLs predicted constructive engagement but restraint use and behavioral disturbances did not; 2) physical restraint use predicted self engagement uniquely and jointly with ADL dependency and behavioral disturbances; and 3) restraint use predicted non engagement only when combined with ADL dependency.

Conclusion: This study showed that physical restraint use contributes to the social exclusion experienced by individuals with dementia. In addition, individuals with dementia who have the greatest care needs are engaged in the least amount of constructive social interactions.

References: Kitwood, T. (1997). *Dementia reconsidered: The person comes first*. Buckingham, England: Open University Press.

Disclosure of Interest: None Declared

OC040

HIGH PREVALENCE OF ANXIETY SYMPTOMS IN SPOUSES OF DEMENTED PERSONS

I. Ulstein^{1,*}, K. Kvaal²

¹Centre for Ageing and health, Oslo University Hospital, ²Mental Health Programme, Oslo University College, Oslo, Norway

Objectives: Compared to depression only few studies have been focusing on anxiety symptoms in carers of persons suffering from dementia. In this study we have compared anxiety among 76 spouses of patients in a mild to moderate stage of dementia recruited from seven memory clinics in Norway with 98 geriatric in-patients acutely admitted to a geriatric ward due to a serious somatic condition and 68 healthy controls recruited from citizen centres in Oslo.

Methods: Anxiety symptoms were assessed by means of the 12-items version of the State-Trait Anxiety Inventory (STAI-X-1). Demographics such as age, gender, educational and occupational status of the three groups were also collected.

Results: The mean age was 79.8 (SD 6.10). The females reported more anxiety symptoms compared with the males, however not a significant difference, mean 21.3 (SD 7.85) and 19.6 (SD 6.99), $p=0.08$, respectively. When comparing the two groups of elderly, we found no significant differences in reported anxiety according to the STAI between the spouses of demented patients (mean 22.45 (SD 7.43)) and the geriatric in-patients (mean 23.4 (SD 7.60)). When exploring possible explanatory factors for anxiety among spouses of demented patients, the only factors that seemed to explain the level of anxiety was the carer being a wife and the amount of neuropsychiatric symptoms of the patient, whereas the cognitive decline as well as the ADL-dysfunction did not contribute to the explanation of state anxiety.

Conclusion: Anxiety symptoms are prevalent in elderly people facing stressful events such as serious somatic illnesses or living in a household with a partner suffering from dementia. As anxiety may have a negative impact on the spouse's capacity of giving care to the demented partner, anxiety symptoms should be taken into consideration when developing interventions for carers.

Disclosure of Interest: None Declared

OC041

QUALITY OF LIFE IN SMALL-SCALE, HOMELIKE CARE ENVIRONMENTS: A QUASI-EXPERIMENTAL STUDY INTO EFFECTS ON RESIDENTS.

H. Verbeek^{1,*}, S. Zwakhalen¹, E. van Rossum¹, G. Kempen¹, J. Hamers¹

¹CAPHRI; department of Health Services Research, Maastricht University, Maastricht, Netherlands

Objectives: Long-term care for people with dementia is increasingly organized in small-scale and homelike care settings. This cultural change emphasizes values such as wellbeing, preserving autonomy, enabling residents to maintain their own lifestyle. In many countries, small-scale, homelike care settings have been developed. Despite this expansion, relatively little is known about effects of these environments on residents. Therefore this study investigates effects on residents' quality of life (QoL) and neuropsychiatric symptoms.

Methods: This study was conducted in the Netherlands and used a longitudinal, quasi-experimental design with three measurements: at baseline and follow-ups after 6 and 12 months. Residents (n=125) living in 28 small-scale, homelike care environments were compared with residents (n=135) living in 21 regular wards in traditional nursing homes. A matching procedure was performed to increase comparability of residents' groups at baseline regarding cognitive and functional status.

Results: Multi-level analyses showed no effect of care setting on total QoL. However, group effects were found on two subscales, scored by nursing staff. Residents in small-scale living had a higher QoL regarding having something to do and a lower QoL regarding negative affect than residents in regular wards. Furthermore, total QoL as scored by family caregivers was slightly higher for residents in small-scale living than in regular wards, although not significant. Family caregivers scored that residents in small-scale living had a higher QoL regarding feeling at home, having something to do and social relations. Finally, no effects were found on neuropsychiatric symptoms in total. Residents in small-scale, homelike care settings displayed more agitation after 12 months compared with regular wards.

Conclusion: No convincing overall effects were found on the primary outcome measures QoL and neuropsychiatric symptoms. Small-scale, homelike care environments are the result of a changing care concept that has been developed during the past decennia's in health and dementia care, in which quality of life and wellbeing have a prominent place. This has stimulated changes in institutional care for people with dementia in a positive way. However, for effective implementation in daily practice, more knowledge is needed on active ingredients of care settings and how they exert their effects.

Disclosure of Interest: None Declared

OC042

RENAMING DEMENTIA IN JAPAN: THE CHANGE PROCESS AND ITS INFLUENCE

M. Miyamoto^{1,*}, D. R. George², P. J. Whitehouse³

¹National College of Nursing, Tokyo, Japan, ²Penn State College of Medicine, Pennsylvania, ³Case Western Reserve University, Cleveland, United States

Objectives: In the English language, the word “dementia” was introduced in the mid-1800s to refer to the mind-wasting changes associated with aging. The labels that are used to describe age-related cognitive changes are important because of their potential to stigmatize affected individuals. Usage of the word “dementia” has changed in the past and will likely change in the future. The previous Japanese name of dementia was *chihō*, which carries a negative connotation and a tone of insult (e.g. foolish and absent-minded). In 2004, the label for dementia was officially changed in Japan. The aim of this presentation is to examine the process of how the new name for dementia was agreed upon and explore the influence, focusing on the Alzheimer's Association Japan (AAJ).

Methods: We examined government reports, the documents of organizations, news media reports, public opinion polling, and other related articles.

Results: The Ministry of Health, Labour and Welfare (MHLW) established an expert panel and held its first session in June 2004. The MHLW conducted the public opinion survey and over 6300 opinions were collected. The top three most desired name-changes were *ninchi-shōgai* (cognitive dysfunction), *ninchishō* (cognitive syndrome), and *kioku-shōgai* (memory syndrome) with 22.6%, 18.4%, and 13.6% of the votes respectively. In the free comment section, over 525 possible names were proposed by the public. The panel discussed the results and consequently, *ninchishō* was approved as the new name for dementia in December 2004.

The AAJ is the primary association of family caregivers of persons with dementia in Japan and one of the first associations to publicly express its opinions about *ninchishō*. The AAJ discussed and invited opinions from its members regarding the new name for dementia. In 2005, the AAJ decided to change the association's name. A public awareness campaign has been launched to spread knowledge about dementia in order to broaden public understanding.

Conclusion: Various opinions were considered during the process of changing the Japanese name for dementia. Changing the term and additional initiatives facilitate a deeper understanding of the realities faced by persons with dementia.

Disclosure of Interest: None Declared

OC043

TAKING AN ACTIVE PART IN DECISIONS AFFECTING MY LATER LIFE: AN ADVENTURE

L. Jackson ^{1,*}

¹Past President, Dementia Advocacy and Support Network International, Richmond, Canada

Objectives: What will happen when healthcare professionals are confronted with large numbers of patients diagnosed with a variety of dementias who want to be actively involved in their treatment.

Methods: In this presentation Lynn Jackson will help you get a glimpse as to what this future might be.

At 45, Lynn was diagnosed with Frontotemporal Dementia in 1999, and since then has been deeply involved in documenting her experiences and organizing others to be more effective participants in their therapies.

Results: For her a major discovery was that becoming actively engaged with her own treatment had significant beneficial results -- not just in ensuring her Advance Directives would be followed -- but that the engagement itself was slowing down the disease.

Conclusion: Lynn will speak about the "DASNI effect" as well as the benefits of Advance Directives, Representation Agreements and Living Wills, from personal experience.

Disclosure of Interest: None Declared

OC044

ALZHEIMER EXPERIENCE- MARCO OUWEHAND, MARCO BLOM

M. Ouwehand^{1,*}, M. Blom¹

¹Martha Flora Huizen, Amsterdam, Netherlands

Objectives: Scientific research shows that core problem in caring for people with dementia is the lack of awareness of the gap between the real world and the perception of reality of the person with dementia. Professionals, caregivers and family members have difficulty communicating and establishing caring relationships. To overcome this lack of awareness and to bridge this gap, the Alzheimer Experience has been developed. The Alzheimer Experience is a free, online, interactive and high quality media production that follows the life of two people with Alzheimer. The storyline is built up around 22 intense scenes, that each focus on experiences that are typical for people with Alzheimer's. The scenes have a high emotional content, ensuring a large impact on the viewer.

The Netherlands Institute for Mental Health and Addiction and Alzheimer Nederland have researched the experiences of patients based on the Global Deterioration Scale (GDS) and made a classification of five domains:

- experiencing your own (im)possibilities;
- becoming dependent;
- changing social contacts;
- experiencing (in)security;
- changing perception of reality.

The Alzheimer Experience has a unique feature: it is multi-perspective. At any given time, the viewer can choose the perspective of any person within a scene, including the patient with Alzheimer's. To accentuate the patient's different perception of reality, the Alzheimer Experience uses Rotoscope animation. In every scene, the user can get factual explanation by GP (role played by an actor) on what happens in the scene and how it relates to the disease. To complement this explanation, a more detailed database with information on Alzheimer's disease is also available within the Alzheimer Experience.

The Alzheimer Experience is introduced in the Netherlands on 30 May 2011 and has already attracted over 150.000 viewers. The average viewing time is 26 minutes. Several education programs have been introduced to sustain the acquired insights with both professional and informal caregivers and assist them in the transfer to better behavior. Alzheimer Experience as a company is currently investigating possibilities for international rollout.

Disclosure of Interest: None Declared

OC045

GENERAL PRACTITIONERS' PERCEPTIONS OF DEMENTIA AS A STIGMA AND THEIR PERCEPTIONS OF LAY PEOPLE'S PERCEPTIONS OF DEMENTIA AS A STIGMA: IMPLICATIONS FOR ACTION

D. Gove^{1,2,*}, M. Downs¹, M. Vernooij-Dassen³, R. Newell⁴

¹University of Bradford, Bradford, United Kingdom, ²Alzheimer Europe, Luxembourg, Luxembourg, ³Radboud University Nijmegen Medical Centre, Nijmegen, Netherlands, ⁴School of Health Studies, University of Bradford, Bradford, United Kingdom

Objectives: Timely diagnosis is beneficial to people with dementia and their carers yet is often not made. General practitioners (GPs) play a key role as the gateway to timely diagnosis. Stigma has been cited as a possible barrier. Little research explores the extent to which GPs' perceptions of dementia correspond to the components of stigma. No research has explored GPs' perceptions of lay people's perceptions of dementia as a stigma. The purpose of this paper is to compare and contrast GPs' perceptions of dementia and those they believe lay people to have within the context of stigma theory.

Methods: Semi-structured telephone interviews were conducted with a purposive sample of 23 GPs in the north of England. Data were analysed using directed content and framework analysis and Atlas.ti was used to manage the data. The trustworthiness of the data was ensured by having an independent person code a proportion of data and by seeking respondent validation.

Results: GPs' perceptions of dementia and those they see lay people to have were both similar and different. Similarities include seeing dementia as arousing fear, particularly existential anxiety. Differences were found with respect to stereotyping in that while GPs recognised dementia encompassed a spectrum from minimal to severe impairment, they believed lay people saw dementia as being solely end stage dementia. Furthermore, GPs perceived that lay people with dementia were discriminated against in healthcare but felt that lay people did not perceive dementia as leading to discrimination.

Conclusion: GPs' perceptions of dementia are both similar to and different from those they believe lay people to have. They are similar in terms of emotional reactions (existential anxiety in particular). The implications of this are that awareness raising and training campaigns should address such fears in both groups. They are different with respect to stereotyping and discrimination. The implications of this are that GPs may need information and reassurance about current practices within the healthcare system. Educational tools should be made available to GPs which they can use with patients to help challenge stereotypes. At the level of research, the results of this study suggest the need to test these findings on a larger scale.

Disclosure of Interest: None Declared

OC046

DEMENTIA FACES IN TOGO: WHAT CAN WE DO TO OVERCOME THESE REALITIES?

A. Kokou^{1,*}

¹Noncommunicable Diseases, Ministry of Health, Lomé, Togo

Objectives: In most publications, dementia is considered to be rare in developing countries. If this is true in other countries, Dementia is not rare in Togo but simply Symptoms of dementia were not considered as a disease but as a normal part of ageing or a metaphysical process and has not been studied.

In fact, Dementia is a public health and human right concerns in Togo, not for its estimated burden (prevalence data not available) but because of the importance of all related stigma which affects negatively people with dementia.

Dementia is a real human right concern in Togo. Depending on the circumstances, people living with dementia are abused or excluded from everyday activities. When Dementia symptoms seem to be not normal for the communities, there are considered to be metaphysical ones. In these cases, people living with dementia are interned in convents or prayer centers to be exorcized. Sometimes they are mistreated in the community. This sad situation is more related to dementia associated with disorientation syndrome. In fact, those who get disorientated, are often considered to be a witch and are mistreated, hitting, burned till sometimes they lost their life.

Dementia is a real public health concerns in Togo. The prevalence of dementia risk factors is rising among Togolese population. In fact the life expectation in Togo was evaluated at 62, 5 years in 2010. The results of the recent WHO STEPS Survey on non communicable diseases risk factors conducted in 2010 are very alarming.

We need urgently to “bring out Dementia from the darkness” in which it is currently in Togo by raising awareness, by conducting researches to have a database on which policies and strategies can be developed.

Disclosure of Interest: None Declared

OC047

THE STIG-MA SURVEY: A STUDY OF SOCIAL REPRESENTATIONS AND STIGMA OF ALZHEIMER'S DISEASE IN A FRENCH RURAL POPULATION

L. Cartz Piver^{1,*}, A. Faure², P. Nubukpo¹, H. Videaud¹, N. Dumoitier², P. Couratier¹, J. P. Clement¹

¹University Memory Clinic, ²University Medical School, Limoges, France

Objectives: Alzheimer's disease AD is often diagnosed at an advanced stage though early diagnosis is important to get better treatment and care. Negative social representations of AD can influence people's attitudes towards screening and seeking assistance. The STIG-MA survey describes social representations and stigma in a French rural population.

Methods: The STIG-MA questionnaire was filled out anonymously by people attending an information campaign about AD in Creuse, France in September 2010. The questionnaire included ten questions from an international scale EMIC that explores stigma. Stigma scores were compared in different age groups, professions and according to people's concerns. The impact of the campaign on stigma was studied.

Results: Among 1560 people who attended the AD campaign, 500 filled the questionnaire (33%). They were mostly women (85%). 59% were aged under 50 and 10% were aged over 75. 21% worked in medical or social fields, the others (79%) were considered general public. The concerns expressed were professional (48%) or for their family (41%) or personal (11%). Professionals in medical fields expressed higher stigma than did general public ($p = 0.02$). There was no link to age or reason of concern. Three stigma score groups (high H, average A or low L) were compared: L stigma was most important in the elderly ($p=0.05$). People expressed strongly negative emotions such as shame, loss of self-esteem, and fear of exclusion. Faith in family support was high. The campaign had more impact on general public than on professionals ($p= 0.02$).

Conclusion: The STIG-MA survey confirms that AD is a stigmatizing condition in rural France. Low perceived stigma was expressed the most in the elderly, who are the most exposed to AD. Health professionals expressed more perceived stigma than the general public. Negative representations probably influence these professionals' attitudes towards screening and early diagnosis.

References: 1. Pin Le Corre S : *Le regard porté sur la maladie d'Alzheimer : Résultats de trois études pour mieux connaître la maladie*. INPES, Paris, décembre 2008.

2. Weiss MG et al.: *The Explanatory Model Interview Catalogue (EMIC): Contribution to cross-cultural research methods from a study of leprosy and mental health*. Br J Psychiatry 1992, Jun;160:819-30.

Disclosure of Interest: None Declared

OC048

SLAYING THE DEMENTIA DRAGON: ALZHEIMER ORGANISATIONS RESPONDING TO STIGMA AND SOCIAL ISOLATION

G. McGettrick^{1,*}

¹The Alzheimer Society of Ireland, Dublin, Ireland

Objectives: Stigma, regardless of its origins, creates fear, shame, social isolation, discrimination and perceptions of negativity. The stigma associated with dementia has significant impact on the way people with dementia live their lives. Stigma assigns the person with dementia to a 'new social group' associated with devaluation, mistreatment, social exclusion and loss of status. So how can the stigma associated with dementia be addressed? What role do Alzheimer organisations play in addressing stigma in dementia?

There is a moral imperative on us as Alzheimer organisations to take action to tackle stigma. We have to move the dementia agenda into the socio-political and economic arena and create a dementia discourse that is not just medically led. Alzheimer organisations need to enable rights-based principles to emerge in the dementia landscape providing a right to a diagnosis, a right to services and a right to be part of the mainstream community in which they live. There must be solidarity with the person with dementia and solidarity in the Alzheimer movement to address this issue. We must grow the grassroots movement, learn from people with dementia about the lived experiences and most importantly support the voice of the person to be central to dementia policy and services.

Alzheimer organisations are key agents of change. They can provide the thought leadership, create the space to enable the debate to happen, demolish the current understanding and reconstruct new meanings associated with 'dementia'. Enabling the voice of the person with dementia is core to the addressing stigma and a key way in which Alzheimer organisations can mobilise a meaningful and sustainable response. A social model of disability approach is being suggested as a potential framework to better understand dementia and challenge stigma in dementia. It shifts the focus away from the individual person to looking at how societal structures and societal responses create the stigmatisation. The 'stigma of dementia' resides not with the individual but in the broader socio-economic, attitudinal and architectural environments. Therefore, to address the issue stigma, Alzheimer organisations need to tackle these various barriers. This is certainly a challenge for all Alzheimer organisations and the Alzheimer movement as we can no longer have dementia occupying 'a dark place still'.

Disclosure of Interest: None Declared

OC049

LIVING WITHOUT THE STIGMAS OF DEMENTIA

R. Taylor^{1,*}

¹Psychology (Retired), Cypress, United States

Objectives: Hello, living with the diagnosis and symptoms of dementia is a difficult task in and of itself, without also having to live with the stigmas, myths, hoaxes, and mistruths of most all forms of dementia. Deeply, sadly, and all too real the beliefs that I am fading away, I am in the midst of the long goodbye, I will lose my soul, I will become a sufferer, I will die twice, I am losing my higher needs as I am losing my memory, when I become silent I will be a shell of myself, and many others create and feed fears of today and tomorrow in me and those who care for me. What are these stigmas? What is the basis for each of them? Who perpetuates them? How and why do they define who I am and who I will be, both in my mind and in the minds of others? Who said them first? Why do people repeat them? Sometimes to my face, most times through their nonverbal communication. What fears do they create and reinforce? Why do people who know better continue to repeat them? Francis Bacon claimed: "The words we feed our brains in order for it to understand something to a large extent define its understanding." This is especially true for those of us living with dementia. At the conclusion of this presentation, participants will be able to: Understand the differences between myths, hoaxes and mistruths. List and understand 12 of the more common stigmas associated with dementia. Better understand and appreciate how these stigmas affect most folks living with dementia. Understand the short long-term impact these stigmas create upon others and view of people living with dementia. Examine their own fears about dementia, and how stigmas create and feed these fears. Develop their own action plan to speak out about these stigmas a plan enabling them to monitor their own myths and hoaxes that hinder them from participating in a humanizing dementia care experiences with someone living with dementia.

Disclosure of Interest: None Declared

W5

10/66 Dementia Research Group

The 10/66 Dementia Research Group has been working continuously since 1998 to develop an evidence-base for policymakers and practitioners, to encourage the development of more and better care for people with dementia worldwide.

This year's symposium allows us to pause and reflect upon what we have learnt, and to receive comments and feedback from ADI's broad membership on the past and future direction of the research program.

The group's 80 publications to date have focussed upon findings from our pilot studies in 26 centres, and our population-based research studies in 12 sites in India, China, Latin America and Africa. The evidence generated has formed an important part of ADI's World Alzheimer Reports on the global prevalence of dementia, the numbers affected, and the societal impact and costs. Incidence studies in China and Latin America were completed in 2010, with findings on new cases, and risk factors now also beginning to emerge.

A new 10/66 study, funded by the UK Department for International Development and the Economic and Social Research Council (DFID/ ESRC) will be focussing on the economic impact on wider households of the onset of needs for care among older people in China, Nigeria, Mexico and Peru.

The group is also focussing, increasingly, on the need to develop and evaluate simple and helpful community-based interventions for people with dementia that do not rely upon specialists to deliver them. The 10/66 'Helping Carers to Care' intervention is a starting point, but how do we ensure that this is integrated into a widely available package of comprehensive diagnosis, assessment, care and support, across the course of the illness?

OC050

A DRUG TRIAL AS EXPERIENCED BY A PERSON WITH DEMENTIA

C. Cronk^{1,*}

¹Western Australia, Alzheimer's Australia, Perth, Australia

Objectives: My name is Carol Cronk, a person with dementia, living in Western Australia. I was diagnosed with Alzheimer's disease in 2008 at age 62. Upon diagnosis I had to deal with fears and dread I carried due to sharing my father's Alzheimer's journey at a time when no medications were available. I have the benefit of early detection and the opportunity to participate in a drug trial. So for me one personal positive was being given the opportunity to do something, not just wait for the disease to destroy my brain.

This presentation follows our journey through diagnosis, early treatment, and involvement in a drug trial. The main emphasis is the experiences related to the eighteen month double blind drug trial that I will have completed in November 2011.

For myself and my husband Oscar, the drug trial was a mental, emotional and physical roller coaster ride. I will be sharing the positive and negative aspects as I perceived them.

Drug trials are the only current way to develop effective medications and therefore it is extremely important for people to participate. However, the sponsors need to be aware of the personal impact of participation.

I will cover the importance of people's willing involvement, the potential resistance and negative reaction of family members to the risks that may be involved, and the need for the decision to be made by the person with dementia, not by family or friends. Positive thinking and positive attitude offset the concerns about the risks involved.

It is clearly stated that a drug trial may not result in personal benefits unless the person is given the medication, not the placebo, and the drug works as designed. The trial results will help future research and this provided me with a way to contribute to the future treatments of people with dementia, a positive for me.

Support services (for us, Alzheimer's Australia) have been extremely beneficial to us both sharing and encouraging each other. Through these support groups we have evolved out of our intense victim mindedness into a higher level of well being within ourselves. This in turn has led us into our active engagement with the Alzheimer's Australia—adding meaning back into our lives that had become void of any purpose or self worth, becoming stuck in despair and hopelessness. To borrow my favourite quotation from Zig Zigler, I want to again be a “meaningful specific” rather than a “wandering generality.”

Disclosure of Interest: None Declared

OC051

CHANGES IN REFERRALS TO A MEMORY CLINIC – SERVICE REFLECTION OR REPRESENTATIVE OF SUBSTANTIAL PUBLIC HEALTH SUCCESS?

V. Raymont^{1,2,*}, D. Wilson^{1,3}, A. Mukherjee¹, L. Curry^{1,3}, S. Gregory¹, L. Pae¹, C. W. Ritchie^{1,2}

¹West London Cognitive Disorders Treatment and Research Unit, West London Mental Health Trust, Brentford,

²Centre for Mental Health, Department of Medicine, ³Ageing Research Unit, School of Public Health and Epidemiology, Imperial College London, London, United Kingdom

Objectives: We assessed routinely audit-derived data to examine demographic and clinical characteristics of referrals to a secondary care-based memory service, in light of the 2009 UK Dementia Strategy that promotes early referral by GPs to Memory Clinics.

Methods: We analyzed data from 1030 patients referred to a West London memory clinic between 2003-2011, as part of rolling audit of existing clinical data.

Results: In the sample, 36.6% were male, 45.1% were living independently but with others, and 16.7% were living alone. Data gathered from 2003-9 demonstrated that the mean MMSE at initial assessment was 24.9 (sd=19.1). From 2010-11 the initial MMSE had risen to 27.6 (sd=21.7), ($p<0.0001$). There was no significant change in age at referral (pre 2010 - mean=78.5 years, sd=9.7; post 2010 - mean=77.9 years, sd=11.1).

Conclusion: This represents routine clinical data drawn from referrals to a local, specialist memory clinic over an 8 year period. In 2009, the UK government released a new health directive: 'Living well with dementia - a National Dementia Strategy (NDS)'. One of its key aims was to increase awareness of dementia, and attract resources to improve services and facilitate early diagnosis and treatment. Our results suggest that referrals being made to secondary services in West London were being made earlier in the cognitive impairment process after 2009, such that the mean MMSE score in referrals after 2009 rose by almost 3 points. The possible cause for this change could be that following implementation of the NDS, primary care clinicians are indeed referring patients earlier. However, the fact that there was no significant change in age in referrals also suggests that patients are becoming older before they reach the same level of cognitive impairment. This may reflect less malignant cognitive impairment at a population level, and it would be possible to speculate from this that a cohort effect of healthier aging in general is having a specific impact on cognitive decline. Another possible cause of the raised MMSE at point of referral after 2009 is the impact of having a local, dedicated memory clinic available for patients in this area. We plan to investigate this possibility further by comparing our results with those from other local clinics that provide secondary services for elderly patients with cognitive difficulties.

Disclosure of Interest: None Declared

OC052

SUPPORTING SAFE WALKING FOR PEOPLE WITH DEMENTIA: USER PARTICIPATION IN THE DEVELOPMENT OF NEW TECHNOLOGY

A. Innes^{1,*}, L. McCabe²

¹Health and Social Care, Bournemouth University, Bournemouth, ²Applied Social Science, University of Stirling, Stirling, United Kingdom

Objectives: This paper will present the findings from a study exploring the views of people with dementia and their carers about the use of assistive technology to support people with dementia to remain independent. Supporting safe walking for people with dementia can reduce isolation by enabling participation in everyday activities outwith the home.

Methods: Two focus groups were conducted, one in Scotland and one in England as part of a wider study (reported elsewhere). 12 people with dementia, three caregivers and five other older service users participated in the focus groups. Two researchers facilitated each group with field notes taken. Audio recordings of each focus group were fully transcribed. Data were analysed using a qualitative, thematic approach.

Results: People with dementia commented favourably on the possibilities for increased safety and confidence offered by a GPS device. Walking and 'getting out and about' were common activities for many of the participants and they reported that a GPS device would support them to continue to do so as their dementia progressed. They had few concerns about the ethical issues relating to the device being seen as a way of 'tagging' individuals but did recommend that devices be discrete and not exacerbate stigma that might be experienced by the individual. Participants offered a wide range of ideas and opinions on the design of the device. Participants also shared their views on how the device might be used in practice.

Conclusion: GPS devices designed to support safe walking for people with dementia are considered useful by older people, people with dementia and family caregivers to support independence and increase self confidence. Potential users of the device appear less concerned with the ethical issues relating to 'tagging' than those writing in academic journals and the media although they are interested in how the device might be used to promote independence and reduce isolation rather than just as a safety precaution offering caregivers peace of mind.

References: This abstract presents independent research commissioned by the National Institute for Health Research (NIHR) under the Invention for Innovation Programme (i4i). The views expressed in this abstract are those of the authors and not necessarily those of the NHS, the NIHR or the Department of Health.

Disclosure of Interest: None Declared

OC053

HOW ALZHEIMER'S SOCIETY HAS SUPPORTED A UK GOVERNMENT INITIATIVE TO PRIORITISE DEMENTIA RESEARCH

M. Murray ^{1,2,*}, J. Pickett ¹, A. Corbett ³, C. Ballard ^{1,4}

¹Research, Alzheimer's Society, ²Gerontology, King's College London, ³Alzheimer's Society, ⁴Wolfson Centre for Age Related Diseases, King's College London, London, United Kingdom

Objectives: In 2009 the UK government commenced an initiative with the aim to increase investment in dementia research. This started with a one-day dementia research summit, followed by the formation of a Ministerial Advisory Group on Dementia Research (MAGDR) sponsored by the then Minister for Care Services. MAGDR was tasked to develop a collective vision for the future of dementia research, which published a Route Map for Dementia Research in June 2011. Concurrently, the National Institute for Health Research (NIHR) launched a 'Dementia Themed Call' in January 2011, with the aim of funding more dementia research. Alzheimer's Society's Patient and Public Involvement (PPI) programme has been actively involved in all stages of the government initiative of dementia research, highlighting a novel form of public and patient involvement.

Carers, former carers and people with dementia who are members of Alzheimer's Society PPI group (Research Network volunteers) were invited to be part of the dementia research summit. Lay members were particularly vocal on the issue that research findings should be implemented into practice. Research Network volunteers became involved as public representatives in all five of the MAGDR sub-groups, and influenced their outcomes. Alzheimer's Society also partnered with the NIHR to assist potential applicants to the dementia themed call with PPI and dissemination. Alzheimer's Society hosted an event in London, whereby 30 Researchers joined 40 Research Network volunteers to take part in an interactive PPI event. Researchers and volunteers were matched together to discuss applications and include the view of people affected by dementia in the study. A large number of volunteers are currently fully engaged in research bids as co-applicants.

This experience shows how public and patient involvement can actively and positively influence government policy and strategic decisions.

References: www.alzheimers.org.uk

http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_127750

Disclosure of Interest: None Declared

OC054

WHAT ARE THE PRIORITIES OF CARERS AND PEOPLE WITH DEMENTIA FOR RESEARCH? AN INTERNATIONAL PERSPECTIVE.

J. Pickett ^{1,*}, G. Rees ², A. van der Schot ³

¹Alzheimer's Society, London, United Kingdom, ²Alzheimer's Australia, Melbourne, Australia, ³Alzheimer Netherlands, Amsterdam, Netherlands

Objectives:

Traditionally funders of research have relied exclusively on the opinions of scientific and clinical experts to prioritize and select research for funding. However, 'Users' of research, such as practitioners and patients, are increasingly being included at a strategic level to identify priorities for research.

Alzheimer's Society UK, Alzheimer's Australia and Alzheimer Nederland are three national Alzheimer Associations with established programmes of funding research into dementia. Recently, each organisation has undertaken wider consultations with stakeholder groups to develop priorities for research funding. One of the main focus points from these consultations has been to include the opinions and priorities from the public and patients.

Here we will present the priorities that were identified for research from the priority consultation. Priorities identified by patient groups will be compared to those identified by predominantly academic groups. The audience will be encouraged to discuss what they feel are priorities for research for their own country, to give a global consideration to priorities.

Disclosure of Interest: None Declared

OC055

THE 'ROUND TABLE SCIENCE ET CITÉ ON DEMENTIA': A PARTICIPATORY RESEARCH PROJECT

C. Moor^{1,*}, S. Forstmeier², M. Martin¹

¹Center for Gerontology, ²Department of Psychology, University of Zurich, Zurich, Switzerland

Objectives: There is growing awareness of the importance of involving older adults and other stakeholders in gerontological research, but is still unusual to view these individuals as equal partners in scientific decision-making processes. This paper reports on a Swiss participatory research project – the 'Round Table Science et Cité on Dementia' – which explored the boundaries of involving family caregivers, applied professionals, and scientists in a research project on dementia family care. This collaboration proved highly fruitful in several ways, some of which will be discussed in this paper.

Methods: Members of the Round Table shared all scientific decisions regarding, e.g., defining research questions; ethical issues; selecting and piloting appropriate measures; interpreting study results; creating a catalogue of recommendations for caregivers, health professionals, service providers, and the broad public. The main research questions were: 1. What does Quality of Life (QoL) mean in different stages of dementia? 2. What support do formal and informal helpers provide? 3. What predicts QoL? Standardized interviews were carried out with 67 family caregivers and their family members with dementia, covering individual quality of life, health, coping with caregiving and dementia symptoms, social support, use of formal support services, and the amount and kind of informal help.

Results: Cross-sectional data on QoL of caregivers and people with dementia indicated that individual quality of life does not necessarily diminish as dementia progresses. Individual QoL was not statistically predicted by dementia severity or amount of support. Individual QoL was however strongly associated with depression and changes in the relationship between caregiver and patient. Moreover, QoL appeared to be defined, maintained and predicted in individually diverse manners. Thus, some recommendations proposed ways of creating a broad range of flexible support opportunities for families; others discuss how to ensure individual-centred counselling.

Conclusion: The experiences of the 'Round Table Science et Cité on Dementia' suggest that it is feasible and of great value to involve lay experts in all decisions during a research project. Moreover, because caregivers and care experts shaped the study, we feel that the results and recommendations proved more credible, relevant and appropriate for those involved with dementia care or policy.

Disclosure of Interest: None Declared

OC056

CIRCLES OF SUPPORT FOR PEOPLE WITH DEMENTIA

A. Macadam^{1,*}

¹National Development Team for Inclusion (NDTi), Christchurch, United Kingdom

Learning and results from the 1st year of an innovative, 3 year project to develop Circles of Support for people living with dementia in 4 areas (Devon, Dorset, West London and Portsmouth), led by the National Development Team for Inclusion and Innovations in Dementia. People living with dementia often find their personal and natural networks reducing. Families and friends can be reluctant to help, through fear or inability to see how they could contribute. Many people with dementia miss out on opportunities for support and advice and can become isolated, depressed and vulnerable. People with dementia and their families often manage alone. With numbers of people with dementia forecast to grow significantly in many countries (UK numbers expected to double in the next 30 years, *UK Department of Health 2011*), the need to find more effective ways of supporting people to live well with dementia has never been greater. Circles of Support is an established model, using person centred support techniques to enable older and disabled people to lead their lives, ensuring that the person is in control of key decisions about them. This builds upon people's natural networks in communities including family, neighbours, friends, volunteers and paid staff. The aim is to provide shared support to help people carry on living in and accessing amenities and resources of their communities. The project - funded by the UK Department of Health's Innovation, Excellence and Service Development Fund – is developing, adapting and testing circles of support for at least 40 people with dementia. By March 2012, the first tranche of people involved will have early experiences and outcomes to share. Each of the sites will have important lessons about engaging and including local communities. Practical learning from an inclusive advisory group guiding the project, focusing primarily on the views and experiences of people living with dementia (4 of whom are currently members) will also be shared. This project is relevant to and supports aims of a wide range of current UK policies and initiatives including: The National Dementia Strategy, The Localism Bill and development of the Big Society. The session will be of interest to: people who have dementia; their families, friends and carers; people involved in commissioning, planning, designing and delivering support to people with dementia; researchers and policymakers working in this area.

Disclosure of Interest: None Declared

OC057

DEMENTIA FRIENDLY COMMUNITIES IN NORTH EAST FIFE

A. S. Little ^{1,*}

¹Fife Service, Alzheimer Scotland, Kirkcaldy, United Kingdom

Objectives: This presentation will share the learning which has emerged from my experience as a Dementia Adviser with Alzheimer Scotland in developing dementia friendly communities. Our aims are to reduce the stigma which so often holds people back from seeking help and to let those in need know I am there and how to contact me. I work within the Scottish region of Fife, in the north eastern part where there are approximately 1,955 people in the over 65-age group with a diagnosis of dementia, and 169 people aged under 65 within the region. I will briefly describe initial approaches which did not work so well, and focus on how I achieved success by adopting a community development approach, directly identifying and speaking with a wide range of community groups, including all the primary schools and secondary schools in the area. The different communities are now aware of my main role, which is to be a source of information and support to individuals and families throughout the illness, and I am often invited to assist with the development of community based resources, including dementia cafes in three towns. Each community is unique so members of the community guide me, listening and responding to them is all important. The third café is scheduled to open in St Andrews as a direct result of my involvement with Carers' Education programme, which runs at the St Andrews Community Hospital. Being open to opportunities is the key. I take part in community activities, including fundraising and this helps Alzheimer Scotland and my role as Dementia Adviser to gain visibility and acceptability for hard to reach populations. It means I can work more effectively to reach those who need help. Creating dementia friendly communities requires flexibility, adaptability, creativity and above all being responsive to the individual needs and culture of each community.

Disclosure of Interest: None Declared

OC058

SHARED LIVES - FAMILY BASED COMMUNITY LIVING FOR PEOPLE WITH DEMENTIA

R. Litherland ^{1,*}, J. Bell ²

¹Innovations in Dementia CIC, Exeter, ²Shared Lives South West, Kingsteignton, United Kingdom

Objectives:

Shared Lives is a little known form of social care that offers either permanent support or regular breaks in the home of a local family. The person is welcomed as a member of the family, who are checked and approved, trained and monitored by a scheme.

This session will describe the work of a national 3-year programme to develop Shared Lives opportunities for people with dementia. Alternative living and care arrangements for people with dementia are few and far between. Shared Lives offer a flexible and responsive service that is truly person centred.

The programme is working closely with a small group of schemes who are already working with people with dementia in Torbay, Cornwall, Lincoln, East Sussex and Dorset to learn about the best ways of providing Shared Lives to people with dementia. Through the programme, 150+ Shared Lives schemes across England have access to training and good practice to improve and increase their ability to develop a dementia specific service. The programme is also tracking the experiences of people with dementia and carers who use Shared Lives as a care option.

This session will provide details of Shared Lives as a model of social care. It will describe the work to develop and adapt the model for people with dementia, as well as sharing early programme outcomes from people with dementia and their carers.

Disclosure of Interest: None Declared

OC059

WHAT DOES A “DEMENTIA –FRIENDLY COMMUNITY” MEAN TO PEOPLE WITH DEMENTIA?

S. Milton^{1,*}

¹Innovations in Dementia (CIC), Exeter, United Kingdom

Objectives: The ongoing implementation of the UK National Dementia Strategy will mean increasing numbers of people living with an early diagnosis.

For many, especially those in the early stages of dementia, mainstream dementia services, may have very little to offer.

What can we do to give people the best chance of, to paraphrase the dementia strategy, “live well with dementia”?

For many people with dementia, but especially those living in their own homes, the ability to continue to live well within, and be a part of their community is vital.

This sets the scene for the notion of “dementia-friendly communities”, and asks some very profound questions about how we can all create communities that are good places to have dementia in.

Early in 2011 Innovations in Dementia (CIC) was commissioned by Department for Health National Dementia Strategy Team to contribute to a Think Tank on Dementia and the Big Society.

We were asked to seek the views of people with dementia and their supporters on what constitutes a dementia friendly environment.

We wanted to find out:

- What did the idea of a dementia capable community mean to them?
- What are the things that make for a good community for people with dementia?
- How can things be made better?

Since we reported our findings to the Department for Health Think Tank in March 2011, we have been commissioned to work on dementia-friendly communities in three top-tier local authorities in England, and are supporting Alzheimers Society Ireland to develop their work in this area.

This presentation will outline what people with dementia are telling us a dementia friendly community means to them, and explore the wider issues involved in making our communities better places to grow old in.

Disclosure of Interest: None Declared

OC060

THE LIVING ENVIRONMENT AND THE GREAT OUTDOORS. DELIVERING DEMENTIA-FRIENDLY ENVIRONMENTS WITHIN CARE HOMES. AN EXAMPLE OF INTERNATIONAL COLLABORATION AND SYNERGY BETWEEN THE UK, SPAIN AND AUSTRALIA

G. Stokes^{1,*}

¹Service Development and Clinical Leadership, Bupa Care Services, Leeds, United Kingdom

Objectives: The most important thing to recognise when designing a care home for people with dementia is that these are people who are fundamentally the same as any other social group within society. Consequently, designers should view the needs of care home residents as being no different from anybody else and then progress to helping them live with high levels of cognitive, sensory and physical disability.

Through the use of visual and video material this presentation helps designers and care providers to balance the need to support failing abilities through the creation of prosthetic environments without losing the feeling and characteristics of "home". In turn, a distinction between 'home' and 'homeliness' is made and the question what constitutes home within a care home is addressed.

The presentation will look at contemporary design advances that help create a sense of belonging in private space, deliver supportive interior layouts and illumination, and uplifting shared and outside space so it becomes a 'world' to visit that is meaningful. Creative ways to design-out exits to reduce agitation and thereby reduce the propensity to prescribe antipsychotics, the benefits of visual access and 'organised space as stimulus' to aid orientation, and the relative merits of information signage and 'natural cues' will be discussed.

Data from a sample of care homes will illustrate what features of dementia-friendly living environments and multi-experience gardens are most favoured by people with dementia in terms of frequency of visits, engagement and well-being.

Disclosure of Interest: None Declared

OC061

STIGMA AMONG IRANIAN FAMILY CAREGIVERS OF PERSONS WITH ALZHEIMER DISEASE: A HERMENEUTIC STUDY

R. Negarandeh ^{1,*}, E. Navab ², H. peyrovi ²

¹Nursing and Midwifery Care Research Center, Tehran University of Medical Sciences, ²Tehran University of Medical Sciences, Tehran, Iran, Islamic Republic Of

Objectives: *Objectives:* This study aimed to understand and interpret the experiences of family caregivers of persons with Alzheimer's disease In Iran.

Methods: A qualitative research was conducted using Heideggerian hermeneutic phenomenology. Ten Iranian family caregivers of persons with Alzheimer's disease were interviewed. Interviews were audio-taped and transcribed; data were analyzed by Van Manen methodology.

Results: One of the most important themes that emerged in this study was “Family stigma”, which also contained the sub themes of: “shame of the AD persons’ unusual behavior and speech” and “fear of others’ judgment”. Participants expressed that because of AD persons’ unusual behavior and speech, caring for them is naturally associated with feelings of shame and fear.

Conclusion: An understanding of the experience of family stigma can lead to the development of supportive strategies to manage this problem in caregivers of people with AD. Familiarity with AD may diminish stigma and prejudice toward people with AD and their caregivers. So it is crucial to increase the public's awareness about this disease. Moreover, educating the caregivers in terms of stigma management might be an important factor in alleviating the caregivers' stress. Also referring caregivers to other members of the health care team such as a psychiatrist is recommended.

Disclosure of Interest: None Declared

LD5

Technology

Ann Johnson

I use a small dictaphone to help my short term memory. It is a very simple device to operate and allows me to remember things.

Letters I write using my computer - the keyboard allows me to formulate words which I am now unable to do by handwriting.

I have difficulty reading so now use audio books. This means I can still enjoy the "written word".

I now use a digital watch. This also tells me the day and date. A talking clock allows me to hear the time on a 12 hour clock.

I have a Mem X machine which can be programmed to alarm at times to take medication or as an alarm clock.

A dog tag which I wear round my neck means that if I get lost someone can get me home.

My methods are not difficult, not high technology and very easy to use.

LD6
TECHNOLOGY
Graham Browne

Ever since the days of Adam & Eve, people have been looking at ways of using assistive technology, and over the years and many centuries, we the human race have developed many new gadgets. It is hard to imagine how much further we can take things forward, but we said that 20 years ago, and look what's happened.

When people talk of assistive technology, we almost relate to mobiles, emails, texts and many other forms that use fibre optic cables and satellites.

But we also have technology that helps people in other ways, like eating, drinking, sleeping and getting around safely.

But at the end of the day the best form of assistive technology is the human kind, by having the love of your family and friends.

LD7

TECHNOLOGY IN THE SUPPORT OF PEOPLE WITH DEMENTIA AND THEIR CARERS, PROFESSIONALS AND RESEARCH

PETER J S ASHLEY Hon MA (Dementia), Chartered Engineer in Electronics, Computing and Mathematics, Management.

This presentation outlines the use of existing technology in both known and potential applications; technology that is aimed at aiding people with dementia and their carers in their daily lives be they living at home or in a care home situation. The aim is not just to talk about what has been loosely referred to as “Assistive Technology”, but applications that can help improve the processes of cognitive and intellectual impairment thus bring fully meaning to the word “Assistive”. It will also briefly introduce future technological developments that could have a significant impact on the ongoing wellbeing of those who encounter the traumas of the dementia syndrome.

There are exciting new and quite revolutionary developments now in the hands of researcher and once available will have significant impact on this subject. Unlike drug developments, technology is relatively quick to appear and cross fertilisation with other market opportunities is only constrained by the imagination of those who understand both the technology and the needs of those with dementia.

As this is such a broad topic heading it will only be possible to 'dip' into this area in the short time allocated but it is hoped it will stimulate healthy debate with the audience in the question time part of the presentation opening up the door to much lateral thinking and productive debate.

As a person living with Dementia with Lewy Bodies for the last 12 years, the presenter knows only too well how technology has aided his own survival.

© P J S Ashley

OC062

DEVELOPING AN INFORMED AND EFFECTIVE CARE HOME WORKFORCE: A LEARNING PARTNERSHIP BETWEEN HIGHER EDUCATION AND A NATIONAL CARE PROVIDER ORGANISATION

C. Surr^{1,2}, G. Stokes², K. Wilson², J. Robins¹, E. Malet¹

¹Division of Dementia Studies, School of Health, University of Bradford, Bradford, ²Bupa Care Services, Bupa UK, Leeds, United Kingdom

Objectives: The National Dementia Strategy for England states an informed and effective workforce is required if quality person-centred dementia care is to be delivered. Providing a consistent programme of effective training for staff, that is affordable and sustainable is a challenge. These challenges are amplified when working in a large, geographically spread organisation. In order to meet these challenges, expertise from both practice and education is required.

This workshop outlines an innovative workforce learning and development programme, designed and implemented through a learning partnership between Bupa UK and The University of Bradford. The programme has been implemented in the UK and Australia.

This interactive multi-media workshop includes presentations on

- The development of the content and structure of the programme and materials and their delivery strategies, with reference to the identified learning needs within the organisation, adult learning theory and best practice in training in social care.
- The process of developing key staff within each care home as a *Person First Coach* to onward deliver learning sessions, including how Coaches are formally assessed to ensure quality and consistency of delivery.
- Examples of successful implementation models from the UK and Australia.
- An evaluation of the impact of the learning and development programme from the viewpoint of Bupa residents, their families and staff, in the UK and Australia.
- A discussion of the key implementation challenges and how the partnership approach has enabled the development team and individual care homes to seek solutions to these. Implications of this initiative for workforce development in care homes internationally, will be discussed.

Disclosure of Interest: None Declared

OC063

LIFE ORIENTATION IN FAMILY CAREGIVERS' OF ALZHEIMER DISEASE PATIENTS: ANALYSIS BY DIARY METHOD

T. Välimäki^{1, 2, *}, K. Vehviläinen-Julkunen^{2, 3}, A.-M. Pietilä^{2, 4}, A. Koivisto^{3, 5}

¹Finnish Doctoral Programme in Nursing Science, ²Nursing Science, University of Eastern Finland, ³Kuopio University Hospital, ⁴Kuopio Social and Health Care Services, ⁵Unit of Neurology, Institute of Clinical Medicine, University of Eastern Finland, Kuopio, Finland

Objectives: The theoretical background of this study refers salutogenic orientation which emphasizes factors which are maintaining individuals' health and life orientation with structured, manageable and meaningful approaches. This study is part of a five-year prospective randomized controlled AD rehabilitation study by ALSOVA.

The aim was to describe family caregivers' life orientation and its changes after diagnosis of AD with one of their family members during the first year.

Methods: The data were obtained from family caregivers' unstructured diaries (n = 83), which they wrote for six months after the diagnosis from the period from 2002 to 2004. The data were collected during the first year of the ALSOVA study, before any interventions were implemented. The diaries were analyzed using qualitative content analysis.

Results: Family caregivers face challenges in their life orientation after the onset of their family members' AD and in the process of becoming caregivers. Family caregivers' personal milieu, familial cohesion and conception of the future consequentially change. This process starts before the diagnosis of AD and has an impact on their future.

Conclusion: The process of becoming a caregiver should be recognized as starting before the AD diagnosis. Family caregivers' health and quality of life should be assessed at the time of AD diagnosis.

Disclosure of Interest: None Declared

OC064

POST-FALL ASSESSMENT & MANAGEMENT IN PERSONS WITH DEMENTIA

S. Davidson ^{1,*}

¹Geriatrics, Toronto Rehabilitation Institute-University Centre, Toronto, Canada

Falls and injuries related to falls are a major health care concern and older adults with impaired cognition are known to be at increased risk of falling. "Stop Adverse Fall Events" (SAFE), an organization-wide fall prevention and management program at Toronto Rehabilitation Institute, was launched over a year ago. In addition to standardized assessment of falls risk and interprofessional discussion of fall prevention strategies, the SAFE program also addresses post-fall assessment and management.

While post-fall assessment is a crucial component of fall prevention and management, it can present unique challenges in older adults with dementia. Risk of morbidity and mortality post-fall increases with age while the ability to conduct a full assessment may be compromised by an individual's agitation, falls may be unwitnessed and self-reports of injury or distress may be unreliable. In response to the identified needs of staff on the psychogeriatric assessment unit at a major rehabilitation hospital, a post-fall education session was developed. This presentation will highlight the key components of immediate post-fall assessment and decision-making for staff working with persons with dementia, as well as post-fall documentation and methods of interprofessional communication. Plans for sustainability will also be presented.

Disclosure of Interest: None Declared

OC065

THE EARLY INTERVENTION SERVICES IN TAIWAN

C.-Y. Chen^{1,*}, L.-Y. Tang², M.-J. Chiu³, H.-J. Lee¹ on behalf of Taiwan Alzheimer's Disease Association

¹Taiwan Alzheimer's Disease Association, Taipei, ²Taiwan Alzheimer's Disease Association, taipei, ³Neurology, National Taiwan University Hospital, Taipei, Chinese Taipei

Objectives: 1. Facilitate early detection and intervention of dementia in the community

2. Develop services for people with mild dementia and their family caregivers

Methods: TADA established a pilot project of service for people with mild dementia and their caregivers since 2004 and got very positive response. Then, a four years early intervention program was started to duplicate these services in different cities in Taiwan in 2008 under the support of the Ministry of Interior. By now, there are 27 organizations/institutions joined this program and delivered services for people with mild dementia in 12 cities in Taiwan.

The early intervention program includes:

“School of Wisdom” - health promotion services for people with mild dementia

Family support services

Community awareness campaigns and volunteers training

TADA provided training courses including a two-day basic course, a six-day advanced course and practice supervision to staffs from 27 health care organizations/institutions.

Results: TADA produced a manual of early intervention for people with dementia and set up a web site for the “School of Wisdom”. We trained 207 staffs, established 27 “School of Wisdom” programs, and served more than 13,800 participants by the latest statistics in 2011. The family caregivers, people with dementia and staffs responded positively to these services. The Minister of Interior has promised to set up “School of Wisdom” in every city in Taiwan and to give the dementia early intervention program a priority of subsidy.

Conclusion: The early intervention program for people with dementia matches the needs of people with mild dementia and their family caregivers. The training of health care staffs needs a comprehensive program with lecture, practice and supervision. The future focus of dementia care should be the intervention in the early stage.

Disclosure of Interest: None Declared

OC066

THE PHYSICIAN AND PHARMACIST AS TEACHERS IN A SPECIALIZED ALZHEIMER'S FACILITY

J. Dalessandro¹, S. D. Gilster^{1*}, R. J. Cluxton²

¹ALOIS ALZHEIMER CENTER, ²University of Cincinnati, Cincinnati, United States

Objectives: The establishment of a facility exclusively for persons with Alzheimer's disease has afforded a unique teaching opportunity. The merging of academia and the service sector can be a positive experience, promoting Alzheimer's competency through more effective educational programs, improving patient care, and providing a forum for the exchange of information between students and staff. Students in a variety of health and related fields have an opportunity to experience the effects of this disease on individuals and families, and learn how to best manage their care by participating in weekly physician and pharmacist rounds. In this session, participants will experience a teaching program in a facility that specializes in the care and study of individuals with Alzheimer's disease and dementia. Topics include: 1) defining the educational mission; 2) essential content of an affiliation agreement; 3) defining roles and relationships; 4) creating an environment for success; 5) benefits for staff, students, families and residents; 6) promoting positive student experiences; and, 7) facilitating mutually beneficial research. Over the past 25 years, over 2000 students from a variety of fields such as medicine, nursing administration, pharmacy, health care administration, gerontology, social work, geropsychiatry, etc., have participated in this program, generating more effective educational programs and clinical experiences. Evaluations demonstrate the very positive impact for students and has generated interest in changing educational focus to specialize in geriatrics and dementia care. Comments will be shared. In addition, several research projects have been conducted due to the educational exposure. Program benefits touch many including students, staff, residents and families, who believe it to be a valuable experience for all involved.

Disclosure of Interest: None Declared

OCO67

THE NYU CAREGIVER INTERVENTION: RESULTS AND CHALLENGES IN CURRENT IMPLEMENTATIONS IN THE COMMUNITY

M.S. Mittelman¹, C. Epstein¹

¹NYU Langone Medical Center, New York, NY, USA

The NYU Caregiver Intervention (NYUCI) for spouses of people with Alzheimer's disease was evaluated with a randomized controlled trial that lasted more than 2 decades and demonstrated that improving social support conveyed multiple benefits for both the spouse-caregiver and the person with Alzheimer's disease, including reduced depressive symptoms and reaction to patient behavior and improved physical health for the caregiver, enabling postponement of nursing home placement by an average of 557 days. The structure of the NYUCI permits flexibility of content, making it an ideal intervention for diverse cultures.

The NYUCI is now being replicated in community settings, with training and ongoing consulting by the original investigator, Mary Mittelman and a clinician with years of experience in the NYUCI, Cynthia Epstein. Large demonstration projects were funded in 6 states in the United States. Smaller implementations were conducted in 3 additional states. A current evaluation is being conducted in two Veterans Administration hospitals. An insurance company is undertaking a pilot study of the intervention. Two new randomized controlled trials are underway, one in Israel, and the other in the Hispanic population in northern Manhattan.

Caregivers reported satisfaction, improvement in coping and reduced strain due to positive involvement of family members. The lack of control groups in the demonstration projects makes it difficult to draw quantitative conclusions, although the results of the longest running demonstration project in Minnesota showed a similar pattern of outcomes to the original NYUCI. Translating an intervention from the research environment to the community posed unforeseen challenges. It was not possible to adhere to the original eligibility criteria. The time frame – 6 counseling sessions within 4 months of intake, was not necessarily possible, due to competing demands on time. Agencies were unrealistic about the number of caregivers they could enroll and the clinical skills necessary to implement the intervention, which must be individualized to the needs of each caregiver, care recipient and family.

The NYUCI can be successfully implemented in diverse environments. The demand for training of staff to conduct the intervention has become too great for in-person training, and we are currently developing web-based training, including certification and licensing, to make it possible for more caregivers to benefit from the intervention.

References:

- Mittelman M, Ferris S, Shulman E, Steinberg G, Ambinder A, Mackell J, & Cohen J (1995). A comprehensive support program: Effect on depression in spouse-caregivers of AD patients. *Gerontologist*, 35, 792-802.
- Mittelman MS, Ferris SH, Shulman E, Steinberg G & Levin B (1996). A family intervention to delay nursing home placement of patients with Alzheimer disease. *Journal of the American Medical Association*, 276, 1725-1731.
- Mittelman M (2003). Community caregiving. *Alzheimer's Care Quarterly*, 4(4), 273-285.
- Mittelman MS, Roth DL, Haley WE & Zarit, SH (2004). Effects of a caregiver intervention on negative caregiver appraisals of behavior problems in patients with Alzheimer's disease: Results of a randomized trial. *Journals of Gerontology, Psychological Sciences*, 59B(1), P27-P34.
- Mittelman MS, Roth DL, Coon DW and Haley WE (2004). Sustained benefit of supportive intervention for depressive symptoms in Alzheimer's caregivers. *American Journal of Psychiatry*, 161(5), 850-856.
- Roth DR, Mittelman MS, Clay OJ, Madan A & Haley, WE (2005). Changes in social support as mediators of the impact of a psychosocial intervention for spouse caregivers of persons with Alzheimer's disease. *Psychology and Aging*, 20(4), 634-644.
- Drentea P, Clay OJ, Roth DL, Mittelman MS (2006). Predictors of improvement in social support: Five-year effects of a structured intervention for caregivers of spouses with Alzheimer's disease. *Social Science & Medicine*, 63, 957-967.
- Mittelman MS, Haley WE, Clay, O, Roth, DL (2006). Improving caregiver well-being delays nursing home placement of patients with Alzheimer disease. *Neurology*, 67, 1592-1599.
- Mittelman MS, Roth DL, Clay OJ, Haley WE (2007). Preserving health of Alzheimer's caregivers: impact of a spouse caregiver intervention. *American Journal of Geriatric Psychiatry*, 15, 780-789.
- Gaugler JG, Roth DL Haley WE & Mittelman MS (2008). Can counseling and support reduce Alzheimer's caregivers' burden and depressive symptoms during the transition to institutionalization? Results from the NYU Intervention Study. *Journal of the American Geriatric Society*, 56:421-42. NIHMSID: NIHMS 113868.

- Haley W E, Bergman EJ, Roth DL, McVie T, Gaugler J E, & Mittelman MS (2008). Long-term effects of bereavement and caregiver intervention on dementia caregiver depressive symptoms. *The Gerontologist*, 48: 732-740. NIHMSID:NIHMS114864.
- Mittelman MS, Brodaty H, Wallen AS & Burns A (2008). A 3 Country Randomized Controlled Trial of a Psychosocial Intervention for Caregivers Combined with Pharmacological Treatment for Patients with Alzheimer's Disease: Effects on Caregiver Depression. *American Journal of Geriatric Psychiatry*; 16: 893-904. NIHMSID:NIHMS113830.
- Gaugler, J.E., Mittelman, M.S., Hepburn, K., Newcomer, R. (2009). Predictors of change in caregiver burden and depressive symptoms following nursing home admission. *Psychology and Aging*, 24(2): 385-396. PMCID: PMID: 19485656; NIHMSID:NIHMS120037

OC068

CIRCLE DANCE FOR WELL-BEING IN DEMENTIA

C. Heymanson^{1,*}, K. Kershaw²

¹Trainer, Circle Dance in Dementia, Brighton, ²Trainer, Circle Dance in Dementia, Barnsley, United Kingdom

'I seemed to have lost everyone, and suddenly I found all these people again'; a service user's comment about circle dance. Circle Dance for people living with dementia has become established, popular and valued in care settings during the last three years. Circle Dance developed from international folk dance in the 1970s; adapted by Dorothy Jerrome in the 1990s for people with dementia, in 2008 Kath Kershaw and Cynthia Heymanson, drawing on her work and established evidence on music and movement for people with dementia, developed a training course for staff working in social care and NHS care for residential and day care, assessment units and community groups. Its aims are outer enjoyment and inner well-being. The features of small circle work, touching, holding, swaying to music contributes to re-connection; seated dance formats have been developed. The one day training course enables familiarisation with the music, learning the formats and scope for use; each participant receives a 20 track CD with guidance and handoutpack. The benefits for users, endorsed by those trained include enhancing relationships, reducing isolation, scope for linking to celebrations, seasonal events, culture, reminiscence work, movement/exercise, involvement of relatives/carers, expression and creativity, and enjoyment of music *'The dancing is much enjoyed by all'* *'Simple to learn, achievable and versatile'* *'It has helped skills and involvement of other staff'* *'I am meeting the aims of inclusion, stimulating and promoting well-being; it provides coming together feelings for both users and staff';* *'Quieter residents become animated; it's uplifting and motivating'*. The trainers have a background in dementia care; Kath worked as an Occupational Therapy Technical Instructor and arts therapist in NHS continuing care and assessment wards for over 20 years and Cynthia in social work/social care and as a dementia trainer in Local Authorities and the voluntary sector for 30 years. Both provide regular hands-on sessions in their localities, which inform their practice. They have presented at nine conferences; Nori Graham attended the England Alzheimer's National conference in 2009, and positively supports the activity. The ADI Conference session will be participative, enabling delegates to experience the dancing and potential benefits for their services/organisations, and includes a short presentation with the opportunity for discussion.

Disclosure of Interest: None Declared

OC069

EXPERIENCES AND THE NEED OF HELP OF JUST DIAGNOSED MEMORY PATIENTS AND THEIR RELATIVES

K. Juva^{1,*}, S. Granö¹

¹The Alzheimer Society of Finland, Helsinki, Finland

Objectives: The aim of this study was to examine the experiences of recently diagnosed memory patients and their relatives

Methods: Patients and their relatives were recruited from different out-patient memory clinics (municipal and private) all over Finland.

The study includes four questionnaires within one year to both the patients and the relative. The questions dealt with experiences of the diagnostic procedure and professionals and what kind of information they got. They were also asked the impact of the disease in their everyday life and where they think and hope to get support.

Results: 288 patient-relative pairs took part in the study. Most patients had mild Alzheimer's disease and were 76-85 years-old. 65 % of the patients and 62 % of the relatives were female

78 % of the patients and 92 % of the relatives answered the first questionnaire. The results of the next questionnaires have not yet been analysed, but will be presented in the ADI conference.

Most of the patients and their relatives took the diagnosis neutrally. Only 22 % of the patients and 17 % of the relatives thought it was a shock, and 23 % of the patients and 38 % of the relatives thought it was relief to hear the diagnosis. A large majority of both the patients and the relatives thought that the professionals had been understanding experts who had listened them properly.

37 % of the patients though the disease had not influenced their life at all or nearly at all, while great influence reported only 12 %. The relatives had experienced somewhat more changes: 27 % reported no or very little influence and 18 % reported great influence.

For rehabilitation and maintaining good function the patients and the relatives appreciated most doing the everyday tasks at home and physical exercise. Also meeting friends was regarded as helpful. Very few would have wanted any technical memory aids. The main source of support in both groups were close relatives. Also municipal help was appreciated.

Over half of the patients were looking at the future confidently or nearly confidently, while only 40 % of the relatives thought this way.

Conclusion: Patients with memory disease seem to receive the diagnosis neutrally or as a relief, rather than as a shock, and in the mild stage the disease they feel that the disease has no great impact in their everyday life. They look confidently at the future. The relatives were in many aspects somewhat pessimistic.

The study for which the current data were collected and the current data analyses were sponsored by Novartis Finland Oy

Disclosure of Interest: Novartis Finland has sponsored this study but the researcher has not received any personal grant.

OC070

HOME CARE RESPITE FILMS: OFFERING RELIEF FOR CAREGIVERS BY SIMULATED MULTIMODAL PRESENCE AND ACTIVATION FOR PERSONS WITH DEMENTIA?

S. Oppikofer^{1,*}

¹Center of Gerontology, University of Zurich, Zurich, Switzerland

Objectives: Respite films potentially offer a brief timeout for caregivers and can act as a stimulus for positive behaviors for patients with dementia. The film simulates the presence of a friendly visitor who directly addresses the viewers in a positive manner with familiar activities and topics.

The objective of the study was to evaluate the film's impact on the following aspects: (1) the quality of life and behavior of persons with dementia, (2) the respite for caregiving family members and (3) a potential intervention with patients exhibiting agitated behaviors.

Methods: The effectiveness of the respite film "A Musical Hike" was tested in a short-term longitudinal study involving 29 caregiver-patient dyads. Persons with dementia watched the respite or a control film on a regular basis during a four week intervention phase. Data collection and testing sessions took place before and after the intervention using multimodal instruments (e.g. Caregiver Burden Inventory, Observed Emotional Rating Scale).

Results: The main findings were: (1) the respite film is appropriate for patients with dementia; (2) 62% of the caregivers reported receiving relief as a result of the film; (3) the quality of life remained stable for participants watching the film on a regular basis; (4) most persons with dementia were calm while watching the respite film; and (5) caregivers expressed a need for further respite films.

Conclusion: The findings suggest noticeable benefits and further demand for respite films for patients with dementia and their caregivers.

References: Lund, D., Hill, R.D., Caserta, M.S. & Wright, S.D. (1995). Video Respite: An innovative resource for family, professional caregivers, and persons with dementia. *The Gerontologist*, 35, 683-687.

Oppikofer, S., Schachtler, F., Aeschlimann, C. & Ebert, F. (2010). SIMPA - Video für Demenzkranke. Ein Projekt zur Evaluation der Wirksamkeit simulierter Präsenz und Aktivierung durch multimodale Intervention bei zu Hause lebenden Menschen mit Demenz. *Zürcher Schriften zur Gerontologie*, 8.

Disclosure of Interest: None Declared

OC071

LIVING WITH EARLY-STAGE DEMENTIA: MAINTAINING A SENSE OF BEING VALUED

E. Steeman^{1,2,*}, B. Dierckx de Casterlé², J. Godderis³, M. Grypdonck¹ and Els Steeman is member of INTERDEM

¹Nursing Science, Ghent University, Ghent, ²Centre for Health Services and Nursing Research, ³Department of Neurosciences and Psychiatry, Katholieke Universiteit Leuven, Leuven, Belgium

Objectives: Focusing on loss or maintenance of identity in persons with dementia may affect how they are approached and cared for. Whether progressive cognitive decline results in loss of identity remains debated. This study explored changes experienced in living with dementia and how these changes may affect identity construction over time.

Methods: We performed a longitudinal constructivist grounded theory. In-depth interviews were held with 17 older persons with early stage dementia. They were interviewed two, three or four times with an interval of on average 3 months. Interviews were tape-recorded and transcribed verbatim.

We analyzed changes over time, in particular with regard to the concept of 'being valued' that was previously identified in the transversal analysis of the data (Steeman et al., 2007).

Results: In the longitudinal analysis, the concept of being valued was repeatedly identified, indicating that 'being valued' has significant value in the experience of living and dealing with early-stage dementia. Over time we discerned a shift in the concept of being valued from being valued for what you do toward being valued for who you are. This progression represents a shift in core values of identity that are performance related toward ones that are existential related, being foremost the ability and force to accept loss. Dependency emerged as an important trigger for this shift. These findings suggest that self can be maintained by adjusting to loss. However, it may take a struggle to accept loss and maintain being valued.

Conclusion: Finding value in being able to accept allows the person with dementia to maintain autonomy in view of dependency, being in charge of thoughts, considerations, and acceptance. Findings from this research have important societal value. In our society where productivity prevails, it is important to make people aware that, no matter what, all persons possess important value in their being. Having dementia and losing the ability to be productive does not mean one ceases to exist as a person.

References: Steeman, E., Godderis, J., Grypdonck, M., De Bal, N., Dierckx de Casterlé, B. 2007. Living with dementia from the perspective of older people: is it a positive story? *Aging and Mental Health*, 11, 119-30.
Steeman, E., Grypdonck, M., Godderis, J., Dierckx de Casterlé, B. Managing identity in early stage dementia: maintaining a sense of being valued. *Ageing and Society* (accepted for publication)

Disclosure of Interest: None Declared

OC072

MENTAL AND PHYSICAL REHABILITATION IN PWD BY CELEBRATING TRADITIONAL OCCASIONS AND REMINISCENCE

M. Jahangiri¹, L. Hafarian², F. Farin^{3,*}

¹Education & Research, Iran Alzheimer's Association, ²Education & Research, Iran Alzheimer's Association, ³Iran Alzheimer Association, Tehran, Iran, Islamic Republic Of

Objectives: Mental and Physical rehabilitation in PWD by celebrating traditional occasions

Attending in traditional and religious events is a way to strengthen the memory of people who are living with dementia. It is also useful for preserving their remained skills. People with cognitive Disorders are still able to be part of these kinds of activities. Finding out the level of their current abilities and working on that, is not only helpful for their Episodic and semantic memory; but also improves their self-confidence. Furthermore, it's a good way to reduce the levels of stress feeling by caregivers and lessen the burden of care giving.

One of the most prominent celebrations in Persian culture is Norooz. It marks the first day of spring and the beginning of the year in Iranian calendar. Being ancient and celebrating this tradition in Iran and other countries like Afghanistan, Turkey, Turkmenistan, Iraqi, Tajikistan, ..and different religious groups world wide, persuaded us in IAA to share our experiences in this regard.

Setting a table known as "Haft Seen" or "7 Ss", that comes from the first word of 7 eatable things in Persian language like Senjed, Sir, Somagh, Sabze, Samano, Sib, Serke (of course as symbols) is the most important part of this tradition. There are also some other materials such as gold fish, holy book, decorated eggs, mirror and candles... to design it.

In Iran Alzheimer's Association a beautiful setting of this, was made; all of the process, even making some vases and cookerries of the clay, painting the eggs and setting them done by patients (all the photos of each activities are attached). This essay is an overall view of what has been done, in order to emphasize on the role of traditional and cultural activities to improve the quality of life of PWD and reminiscence as a therapeutical approach. Moreover, a magazine has been provided for family care givers in order to enhance their communication skills with PWD, rehabilitation and spending a great leisure time with them. In addition, it provides a good pattern for health care professional and nonprofessional staff in day care centers.

Disclosure of Interest: M. Jahangiri Conflict with: Education & Research manager, L. Hafarian Consultant of: Day care center, F. Farin: None Declared

OC073

C-MAP LIFELONG LEARNING ACADEMY FOR PEOPLE WITH DEMENTIA

John Zeisel PhD,
President, the I'm Still Here Foundation & Hearthstone Alzheimer Care

Building on the brain health and natural curiosity of those with dementia, this program--two years in development and testing--employs environmental design, Montessori teaching principles and the "I'm Still Here" approach to give participants the chance to learn and be useful. This presentation describes the theory and practice that gives C-MAPPERS, as they call themselves, their rights to choose, to pursue their interests and to be treated as whole persons with dignity and respect. The myth that people with dementia can't learn is confronted head on, shifting the balance from "activities to fill time" to "meaningful engagement" and from their being told what to do to their choosing what they want to learn. C-MAP learning principles build on the neuroscience of hardwired skills such as exploration, perception and concept development to create an environment where "students" with dementia make decisions, manage their own learning opportunities and take part in community cultural settings and events. Learning and developing as people are basic human needs and rights which, because of popular views of people with dementia, are often denied this group of people. The opportunity to learn and develop as people contributes to all of our sense of self, dignity and empowerment--including those with dementia. This brief presentation provides an overview of the principles and outcomes associated with providing people with dementia these opportunities.

W6

ADI-workshop: The World's first Global Alzheimer's Campaign

In this workshop we will present the world's first global awareness and fundraising campaign for Alzheimer's that will be piloted with five ADI-member associations in Brazil, Canada, Greece, India and New Zealand later this year. The campaign aims to change the way we look at the disease and will set a target to double the non-pharma research budget for Alzheimer's. You will see the campaign, and find out how you can be involved. Don't miss this session if you work for or are involved in an Alzheimer association!

Chair: Marc Wortmann, Executive Director ADI

Speakers: Jon Duschinsky, bethechange; Ray Barrett, Hey Harry

OC074

ALCOHOL AND DEMENTIA: A POTENT COCKTAIL

B. Draper^{1,*}, R. Karmel², D. Gibson³, A. Peut², P. Anderson², A. Withall¹

¹University of NSW, Sydney, ²Australian Institute of Health & Welfare, ³University of Canberra, Canberra, Australia

Objectives: To describe key issues in the relationships between alcohol and dementia.

Methods: The Hospital Dementia Services Project (HDS) extracted data from the NSW Admitted Patient Care Database for nearly 410,000 multi-day hospital admissions ending in June 2007 for people aged 50 and over. Using ICD10-AM codes, we identified Alcohol-related dementia (ARD) patients, their principal reasons for admission and medical comorbidities, and principal procedures undertaken. Outcomes were length of stay (LOS); mortality & discharge destination. In a separate project, early onset dementia (EOD) was studied in the Eastern Sydney Area. A case-finding survey and hospital records search, with capture-recapture methodology, were used. Patients had to be resident within the area and alive as at 1st June 2008, have an onset of memory, behavioural and/or language symptoms before age 65 and have persistent cognitive impairment for at least 6 months. The dementia diagnosis for identified cases was verified through a medical case note review.

Results: HDS identified 300 patients diagnosed with ARD (82% male, mean age 63.9 years). ARD patients were younger than other dementia patients. Alcohol-related mental disorder was recorded in 62.5% of ARD admissions. Principal reasons for admission included alcohol-related mental disorder (17.6%), alcoholic liver disease (11.2%) and injuries/poisonings (9.8%). Like other dementia patients, ARD patients had longer LOS (mean 15 days) than non-dementia patients and more transfers to residential care (6.7%). However, mortality was similar to non-dementia patients (5%). Discharge at own risk was high (3.7%). When all dementia patients were examined, alcohol-related disorders were more likely to be diagnosed as a comorbid disorder (OR5.05) than in non-dementia. In the EOD study, ARD was the most common primary diagnosis accounting for 22% of cases. ARD was a secondary diagnosis for a further 4% of cases, usually comorbid with vascular dementia. The rate of ARD was 18 per 100,000 population aged 30-64 at risk and the average age at onset was 52 years. This group were often isolated, had complex medical histories and had diverse health system access points.

Conclusion: These two studies indicate that ARD is a common diagnosis in younger populations and that alcohol disorders are an important comorbidity in hospitalised dementia patients.

Disclosure of Interest: B. Draper: None Declared, R. Karmel Employee of: AIHW, Grant/Research Support from: NHMRC, D. Gibson Grant/Research Support from: NHMRC, A. Peut Employee of: AIHW, Grant/Research Support from: NHMRC, P. Anderson Employee of: AIHW, A. Withall: None Declared

OC075

DOES POSTERIOR CORTICAL ATROPHY ON MRI DISCRIMINATE BETWEEN ALZHEIMER'S DISEASE, DEMENTIA WITH LEWY BODIES AND NORMAL AGING.

J. O'Donovan^{1,*}, R. Watson², S. Colloby², M. Firbank², E. Burton², J. O'Brien²

¹Medical Student, Newcastle University, Newcastle, ²Institute for Aging and Health, Newcastle-upon-Tyne, United Kingdom

Objectives: Structural imaging, particularly MRI, is increasingly used to investigate cases of dementia, both to improve accuracy of early diagnosis and to discriminate between subtypes. Previous studies have suggested that posterior cortical atrophy may be a useful marker for early onset Alzheimer's disease (AD). Dementia with Lewy Bodies (DLB) is associated with less temporal lobe atrophy than AD, though posterior cortical atrophy may be greater. We assessed whether visual rating scales for assessing posterior atrophy (PA), medial temporal atrophy (MTA) and ventricular enlargement on MRI brain imaging aid in the discrimination between late onset AD, DLB and normal ageing.

Methods: We visually rated T1 weighted MRI scans acquired at 3 Tesla for PA (range 0-3), medial temporal lobe atrophy (MTA) (range 0-4), and ventricular enlargement (range 0-3) in subjects with AD (n=35, mean age=78.3, MMSE=19.5), DLB (n=35, mean age= 78.4, MMSE=20.3) and similar aged controls (n=35, mean age=76.7, MMSE= 28.1). The ability of visual ratings of PA compared to MTA and ventricular enlargement to distinguish between AD, DLB and control groups was investigated.

Results: As expected mean MTA scores were significantly higher in AD compared to controls (3.1 ± 0.9 vs. 1.7 ± 0.7 , $p < 0.001$) and in DLB compared to controls (2.5 ± 1.0 vs. 1.7 ± 0.7 , $p < 0.01$). Mean scores for ventricular enlargement were also higher in AD (2.3 ± 0.5 vs. 1.7 ± 0.6 , $p \leq 0.001$) and DLB than in controls (2.2 ± 0.5 vs. 1.7 ± 0.6 , $p = 0.003$). However in AD and DLB, mean PA scores were not significantly different from controls (AD = 2.2 ± 0.7 , DLB = 2.1 ± 0.8 , controls = 1.9 ± 0.8 , $p > 0.19$).

Conclusion: Unlike findings reported in younger subjects, visual ratings for PA are not a reliable marker for distinguishing AD from control subjects, nor for distinguishing DLB from AD. However, visual ratings of MTA and ventricular enlargement may be useful in distinguishing both AD and DLB from non-demented older subjects.

Disclosure of Interest: None Declared

OC076

IS ILLICIT DRUG USE HARMFUL TO COGNITIVE FUNCTIONING IN MID-ADULT YEARS?

A. Dregan^{1,*}, M. Gulliford¹

¹Primary Care and Public Health, King's College, London, United Kingdom

Objectives: The present study investigated the prospective association between illicit drug use and cognitive functioning during mid-adult years.

Methods: A total of 8992 participants from the age 42 survey from the UK National Child Development Study (NCDS) were included. Data were analysed for responses on three cognitive functioning measures (memory index, executive functioning index and overall cognitive index) at age 50. Illicit drug use at age 42 was based on self-reported current and past use of 12 illicit drugs. Multivariable regression analyses were performed to estimate the association between different illicit drug use measures at age 42 and cognitive functioning at age 50

Results: A positive association was observed between ever (past or current) illicit drug use and cognitive functioning ($B=0.62, P<0.001$), *although the effect size was small*. Although there was no clear evidence against the null hypothesis drug dependence ($B=-0.27, P=0.58$) and long-term illicit drug use ($B=-0.04, P=0.87$) *tended to be negatively associated with cognitive functioning*.

Conclusion: At the population level it does not appear that current illicit drug use is associated with impaired cognitive functioning in early middle age. However, we cannot exclude the possibility that some individuals and groups, such as those with heavier or more prolonged use may be harmed.

References: Dregan A, Gulliford MC. Is illicit drug use harmful to cognitive functioning in mid adult years? A cohort-based investigation. American Journal Epidemiology (In press).

Disclosure of Interest: None Declared

OC077

NEGATIVE OUTCOMES FOR MCI CAREGIVERS – EVIDENCE FROM A SYSTEMATIC LITERATURE REVIEW

K. Seeher^{1,2,*}, L.-F. Low¹, S. Reppermund³, H. Brodaty^{1,2}

¹Dementia Collaborative Research Centre, University of New South Wales, Sydney, ²Academic Department for Old Age Psychiatry, Prince of Wales Hospital, Randwick, ³Brain & Ageing Research Program, University of New South Wales, Sydney, Australia

Objectives: Dementia caregiving is strongly linked to depression, anxiety or burden in caregivers. Little is known about whether the same holds for people supporting an older person with mild cognitive impairment (MCI). This review aims to systematically summarize the current evidence for negative caregiver outcomes in MCI using Pearlin and colleague's Caregiver Stress Process Model as a theoretical model.

Methods: The most common scientific literature databases were searched using MCI and caregiver related terms with 'AND' relations. Results were limited to quantitative English language articles published in peer-reviewed journals between 1980 and November 2010.

Results: Of the 266 identified papers, six reported relevant depression data on a total of 988 MCI caregivers (73% spouses). The pooled CES-D (Center for Epidemiologic Studies Depression Scale) mean score was 12.95 (SD=6.16). The pooled depression prevalence (i.e. CES-D \geq 16 or equivalent) was 23%. Two studies compared depression in MCI and dementia caregivers, indicating higher levels in dementia caregivers. Other negative outcomes such as burden, stress or anxiety were only investigated by single studies precluding pooling of data. Likewise, pooling of data on predictors of caregiver outcomes was impossible due to data heterogeneity. However, descriptive analysis of predictors revealed that the Pearlin and colleagues' Caregiver Stress Process Model at least partially applies to the context of MCI.

Conclusion: The studies reviewed were all cross-sectional in design involving clinical samples, thus limiting generalizability. While not as pronounced as in dementia caregivers, depression and psychological comorbidity are common complications in MCI caregivers. The long-term course of negative outcomes in MCI caregivers requires further investigation.

Disclosure of Interest: None Declared

OC078

NON PHARMACOLOGICAL INTERVENTIONS FOR DEMENTIA

K. Swaffer^{1,*}

¹Student, University of South Australia, Magill, Australia

Objectives: This presentation will tell my personal story of being diagnosed with a younger onset fronto temporal dementia, and the non pharmacological interventions being used, including some research and anecdotal evidence in support of them. Following the diagnosis of semantic dementia aged 49 featuring predominantly left temporal lobe involvement, with no treatment options, I realised I must find ways to manage it. I needed to accept it as a terminal illness, but more importantly, as a disease with disabilities to be controlled, rather than symptoms contributing to my demise. Features prominent as far back as 2006, and first examined in 2007 were impaired cognition and comprehension, mild speech difficulties and language dysfunction, episodic memory loss, mild anomia and surface dyslexia, although compensation for these disabilities was initially easy. Neuropsychological testing in 2008 showed increased deficits in the semantic categories, increased anomia, object and auditory agnosia, increased surface dyslexia, prosody and behaviour changes. Number cognition was also impaired, most likely due to parietal lobe involvement. Pharmacological interventions for semantic dementia are not currently available, and due to this, and the proactive response from my university disability advisors, treatment was limited to non pharmacological options. The advice of medical practitioners and some service providers was to give up work, give up tertiary studies and start living for the time I had left. This prescribed dis-engagement seemed at odds with what I perceived living to be, and so ignored it. Instead I developed strategies to be productive and set up a regime of activities and lifestyle changes specifically focused on each symptom, and on engagement. They included neuroplasticity exercises, Transcendental Meditation, self-hypnosis, healthy diet, natural supplements, physical exercise, education (academic), volunteering, grief counselling, creative writing and poetry as therapy, laughter, music therapy and finally, advocacy. Treating the symptoms of dementia as the gateway to support to overcome developing disabilities, rather than managing them in ways that hinder and restrict the person, and managing the emotional changes with counselling, rather than treating the physical symptoms with drugs, have become paramount for my well being and perceived longevity, and my current presentation belies the latest clinical picture.

Disclosure of Interest: None Declared

OC0079A

CLINICAL AND BIOMARKER CHARACTERISTICS OF RESPONDERS TO ELND005 (SCYLLO-INOSITOL): DATA FROM A PHASE 2 STUDY IN MILD TO MODERATE ALZHEIMER'S DISEASE

S. Abushakra^{1,*}, R. Jones², A. Porsteinsson³, G. Crans¹, C. Hernandez¹

¹Elan Pharmaceuticals Inc., South San Francisco, United States, ²The RICE Centre, Royal United Hospital, Bath, United Kingdom, ³University of Rochester Medical Center, Rochester, United States

Objectives: The objective of this analysis was to describe the clinical, imaging (v-MRI), and cerebrospinal fluid (CSF) biomarker characteristics of patients who demonstrated cognitive benefit to ELND005 (clinical responders on Neuropsychological Test Battery, NTB).

This was a post-hoc analysis of data from a placebo-controlled Phase 2 study in 353 patients with Mild/Moderate AD (MMSE 16-26), which evaluated 3 oral doses of ELND005 (250, 1000 and 2000mg all BID). The 2 highest doses were discontinued before study end due to safety findings (Salloway et al. 2011). For this analysis, response was defined as a stable or improved score on the NTB primary cognitive outcome and included data from the 3 dose groups. Baseline parameters and percent changes from baseline were compared using t-tests. Response rate was defined as the number of times a patient's NTB remained ≥ 0 at 12, 24, 48, or 78 weeks divided by the time in study. Correlation analyses were performed on the response rates.

The week 78 clinical NTB responders compared to non-responders (n= 39 and 109), had significantly higher baseline MMSE scores (mean 23.3 versus 20.6, $p < 0.001$), and lower baseline CSF tau and p-tau levels (n= 8 and 30, both $p < 0.005$). Responders also had significantly lower percent decrease in brain volume at all post-baseline time points; and lower percent increase in ventricular volume at 48 and 78 weeks. Statistically significant correlations between clinical response rates and both BV and VV were observed at weeks 24, 48, and 78. The response rate ratio of Mild to Moderate patients was 1.72 (CI: 1.34-2.21).

Patients who remained cognitively stable, or improved, over 78 weeks on ELND005 treatment were those with mild disease at baseline. Clinical responders developed significantly less brain atrophy and ventricular enlargement than non-responders over that period. Correlations of changes in CSF biomarkers and clinical outcomes may be limited by a relatively small CSF sample size at study end.

These data suggest that ELND005 treatment may be beneficial when initiated at the Mild stage of disease.

Disclosure of Interest: None Declared

OC080

DEMENTIA CARE-GIVERS PSYCHOLOGICAL HEALTH IN IRAN: PRELIMINARY FINDINGS

M. Foroughan^{1,2,*}, L. Hafarian², M. Jahangiri², M. Salehi²

¹Iranian Research Center on Aging, University of Social Welfare and Rehabilitation Sciences, ²Rehabilitation Unit, Alzheimer Association of Iran, Tehran, Iran, Islamic Republic Of

Objectives: Dementia care in Iran is a new challenge, so there are many questions which need to be answered according to the environmental, social, and cultural characteristics of care giving and care-givers of dementia in this country. The objects of this study are to determine: the psychological health of informal care-givers of dementia patients; the association between psychological health of the care-givers and the severity of cognitive impairment of the patients; the relation between the care-givers health status and their evaluation of the severity of the patients' cognitive impairments.

Methods: In this ongoing cross-sectional study, all patients' who successively will register in two day care center for dementia patients in Tehran (the only ones) in a 6 month period will enter the study. Informed consents will be taken of the patients and their care-givers. The patients will be evaluated to see whether they are meeting the DSM-IV-TR criteria for dementia diagnosis. For all confirmed cases, AMTS and IQCODE (1) will be implemented. GHQ (2) will be taken from the care-givers. Gathered data will be analyzed using Pearson's correlation coefficient, t- test, and analysis of variance.

Results: 56 care-givers, 43 females and 13 males, with the mean age of 44.68 (SD=14.87) participated during a 3 month period. Mean score of GHQ was 26.54 (SD=11.37), and the mean was higher in females than males. The mean score of AMTS and IQCODE were, respectively, 5.52±2.49 and 61.75±11.93, and they had a significant negative correlation at the 0.001 level. The GHQ scores correlated negatively with AMTS scores ($r = -0.254$) and positively with IQCODE scores ($r = 0.295$), and both correlations were significant, respectively, at the 0.05 level and 0.023. There were no significant relations between GHQ score and the age, sex, and level of education of the care-givers.

Conclusion: This study confirmed the previous findings regarding the endangered psychological health of the dementia care-givers and its relation with the cognitive states of the care-receivers. More detailed findings will be reported as soon as the study to be completed.

References: 1- Foroughan M. Screening of Dementia: cognitive tests validated in Iranian elderly. Arjmand Publication. 2010. Tehran.

2- Malakouti SK, Fatollahi P, Mirabzadeh A, Zandi T. (2007). Reliability, validity and factor structure of the GHQ-28 among elderly Iranians. *Inter Psychogeriatr* 19(4):623-634

Disclosure of Interest: None Declared

OC081

EVIDENCE BASED INTERVENTIONS IN DEMENTIA: THE EVIDEM EARLY DIAGNOSIS TRIAL

S. Iliffe^{1,*}, J. Wilcock¹, M. Griffin¹, P. Jain¹, I. Thune-Boyle¹, F. Lefford², D. Rapp²

¹Department of Primary Care & Population Health, ²Department of Primary Care & Population Health (Honorary), University College London, London, United Kingdom

Objectives: Previous research has shown that the ability of primary care physicians to recognise dementia can be improved by education, but that the subsequent management of the patient does not change. An educational needs assessment tool was created to facilitate development of a tailored educational package for primary care which aimed to improve clinical management of people with dementia.

Methods: Cluster randomised controlled trial of an educational intervention to enhance diagnostic and management skills in dementia among primary care staff. The educational intervention was developed by expert users, including carers, based on state-of-the-art educational principles for adult learning, and was used within the primary care workplace. Measures include recorded dementia reviews in medical records, with concordance with dementia guidelines measured in a sub-set of the trial population.

Results: Twenty-two practices in South East England participated in the trial, and identified 800 people with dementia, of whom 167 gave permission for detailed analysis of their medical records. Data collection is still underway, and will be completed in January 2012. The ADI conference will be the first opportunity to present the trial's results. Numbers of Dementia Reviews carried out before and one year after training in intervention practices, and numbers before and one year after allocation in control practices, will be compared. Concordance with dementia management guidelines will be reported for each arm, in terms of informant history, use of cognitive function tests, counselling and provision of information, support for carers and management of BPSD (including use of anti-psychotic medication).

Conclusion: The implications of the trial for clinical practice will be discussed.

Disclosure of Interest: None Declared

OC082

HOW CDKTN LINKS KNOWLEDGE TRANSLATED RESEARCH TO USERS

S. Kehoe^{1,*}

¹Canadian Dementia Knowledge Translation Network, Halifax, Canada

Objectives: The number of people with dementia is escalating resulting in families struggling as caregivers. Caregivers are challenged by timely access to research-based evidence, practices, services and resources. To facilitate effective knowledge translation, the Canadian Dementia Knowledge Translation Network (CDKTN) was established to help users acquire knowledge, and facilitate its use to improve the lives of people with dementia. These KT activities provide opportunities for individuals to learn and increase their understanding of dementia symptoms, practices and access to programs. CDKTN helps researchers, students and practitioners translate their work into practice and distribute it to those who need it most.

Methods: CDKTN members provide a vehicle for identifying and resolving gaps in research and practice, prevention, treatment and care. Areas of focus include: Education and Training in KT-developing specific training programs to bridge knowledge and training gaps, while complementing existing models. Dementia Resource and Knowledge Exchange-targets frontline professionals across a clinical-policy-social spectrum while focusing on knowledge exchange and sharing of resources. Person and Care Partner Centred KT-focuses on improving the quality of life for persons with dementia, their families and care partners. Knowledge users are engaged and actively involved in both the research and the KT&E process, from the identification of research priorities to the translation, exchange, use and evaluation of new knowledge generated by research.

Results: CDKTN's latest results are a collection of stories about people in our communities, defined by dementia and Alzheimer's disease that provide real insight and focuses on what families are saying. This knowledge empowers them to use new care techniques, by sharing experiences and posing questions. Building and not duplicating existing scientific, clinical and social excellence of translated knowledge includes: Music and lyric development: Songs describing dementia behaviour, symptoms, challenges, treatment development; Staying Active in Later Life Brochure-benefits of exercise; Filmed narratives (French and English films)

Conclusion: CDKTN's application of research findings for new KT approaches stimulate discussion of how research can be effectively utilized to become part of dementia care to improve the quality of care for people with dementia, their families and other care partners.

Disclosure of Interest: None Declared

OC083

MASTER COURSE FOR DEMENTIA STUDIES AT THE DANUBE UNIVERSITY KREMS, AUSTRIA

S. Auer^{1,2,*}, E. Span^{1,2}, C. Adler¹

¹M.A.S Alzheimerhilfe, Bad Ischl, ²Department for Clinical Neurosciences and Preventive Medicine, Danube University, Krems, Austria

Objectives: Success in improving the quality of life of persons with dementia and their caregivers can only be achieved if knowledge from different disciplines is integrated. All relevant disciplines have to work together on this important task. There is a serious gap between scientific knowledge and knowledge in practice environments such as hospitals, nursing homes, care environments and the decision making governmental agencies. We developed a curriculum with the intention of covering most of the specialty areas in order to improve the interdisciplinary knowledge of the different participating professionals. This curriculum is organized within the postgraduate teaching concept of the University and it consists of elements of basic biological knowledge about dementia, diagnostic criteria, pharmacological and nonpharmacological treatment concepts and stage specific care concepts.

Methodological knowledge such as statistics and basic scientific knowledge is part of the course curriculum in order to assist in making international scientific literature accessible. The students are stimulated to practice scientific writing and they are required to formulate a master thesis. The duration of the course is 3 years. The teaching language is currently German. The course was initiated in 2009 and there are 50 students enrolled from different European countries such as Italy, Switzerland, Germany and Austria. The course includes an international faculty. Successful participants have come from various professional backgrounds such as medicine, psychology, social work, nursing, teaching and law.

Disclosure of Interest: None Declared

OC084

SUPPORTING PERSONS WITH DEMENTIA IN KNOWLEDGE GENERATION AND TRANSLATION

L. Loiselle ^{1,*}, S. Dupuis ¹, C. McAiney ² and The Dementia Diagnosis Resource Kit Working Group

¹Murray Alzheimer Research and Education Program (MAREP), University of Waterloo, Waterloo, ²Department of Psychiatry & Behavioural Neurosciences, McMaster University, Hamilton, Canada

Objectives: Traditional approaches to knowledge mobilization fail to recognize the important contributions that persons with illness or disability can make to the knowledge generation and sharing process and the various ways in which learning and transformation can take place. Over the past decade, the Murray Alzheimer Research and Education Program (MAREP) has adopted a partnership approach with persons living with dementia, family care partners and professionals to identify the diverse knowledge needs of each group and develop accessible and useful tools for ensuring that relevant information gets to those who can use it the most. The purpose of this presentation is to describe the partnership process used in the development of a new web-based tool for those newly diagnosed with dementia and their families and to introduce the “Living with Dementia” tool to others.

Methods: A large working group, made up of persons with dementia, family members, a range of professionals working in dementia care and support, physicians, pharmacists, and researchers from several universities, including the Universities of Waterloo and McMaster, was brought together to develop a new resource that would be provided to persons with dementia and their family members at diagnosis. Using a Participatory Action Research (PAR) approach, we engaged the partnership in the development of the research protocol, gathering the information needed to inform the new resource, searching out and assessing existing resources/tools, deciding how best to reflect the information so that it is accessible and relevant to families newly diagnosed, creating the new resource, pilot testing it, and finally, developing a distribution plan.

Results: Guided by the principles and five enabling factors (connecting and committing, creating a safe space, valuing diverse perspectives, establishing and maintaining open communication, conducting regular critical reflection and dialogue) of the “Authentic Partnership” model, we will present how the stakeholders were engaged and supported in the PAR process. We will share strategies needed to support persons with dementia in particular in knowledge generation and translation.

Conclusion: Persons with dementia have the right to be, and must be, involved in dementia care. Through the process of engaging them in knowledge generation and sharing we can be assured that we are creating resources that are accessible and relevant to them.

Disclosure of Interest: None Declared

OC085

THE EFFECT OF EXERCISE ON BEHAVIOURAL AND PSYCHOLOGICAL SYMPTOMS IN DEMENTIA: A REVIEW OF THE LITERATURE

I. Thuné-Boyle^{1,*}, S. Iliffe¹, D. Lowery², A. Cerga Pashoja², J. Warner² and EVIDEM

¹Department of Primary Care and Population Health, University College London, ²CNWL NHS Foundation Trust, NHS, London, United Kingdom

Objectives: Behavioural and Psychological Symptoms of Dementia (BPSD) are common and are core symptoms of the condition. They cause considerable distress to the person with dementia and their carers and predict early institutionalisation and death. Historically, these symptoms have been managed with anxiolytic and antipsychotic medication. Although potentially effective, such medication has been used too widely and is associated with serious adverse side-effects and increased mortality. Consequently, there is a need to evaluate non-pharmacological therapies for behavioural and psychological symptoms in this population. One such therapy is physical activity which has wide-spread health benefits. The aim of this review is to summarise the current findings of the efficacy of physical activity on BPSD.

Methods: Published articles were identified using electronic and manual searches. Rather than systematically aggregating data, this review adopted a rapid critical interpretive approach to synthesis of the literature.

Results: Exercise appears to be beneficial in reducing some BPSD, especially depressed mood, agitation and wandering, and may also improve night-time sleep. Evidence of the efficacy of exercise on improving other symptoms such as anxiety, apathy and repetitive behaviours is currently weak or lacking.

Conclusion: The beneficial effect of exercise type, its duration and frequency is unclear although some studies suggest that walking for at least 30 minutes, several times a week may enhance outcome. The methodological shortcomings of current work in this area are substantial. The research and clinical implications of current findings will be discussed.

Disclosure of Interest: None Declared

LD8

End of Life

Ann Johnson

End of life should not be feared. We each have our beliefs about end of life and beyond. These should be taken into account by whoever is looking after us.

It is important, therefore, to make people aware of our wishes whilst we are still able to do so and discuss this with them.

End of life issues should not be left too late to discuss. Relatives should be enabled to feel comfortable to join a discussion.

I am not scared of dying - I think we are more scared of how we will die. If we are able to put in place our wishes whilst we are still able it will be easier.

I have a pre paid funeral plan - it has enabled me to say where I wish my funeral service to be, the content of my funeral, my cremation and where I wish my ashes to be placed.

LD9

When do end of life issues/needs/wants/care begin? What begins and what ends? Why?

Richard Taylor

Most professionals and the public speak of “end of life issues” as if they apply only/primarily to the 6 months to 6 minutes period preceding someone drawing their last breath. Since the myths and stigmas and even some professionals in the Alzheimer's community have adopted the view that a diagnosis of Dementia is in effect the beginning of the end of someone's life, followed by an indeterminate length of time when they are alive (but for all practical purposes as a whole human being they are empty/gone/dead) – since this is a feeling of caregivers - it is fitting to look at end of life issues in the broadest of definitions when directed to/at people living with the symptoms of dementia.

Are we fading away/dying faster than others? Will we die twice? And if the answer to these two questions is yes, how do we want others, how should/could be treated differently from those who are not fading away, will not die twice? And when the moment of the end of our life as we know it is foreseeable who/how/when/where should be treated differently from those whose end of life moment is still completely unpredictable/unforeseeable? What distinguishes palliative (some call it Hospice) care from other forms/strategies of care? Don't they both purport/believe/claim they are providing appropriate person centered care? Don't they both claim to meet the current needs of the person who is to a greater or lesser degree unable to meet their own needs? What exactly are these two sets of needs? How do/should they affect the forms/strategies of care? What's different about the two sets of needs lists? our demise?

Join Richard Taylor, author of Alzheimer's From the Inside Out, and a pioneering advocate for himself and others living with the symptoms of dementia in considering the philosophical, spiritual, and practical considerations of how others can best enable him and other kindred spirits to live and end their lives as they want, as they can, and as they should.

OC087

CAREGIVER AWARENESS OF DIAGNOSIS AND TREATMENT OF CEREBROVASCULAR RISK FACTORS IN PATIENTS WITH DEMENTIA DUE TO ALZHEIMER'S DISEASE AT AN UNIVERSITY HOSPITAL IN SÃO PAULO, BRAZIL

F. F. Oliveira^{1,*}, P. H. F. Bertolucci¹, E. S. Chen², M. A. C. Smith²

¹Department of Neurology and Neurosurgery, ²Department of Morphology and Genetics, Federal University of São Paulo - UNIFESP, Sao Paulo, Brazil

Objectives: To estimate how aware caregivers are of cerebrovascular (CV) risk factors being treatable causes of Alzheimer's disease (AD).

Methods: A total of 132 patients with AD were recruited. After cognitive screening, they were evaluated for the presence of CV risk factors: hypertension, diabetes *mellitus*, hypercholesterolemia, obesity (body mass index $\geq 30\text{kg/m}^2$), family history of vascular events, drinking in excess of 10l of alcoholic beverages per year, and currently or previously smoking. Caregivers were inquired on awareness of the need to control CV risk for prevention of both vascular events and neurodegenerative diseases such as AD, and also if patients were encouraged to follow any specific diets, to have regular physical activity, or to undergo pharmacological treatment. Fisher's exact test was used, $p < 0.05$.

Results: Clinical Dementia Rating scores had no influence over control of CV risk, with 50 patients scoring 1.0, 57 patients scoring 2.0, and 25 patients scoring 3.0. As for CV risk factors, 114 patients (86.4%) had hypertension, 93 (70.4%) had hypercholesterolemia, 36 (27.3%) had diabetes *mellitus*, 20 (15.2%) were obese, 34 (25.8%) had a history of drinking alcoholic beverages, and 54 (40.9%) were current or previous smokers. A total of 96 caregivers (72.7%) reported full awareness of the need to control CV risk, more often so when patients had hypertension ($p=0.042$), hypercholesterolemia ($p=0.031$) or family history of vascular diseases ($p=0.041$); 122 patients (89.7%) were under pharmacological control of their CV risk factors regardless of being aware of its importance; however, only 41 caregivers reported that patients followed a strict diet, and only 14 patients underwent regular physical activity. When caregivers were aware of the importance to control CV risk, patients were more likely to undergo pharmacological therapy ($p < 0.001$) or to follow a diet ($p=0.035$), and those who followed a specific diet were more likely to have hypertension ($p=0.012$), to practice physical activity ($p=0.034$) or to accept pharmacological therapy ($p < 0.001$). Only 8 (6.1%) of the 132 patients were under pharmacological therapy and reported following a diet and practicing regular physical activity at the same time.

Conclusion: Caregiver awareness of the need to control CV risk impacts positively on the lifestyles of AD patients.

Disclosure of Interest: F. Oliveira Grant/Research Support from: CAPES - Coordenação de Aperfeiçoamento de Pessoal de Nível Superior, Consultant of: Gerson Lehrman Group, P. Bertolucci Employee of: Federal University of São Paulo - UNIFESP, E. Chen Employee of: Federal University of São Paulo - UNIFESP, Grant/Research Support from: FAPESP - Fundação de Amparo à Pesquisa do Estado de São Paulo, M. Smith Employee of: Federal University of São Paulo - UNIFESP, Grant/Research Support from: FAPESP - Fundação de Amparo à Pesquisa do Estado de São Paulo

OC088

DOES A FAMILY MEETINGS INTERVENTION PREVENT DEPRESSION AND ANXIETY IN FAMILY CAREGIVERS OF DEMENTIA PATIENTS? A RANDOMIZED TRIAL

K. Joling^{1,*}, H. van Marwijk¹, F. Smit², H. van der Horst¹, P. Scheltens¹, P. van de Ven¹, M. Mittelman³, H. van Hout¹

¹VU University medical centre, Amsterdam, ²Netherlands Institute for Mental Health and Addiction, Utrecht, Netherlands, ³New York University School of Medicine, New York, United States

Objectives: Family caregivers of dementia patients are at increased risk of developing depression or anxiety. This study examines the preventive effects of family meetings for primary caregivers of community-dwelling dementia patients.

Methods: A randomized multicenter trial was conducted among 192 primary caregivers of community dwelling dementia patients. Caregivers did not meet the diagnostic criteria for depressive or anxiety disorder at baseline. Participants were randomized to the family meetings intervention (n=96) or usual care (n=96) condition. The intervention consisted of two individual sessions and four family meetings which occurred once every 2 to 3 months for a year. Outcome measures after 12 months were the incidence of a DSM-IV major depressive or anxiety disorder and change in depressive and anxiety symptoms (primary outcomes), caregiver burden and quality of life (secondary outcomes). Intention-to-treat as well as per protocol analyses were performed.

Results: A substantial number of caregivers (72/192) developed a depressive or anxiety disorder within 12 months. The intervention was not superior to usual care either in reducing the risk of disorder onset (IRR 0.98; 95% CI 0.66 to 1.45) or in reducing depressive (t = -0.63; 95% CI -3.91 to 1.10) or anxiety symptoms (t = -1.05; 95% CI -1.59 to 0.49). The intervention did not reduce caregiver burden or their health related quality of life.

Conclusion: This study did not demonstrate preventive effects of family meetings on the mental health of family caregivers. Further research should determine whether this intervention might be more beneficial if provided in a more concentrated dose, when applied for therapeutic purposes or targeted towards subgroups of caregivers.

Disclosure of Interest: None Declared

OC089

END OF LIFE CARE FOR PEOPLE WITH DEMENTIA: AN INTERVENTION TO PROMOTE INTEGRATED WORKING BETWEEN CARE HOME STAFF AND HEALTH CARE PRACTITIONERS

C. Goodman ^{1,*}, C. Nicholson ², E. Mathie ¹, S. Amador ¹

¹Centre for Research in Primary and Community Care, University of Hertfordshire, Hatfield, ²National Nursing Research Unit, King's College London, London, United Kingdom

Objectives: End-of-life trajectories of older people with dementia are often unclear to care home staff, family members and visiting health care practitioners who struggle in isolation from one another to determine the transition from living with to dying with or from dementia. Timely and appropriate agreements regarding end-of-life care are therefore difficult to reach. This presentation reports on a four year study that tracked the care received by 133 older people with dementia living in six residential care homes.

Methods: Phase one findings showed that 15-20% of the residents died each year and that even with access to palliative care support tools, dealing with uncertainty and shared decision making were key issues for care home staff and visiting health professionals (GPs and district nurses). Phase two, used a co design approach (Appreciative Inquiry AI) to bring together care home staff and visiting health care staff to identify what worked well in end of life care for people with dementia and use that as a basis to plan and implement change. The intervention consisted of three facilitated hour long AI sessions over six months. Analysis compared resource use, evidence of change in documentation, symptom management, and place of death before and after the intervention. Qualitative analyses focused on the change process, interactions between the different participants and if changes in end of life care for people with dementia were sustained.

Results: AI fostered rapid engagement between participants unused to working together. Appreciation of existing capabilities and specific knowledge enabled greater understanding of respective roles in caring for the older person with dementia. This process enabled them to go on to develop tools together that helped them to address the uncertainties they experienced. This included a script for discussing end-of-life wishes with relatives, a tool to support discussions with emergency and out of hours services and a GP led implementation and audit of advanced care planning. It did not increase resource use.

Conclusion: The intervention supported a shift in care home culture that could mitigate uncertainties inherent to end-of-life care of older people with dementia.

Disclosure of Interest: None Declared

OC090

IMPLEMENTATION OF A DEMENTIA FRIENDLY ENVIRONMENTAL DESIGN MODEL FOR SPECIAL CARE UNITS CONGRUENT WITH HUMAN RIGHTS

K. Charras^{1,*}, M. Demory¹, C. Eynard², G. Viatour¹

¹Psychosocial interventions department, FONDATION MEDERIC ALZHEIMER, ²CLEIRPPA, Paris, France

Objectives: The aim of this study was to elaborate a dementia friendly environmental design model for special care units benefiting from the Eval'zheimer© model of intervention, implemented by the Fondation Médéric Alzheimer. The environmental design model was elaborated on the basis of environmental parameters considered of use for designing a SCU for people with dementia and were related to Human Rights.

Methods: 1948 Human Rights Declaration was screened in order to identify articles directly or indirectly referring to environment. These articles were then reformulated into an observation grid in order to determine environmental design characteristics that needed to be implemented in three special care units in France. On the basis of these observations a qualitative factor analysis was undertaken to highlight relevant environmental design variables. Sub-variables were then identified and reformulated into questions in order to test the internal validity of the model according to the aim of this study. The model has then been tested on 4 other SCU's in France and used for design preconisation in order refurbish them.

Results: Six variables were identified for environmental design model – structuration, space social cohesion, domestic atmosphere, privacy, setting of care and control. Each variable was split into two or three sub-variables. The observations issued from the respective variables of the environmental design model correspond to those issued from the initial observation grid built in accordance with the Human Rights Declaration. This concordance indicates an acceptable internal validity of the model.

Conclusion: This model sets a basis for environmental design to be dementia friendly according to Human Rights. Although results are encouraging, evaluation of the structural and external validity of the model is needed. Further directions of research will be discussed.

Disclosure of Interest: None Declared

OC091

THE EFFECTS OF HUMOUR THERAPY DEPEND ON MANAGEMENT AND STAFF ENGAGEMENT: RESULTS FROM THE SYDNEY MULTISITE INTERVENTION OF LAUGHTERBOSSSES AND ELDERCLOWNS (SMILE) CLUSTERED RANDOMISED CONTROLLED TRIAL

H. Brodaty^{1,*}, L.-F. Low¹, B. Goodenough¹, P. Spitzer², J.-P. Bell³, L. Chenoweth^{4,5}, R. Fleming⁶, A.-N. Casey¹, J. Roast¹

¹Dementia Collaborative Research Centre, University of New South Wales, ²The Humour Foundation, ³The Arts Health Institute, ⁴Faculty of Nursing, Midwifery and Health, University of Technology, ⁵Health and Ageing Research Unit, South East Sydney Local Health District, Sydney, ⁶Dementia Training Study Centre, University of Wollongong, Wollongong, Australia

Objectives: To examine effects of humour therapy on resident depression, quality-of-life, agitation, behavioural disturbance and social engagement.

Methods: 399 residents were recruited from 35 residential aged care facilities in Sydney. Facilities were stratified based on bed size and level of care (hostel or nursing home) and randomised to intervention (17) or control (18 facilities) groups. Staff nominated to act as LaughterBosses for each facility completed 1 day of training on incorporating humour into daily care. LaughterBosses partnered with ElderClowns (performers experienced in using humour in health care) to engage residents through humour incorporating music, props and conversation over 12 weekly humour therapy sessions.

Researchers blind to group assignment collected information at baseline (week 0, n = 398), post-intervention (week 13, n = 371) and follow-up (week 26, n = 344). Main outcome measures were the Cornell Scale for Depression in Dementia (CSDD), Cohen-Mansfield Agitation Inventory (CMAI), Neuropsychiatric Inventory Nursing Home version (NPI), dementia related quality of life (DEMQOL) resident and proxy versions, and social engagement subscale of the Multidimensional Observation Scale for Elderly Subjects (MOSES). Researchers developed a tool on which they rated Management and LaughterBoss engagement with intervention based on observations and interviews. Multilevel models were used to test the interaction between intervention and LaughterBoss engagement scores and time, taking into account clustering of residents within facilities.

Results: There were significant improvements in CMAI agitation at post and follow-up for the humour therapy group relative to controls, but no significant time x group interactions on the other outcome measures. Within the subsample of intervention facilities, management engagement scores significantly predicted CMAI change scores, while LaughterBoss engagement scores significantly predicted change in CSDD depression scores and DEMQOL resident-rated quality of life.

Conclusion: Humour therapy reduced the level of agitation of aged care residents and should be considered as a non-pharmacological treatment. It is important to ensure that facility management and staff are adequately engaged to ensure that humour therapy is effective.

Disclosure of Interest: None Declared

OC092

TWO YEARS STUDY ON THE EFFICACY OF COGNITIVE TRAINING IN PATIENTS WITH MULTIPLE COGNITIVE DOMAIN AND AMNESIA MILD COGNITIVE IMPAIRMENT (MDMCIA)

F. Kounti^{1,*}, E. Poptsi¹, C. Agogiatou¹, E. Bakoglidou¹, A. Soumpourou¹, S. Zafeiropoulos¹, G. Batsila¹, E. Nikolaidou¹, F. Ouzouni¹, N. Markou¹, M. Zafeiropoulou¹, G. Giaglis¹, M. Tsolaki²

¹Day care center, Hellenic Alzheimer Assosiasion, ²Department of Neurology, Medical School, Aristotle University of Thessaloniki, Thessaloniki, Greece

Objectives: Cognitive training is beneficial for patients with Mild Cognitive Impairment (MCI). However, longitudinal studies are needed to evaluate the duration of the cognitive benefit yielding from the cognitive training. The objective of the study was the follow up of patients with multiple cognitive domains and amnesia Mild Cognitive Impairment (mdMCIa) after long term participation in cognitive training.

Methods: Participants were 141 MCI patients, classified in experimental and control groups, without statistically significant differences in age, sex, and education. Experimental group (N=96) attended 60 weekly cognitive training sessions of attention and executive function for a period of two years. Control group (N=45) continued the regular activities of daily life. Neuropsychological assessment was performed to both groups at baseline and two years later at the end of the training.

Results: After 2 years of cognitive training, MCI experimental group, in comparison to control had better performance in attention ($p=.010$), executive function ($p=.000$) and executive function in ADL ($p=.008$). Experimental group showed improved performance in attention, ($p\leq.005$), verbal memory ($p\leq .003$), visual memory ($p=.000$), executive function ($p\leq .007$), language ($p= .000$), daily function ($p=.041$) and general cognitive function ($p= .000$). In contrast, control group, two years after the beginning of the study, showed improvement in visual memory ($p=.005$) and deterioration in executive function ($p=.009$). Moreover, a percentage of 3% of the experimental participants - as opposed to the 11.11% of the control group- converted to dementia in the period of two years.

Conclusion: Longitudinal cognitive training helped mdMCIa patients improve their cognitive and functional performance as well as reduce the risk for developing dementia.

Disclosure of Interest: None Declared

OC093

A QUALITATIVE STUDY OF THE EXPERIENCES OF SIKH CARERS OF PEOPLE WITH DEMENTIA IN WOLVERHAMPTON, UK – THE NEED FOR A PERSON-CENTRED APPROACH TO CARE.

K. Jutla^{1,*}

¹Association for Dementia Studies, Institute for Health and Society, Worcester , United Kingdom

Objectives: There is a considerable evidence base revealing that minority ethnic groups in the UK are disadvantaged as service users. Recent research has highlighted the difficulties that Asian carers have in accessing services when caring for a relative with dementia. However, whilst the evidence of barriers in service provision for Asian carers is relatively well rehearsed, there is less understanding about why these barriers exist. Currently, research on the experiences of Asians caring for a person with dementia tends to focus on their experiences of services. Taking a biographical approach to fieldwork, my doctoral study explored how migration experiences and personal histories influence experiences of care amongst Sikh Carers in Wolverhampton caring for an older person with dementia. Whilst my findings re-affirm the barriers reported in existing research in this area, it extends such knowledge base by highlighting how being part of a migrant community, such as the Sikh community in Wolverhampton, impact on their experiences of caring for their family member with dementia. For example, my findings revealed that cultural norms about gendered roles and positions in the family within the Sikh community often result in carers' initial refusal of formal support from services. This paper discusses the challenges faced by Sikh carers and, using my research as an example, highlights the importance of understanding cultural norms and migration experiences when applying person centred approaches to care for people with dementia and their carers from minority ethnic communities.

Disclosure of Interest: None Declared

OC094

BETTER OUTCOMES FOR PATIENTS WITH DEMENTIA AND ACUTE CONDITIONS: REACH-OUT CARE BUNDLE

D. Brooker^{1,*}, D. Leung², C. Etches³, K. Bowley⁴, P. Smith⁵, G. Hampson⁴, D. Upton⁶, J. Willoughby⁴, J. Bray¹

¹Association for Dementia Studies, University of Worcester, Worcester, ²geriatric medicine, ³Nursing and Midwifery,

⁴Care of the Elderly, Royal Wolverhampton NHS Hospitals Trust, Wolverhampton, ⁵West Midlands, SHA, Birmingham, ⁶IHS, University of Worcester, Worcester, United Kingdom

Objectives: Within acute hospitals in the UK 40% of patients are likely to have dementia (NAO, 2007) and be particularly at risk of poor quality care. This paper reports on a two year innovative project to develop a suite of evidence-based interventions utilising a care bundle approach to improve patient out-comes within the hospital.

Methods: A Dementia Care Bundle was developed focusing on information from patients' families to support good communication, nutrition and an orientating environment. In order for the bundle to be undertaken reliably a suite of interventions were implemented to underpin this including a programme of staff and volunteer education, a specialist ward for patients with dementia and a hospital wide Dementia Action Network. This was evaluated using a variety of quantitative and qualitative techniques including questionnaires, interviews and a point prevalence survey.

Results: Patients, their families and staff are extremely positive about the changes. Complaints have reduced to zero. Within the hospital working with patients with dementia is high profile and is seen as exciting work. On the ward where the care bundle has been implemented there has been a reduced number of falls. The number of patients returning to their own homes has increased.

Conclusion: The complexities involved in the development of the service and the evaluation should not be underestimated. The accurate identification and coding of people with dementia is essential in the planning of services, particularly those with mild dementia. Improving outcomes for patients with dementia is challenging but with good leadership and the right interventions.

It is possible to make a significant difference to outcomes of people with dementia in acute hospitals.

Disclosure of Interest: None Declared

OC095

HOW CAN I TELL YOU WHAT'S GOING ON HERE? THE DEVELOPMENT OF PIECE-DEM: AN OBSERVATIONAL FRAMEWORK FOCUSSED ON THE EXPERIENCE OF RESIDENTS WITH ADVANCED DEMENTIA LIVING IN CARE HOMES

J. La Fontaine^{1,*}, D. J. Brooker¹

¹Association for Dementia Studies, University of Worcester, Worcester, United Kingdom

Objectives: In recent years, the Department of Health and Comic Relief have funded a series of research studies on abuse and neglect of vulnerable adults in care homes. People with advanced dementia who live in care settings, are highly dependent and therefore particularly vulnerable to abuse and neglect, but are often unable to report it. This study aimed to develop a robust and sensitive tool to assess the experience of those with very limited or fluctuating cognitive abilities. The aim was to develop a tool that focussed specifically on observable signs of abuse and neglect or risk factors associated with this. The aim was also to build in the ability to capture examples of excellent care that would indicate abuse and neglect are unlikely to occur.

Methods: Focus groups and individual interviews occurred. These sought to identify signs that would suggest a risk of abuse, neglect or loss of dignity or that would reassure them about the culture of a care home. Results were used to inform the development of the initial observational framework. This framework was then piloted in a number of care homes and subjected to further refinement, using an iterative process after each care home pilot. Standardised measures were used to assess quality of life and level of dependency.

Results: Thirteen in-depth interviews and five focus groups occurred, involving professionals, "whistle-blowers", family members whose loved ones have been abused in care and people living with dementia. Key themes were identified and used to develop an initial observational framework. This framework was piloted and further developed in practice in seven care homes in eleven successive trials. In-depth observations were conducted on 28 residents. Standardised measures suggested that the participants' quality of life was judged as poor, that they were highly dependent and that they had a significant degree of dementia. The PIECEdem observational framework developed from this process.

Conclusion: PIECE-dem provides a structured means of including the perspective of people with advanced dementia in research into the quality of care in care homes. PIECE-dem also has potential to be a useful tool in regulating, inspecting or monitoring care practice. Its development provides further insight to the experience people with advanced dementia in care.

Disclosure of Interest: None Declared

OC096

HOW TO DEVELOP A NEW DEMENTIA CARE PROGRAM – THE EXPRESSIONS EXAMPLE.

D. Troxel^{1,*}, H. Fowler², D. Newsom²

¹BEST FRIENDS, Sacramento, ²Prestige Senior Living, Vancouver, United States

Objectives: Prestige Care is a family owned business based in the Pacific Northwest and West Coast of the United States operating memory care communities, including social model assisted living and more medically oriented skilled nursing settings. In 2008, company leadership decided to recreate its memory care program incorporating the latest ideas around quality dementia care. Prestige set a goal of utilizing the best evidence based practice, while at the same time developing signature programs that would appeal to the person with dementia as well as his or her carers.

The new dementia care program is called Expressions, reflecting a contemporary view of dementia. The goal of the program is to allow residents to be able to “express themselves.” We break each day into the following key “expressions.”

Healthy Expressions– As research has suggested, exercise is very important for persons with Alzheimer's disease and the other dementias. ... Our Healthy Expressions activities focus on regular physical expression.

Tasty Expressions– Our Tasty Expression activities celebrate the joy and sensory pleasure that can come from food. Food provides nutrition, a chance for socialization, an opportunity to reminisce about favorite foods and recipes.

Artistic Expressions– These activities celebrate the creative spirit in us all. Research has established that persons with Alzheimer's and related dementias often experience a spike in creativity. Artistic Expressions celebrate and encourage imagination involving the arts, poetry and music.

Educational Expressions– These Expressions activities including classroom topics and old sayings emphasize the value and benefit that comes from lifelong learning. Even those who are profoundly forgetful, still enjoy the experience of learning.

Spiritual Expressions– Spirituality means different things to different people. For some people, it is a connection with God, or a higher being. For others, it is an experience of awe, focused attention, or mental discipline. Our Spiritual Expressions activities enable each person to develop inner peace through their own spiritual journey. This workshop will describe the development process of the new dementia program, how residents, staff and families have responded, and how the company works to sustain the program and enhance it over time. Participants will leave with new ideas and tools to develop their own excellent dementia program.

Disclosure of Interest: None Declared

OC097

THE MARTE MEO METHOD IN PREVENTION OF RESISTANCE BEHAVIOR IN MORNING CARE SITUATIONS

M. Munch^{1,*}

¹Psychogeriatric, NKS Olaviken alderspsykiatrisk sykehus, Erdal- Bergen, Norway

Background: Since 2009 Norwegian law opens for the possibility in using force when persons without consent competence show resistance in necessary healthcare. This includes morning care. Studies show that force is mostly used by caregivers in nursinghomes during morning care situations. The law requires certain that conditions, such as confidence-building measures, are tested before using force. Our experience with the Marte Meo method show that caregivers change their communication patterns and behavior in morning care situations, thus avoiding challenging behavior. **Objective:** To show how difference in caregiver behavior influence patient behavior in a negative or positive way, resulting in resistance and aggressive behavior or cooperation and signs of well being. **Method and results:** Marte Meo means “*in your own strength*” in Latin. It is a relational and communication based counseling method using short film footages of daily life situations of interaction between patients and caregivers. When analyzing interaction in counseling, the Marte Meo-therapist focuses on the situations where the communication is most successful, highlighting the importance of elements in supportive communication. The method was developed by Maria Aarts in the Netherlands in the late eighties and is today widely used over 30 countries in different areas, such as neonatal care, child abuse programs, kindergardens, schools, child psychiatry, palliative care. Since 2001 in dementia care in Norway, with good results. In this case study we show two film footages. The first shows interaction between a woman with dementia and two caregivers in a morning care situation resulting in spitting. The next footage, taken after counseling, shows a total different caregiver behavior. The caregiver emphasizes contact moments, follows and articulate the patient focus of attention and names in a simple way what she is doing. This results in cooperation from the patient without any signs of discomfort or resistance. **Conclusion:** The Marte Meo-method seems to increase the caregivers curiosity, awareness of the patients non-verbal signals as well as develop their communication and relation skills. These skills may prevent the use of force in a variety of interaction situations in dementia care.

Disclosure of Interest: None Declared

OC098

THE PERCEN STUDY: SUPPORTING CLIENT OUTCOMES IN THE RESIDENTIAL DEMENTIA CARE SETTING

L. Chenoweth^{1,*}, I. Forbes², M. King³, J. Stein-Parbury¹, R. Fleming⁴, H. Brodaty⁵, Y.-H. Jeon⁶, M. Haas⁷, G. Luscombe⁸

¹Faculty of Nursing, Midwifery and Health, ²Faculty of Design, Architecture and Building, University of Technology Sydney, ³School of Psychology, The University of Sydney, Sydney, ⁴Faculty of Health and Behavioural Sciences, University of Wollongong, Wollongong, ⁵School of Psychiatry, University of New South Wales, ⁶Faculty of Nursing and Midwifery, The University of Sydney, ⁷CHERE, University of Technology Sydney, ⁸Faculty of Medicine, The University of Sydney, Sydney, Australia

Objectives: To report the PerCEN cluster RCT study findings for aged care residents with dementia.

Methods: PerCEN (Chenoweth et al., 2010) was conducted over 3 years in 38 accredited Australian residential care homes with 601 consented residents over 60 years with dementia and 378 consenting permanent direct care staff (ANZCTR 12608000095369). A factorial group-randomised, cohort design with stratification was used to evaluate the effects of Person-Centred Care (PCC) and Person-Centred Care Environment (PCE) and their joint effects (PCC+PCE), compared with Usual Care and Environment (UC/UE). The main study outcomes were residents' Quality of Life (QoL), Behavioural and Psychological Symptoms of Dementia (BPSD), quality of care (QoC), residents' emotional responses to care and the efficacy and cost effectiveness of implementing PCC and PCE.

Results: PCC significantly decreased BPSD with time ($p < 0.001$), and significantly improved QoL ($p = 0.018$) with time, the QoC and associated increases in positive emotional responses. PCE significantly reduced BPSD with time ($p < 0.001$) and resident depression with time ($p < 0.001$). In contrast there were no significant changes over time in the UE and UC facilities in BPSD, QoL, depression, QoC and positive emotional responses. Cost analysis is in progress.

Conclusion: PerCEN findings provide convincing evidence for supporting a holistic Person-Centred residential aged/dementia care service.

References: Chenoweth, L., King, M., Stein-Parbury., Jeon, Y.-H., Brodaty, H., Haas, M., Forbes, I., Fleming, R., Luscombe, G. 2010 Study protocol of a Randomised Controlled Group Trial of client and care outcomes in the residential dementia care setting. *Worldviews on Evidence-Based Nursing*. Published online: 13 OCT 2010, DOI: 10.1111/j.1741-6787.2010.00204.x

Disclosure of Interest: None Declared

W7

The Volunteering Experience: The Best Thing Money Can't Buy

Across the world people give their time freely to help others in need, whether on a weekly basis, once a month or once a year. This is a global force of positive community action that deserves the best support we can provide.

In this workshop you will meet volunteers and employees from Alzheimer's Society in the UK, together with a colleague from Alzheimer Nederland.

You will learn about developments in volunteer recruitment and support, and hear about the online training experiences of the United Kingdom and Netherlands. You will also get to know what volunteering is like at local community level too, with UK volunteers sharing their experiences.

It will be an opportunity to learn, share ideas and be inspired. From talking action to taking action, ensuring that time offered by volunteers is converted into something that makes a real difference.

Volunteering is at the very heart of society. We want to keep it that way. We want to do more of it. We want to do it better. If you agree, then join us.

This workshop is ideal for you if you want:

- ideas about volunteer recruitment and support and how to make it better
- to understand how online learning can revolutionise your volunteer training

Bring plenty of thoughts and ideas.

We look forward to meeting you!

OC099

CASEMANAGEMENT & DEMENTIA NETWORKS IN THE NETHERLANDS

A.-M. Bruijs^{1,*}

¹Alzheimer Nederland, Bunnik, Netherlands

Objectives: Casemanagement & dementia networks in the Netherlands

It started with an ambition & goals

In 2008 the State Secretary of Health, welfare and Sports expressed the ambition to improve dementia care in the Netherlands. The State Secretary wanted to achieve this by 2 goals:

1. creating a coordinated range of care options that meet the client's needs and wishes

The range of coordinated dementia care options and the associated purchase of care to be available in practice throughout the Netherlands by 2011 at the latest.

2. delivering sufficient guidance and support for people with dementia and their carers.

By 2011 at the latest, some form of case management will form part of the overall range of coordinated dementia care options.

A dream come through?

For Alzheimer Nederland these 2 goals sounded like a dream come through. With the Ministry of Health, the national insurer's association and the employers' association for care providers joined hands and started in 2009 the national Programme on integrated Dementia Care.

Was this dream realistic as we are now in 2012?

What are the results of this ambition and goals today? In how many regions in the Netherlands is integrated dementia care realized? Is there enough case management and how did this professional develop herself during the years. How does Alzheimer Nederland intervene in the dementia care regions, politics and insurer's?

Did we succeed in our dreams or are there still too many things to hope for?

During the presentation we give you some facts and figures in realizing integrated dementia care and case management in the Netherlands. And of course our new goals for the coming years.

Disclosure of Interest: None Declared

OC100

COST OF DEMENTIA - INDIAN SCENARIO

S. Bharath^{1,*}, G. Rao²

¹Psychiatry, ²Epidemiology, National Institute of Mental Health and Neuroscien, Bangalore , India

Objectives: Dementia is a chronic degenerative disease with a deteriorating course. Advances in medical technologies, and changing demography of the world has made dementia a cognizable condition in all countries – either developed or developing nations. Cost of Dementia is very a complex one as it affects the family, society and the country more than the other illnesses. The repercussions are both at the microeconomical and macroeconomical levels of economy of a country.

The global cost of dementia is 604 billion US dollars. Most of the work on the cost of dementia is from developed countries like North America (Wimo and Prince 2010). This needs to be seen in the light of the fact that 14% of the persons with dementia live in developing nations but the cost of dementia in these countries account for only 1% of the total cost (Wimo and Prince 2010). Lack of awareness and non-availability of medical, psychosocial and welfare facilities in these countries make their 'direct cost' low; care being provided for informally by the family members 'indirect cost' or 'social cost' often are not recognized, calculated and reported.

There are 3.7 million Persons with Dementia currently in India. With the changing demography this is expected to double in the next two decades (ADI 2009). However there is very little work on the Cost of Dementia in India. There is no prospective work in this area. Care is usually informal and not accounted for in the cost. This is evident in the reporting of work by the 10/66 Dementia Research Group from India (Prince 2009)

The authors who are part of a Geriatric Psychiatric set up in an urban hospital setting in southern India have attempted to calculate the direct and indirect costs of care of dementia for families caring for persons with dementia.

The methodological frame-work of the calculation of the cost of dementia for an average Indian family where one of the members is suffering from dementia would be presented in the poster. Both direct and indirect costs have been assigned in the care of dementia and the cost of dementia calculated thereof.

References:

1. Wimo A., Prince M.J. (2010) World Alzheimer's Report :The Global Impact of Dementia – Introduction, Methods, Results and Discussion (in press)
2. Prince M.J. (2009) The 10/66 Dementia Research Group – 10 years on. Indian J Psychiatry, 51(5), 8-15.

Disclosure of Interest: None Declared

OC101

MAKING GENERAL HOSPITALS FIT FOR DEMENTIA CARE

R. Thompson ^{1,*}

¹Nursing Department, Royal College of Nursing, London, United Kingdom

Objectives: This abstract provides an overview of a UK wide project facilitated by the Royal College of Nursing and supported by the Department of Health. The project aims were to influence, provide leadership and offer guidance to those involved in the delivery of care for people with dementia and their families within general hospital settings.

As a result a commitment to care for people with dementia in general hospitals has been developed and is being supported by a range of stakeholders, including other royal colleges, and voluntary sector organizations. The commitment was informed by the views and experiences of people with dementia, family carers, practitioners and organizations via:

- · Findings from a survey of over 700 practitioners involved in the delivery of care about best practice
- · Findings from a survey of over 1,480 people with dementia and family carers/supporters about their experience of care
- · National guidelines and campaigns to support better care for people living with dementia and their families

The commitment is intended as a guide to support the delivery of dignified care for people living with dementia and their families. It sets out five key ingredients with supporting factors, for promoting a positive experience for people with dementia and their families and for staff to use in making positive changes to care.

SPACE – top five ingredients to support good dementia care

1. **Staff** who are skilled and have time to care.
2. **Partnership** working with carers.
3. **Assessment** and early identification of dementia.
4. **Care** plans which are person centred and individualised.
5. **Environments** that are dementia-friendly.

For further information see www.rcn.org.uk/dementia

Resources have been developed to support delivery of the commitment and are being shared and disseminated to practitioners and relevant organisations so that local actions can be developed in support of delivering the commitment.

Examples of best practice and evidence will also be shared so that others can learn from successes and discover how to support improvements in care.

Disclosure of Interest: None Declared

OC102

MANAGING BEHAVIOURAL AND PSYCHOLOGICAL SYMPTOMS IN PEOPLE WITH DEMENTIA IN CARE HOMES

A. Corbett¹, A. Burns², C. Ballard^{3,*}

¹Alzheimer's Society, ²Department of Health, ³King's College London, London, United Kingdom

Objectives: Alzheimer's Society and Department of Health have developed a best practice guide for health and social care professionals to support the optimised management of behavioural and psychological symptoms in people with dementia (BPSD). The guide is now available at www.alzheimers.org.uk/bpsdguide and is being promoted to professional audiences around the UK and abroad. The guide is an important evidence-based resource that Alzheimer's Society and Department of Health feel could play a key role in reducing the use of antipsychotics in people with dementia.

The ADI conference represents an exciting opportunity to communicate with health and social care professionals, particularly with staff working in care homes. We would propose a symposium session to promote the best practice guide and the principles of person-centred care and management of BPSD. This would include practical advice and the circulation of the guide for delegates. Speakers would include representatives from the Department of Health and Alzheimer's Society.

This proposed symposium is well aligned with current political imperatives regarding dementia, improved care and the reduction of antipsychotic drug use. The Society and Department of Health are major players in this field, and would provide a high quality event on a current and high priority topic.

References: 'Optimising management of behavioural and psychological symptoms of dementia: A best practice guide' Alzheimer's Society (www.alzheimers.org.uk/bpsdguide)

Disclosure of Interest: None Declared

OC103

THE (AB)USE OF ANTI-PSYCHOTICS IN PEOPLE WITH DEMENTIA ACCORDING TO THE LIVING CONDITIONS

V. Rocha^{1,*}, A. Marques^{1,2}, D. Figueiredo^{1,2}, M. Pinto^{1,2}, L. Sousa^{2,3}

¹School of Health Sciences, University of Aveiro, Aveiro, ²UNIFAI, ICBAS, Institute of Abel Salazar, University of Porto, Porto, ³Health Sciences Autonomous Section, University of Aveiro, Aveiro, Portugal

Objectives: Reduce the use of antipsychotics in people with dementia is recommended however, their widespread use in care homes has been reported. Therefore, this study aimed to report the prevalence of antipsychotics in dementia and explore their use according to the living conditions, i.e., community vs. care homes.

Methods: A cross-sectional study of people with medical diagnosis of dementia was performed in central region of Portugal. Data regarding socio-demographic, living condition and use of antipsychotics were collected through a structured questionnaire. Cognitive status and severity of dementia was assessed with the Mini-Mental State Examination.

Two groups were studied. Group 1(n=38) was a convenience sample recruited in the community (day center and home support services). Group 2(n=38) was a randomised sample selected from a larger sample of people with dementia in care homes. Written informed consent was obtained from the legal representatives. Descriptive statistics and non-parametric tests were applied using the PASW Statistics 18.0 for Windows.

Results: Group 1 mean age was 77.8±1 years old, 19 were female, most were married (n=21) and had 1-4 years of education (n=22). Group 2 mean age was 83.7±1.0 years old, most were women (n=31), widows (n=24) and had 1-4 years of education (n=17). There were no statistically significant differences between the groups for marital status, level of education, cognitive status and severity of dementia. However, the living conditions were found to significantly affect the use of antipsychotics in people with dementia, i.e., institutionalised participants (n=27; 71.1%) were substantially higher prescribed than participants from the community (n=11;28.9%).

Conclusion: Antipsychotics are commonly used among people with dementia and their higher use seems to be related with the institutionalisation. Therefore, awareness for this issue should be raised. Furthermore, more research is recommended on non-pharmacological interventions, which have been described as promising approaches to reduce the need of antipsychotics in dementia however, their implementation still lack evidence.

Disclosure of Interest: None Declared

OC104

A-MOP: AN ANTIPSYCHOTIC MEDICATION OPTIMIZATION PROGRAM FOR LONG TERM CARE

F. Sudbury^{1,*}, D. Robertson²

¹Broadmead Care Society, Victoria, Canada, ²Chief of Medical Staff, Broadmead Care Society, Victoria, Canada

Objectives: The A-MOP is a quality improvement project undertaken at The Lodge at Broadmead, a 225 long term care facility in Victoria, B.C., Canada, in which 75% of residents have a diagnosis of dementia. The A-MOP project focuses on: 1) the use of antipsychotic medications (both older and newer “atypicals”) in residents and, where possible, reducing utilization; and, 2) the development of a standardized process to ensure that all residents prescribed antipsychotic medications have a documented rationale for use and a plan for regular reassessment to determine whether the drug could be discontinued or dosage lowered without adverse consequences.

Methods: Methods include: 1) Establishing baseline data on antipsychotic drug use. 2) Engaging in critical review of the use of these medications for each resident through an audit and clinical review processes, and 3) Developing a process for ensuring that all residents receiving antipsychotic drugs are reviewed on a regular basis. This includes those who are receiving antipsychotic medication on admission and those receiving new antipsychotic prescriptions during the course of their stay.

Results: We will report on the descriptive statistics of antipsychotic medication use in the facility at the beginning and end of the project, including the types and average daily dose of antipsychotic medications being used; the results of the audits and clinical review process, including reasons for antipsychotic drug use, changes in antipsychotic drug use such as continued, discontinued, or changes in dose; and the process developed to ensure regular review and reassessment of the need for antipsychotic medications on an ongoing basis.

Conclusion: The project will be completed in February, 2012. Results and conclusions will be reported at the conference.

Disclosure of Interest: None Declared

OC105

A FOLLOW UP STUDY OF MILD COGNITIVE IMPAIRMENT INCIDENCE AND CONVERSION IN TWO COMMUNITIES IN URBAN AND RURAL BEIJING

Z. Liu^{1,*}, C. Zhuo¹, Y. Huang¹, S. Li¹, M. Prince²

¹Institute of Mental Health, Peking University, Beijing, China, ²Institute of Psychiatry, King's College London, London, United Kingdom

Objectives: To describe the incidence of mild cognitive impairment (MCI) and the conversion from MCI to dementia in urban and rural communities in Beijing and to explore risk factors of MCI incidence and the conversion.

Methods: One thousand and fifty nine elderly people aged 65 and over and 166 MCI cases in Xicheng District (urban) and Daxing District (rural) of Beijing were evaluated by a set of fully structured assessments (including Cognitive Test, Geriatric Mental State-B3 version, Informant Interview Questionnaire, Background Socio-demographic and Risk factor Questionnaire) in a one-stage process developed by the 10/66 research group. Dementia and MCI were diagnosed according to the general MCI and dementia criteria developed by Stockholm international conference. The 5-years cumulative incidence rate and average annual incidence rate of MCI, and the cumulative conversion rate and average annual conversion rate were calculated. Univariate and multivariate Cox regressions were applied for analysing the conversion and risk factors.

Results: (1) In this study, 193 subjects were diagnosed as MCI. The 5-year cumulative incidence rate was 10.38%, and the average annual incidence rate was 2.17% (95%CI: 1.76~2.30). (2) Older age, living in a rural area, lower education, history of stroke, history of diabetes, larger Waist Hip Ratio were risk factors of MCI incidence. Having spouse and physical exercise were the protective factors. (3) The Relative Risk of MCI conversion to dementia was 4.58. During the follow-up study, 74 MCI cases at baseline developed dementia. The 5-year cumulative conversion rate was 43.97%, and the average annual conversion rate was 10.94% (95%CI: 7.30-12.18%). (4) Older age, living in rural area, lower education, history of stroke, hypertension and heart disease were risk factors of MCI conversion. Living with spouse and physical exercise were the protective factors of MCI conversion.

Conclusion: Similar incidence and conversion rate are found from this study in elderly people aged 65 and over in Beijing, compared to previous studies in China and other countries. Similar risk factors are found for the MCI occurrence and conversion as well. This study provides a foundation for future prevention and intervention of MCI, which are of significant social and clinical value.

Disclosure of Interest: None Declared

OC106

MAPT STUDY: A 3-YEAR RANDOMIZED TRIAL OF OMEGA 3 AND/OR MULTIDOMAIN INTERVENTION FOR THE PREVENTION OF COGNITIVE DECLINE IN FRAIL ELDERLY SUBJECTS. METHODOLOGICAL ISSUES.

S. Andrieu^{1,2,3,*}, N. Coley^{1,2}, S. Gillette-Guyonnet^{1,2,3}, B. Vellas^{1,2,3}

¹INSERM U 1027, ²University of Toulouse, ³Toulouse University Hospital, Toulouse, France

Objectives: Several previous studies suggested that many factors may be involved in the occurrence of AD at late ages. Because of the probable multifactorial nature of AD, it seems logical to initiate multidomain interventions to examine their potential synergistic effects. We present the design of the ongoing Multidomain Alzheimer Preventive Trial (MAPT) Study.

Methods: The MAPT Study aims to evaluate the efficacy of a multidomain intervention and omega 3 in the prevention of cognitive decline in frail elderly persons aged 70 years or over. Subjects are randomized into one of the following four groups: omega 3 alone, multidomain intervention alone, omega 3 plus multidomain intervention, or placebo.

Results: The MAPT Study is a randomized, controlled trial conducted by hospital practitioners specializing in memory disorders in thirteen French cities. The study enrolled frail elderly subjects with at least one of the following criteria: subjective memory complaint spontaneously expressed to a GP, limitation in one instrumental activity of daily living (IADL), and slow walking speed. The multidomain intervention consists of collective training sessions (nutritional advices, cognitive and physical activities) and a yearly personalized preventive consultation aiming to detect risk factors and set up management in collaboration with the general practitioner (GP).

The principal outcome measure is a change in cognitive function at 3 years, as determined by the Grober and Buschke Test. We plan also to assess efficacy of intervention on cognition at 5 years of follow up. As secondary outcomes, imaging (PET for imaging beta-amyloid pathology and metabolism, MRI) and biological data are collected in a subsample of the population.

A total of 2594 subjects were screened for participation, of whom 1680 fulfilled the eligibility criteria and were entered into the study.

Disclosure of Interest: None Declared

OC107

DIFFERENTIAL IMPACT OF MIDLIFE MOTIVATIONAL ABILITIES ON COGNITIVE IMPAIRMENT AND DEPRESSION/APATHY IN ALZHEIMER'S PATIENTS

S. Forstmeier^{1,*}, M. Mortby², A. Maercker¹

¹Dept. of Psychology, University of Zurich, Zurich, Switzerland, ²Ageing Research Unit, College of Medicine, Biology & Environment, Australian National University, Canberra, Australia

Objectives: Midlife motivational abilities have been related to a variety of mental and physical health outcomes. We propose on the basis of the brain reserve model that exercising motivational abilities throughout life increases the number of synaptic connections, leading to the more efficient use of relevant brain networks and to the compensation of disrupted networks. In two studies, the hypothesis was tested that lower premorbid motivational abilities are associated with higher risk of cognitive impairment and Alzheimer's disease (AD) as well as higher prevalence of depression and apathy in AD.

Methods: Premorbid motivational abilities of the participants were estimated on the basis of the individual occupational history using the Occupational Information Network (O*NET) database. First study: In the German Study on Ageing, Cognition and Dementia in Primary Care Patients (AgeCoDe), a total of 3,327 non-demented participants aged 75-89 were followed up twice. In addition to midlife motivational abilities, established medical, genetic, and psychosocial risk factors of AD were assessed. Second Study: In a sub-sample of the Aging, Demographics, and Memory Study (ADAMS, N=137), participants, aged over 70, were categorized according to baseline clinical diagnosis (unimpaired cognition, MCI or AD). Neuropsychiatric symptoms were assessed using the Neuropsychiatric Inventory.

Results: The results of the first study show that, in a fully adjusted model, midlife motivational abilities were associated with a reduced risk of MCI (HR: 0.77; 95% CI: 0.64–0.92). Midlife motivational abilities were associated with reduced risk of AD in ApoE ε4 carriers (HR: 0.48; CI: 0.25–0.91), but not in non-carriers (HR: 0.99; CI: 0.65–1.53). Second study: Apathy and depression were found to be particularly high in participants with AD and high motivational abilities.

Conclusion: These results suggest that midlife motivational abilities are associated with reduced risk of MCI in general and with reduced risk of AD in ApoE ε4 carriers. However, it would appear that holding on to unattainable goals with strong motivational efforts when faced with severe cognitive loss might lead to unproductive persistence, depressive reaction and more apathetic behavior.

References: Forstmeier, S. et al. (2011). Psychology and Aging. Advance online publication.
Mortby, M. et al. (2011). Journal of Geriatric Psychiatry and Neurology, 24.

Disclosure of Interest: None Declared

OC108

FINNISH GERIATRIC INTERVENTION STUDY TO PREVENT COGNITIVE IMPAIRMENT AND DISABILITY (FINGER)

M. Kivipelto¹, A. Solomon^{2,*}, T. Ngandu³, S. Ahtiluoto³, T. Laatikainen³, T. Strandberg⁴, J. Tuomilehto⁵, H. Soininen⁶

¹Aging Research Center, Karolinska Institute, Stockholm, Sweden, ²Neurology, University of Eastern Finland, Kuopio, ³National Institute for Health and Welfare, Helsinki, ⁴University of Oulu, Oulu, ⁵University of Helsinki, Helsinki, ⁶University of Eastern Finland, Kuopio, Finland

Objectives: Dementia and Alzheimer's disease (AD) share many vascular and life-style related risk factors with cardio- and cerebrovascular diseases. Finnish Geriatric Intervention Study to Prevent Cognitive Impairment and Disability (FINGER) is a carefully designed and monitored multi-center randomized controlled trial aiming to lower the risk of cognitive impairment and dementia.

Methods: The study population of approximately 1200 individuals at risk are recruited from previous population-based non-intervention studies. The 2-year intervention consists of i) Nutritional guidance, ii) Exercise, iii) Cognitive training and social activity, and iv) Intensive monitoring and management of metabolic and vascular risk factors. Persons in the control group get regular health advice. Primary outcomes are cognitive impairment measured with modified Neuropsychological Test Battery, Stroop, and Trail Making test. The main secondary outcomes are: dementia (after extended follow-up), disability, depressive symptoms, vascular risk factors and outcomes, quality of life, utilization of health resources, and for a subgroup changes on neuroimaging.

Results: Screening began in September 2009 and is expected to be completed in 2011. Over 1100 persons are already enrolled and all the intervention is ongoing as planned. The baseline clinical characteristics indicate that several vascular risk factors and unhealthy lifestyle factors are present, creating a window of opportunity for the intervention. The intervention will be completed in 2013.

Conclusion: FINGER investigates to what extent a multi-domain intervention can prevent cognitive impairment in an elderly population at increased risk of cognitive decline. It will provide valuable information for future interventions and for implementation of preventive measures for the population at risk.

Disclosure of Interest: None Declared

OC109

PRELIMINARY EVIDENCE FOR A LINK BETWEEN PERIODONTAL DISEASE AND ALZHEIMER'S DISEASE

S. Poole^{1,*}, S. K. Singhrao², S. Crean¹

¹School of Postgraduate Medical and Dental Education, ²University of Central Lancashire, Preston, United Kingdom

Objectives: Alzheimer's disease (AD) is associated with impaired memory and a number of classical features such as A β 4 deposits, hyperphosphorylated neurofibrillary tangles and synapse loss that are implicated for loss of function. Some research suggests that exogenous sources of inflammatory mediators may access brain tissue and exacerbate the disease process. This concept links periodontal disease (PD) with AD as antibodies to PD pathogens and cytokines have been identified in blood serum from AD patients. PD is a complex inflammatory disease encompassing *Porphyromonas gingivalis*, *Treponema denticola* and *Tannerella forsythia* as aetiological agent. This aims of this study was to identify an intra-cerebral presence of *P. gingivalis* and/or its virulence factors in AD brains.

Methods: Brain tissues from 10 AD cases and 5 age-related controls (Brains for Dementia Research tissue bank) were examined. Genomic DNA was isolated and amplified using primers from the 16s RNA gene of the bacterial domain using polymerase chain reaction (PCR). To demonstrate virulence factors, immunofluorescence labelling and immunoblotting was performed on brain tissue sections and tissue lysate respectively, using a specific antibody raised to *P. gingivalis*. Histology was used to confirm the likely mode of entry of the microorganisms and/or the virulence factors into the brain tissue.

Results: At the gene level, PCR data from all human brain specimens remained negative for *P. gingivalis* DNA. At the protein level, immunofluorescence labelling was detected intracellularly in only a few cells but demonstrated significant extracellular aggregates that were also observed in blood vessel lumens. Immunoblotting demonstrated bands corresponding to lipopolysaccharide (LPS) from *P. gingivalis* used as a positive control.

Conclusion: This study provides some evidence of the presence of LPS from *P. gingivalis* in AD brain tissue suggesting a preliminary link between PD and AD. The fact that the staining was associated with extracellular aggregates that were also associated with the blood vessels suggests LPS may gain entry to the brain via the vascular channels. Research assessing potential relationships between PD pathogens and their impact on early pathological signs contributing to cognitive dysfunction is important for uncovering unique pathogenic mechanisms for cognitive impairment and ultimately AD.

Disclosure of Interest: None Declared

OC110

SERUM CLUSTERIN LEVELS AND THE RISK OF ALZHEIMER'S DISEASE IN CHINESE OLDER ADULTS WITH AMNESTIC MILD COGNITIVE IMPAIRMENT. A 3-YEAR PROSPECTIVE COHORT STUDY

L.-W. Chu ^{1,2,3,4,*}, A. Xu ^{2,5}, L. Zhou ⁵, W. Yudong ⁵, Y. Song ⁵, K. S. Lam ⁵

¹Department of Medicine, Queen Mary Hospital, ²Research Centre of Heart, Brain, Hormone & Healthy Aging, LKS Faculty of Medicine, ³Alzheimer's Disease Research Network, SRT Healthy Aging, ⁴Department of Biochemistry, LKS Faculty of Medicine, ⁵Department of Medicine, LKS Faculty of Medicine, THE UNIVERSITY OF HONG KONG, Hong Kong, Hong Kong, China

Objectives: Genome-wide association studies showed an association of late-onset Alzheimer's disease (AD) with a single nucleotide polymorphism of the clusterin gene. Limited data from Caucasian studies show that the relationship of plasma clusterin levels and AD is still unclear, as the latter cannot predict AD in presymptomatic persons. There is no published data in Chinese populations. The objective of this study was to investigate the value of the serum clusterin level in predicting the progression to Alzheimer's disease (AD) among Chinese older adults with amnesic mild cognitive impairment (aMCI).

Methods: *Design:* A 3-year prospective cohort study; *Setting:* Ambulatory setting. *Subjects:* Chinese older adults, aged 55 to 93 years old, with aMCI by the Petersen's criteria. *Measurements:* Baseline demographic and clinical factors, serum clusterin level, and apolipoprotein E genotype. All subjects were followed for three years. AD was diagnosed by the NINCDS-ADRDA criteria for probable AD.

Results: 139 Chinese older adults with aMCI were recruited. 25.2% (n=35) of them declined to Alzheimer's disease (AD) during the 3-year follow-up period. Age but not gender increased the risk of decline to AD. The mean (SD) serum clusterin levels of older adults who progressed to AD and those who did not were 35.5 (14.9) ug/ml and 37.0 (13.9) ug/ml respectively, with no significant difference in the serum clusterin levels between the two groups, in both bivariate analysis and multivariate logistic regression analysis, after adjustment for sex, age and apolipoprotein E genotype.

Conclusion: In Chinese older adults with aMCI, the serum clusterin level is not a predictor of progression to AD.

References: 1. Schrijvers EM, Koudstaal PJ, Hofman A, Breteler MM. Plasma clusterin and the risk of Alzheimer disease. JAMA. 2011;305(13):1322-6. 2. IJsselstijn L, Dekker LJ, Koudstaal PJ, Hofman A, Silveis Smitt PA, Breteler MM, Luidert TM. Serum clusterin levels are not increased in presymptomatic Alzheimer's disease. J Proteome Res. 2011 Apr 1;10(4):2006-10.

Disclosure of Interest: None Declared

OC110A

PREVENTION OF DEMENTIA BY INTENSIVE VASCULAR CARE – THE PREDIVA STUDY

E. Richard ^{1,*}, E. P. Moll van Charante ¹, W. A. van Gool ¹

¹University of Amsterdam, Amsterdam, Netherlands

Objectives: Cardiovascular risk factors are associated with an increased risk of dementia. Some clinical trials using dementia as a secondary outcome have shown that treatment of hypertension can probably contribute to prevention of cognitive decline and dementia. For other vascular risk factors (DM, hypercholesterolemia, obesity, smoking, lack of physical exercise) this is less clear.

Methods: PreDIVA (Prevention of Dementia by Intensive Vascular Care) is an ongoing cluster-randomized controlled clinical trial among 3534 community-dwelling subjects aged 70-78 years with a 6 year follow-up. Subjects are randomized to standard care or intensive vascular care, which comprises 4-monthly visits to a practice nurse who addresses all vascular risk factors. Physical exercise is encouraged, dietary advice is given and medical treatment of risk factors is optimized. Primary outcomes are dementia and handicap. Secondary outcomes are mortality, vascular events and cognitive decline.

Results: PreDIVA started in 2006 and follow-up will be completed in 2015. At baseline 87% had at least one risk factor amenable to treatment and 63% had two or more. Systolic blood pressure was >160 in 37%, of whom 52% is untreated. 35% of participants have a history of cardiovascular disease. A formal interim analysis will take place after complete 4 year follow-up, expected in 2013.

Conclusion: There is a large window of opportunity to improve vascular care in the elderly. A multi-component intervention with a long follow-up in the elderly is feasible. PreDIVA will answer the question whether dementia can actually be postponed or prevented with such a pragmatic multi-component intervention.

Disclosure of Interest: None Declared

OC111

A UNIQUE PARTNERSHIP FOR AN ARTISTIC AND INTERGENERATIONAL PROJECT INVOLVING PEOPLE WITH DEMENTIA: 800 KITES FLY OVER MONACO AND THE FRENCH RIVIERA ON WORLD ALZHEIMER'S DAY

K. Williams^{1,*}, F. Palermi¹, A. Pesce¹, P. Migliasso²

¹AMPA, MONACO, Monaco, ²Day Care Centre Sperenza – Albert II, Monaco

Objectives: Innovative and symbolic ways of increasing public awareness are necessary in order to fight against the negative image of Alzheimer's disease and the stigma that weighs heavily upon people with dementia. AMPA, Monegasque Association for research on Alzheimer's disease, managed to mobilize all those involved in the care of Alzheimer's patients in Monaco and throughout the French Riviera to carry out an artistic and intergenerational project. This project consisted in flying 800 kites across the French Riviera at the same time on World Alzheimer's Day. The originality lies in the fact that these kites were first painted by children and people with Alzheimer's disease in intergenerational paint workshops. There were 4 main objectives: 1. To valorise these artistic creations in order to show that people with dementia maintain their creative and communicative capacities. 2. To promote the beneficial effects of non-pharmacological interventions. 3. To encourage intergenerational interaction 4. To mobilise the forces of all the Alzheimer's associations and structures in each town across the French Riviera. The project involved 300 patients and 300 children. The aim was to paint 800 kites. During a period of 2 months, 40 paint workshops were organised with Alzheimer's patients and children. Approximately 20 kites were decorated during each workshop. Although these workshops were supervised by professionals, each participant was able to express their creativity spontaneously and freely. The results were very positive, especially in terms of satisfaction of the patients, children, families and professionals. During the paint workshops, natural bonds were created between the patients, children and professionals. In terms of visibility and public awareness, the event was given good coverage in the local press and media. There were several television reports and articles about the paint workshops and World Alzheimer's Day. By including people with Alzheimer's disease in a project to raise awareness, we can demonstrate that they are able to maintain their ability to act in society. In order to change the image surrounding the illness, it is essential to communicate with people with Alzheimer's disease and not only for them.

Disclosure of Interest: None Declared

OC112

ARTS AND MUSIC PROGRAMS FOR PEOPLE WITH DEMENTIA: AN EDUCATIONAL APPROACH

F. Rosenberg^{1,*}, K. Horbury², E. McCall³, L. Humble⁴

¹Department of Education, The Museum of Modern Art, New York, United States, ²Education Department, Royal Academy of Arts, ³Wigmore Hall Learning, Wigmore Hall, London, United Kingdom, ⁴The MoMA Alzheimer's Project, The Museum of Modern Art, New York, United States

Objectives: Arts and music education programs provide a means for creative engagement for people affected by Alzheimer's disease, which can lead to positive changes in participants' quality of life. These programs can also be beneficial to dementia care professionals as they provide a chance to gain new understanding about their clients' interests, opinions, and talents. In this session, educators from The Museum of Modern Art (MoMA), The Royal Academy of Arts (RA) and Wigmore Hall will provide an overview of their respective arts engagement programs for this audience, teaching and evaluation methods, and educational potential for care professionals.

MoMA serves people with dementia through various programs, including a gallery program for individuals with Alzheimer's disease and their carers, called Meet Me at MoMA, as well as visits to and from care facilities throughout New York. In 2007, the Museum contracted with the New York University School of Medicine to conduct an evidence-based research study of the Meet Me at MoMA program, which assessed changes to participants' quality of life. MoMA continues to conduct programs for this audience and offers training for carers and staff from care facilities.

As part of a comprehensive program to include diverse special needs audiences, the RA has recently created a program for people with Alzheimer's disease called InMind at the RA. The program comprises monthly gallery-based coffee and conversation sessions for people with dementia and Alzheimer's disease and their family members and carers. Their program is currently undergoing evaluation.

Music for Life *'creates a space in which moments happen, where people with dementia, carers and musicians can connect, communicate and express themselves with respect and dignity'*. It was founded by Linda Rose in 1993, in partnership with Jewish Care and an expanding team of musicians and is now managed by Wigmore Hall in partnership with Dementia UK. The work has been developed over 18 years through an on-going process of reflective practice. Taking place over 8 weeks in residential homes, each project aims to enhance the quality of life of its participants and demonstrate to care staff the emotional, social and physical potential of people in their care. The practice of Music for Life is also the focus of a Netherlands research project led by Lifelong Learning in Music & the Arts.

Disclosure of Interest: None Declared

OC113

CREATIVE JOURNEYS: ART AS THE LANGUAGE OF DEMENTIA

M. Burns^{1,*}

¹Activity Director, Senior Access, San Anselmo, United States

Objectives: We can optimize the quality of life of those affected by Alzheimer's disease, dementia or other cognitive challenges through the use of expressive arts. This workshop will demonstrate how to create an expressive arts program designed specifically for dementia care settings. This innovative program not only provides a forum for those with Alzheimer's disease to express themselves, but also addresses some of the ever-growing societal issues emerging with diagnosis.

Progressive cognitive decline often leads to the loss of initiative and communication skills. In many instances this results in isolation, depression, and anxiety. Stimulating activities and specifically the Expressive Arts program at the Senior Access Adult Day Center mitigates these issues while enhancing cognitive engagement.

The Creative Journeys workshop will outline ten components to overcoming the challenges in completing successful and unique art projects with cognitively impaired individuals. The outcomes of this process are both sophisticated and creative.

Workshop participants will learn how to:

1. Enhance cognitive functioning, peer connections, decision making, fine motor skills and provide a sense of purpose and accomplishment for the individual;
 2. Capture a lasting expression of each individual through each art piece;
 3. Facilitate a hands-on experience by completing a model project (dependant on length of workshop);
 4. Increase public awareness through exhibits of client artwork, serving as dementia awareness campaigns.
- Art exhibits showcase the surprising talents of the traditionally marginalized dementia population to help ease the discrimination and stigmatization within the community at large.

Workshop participants will also receive a Creative Journeys Manual which includes instructions for 15 manageable art projects suitable for any health care setting or at home.

Disclosure of Interest: None Declared

OC114

FICTIONAL REPRESENTATIONS OF DEMENTIA AND THEIR EDUCATIONAL POTENTIAL

G. Morris^{1,*}

¹School of Healthcare, University of Leeds, Leeds, United Kingdom

Objectives: This presentation reflects upon a teaching approach utilising fictional representations of dementia found within the media. It specifically relates to examples selected from film, television and books, which have been used with healthcare students learning about dementia care. These are: J. Bernlef's book *Out of Mind* (first-person narrative outlining the dementia experience through an individual's fragmenting cognition); Coronation Street / Mike Baldwin (television soap covering a principal character's experience of Alzheimer's disease); and the feature film *Away from Her* (poignant and emotional account of the impact that dementia has upon a partner). The reason for selecting these resources is their accessibility, impact and educational potential. There is a rich array of learning resources to be found within the media including both factual and fictional representations. These provide those experiencing dementia a platform from which to be heard and better understood. From a learning perspective factual resources are well complemented through the use of fictional products because of their engaging and impactful qualities. Not only have these products appeal but also great learning value in terms of contextualising the dementia experience and helping learners acknowledge more about the lived and felt experience encountered day to day. It is the intention of this presentation to examine the messages being conveyed by these products, their educational potential and the specific communicative qualities of each media type. Audio-visual products for example have their own influences upon engagement with regards to music, facial expressions, characterisation, dialogue and expressive tone. Literature meanwhile, dependent upon narrative style (first or third person), has the ability to take the reader into a person's internal world experiencing along with the narrator their thoughts and feelings. Selected fictional products therefore can be immensely powerful with regards to encouraging empathic understanding. This is where those accessing these resources enter readily into the 'reality' created by a product's narrative, having a contextual appreciation for the dementia experience and a sense of identification with those concerned. Other fictional products across the wider media spectrum will be outlined with opportunities provided for questions and discussion.

Disclosure of Interest: None Declared

OC115

INSIDE OUT OF MIND: A PLAY BASED ON RESEARCH IN DEMENTIA WARDS

J. Schneider^{1,*}, S. Lowe², T. Myers², K. Scales³, S. Bailey⁴, J. Lloyd⁵

¹Sociology & Social Policy, University of Nottingham, ²Meeting Ground Theatre Company, ³CLAHRC-NDL, University of Nottingham, Nottingham, ⁴Manchester Business School, Manchester, ⁵Psychology, University of Nottingham, Nottingham, United Kingdom

Objectives: The presenting author will describe the production of a play based on research field-notes from an ethnographic study of dementia care wards, and how the use of theatre and engaging people through this medium may afford new ways to tackle some of the issues concerned with stigma, knowledge translation and identity in dementia.

The play is set in a dementia ward. The patients, staff and visitors are portrayed, based on field-notes collected during the study. A 10-15 minute DVD will be shown, which documents a five day workshop around the play. This DVD will illustrate the creative process and in particular how researchers are sometimes actors and actors are sometimes researchers. The presentation is intended to generate discussion with the audience about the use of theatre in dementia education. If co-authors are able to attend, they will contribute their different perspectives as playwright, director, researcher and researcher-turned-actor.

This project was funded by the National Institute for Health Research Service Delivery and Organisation programme (project number 08/1819/222). The views and opinions expressed below are those of the authors and do not necessarily reflect those of the NIHR SDO programme or the Department of Health.

Disclosure of Interest: None Declared

OC116

USING 'ACTIVIST ART' TO MEDIATE AGENCY WITHIN THE DEMENTIA FRATERNITY

R. Bartlett^{1,*}, C. Hick², D. Wallace³, R. Campbell⁴, L. Gardiner⁵, A. Houston⁴, N. McAdam⁴, J. McKillop⁴, E. McLaughlin⁴

¹Faculty of Health Sciences, University of Southampton, Southampton, ²University of Bradford, Bradford, ³None, High Bentham, ⁴SDWG, Glasgow, ⁵Oxfordshire Advocacy, Oxford, United Kingdom

Objectives: 'Activist art' is about using art to engage communities and bring about social change. It is an art method that has been used in relation to HIV/Aids and other socially perplexing issues. The purpose of this presentation is to share our experiences of working collaboratively and creatively to develop and curate a research-inspired 'activist-art' exhibition about people with dementia engaged in social and political life. The exhibition, funded by the UK Economic and Social Research Council and entitled *No Limits – Reimagining Life with Dementia*, comprises of a specially commissioned short documentary film called *Agnes & Nancy*, large embroidered banners, 'protest placards' and website www.nolimitsdementia.com. Most of the work for the exhibition was developed during a short residency in the Lake District. It has toured three cities in the UK - Bradford, Glasgow and Liverpool. The exhibition was inspired by original research on dementia activism conducted by Bartlett and involving Campbell, Gardiner, Houston, McAdam, McKillop, McLaughlin, Wallace, and nine other people with dementia civically active to varying degrees.

During the presentation we will explain visually how the exhibition explored the individual and collective strength of people with dementia. In particular, we will show and discuss some of the artistic pieces, including a short trailer of the film *Agnes & Nancy*. By sharing our experiences of working on this project, and reporting on visitor feedback, we hope that others will consider using 'activist art' as a vehicle for social change; in our view, it is accessible for people at any level of ability, and participation empowers, enables and encourages everyone to get their voice heard.

Disclosure of Interest: None Declared

OC117

A MEASURE OF FAMILY CARER EFFICACY FOR MANAGING NEUROPSYCHIATRIC SYMPTOMS IN DEMENTIA

N. Crellin^{1,2,*}, M. Orrell^{1,2}, G. Charlesworth^{1,2}

¹Mental Health Sciences, University College London, London, ²North East London Foundation Trust, Research and Development Department, Goodmayes Hospital, United Kingdom

Objectives: Neuropsychiatric symptoms are very common in dementia, typically 70-90% present with behavioural disturbances. These symptoms pose a great burden for carers and are a primary source of stress, which is predictive of homecare breakdown. In turn, carer self-efficacy (SE) for managing these symptoms is an important determinant of the burden and stress experienced by family carers. At present, the Revised scale for Caregiving Self-efficacy (RSSE) is the predominant existing measure of carer SE, however it fails to measure SE relating to neuropsychiatric symptoms. Therefore, this study aims to evaluate the psychometric properties of a scale developed to measure carer efficacy for managing neuropsychiatric symptoms.

Methods: A Carer efficacy scale for managing neuropsychiatric symptoms was constructed by the addition of a single item relating to carer confidence to each of the specified neuropsychiatric symptoms of the well-validated Neuropsychiatric Inventory (NPI). The validity and reliability of the NPI carer efficacy scale were evaluated in a sample of family carers of individuals with dementia in the community in South East England. The data collected was the baseline data for the SHIELD (Support at Home: Interventions to Enhance Life in Dementia) Carer Supporter Programme. Data collected included that of an existing well-validated measure of carer SE and measures evaluating carer affective state, coping and wellbeing.

Results: Performance on the NPI carer efficacy scale was examined in relation to performance on those measures of carer affective state, coping, wellbeing and the existing measure of SE, as well as in relation to varying demographic characteristics, such as ethnicity, gender, relationship-type and dementia severity.

Conclusion: The NPI carer efficacy scale will increase understanding of the role of SE in managing challenging behaviour. This will aid the design of improved carer interventions for dealing with challenging behaviour, allowing them to be tailored according to individual needs. Furthermore, the carer efficacy scale will prove valuable in evaluating outcomes of such interventions and their effectiveness. Ultimately, this will enhance carer support services.

Disclosure of Interest: None Declared

OC118

CARING & COPING: EXPERIENCES OF FORMAL AND INFORMAL CARE -GIVING AMONG ABORIGINAL COMMUNITIES IN ONTARIO, CANADA

J. Pace ^{1,*}, K. Jacklin ², W. Warry ¹

¹Anthropology, McMaster University, Hamilton, ²Human Sciences, Northern Ontario School of Medicine, Sudbury, Canada

Objectives: This paper reports results from qualitative research investigating Aboriginal peoples' knowledge, attitudes and behaviours related to Alzheimer's disease and related dementias (ADRD) in seven diverse Aboriginal communities in Ontario, Canada. Here we focus on findings specifically concerning the formal and informal care giving practices in these communities and make recommendations for support and training needed to improve the cultural safety of care for Aboriginal individuals experiencing dementia.

Methods: In-depth, semi-structured interviews and focus groups were used to elicit narratives about providing care for Aboriginal seniors experiencing ADRD from family caregivers and health care providers including personal support workers, nurses, physicians and specialists. The perspectives of people with dementia are also included. Our research employed a community-based participatory research model that privileges community input in the development, analysis and dissemination of this research.

Results: Narratives that emerged from our research demonstrate that greater support and training is needed for formal and informal caregivers in Aboriginal community settings. Changing demographics and social structures in these communities, such as transitions from extended to nuclear family structures, have put pressure on Indigenous responses to health issues and care practices including community care and natural helping. These changes, coupled with a reluctance to use nursing homes, have resulted in greater reliance on home care services. Although family caregivers and home care workers intuitively use care practices that emphasise patience and respect, they expressed frustration and a lack of knowledge about appropriate care measures and coping with dementia-related behaviours. Our research demonstrates that a lack of culturally appropriate supports such as educational materials, support groups and respite puts additional pressure on family caregivers and home care workers and may negatively impact the personhood and quality of life of persons with dementia.

Conclusion: Aboriginal care providers face challenges in receiving training and support relating to dementia care. Educational materials and training programs that reflect Aboriginal language and cultural beliefs about ADRD are needed to improve experiences of giving and receiving care in Aboriginal communities in Ontario.

Disclosure of Interest: None Declared

OC119

CHOOSING A LIVING ENVIRONMENT FOR A RELATIVE WITH DEMENTIA: DEVELOPING A DECISION-AID FOR FAMILY CARERS BASED ON A SYSTEMATIC REVIEW OF QUALITATIVE STUDIES

M. Couture^{1,*}, F. Ducharme¹

¹Research center, Institut universitaire de gériatrie de Montréal, Montréal, Canada

Objectives: For family carers, deciding which living environment is best for a relative with dementia is one of the most stressful situations of their trajectory. Too often the decision is made in a crisis situation and this can render the process all the more difficult. Health and social care professionals have few clinical tools at their disposal to support family carers through this difficult decision-making process. The objective of this study was to develop a decision-aid for family carers to facilitate the choice of a living environment tailored to the needs of a relative with dementia.

Methods: A systematic review of qualitative studies was performed to explore the main concerns of carers during this decision-making process. To be selected for analysis, papers had to: 1) present data about the decision-making process of family carers regarding placement of a relative with dementia; 2) follow a qualitative methodology; and 3) be written in English or French. Overall, 20 empirical studies were retrieved from four databases (Pubmed, PsychInfo, CINAHL, Ageline) and from the reference lists of these papers. Thematic synthesis was used to extract the predominant themes emerging from the results of the selected papers.

Results: The carers' decision-making process is highly social and essentially value-laden. The most important contextual factor facilitating or hindering this process is the acceptability of the decision to stakeholders (carer, relative with dementia, family, friends, professionals). Considering a change in the living environment as unacceptable and divergent opinions between stakeholders render the situation particularly difficult. Based on the results of the thematic analysis, a concise decision-aid comprising 10 open-ended questions was developed.

Conclusion: The review of qualitative studies provided important data on the main concerns of carers and on contextual factors related to their decision-making process in regard to the choice of living environment for a relative with dementia. This systematic approach allowed the development of a concise and practical decision-aid to help health and social care professionals better support family carers. A validation and field-testing phase is undergoing to refine this innovative clinical tool.

Disclosure of Interest: None Declared

OC121

FUNCTIONAL ANALYSIS FOR CHALLENGING BEHAVIOUR IN DEMENTIA: DEVELOPMENT OF AN E-TOOL FOR CARE HOMES

E. Moniz-Cook¹, C. Hart^{2,*} on behalf of Challege Demcare, B. Woods³, G. Stokes⁴, R. Jones⁵, A. Hilton⁶, P. Campion⁷, I. Markova⁷, I. James⁸, M. Tredinnick⁹

¹Institute of Rehabilitation, University of Hull -HYMS, HULL, ²Dementia Research Team, Humber NHS Foundation Trust, Hull, ³IMSCAR, Bangor University, Bangor, Wales, ⁴Bupa Care Services, Leeds, ⁵University of Bangor, Bangor, ⁶University of Hull, ⁷University of Hull-HYMS, Hull, ⁸University of Northumbria, Newcastle, ⁹Humber NHS Foundation Trust, Hull, United Kingdom

Objectives: Functional analysis is a psychological approach recommended by NICE (2007), which can help minimise the negative impact of 'behaviours that challenge' for both the person with dementia and staff in care homes.

Whilst training care staff in the use of functional analysis can show initial improvements, maintenance of effects is difficult to sustain. A recent Cochrane review of this approach suggests that it is hard to apply this specialised treatment in the everyday environment of the care home. Many homes are hampered by inadequate training or access to timely support from specialists. Specialists are also hampered by high staff turnover and resources to support and train staff on an ongoing basis.

We have developed a web-based system to provide care staff with 24-hour access to training (e-learning) and functional - analysis based interventions (using a decision support e-tool).

Our study of cost effectiveness and cost consequence is part of a NIHR funded research programme. Evaluation in 59 care homes in Yorkshire is currently underway. This will examine whether the technology:

- o reduces residents' distress
- o improves the quality of life for residents
- o improves care staff ability to cope with difficult behaviour in residents

In this paper we will report on our feasibility study to introduce the technology for around 300 residents in 28 care homes across Yorkshire. We will discuss the obstacles we encountered and the methods we used to overcome these, to deliver functional analysis based interventions to residents presenting with behaviours that challenged staff caregivers. As with other psychosocial interventions in care homes, we conclude that good quality leadership and management in an individual care home is the key to successful implementation of functional-analysis for challenging behaviour in care home settings.

Disclosure of Interest: None Declared

OC122

SKILLS TRAINING AND RE-SKILLING FOR CARERS OF PEOPLE WITH DEMENTIA. A EUROPEAN LIFELONG LEARNING PROJECT DELIVERING ONLINE TRAINING IN DEMENTIA CARE

H. Van Der Roest^{1,*}, J. E. Bengtsson², A. Giuliano³, S. Stefanescu⁴, R. Gonzalez⁵, P. Kingston⁶, E. Tamburini⁷, C. Nugent⁸, R.-M. Dröes⁹

¹EMGO+ Institute, Department of Nursing Home Medicine, VU University medical center, Amsterdam, Netherlands,

²InterNIT, Lulea, Sweden, ³AcrossLimits, Hamrun, Malta, ⁴Synopsismedia, Timisoara, Romania, ⁵Vilau Media, Bilbao, Spain, ⁶Centre for Ageing and Mental Health, Staffordshire University, Stafford, United Kingdom, ⁷I+, Florence, Italy, ⁸University of Ulster, Belfast, United Kingdom, ⁹EMGO+ Institute, Department of Nursing Home Medicine/Department of Psychiatry/Alzheimer Center, VU University medical center, Amsterdam, Netherlands

Objectives: Europe's population is facing major future changes: it is rapidly greying, while on the other hand the working population decreases. As a consequence of the ageing population, the number of people with dementia will grow dramatically, putting high strains on professional carers. Frequently low cost, untrained carers have to be hired to provide care.

To address this issue and to improve the quality of care for people with dementia the 'Skills Training and Re-skilling for Carers of People with dementia' (STAR) project develops, provides and evaluates an online open-access training in six European languages, freely available for anyone caring for a person with dementia.

Methods: The development of the STAR training is divided in three phases. First, existing educational materials are analysed. Secondly, a methodology to provide the course content will be developed in multimedia style, improving the accessibility of the course. The training provides a learning path to follow eight modules, available on three levels. The STAR course content contains texts, articles, case videos, and interactive exercises. In country-specific online communities, information and experiences can be exchanged, and students can seek support from dementia care experts who participate in the European STAR dementia expert community. Finally, the STAR course will be evaluated in a user-pilot in Italy, the Netherlands, Sweden and the United Kingdom, starting in September 2012.

Results: The main results from the analysis of existing educational materials showed that the majority of courses were directed to formal carers, two fifth of the courses were delivered face-to-face, and only 10% were on-line courses.

The development of the learning paths and the actual content of the STAR training modules will be presented in the project presentation.

Conclusion: The European STAR training provides an easy accessible opportunity for education, collaboration, and discussion for all carers of people with dementia who want to up-skill their vocational training. Experts are welcome to join the pan-European expert network at www.startraining.eu. The project will end in November 2013.

Disclosure of Interest: None Declared

W8

WHAT HAS BEEN THE IMPACT OF 20 YEARS RESEARCH FUNDING BY THE ALZHEIMER'S SOCIETY?

J. Pickett¹, A. Corbett¹, M. Murray¹, C. Ballard¹

¹Alzheimer's Society, London, United Kingdom

Objectives:

Alzheimer's Society is the leading support and research charity for people with dementia, their families and carers in the UK. Since 1990, Alzheimer's Society has invested £20 million in funding research under the themes of cause, cure, care and prevention of all types of dementia. Currently the annual investment is £3million per annum into new research, and public and patient involvement is at the centre of the research programme.

Alzheimer's Society has undertaken an evaluation of the outcomes and impact that have arisen from a 20-year investment in research. The impact of completed research was reviewed according to publications, citations, impact factors and cost-effectiveness, and combined with in-depth interviews with stakeholders including Alzheimer's Society research volunteers, grantholders and the wider scientific community. Impact was measured in terms of increases in scientific knowledge, training of scientists and capacity building for dementia research as well as wider health and societal impacts. Understanding the impact that previous research funding has implications for the current and future research strategy, and may allow predictors of high-impact research to be identified.

This will ensure that Alzheimer's Society invests in research that provides the most benefit for people with dementia and their carers. The rigorous evaluation of a longstanding research programme that has championed public and patient involvement has widespread implications for public policy and other regulatory initiatives.

Disclosure of Interest: None Declared

P001

CHARACTERISATION OF THE INTERACTION BETWEEN TOXIC AMYLOID BETA ASSEMBLIES AND THE CELLULAR PRION PROTEIN

A. Nicoll^{1,*}, M. Farmer¹, S. Panico², D. B. Freir³, E. Risse⁴, M. A. Farrow⁴, H. Saibil², D. M. Walsh⁵, J. Collinge¹

¹MRC Prion Unit, UCL Institute of Neurology, ²Department of Crystallography, Birkbeck College, London, United Kingdom, ³Conway Institute, University College, Dublin, Ireland, ⁴Department of Neurodegenerative Disease, UCL Institute of Neurology, London, United Kingdom, ⁵Brigham & Women's Hospital, Harvard Medical School, Boston, United States

Objectives: The interaction of cellular prion protein (PrP) with oligomeric forms of amyloid beta peptide (A β) has previously been confirmed and its role in certain models of Alzheimer's disease demonstrated. We sought to better define and characterise the interaction between cellular prion protein and toxic A β assemblies, whilst extending our search for ligands capable of blocking this interaction and its toxic effects.

Methods: We used biophysical, biochemical, structural and electrophysiological methods to better define the nature of the A β assemblies that bind to PrP and screened for ligands capable of blocking the interaction.

Results: We have identified a number of ligands capable of binding PrP and blocking the interaction with the A β assemblies that cause PrP-dependent toxicity. Using a number of biophysical techniques we have further characterised a number of A β assemblies that could be relevant to the interaction with PrP.

Conclusion: Whilst the role of PrP in human Alzheimer's disease remains to be fully defined, it appears PrP forms a high-affinity complex with certain A β assemblies. Better understanding of these interactions should help clarify their role in different models and forms of human Alzheimer's disease.

Disclosure of Interest: A. Nicoll: None Declared, M. Farmer: None Declared, S. Panico: None Declared, D. Freir: None Declared, E. Risse: None Declared, M. Farrow: None Declared, H. Saibil: None Declared, D. Walsh Shareholder of: Senexis plc, Consultant of: Senexis plc, J. Collinge Shareholder of: D-Gen Limited, Consultant of: D-Gen Limited

P002

SURGERY ACCELERATES ALZHEIMER'S: FACT OR FICTION?

D. Lloyd^{1,*}, H. Watts¹, M. Vizcaychipi¹, D. Ma¹

¹Anaesthetics, Pain Medicine and Intensive Care, Imperial College London, London, United Kingdom

Objectives: Alzheimer's disease (AD) is a global public health concern, with over 95% of cases seen in those over 65 years of age¹. Having a complex, multi-factorial pathogenesis, epidemiological studies suggest that AD may be accelerated by surgery². Older individuals form the largest consumers of anaesthetic and surgical interventions and with continued improvement in peri-operative care and clinical outcomes, this demand is predicted a continued growth³. Investigating any association between AD and surgery is therefore a research priority.

Methods: To confirm and define the underlying mechanisms of a surgery-AD link we are using *in vitro* APP_{swe} transfected human neuroglioma H4 cells (a widely used model of AD and gift of Xie, MGH, USA) and primary murine neuronal Hippocampal cultures, to quantify the molecular effects of anaesthetic exposure using Western blotting and Immunofluorescence.

Nuclear magnetic resonance (NMR): Having developed a novel technique to capture the H4 cell metabolome, we have determined the metabolomic changes induced by exposure to the anaesthetic agent Isoflurane in APP_{swe} transfected H4 cells, an *in vitro* model of Alzheimer's susceptibility.

Results: In the APP_{swe} transfected H4 cells, exposure to Isoflurane alters the expression and intracellular trafficking of Amyloid Precursor Protein, the precursor of Amyloid β , a hallmark of AD.

In Hippocampal primary neuronal culture, Isoflurane up regulates Hypoxia Inducible Factor (HIF 1- α), a marker of cellular stress.

Nuclear Magnetic Resonance: Exposure of transfected H4 APP_{swe} cells to Isoflurane induces a metabolomic shift towards a profile seen in the cerebrospinal fluid of AD affected humans⁴.

Conclusion: We are describing early molecular events triggered by anaesthetic exposure *in vitro*, and the effects of anaesthetic and surgical stimuli in transgenic animal models of AD. Understanding these mechanisms will enable the future design and development of strategies to prevent accelerated AD after surgery.

Acknowledgements: This work is funded by The Alzheimer's Society in the United Kingdom.

References: ¹ Reitz C et al, *Nat Rev Neurol* 2011; 7: 137-52 ² Bufill E et al, *Neurologia* 2009; 24: 108-12 ³ Etzioni DA et al, *Am Surg* 2003; 69: 961-5 ⁴ Walter A et al, *Neurobiol Aging* 2004; 25: 1299-303.

Disclosure of Interest: None Declared

P003

CDK11, A NOVEL G2 PHASE KINASE, IS DIFFERENTIALLY EXPRESSED IN NEURONS OF ALZHEIMERS BRAIN AND M17 NEUROBLASTOMA CELLS OF THE SWEDISH MUTANT PHENOTYPE

V. Bajic¹, B. S. Potparevic², Z. Milicevic³, D. Ilievski^{4,*}, B. P. Solarovic⁵

¹Department of Pharmacology, GALENIKA PHARM, ²Department of Biology, Faculty of Pharmacy, Belgrade University, BELGRADE, ³Department of Endocrinology and Molecular Biology, Vinca Institute for Nuclear Sciences, Belgrade, Serbia, ⁴Department of Neurology, School of Medicine, Skopje, Macedonia, Skopje, Macedonia, The Former Yugoslav Republic Of, ⁵Department of Physiology, Faculty of Pharmacy, Belgrade University, Belgrade, Serbia

Objectives: Cyclin-dependent kinase 11 (CDK11) mRNA produces a 110-kDa protein throughout the cell cycle and a 58-kDa protein that is specifically translated from an internal ribosome entry site sequence during G2/M phase of the cell cycle. CDK11 is required for sister chromatid cohesion and the completion of mitosis. Severe depletion of CDK11 causes defective chromosome congression, premature centromere division, permanent mitotic arrest and cell death. Recent findings showing that cohesin, a chromatid cohesion protein regulator is expressed in differentiated postmitotic neurons and that premature centromere division phenotype is found in Alzheimer disease (AD) led us to formulate the hypothesis that CDK 11 expression levels may be elevated in neurons of subjects with Alzheimers disease and in the M17 neuroblastoma cell line overexpressing the human amyloid precursor protein (APP) with the Swedish mutation.

Methods: Immunohistochemical analysis and Western blot are used to evaluate the levels and expression patterns of CDK 11 in the hippocampal region of Alzheimers brain and in M17 neuroblastoma cell lines

Results: Our results show that CDK 11 is differentially expressed, i.e. we found a decrease of expression of CDK 11 in Alzheimers brain compared to age matched controls, but the expression of APP and the APP swedish mutation APP was increased in M17 neuroblastoma cells compared to the empty vector

Conclusion: In conclusion, decreased (in Alzheimers brain) *versus* increased levels of CDK11 in cells overexpressing wt APP and swe APP M17 cells suggests key alterations in neuronal homeostasis. The APP-CDK 11 connection may play a vital role in APP signaling pathways in the course of the disease

Disclosure of Interest: None Declared

P004

THE ROLE OF ENDOPLASMIC RETICULUM STRESS-INDUCED APOPTOSIS IN ALZHEIMER'S DISEASE

I. Stefani^{1,2,3,*}, K. Polizzi^{3,4}, C. Kontoravdi¹

¹Centre for Process Systems Engineering, Department of Chemical Engineering and Chemical Technology,

²Division of Molecular Biosciences, ³Centre for Synthetic Biology and Innovation, ⁴Molecular Biosciences, Imperial College London, London, United Kingdom

Objectives: Accumulation of misfolded proteins, including amyloid- β in the Endoplasmic Reticulum (ER) can cause ER stress and activate the unfolded protein response (UPR). Markers of UPR are upregulated in brain tissue samples from Alzheimer's disease (AD) patients, suggesting a link between ER stress activation and the pathogenesis of AD. In this project we are investigating the impact of UPR activation in a cell culture model system of familial AD (FAD). Our aim is to identify the proteins that exert control over the rate of ER-stress induced apoptosis, which can eventually be used as a target for drug discovery to improve AD progression.

Methods: A cell culture model system for FAD was used to assess the activation of UPR. The mRNA expression levels of UPR markers such as ATF4, chaperones (e.g. BiP and GRP94) and apoptotic genes (CHOP) were tested with real-time quantitative PCR as well as investigating activation of the anti-oxidant response (Nrf-2), using cDNA from actively grown cells. We evaluated a greater number of markers than are typically studied in order to gain a greater understanding of the response.

Results: Stably transfected human neuroblastoma cell lines overexpressing the wild-type (WT) and mutant APP forms were created. Upregulation of chaperones as well as UPR markers regulated by the stress transducer RNA-dependent protein kinase-like ER kinase (PERK) signalling pathway was observed in cells overexpressing APP. Cells overexpressing the Swedish-Indiana (S-I) double mutant form had significantly higher levels of upregulation than those overexpressing the WT form.

Conclusion: The results highlight the difference in transcript levels of UPR markers between cells overexpressing WT and the S-I mutant APP. Future work will include activation of UPR by the addition of tunicamycin, a chemical that blocks protein folding by stopping the addition of N-linked precursor oligosaccharide, to assess whether mutants are less able to overcome stress. It is hoped that targeting specific proteins in this pathway could be a target to reduce apoptosis and slow the process of neurodegeneration in AD.

Disclosure of Interest: None Declared

P005

MAPPING NEUROINFLAMMATION IN ALZHEIMER'S DISEASE : A PET STUDY

I. Suridjan^{1,*}, R. Mizrahi^{1,2}, P. Rusjan¹, S. Houle³, A. Wilson³, B. pollock³

¹Research Imaging Centre (PET/MRI centre), Centre for Addiction and Mental Health, ²Institute of Medical Science, University of Toronto, ³Centre for Addiction and Mental Health, Toronto, Canada

Objectives: Activated microglia play a role in the pathogenesis of Alzheimer disease (AD) as they release many neurotoxic inflammatory substances, which may contribute to neurodegeneration in AD[1]. These characteristics make microglia an important cell to study in the aging process and a potential therapeutic target in AD.

Translocator protein 18kDA (TSPO) is upregulated in activated microglia and has been evaluated as a potential biomarker for neuroinflammation in a variety of imaging studies[2]. Positron emission tomography (PET) imaging with TSPO-targeting ligand can be used to study neuroinflammation in vivo[3]. Studies of TSPO in aging animals has suggested increase TSPO ligand uptake, implicating the presene of neuroinflammation[4],while the opposite was reported in platelets samples of elderly humans[5]. The purpose of this study was to use a novel TSPO PET radioligand,[¹⁸F]-FEPPA to investigate in-vivo whether neuroinflammation is related with healthy aging in humans.

Methods: 19 healthy individuals were recruited (age range 20-74), and divided into two groups: young (n= 10, age <55 years) and old (n= 9, age ≥ 55 years). Each underwent a [¹⁸F]-FEPPA PET scan and one MRI scan. Dynamical [¹⁸F]-FEPPA-PET scans was acquired on an HRRT-PET camera and co-registered with MRI to generate regions-of-interest (ROI) for time activity curves and PET kinetic modeling. [¹⁸F]-FEPPA total volumes of distribution (V_T) was obtained in each ROIs as the index of regional TSPO protein levels[7].

Results: Repeated measures analysis showed no significant difference in regional [¹⁸F]-FEPPA V_T between groups (F (1,17)= 0.953; p= 0.343). Pearson's correlations showed no significant age-related increases of [¹⁸F]-FEPPA V_T in any of the ROIs.

Conclusion: Our data suggests that neuroinflammation might be a disease-specific process that is not part of healthy aging. A follow-up study is underway to characterize the in vivo distribution of [¹⁸F]-FEPPA in patients with Alzheimer's disease.

- References:** 1. W. J. Streit, *J Neurosci Res* **77**, 1 (Jul 1, 2004).
2. M. K. Chen, T. R. Guilarte, *Pharmacol Ther* **118**, 1 (Apr, 2008).
3. M. L. James *et al.*, *Bioorg Med Chem* **13**, 6188 (Nov 15, 2005).
4. E. G. Njie *et al.*, *Neurobiol Aging*, (Jun 25, 2010).
5. D. Marazziti *et al.*, *J Psychiatry Neurosci* **19**, 136 (Mar, 1994).
6. A. A. Wilson *et al.*, *Nucl Med Biol* **35**, 305 (Apr, 2008).
7. P. M. Rusjan *et al.*, *J Cereb Blood Flow Metab*, (Apr 27, 2011).

Disclosure of Interest: None Declared

P006

ROLE OF THE POLYCOMB GROUP GENE FAMILY IN AGING AND NEURODEGENERATION.

J. El Hajjar^{1,*} and Chattoo Wassim, Abdouh Mohamed, Bernier Gilbert.

¹Molecular and Developmental Biology, Hopital Maisonneuve Rosemont Research Center, Montreal, Canada

Objectives: Aging and oxidative stress are the prime risk factors for development of neurodegenerative diseases and dementia. The p16^{Ink4a}/p19^{Arf} locus mediates senescence and apoptosis via p53 activation and is greatly implicated in the aging process. Polycomb group proteins (PcG) are chromatin remodeling complexes that instrument transcriptional silencing in higher eukaryotes. They mainly repress the expression of the p16^{Ink4a}/p19^{Arf} locus. Mutations in PcG instigate degeneration in neuronal dividing cells, mainly the neural stem cells (NSCs), and induce oxidative damage in post-mitotic neurons via p53 activation. Our aim is to scrutinize the function of the PcG proteins in these non-dividing cells, their implication in p53 and aging regulation, and ultimately their effect on neurodegeneration. We hypothesize that PcG downregulation in the brain would incite aging and neurodegeneration via up-regulation of p53 activity.

Methods: We will examine the expression of PcG proteins in the brains of young versus aged rodents and humans, with or without dementia, using immunohistochemistry, real-time PCR, and western blot. We will also analyze the expression of 1) p53 protein; 2) the senescence biomarkers p16, p19, and p21; 3) the apoptotic markers Noxa and Caspase-3; 4) the neuroinflammation markers GFAP and IL-6; and 5) the oxidative stress marker 8-Oxoguanine (8-OHG). Moreover, we will delineate the molecular mechanism by which PcG regulates p53 activity in neurons, by establishing an *in vitro* neuron culture of (Wt), (PcG) mutant, and (PcG; p53) mutant mice followed by a comparative gene expression to reveal the key mechanism behind p53 activation.

Results: We observed a robust decline in the expression of PcG proteins in neurons of aged mice and humans with dementia compared to their controls. This decrease correlated with an up-regulation of senescence, apoptosis, and inflammatory markers, and with an elevated oxidative damage in neurons. This neurodegenerative phenotype was relatively p53 dependent.

Conclusion: Our preliminary results demonstrate that PcG proteins are essential for a normal physiological aging and that loss of expression would initiate neurodegeneration. We are currently investigating if PcG overexpression would mitigate the neurodegenerative phenotype, promoting extended healthy lifespan. This is highly significant as it might be possible to treat late-onset human disorders with a single therapeutic modality.

Disclosure of Interest: None Declared

P008

THE HUMAN CAVEOLIN 1 GENE UPSTREAM PURINE COMPLEX AND NEURODEGENERATION - A COMMON SIGNATURE.

M. Ohadi^{1,*}

¹Genetics Research Center, UNIVERSITY OF SOCIAL WELFARE AND REHABILITATION SC, Tehran, Iran, Islamic Republic Of

Objectives: The caveolin 1 gene (*CAV1*) is over-expressed in experimental animal models of multiple sclerosis (MS). Increased expression of this gene has also been reported in the Alzheimer's disease (AD) brain. Loss of this gene, on the other hand, has recently been reported to be associated with neurodegeneration. We have recently reported skew in the homozygote haplotypes of the human *CAV1* gene -1.5kb upstream purine complex in patients afflicted with MS and late-onset AD vs. controls. **Objectives:** In order to examine reproducibility of those findings.

Methods: We sequenced the region in independent groups of MS patients (n=120) and controls (n=150).

Results: We report two novel extreme homozygote haplotypes at 86-bp and 142-bp in the patients vs. controls. The above haplotypes were also detected in the previously reported cases of late-onset AD. The range of homozygote haplotypes in the controls was detected at between 106-bp to 122-bp. Following pooling of the neurodegenerative (n=486) and non-neurodegenerative (n=610) subjects studied for the human *CAV1* purine complex to date, twenty haplotypes were found to be homozygous in the neurodegenerative, and not in the control pool (p<0.000001).

Conclusion: Six overlapping haplotypes were detected in the MS and AD patients (p<0.007), strengthening the role of this region as a common etiological factor in the pathophysiology of neurodegenerative disorders, possibly through inflammatory mechanisms. Those overlapping haplotypes contained motif lengths that were non-existent in the control homozygote pool. The *CAV1* purine complex GGAA and GAAA motifs are binding sites for numerous inflammatory transcription factors including the Ets, STAT, and IRF family members. Further work on the functionality of this region will shed light on the downstream events to the disease-linked haplotypes.

Disclosure of Interest: None Declared

P009

CYANINE DYES AS FLUORESCENT PROBES FOR DETECTION OF OLIGOMERIC AGGREGATES OF ALPHA-SYNUCLEIN

M. Losytskyi^{1,*}, V. B. Kovalska¹, O. I. Tolmachev², Y. L. Slominskii², V. Subramaniam³, I. M. Segers-Nolten³, S. M. Yarmoluk¹

¹Combinatorial Chemistry, Institute of Molecular Biology and Genetics, NASU, ²Institute of Organic Chemistry, NASU, Kyiv, Ukraine, ³MESA+ Institute for Nanotechnology, University of Twente, Enschede, Netherlands

Objectives: Formation of amyloid fibrils of α -synuclein (ASN) is associated with pathogenesis of the widespread neurodegenerative disorder known as Parkinson's disease. During the amyloidogenesis ASN first aggregates into small oligomers, which are considered to be presumably toxic and even more responsible for disease than the mature fibrils. Despite the beta-sheet content of such oligomeric aggregates, they structurally differ from the mature fibrils; hence the fluorescent probes sensitive to fibrils are inefficient for oligomers detection. Thus design of the dyes specific for these early aggregates could be important for medical and biological applications.

Earlier we proposed mono and trimethine cyanine dyes having rather compact molecules as efficient probes for amyloid fibril detection [1]. Since oligomeric aggregates less dense and structured, tri- and pentamethine cyanine dyes with bulky molecule containing hydrophobic substituents were selected for the reported study.

Methods: Fluorescence emission spectra of dyes in unbound state and in presence of native ASN, its oligomeric aggregates and amyloid fibrils were studied.

Results: Noticeable increase in fluorescence intensity of majority of dyes occurs in presence of fibrillar or oligomeric ASN, while the dyes slightly response on monomer presence. For pentamethine dye SI-631 and trimethine 21252, fluorescent response on oligomeric aggregates presence was considerably higher than on amyloid fibrils (Table 1). It was shown that using of both dyes in 10^{-6} M concentration permits to detect ASN oligomers in the concentrations range at least 0.2-2 μ M.

Tab.1. Fluorescence intensity of dyes in free state (f) and in presence of monomeric (M), oligomeric (O) and fibrillar (F) ASN.

dye	free dye	ASN[M]	ASN[O]	ASN[F]
SI-631	4.8	4.5	70	9
21252	1.6	1.3	30	12

Conclusion: We consider that pentamethine cyanine SI-631 could be proposed as dye for fluorescent detection of oligomeric aggregates of ASN.

References: [1] K.D. Volkova et al. *Bioorg. Med. Chem.* 16 (2008)1452-1459.

Disclosure of Interest: None Declared

P010

PLASMA FETUIN-A IS ASSOCIATED WITH THE SEVERITY OF COGNITIVE IMPAIRMENT IN MILD TO MODERATE ALZHEIMER'S DISEASE

E. Smith¹, R. Nilforooshan^{2,*}, G. Weaving¹, N. Tabet³

¹Biochemistry, Royal Sussex Hospital, Brighton, ²Old Age psychiatry, Surrey and Border Partnership NHS Foundation Trust, Chertsey, ³Psychiatry, Postgraduate Medicine, Brighton & Sussex medical School, Brighton, United Kingdom

Objectives: The significance of vascular risk factors in the development and progression of Alzheimer's disease (AD) is now widely recognized. Fetuin-A is an abundant plasma protein that predicts vascular risk in a variety of clinical settings. In the context of cerebral ischemia, fetuin-A appears to be anti-inflammatory. we aim to find out the relationship between the fetuin-A and alzheimer disease.

Methods: we analyzed fetuin-A concentrations and pro-inflammatory cytokine levels in a cohort of 34 patients with mild-to-moderate AD, and compared these to age-matched controls. Further, we analyzed the relationship between plasma fetuin-A concentration and a measure of cognitive impairment using multivariate regression modeling.

Results: Plasma fetuin-A concentrations were lower in the patient group ($p = 0.006$) compared with controls and were significantly correlated with Mini-Mental State Examination (MMSE) score ($r = 0.504$, $p = 0.002$). Fetuin-A concentration was also significantly and inversely correlated with plasma TNF- α concentration ($r = -0.496$, $p = 0.003$). The association between MMSE performance and fetuin-A was maintained even after multivariate adjustment for other risk factors including TNF- α (adjusted R^2 total = 0.371). Using this model, plasma fetuin-A concentration explained 21% of the variance in MMSE scores.

Conclusion: Further studies are needed to evaluate whether fetuin-A is related to the progression and pathogenesis of AD.

Disclosure of Interest: None Declared

P012

ADAM10 AND ALZHEIMER'S DISEASE: A STUDY WITH BRAZILIAN ELDERLY

S. Pavarini^{1,*}, P. R. Manzi², M. R. Cominetti¹, H. S. S. de Araujo³, F. D. A. C. do Vale⁴, E. J. Barham⁵

¹Department of Gerontology, ²Department of Nursing, ³Department of Physiological Sciences, ⁴Department of Medicine, ⁵Department of Psychology, Federal University of Sao Carlos, São Carlos, Brazil

Objectives: Molecular biomarkers that have direct or indirect association with the pathogenesis of AD have been identified. In particular, studies exploring ADAM10 platelet levels have shown a decreased expression of this protein in AD patients (Colciaghi et al., 2002; 2004). The aim of this study was to quantify the expression of ADAM10 in two groups of Brazilian elderly registered in public health services.

Methods: Twelve elderly patients with AD (CDR1, CDR2, and CDR3) and twelve age-, sex- and education level-matched control subjects (CDR0) were selected, according to the Clinical Dementia Rating. It was a case-control study, based on the quantitative assumptions. This research was funded by FAPESP. The biological material collection was performed after clinical assessment and diagnosis. Platelet proteins were resolved on SDS-PAGE (10%) and ADAM10 was identified by western blotting using a monoclonal antibody against this protein. Beta-actin was used as endogenous control. The band quantification was performed with the Quantity One software, using the ratio ADAM10/ β -actin for analysis.

Results: According to Wilcoxon and Mann-Whitney tests, there was a significant difference between groups. ADAM10 levels were lower in AD patients compared to control ($p < 0.003$). Moreover, lower levels of protein were found amongst patients with more advanced dementia compared to those in earlier stages ($p < 0.03$).

Conclusion: The present results corroborate previous findings showing differences in the expression of ADAM10 in AD patients. Laboratory tests using platelet levels of ADAM10 can be an initial step in early AD diagnosis and intervention.

References: COLCIAGHI, F., *et al.* [alpha]-Secretase ADAM10 as well as [alpha]APPs is reduced in platelets and CSF of Alzheimer disease patients. *Mol Med.*, 8(2): p. 67-74, 2002.

COLCIAGHI, F., *et al.* Platelet APP, ADAM 10 and BACE alterations in the early stages of Alzheimer disease. *Neurology*, 62(3): p. 498-501, 2004.

Disclosure of Interest: None Declared

P013

PROBDNF AND THE VAL66MET POLYMORPHISM IN ALZHEIMER'S DISEASE

S. Kailainathan^{1,*}, J. J. Watson¹, M. Fahey¹, S. Tyler¹, D. Shoemark¹, S. Scoltock¹, K. Cho¹, S. Allen¹

¹School of clinical Sciences, University of Bristol, Bristol, United Kingdom

Objectives: Brain derived neurotrophic factor (BDNF) has important roles in neuronal survival and synaptic plasticity, via its tyrosine kinase receptor TrkB. A single nucleotide polymorphism in the prodomain (G196A), resulting in a Val66Met substitution, has been associated with altered memory function (Voineskos *et al*, 2011). Our aims were twofold: (i) to identify whether Met66 is associated with changes in (pro)BDNF, TrkB and other receptor protein levels in Alzheimer's Disease (AD); (ii) to express and purify human recombinant Val and Met66 proBDNF using insect cells, and to characterise the physico-biochemical attributes of the proteins using Biacore, electrophysiology and neuronal cell models.

Methods: (i) In a Caucasian cohort, normal (n=16) and AD (n=14) were genotyped for G196A, using polymerase chain reaction and restriction fragment length polymorphism. Levels of (pro)BDNF and TrkB were measured. (ii) Baculovirus Expression Vector System (BEVS) was used to produce both histidine-tagged and non-tagged versions of a cleavage resistant human polymorphic proBDNF protein.

Results: (i) The cohort of AD and control samples showed a genotype frequency of 63% Val/Val and 37% Met carriers, in agreement with others. Preliminary results show no significant difference in (pro)BDNF and TrkB protein levels in Met66 carriers. (ii) Histidine- and non-tagged versions of cleavage resistant human polymorphic proBDNF (proBDNF-nc) have been produced using a BEVS. Preliminary findings by western blotting show successful expression of all forms.

Conclusion: We have genotyped a Caucasian cohort for the Val66Met polymorphism; preliminary studies were unable to identify an association with (pro)BDNF and TrkB levels. We have successfully expressed both tagged and untagged versions of proBDNR-nc. We are currently working on amplification, purification and characterization of the expressed proteins in neuronal cell models.

SK is a University of Bristol Postgraduate Scholar. JJW is funded by the Alzheimer's Society. Bristol Research into Alzheimer's and Care of the Elderly has generously supported this work.

References: Voineskos AN, Lerch JP, Felsky D, Shaikh S, Rajji TK, Miranda D, Lobaugh NJ, Mulsant BH, Pollock BG, Kennedy JL. 2011. The brain-derived neurotrophic factor Val66Met polymorphism and prediction of neural risk for Alzheimer disease. *Arch Gen Psychiatry*. **68**(2):198-206.

Disclosure of Interest: None Declared

P014

ANTI-FIBRILLOGENIC ACTIVITY OF PHTHALOCYANINES CONTAINING OUT-OF-PLANE LIGANDS

V. Kovalska^{1,*}, M. Y. Losytsky¹, V. Y. Chernii², I. N. Tretyakova², V. V. Cherepanov³, S. M. Yarmoluk¹, S. V. Volkov²

¹Institute of Molecular Biology and Genetics, ²Institute of General and Inorganic Chemistry, ³Institute of Physics, Kiev, Ukraine

Objectives: The aggregation pathway of proteins into the amyloid fibrils is suggested to be the obvious target for therapeutic intervention in many neurodegenerative diseases, including Alzheimer's, Parkinson's and Creutzfeldt-Jacob's disorders. Among compounds able to efficiently inhibit the fibrillogenesis reaction phthalocyanine macrocycles were reported. In current studies effect of zirconium phthalocyanines containing lysine, citric and nonanoic acid residues, dibenzolymethane groups as out-of-plane ligands on fibrillogenesis pathway is presented.

Methods: Recently developed cyanine dye based fluorescent inhibitory assay [1] and atomic force microscopy (AFM) were applied to study the inhibitory activity of phthalocyanine macrocycles in fibrillogenesis reaction. Bovine insulin was used as model protein.

Results: Noticeable variation of inhibitory activity of phthalocyanines in dependence on chemical nature of out-of-plane ligand has been shown. As most active compounds were determined PcZrLys₂ and PcZrCit₂, they contain ligands able to electrostatic interaction - correspondingly lysine and citric acid fragments. AFM study has shown that in absence of phthalocyanines insulin forms fibrils with the length up to 5 µm and average heights of about 10 nm. In the presence of PcZrLys₂ and PcZrCit₂ full inhibition of fibrils formation and formation of spherical protein aggregates with average diameter about 10 nm (PcZrLys₂) and about 5 nm (PcZrCit₂) was observed.

Conclusion: It is concluded that phthalocyanines with out-of-plane ligands are able to redirect efficiently the aggregation reaction and thus could be of interest as anti-fibrillogenic compounds. Incorporation of out-of plane substituents is proposed as "chemically easy" approach to obtain phthalocyanines with certain physical-chemical properties and affinity to target proteins.

References: [1]. KD Volkova, VB Kovalska, D Inshin, YL Slominskii, OI Tolmachev, SM Yarmoluk. Biotechnic & Histochemistry. –2011. – Vol. 86, No. 3. –P. 188-191.

Disclosure of Interest: None Declared

P015

RETINOIC ACID ATTENUATES AMYLOID-BETA PRODUCTION BY DIRECTLY INHIBITING GAMMA-SECRETASE-MEDIATED CLEAVAGE OF AMYLOID PRECURSOR PROTEIN

Y.-F. Liao^{1,*}, B.-J. Wang¹, A. Kapoor¹

¹Institute of Cellular and Organismic Biology, Academia Sinica, Taipei, Chinese Taipei

Objectives: Retinoic acid (RA)-elicited signaling has been shown to play critical roles in development, organogenesis, and immune response. RA can regulate the expression of Alzheimer's disease (AD)-related genes and attenuate amyloid pathology in transgenic mouse models. In this study, we investigated whether RA can suppress the production of amyloid- β (A β) through direct inhibition of γ -secretase activity.

Methods: Cell-based γ -secretase assays were used to assess the effectiveness of RA signaling on the regulation of γ -secretase-mediated proteolysis of amyloid precursor protein (APP). The specificity of RA-elicited regulation in γ -secretase activity was further verified in the cells that are deficient of RA receptors or signaling mediators downstream of RA receptors.

Results: Our data demonstrated that the γ -secretase-mediated processing of APP-C99 is significantly inhibited in RA-treated cells as compared to DMSO-treated controls. RA-elicited signaling was shown to significantly increase the accumulation of APP-C99 and decrease the production of secreted A β 40. We further demonstrated that the RA-induced inhibition of γ -secretase activity is mediated by a significant activation of extracellular signal-regulated kinases (ERK1/2) by RA treatment. The inhibition of ERK by a specific inhibitor PD98059 completely abolished the RA-elicited inhibition of γ -secretase. Consistent with these findings, the secretase-mediated proteolysis of full-length APP was inhibited by RA. The RA-elicited inhibition of γ -secretase was found to be mediated by the retinoic acid receptor- α and retinoid X receptor- α .

Conclusion: Our findings provide new mechanistic explanation to the neuroprotective role of RA in AD pathology and open a new front in clinical application of retinoids for AD therapy.

Disclosure of Interest: None Declared

P017

CARDIOVASCULAR RISK FACTORS AND COGNITIVE DECLINE IN OLDER ADULTS: A POPULATION-BASED COHORT STUDY

A. Dregan^{1,*}, M. Gulliford¹

¹Primary Care and Public Health, King's College, London, United Kingdom

Objectives: Population-based investigations into the longitudinal association of vascular risk factors and cognitive functioning in older adults have produced inconsistent results. The objective of the present study was to explore the association between cardiovascular risk and cognitive decline in older adults using different follow-up periods and definitions of vascular risk factors.

Methods: Participants included 8,780 older adults who participated in wave (survey) 2 of the English Longitudinal Study of Aging (ELSA). Wave 0 data (N=19,837) were also analysed. Measures included global cognition, specific memory and executive functioning. Associations between cardiovascular risk factors and 10-year risk scores at wave 2 with cognitive functioning at wave 4, were estimated adjusting for age, gender, education, alcohol, depression, comorbidities, therapy and cognitive functioning at wave 2.

Results: The mean age of participants (N=8,780) at wave 2 was 66.93 and 55% were females. Participants in the highest quartile of Framingham stroke risk score at baseline had lower scores at 4-year follow-up on overall cognition ($\beta=-0.65$, CI: -1.27,-0.02) and specific memory ($\beta=-0.52$, CI: -0.96,-0.09), and executive ($\beta=-0.37$, CI: -0.73,-0.01) functioning compared to those in the lower quartile. Smoking was consistently associated with lower performance on all three cognitive outcomes. Each unit increase in BMI (kg/m^2) at wave 2 was associated with a 0.02(CI: -0.05,-0.01) unit decrease in memory scores at wave 4. SBP ≥ 160 mmHg at wave 0 was associated with lower global cognitive ($\beta=-1.28$, CI: -2.54,-0.01) and specific memory ($\beta=-1.16$, CI: -1.95,-0.38) scores at 8-year follow-up. Total cholesterol >7.9 mmol/l at wave 0 was positively associated with executive functioning at 8-year follow-up ($\beta=0.13$, CI: 0.00,0.26).

Conclusion: Elevated cardiovascular risk may be associated with accelerated decline in cognitive functioning, but the associations of individual risk factors are inconsistent. Future intervention studies should focus on overall risk rather than risk factor levels.

Disclosure of Interest: None Declared

P018

THE EFFECT OF CINNAMON ON LEARNING AND MEMORY IN RATS

A. Vahidimehrjardi^{1,*} and M.H. Dashti-R, N. Bashardoost, H., M. Mojdeh

¹Herbal Medicine Research Center, Shahid Sadoughi University of Medical Sciences, Yazd, Iran, Islamic Republic Of

Objectives: The learning and short memory are the most important part of nerve system, the interruption of these system always been very interested subject to the scientist and researcher and up to now there are various kind of research in this subject and one them is the effect of cinnamon extract on learning and short memory of mouse.

Methods: The study or research of this effect is the Lab Trial which is done on twenty mouses in laboratory, the study was carried out on four groups of mouse by using Shuttle Box equipment, the mouse divided into four groups and one group used as a reference and the other three groups were used as a result of study.

The data was analysed by ANOVA and Scheffe methods under the condition of SPSS ver.14.

Results: The study of this research shown that by increasing the concentration of the cinnamon extract the average level of learning and memory will decrease ($P\text{-Value} < 0.05$).

Conclusion: The research proves that the use of cinnamon will decrease the learning and short memory parts of nerve system effectively; the study with more samples will approve more precise effect very carefully.

Disclosure of Interest: None Declared

P019

EMPATHY AS A PREREQUISITE FOR GOOD CARE: CAN WE ENHANCE EMPATHY IN THE CARE FOR PEOPLE WITH ALZHEIMER'S DISEASE?

C. A. Campman ^{1,*}, M. M. Sitskoorn ¹

¹Medical Psychology and Neuropsychology, CoRPS, Tilburg University, Tilburg, Netherlands

Objectives: The ability to empathize with patients is essential for providing good care to these patients. Methods to increase empathy therefore have the potential to enhance care for patients. Currently we are developing a tool to increase empathy for patients with Alzheimer's disease (see www.dementieexperience.nl)

Methods: In a pilot study we investigated whether the level of empathy in university students who watched a documentary (for a preview see www.dementieexperience.nl) about people with dementia was enhanced in comparison with the level of empathy in a control group of students who watched a movie on the birth of the universe. All subjects filled out the Jefferson Scale of Physician Empathy (JSPE) student version before and after the specific movie.

Results: A repeated measures analyses of variance of the preliminary results showed that 18 subjects who watched the movie on dementia seemed to enhance their empathy score significantly more than 12 subjects in the control group.

Conclusion: Our results will be discussed with regard to improving care of patients with Alzheimer's Disease in specific and the enhancement of empathy in general.

References: Aström, S., Nilsson, M., Norberg, A., Sandman, P. O., & Winblad, B. (1991). Staff burnout in dementia care-relations to empathy and attitudes. *Int J Nurs Stud*, 28(1), 65-75.

Hojat, M. (2007). *Empathy in patient care: Antecedents, development, measurement, and outcomes*. New York: Springer.

Neumann, M., Bensing, J., Mercer, S., Ernstmann, N., Ommen, O., & Pfaff, H. (2009). Analyzing the "nature" and "specific effectiveness" of clinical empathy: a theoretical overview and contribution towards a theory-based research agenda *Patient Educ Couns*, 74, 339-346.

Olson, J., & Hanchett, E. (1997). Nurse-expressed empathy, patient outcomes, and development of a middle-range theory. *Image J Nurs Sch.*, 29(1), 71-76.

Disclosure of Interest: None Declared

P020

STATINS USE AND RISK OF INCIDENT DEMENTIA – A NATIONWIDE POPULATION-BASED STUDY

C. J. Lu^{1,*}, Y. Sun¹

¹Neurology, En Chu Kong Hospital, New Taipei city, Chinese Taipei

Objectives: Statins use had been reported to reduce the risk of Alzheimer's dementia (AD). However, the findings are not consistent and large-scale studies are limited. In this study, we aimed to assess the relative risk of dementia in Taiwan's elderly population.

Methods: We conducted a nested case-control study based on the Taiwan National Health Insurance Research Database, which is comprised of medical claims data of 1,000,000 random subjects from among Taiwan's 23 million residents, from 1997 to 2008. Our eligible study subjects were adult aged 50 year-old and older. The latent period between the first prescription of statin and the first-ever diagnosis of senile dementia (ICD-9 290 or 331) was defined as one year. A total of 19,432 cases with dementia were identified, among whom 1048 cases were diagnosed as mild to moderate AD with complete clinical work-up and mini-mental state examination scored more than 10. The control group was selected to match each case subject on age, sex and year of cohort entry. Odds ratios (ORs) of dementia associated with the use of statin were calculated by conditional logistic regression.

Results: Ever use of any statin was associated with 10% decreased risk for incident dementia (adjusted OR 0.91; 95%CI 0.83-0.98; $p=0.02$) after adjustment for age, gender, monthly income, geographic area, alcohol dependence, and various comorbidities like hypertension, diabetes, cardiovascular disease, cerebrovascular disease, chronic obstructive pulmonary disease and renal disease. ORs tended to increase in patient aged 75 year-old and more (adjusted OR 0.91; 95%CI 0.80-1.03; $p=0.03$), but had no differences between men and women. Statin therapy tended to reduce the risk of mild to moderate AD with adjusted OR 0.88 (95% CI 0.67-1.17) but it was not statistically significant ($p=0.39$).

Conclusion: Statins therapy is associated with a reduced risk of incident dementia, and the results were consistent in the late old age. This effect had no differences between genders. The relationship between statins use and AD needs to be further studied.

Disclosure of Interest: None Declared

P021

NEUROPHYSIOLOGICAL EVALUATION OF DEMENTIA-RELATED INTERVENTIONS: THE CASE OF THE LONG LASTING MEMORIES PROJECT

C. Frantzidis^{1,*}, A. K. Ladas², A. Semertzidou¹, M. Karagianni¹, A. Vivas², M. Tsolaki¹, P. Bamidis¹

¹Aristotle University of Thessaloniki, Medical School, ²Psychology Department, City College, International Faculty of the University of Sheffield & South East European Research Center, Thessaloniki, Greece

Objectives: Early signs of the neurodegenerative mechanisms are of crucial importance for dementia detection [1]. Therefore, special focus has been given to the prodromal phase of Mild Cognitive Impairment through interventions which are mainly evaluated through neuropsychological testing. Although these methods quantify the intervention's impact on several cognitive functions, they fail to provide a direct window on the brain function. Aiming to propose a neurophysiological evaluation tool, the current work investigates the use of the newly introduced notion of a synchronization measurement among electrode pairs.

Methods: Results of the ongoing work within the context of the Long Lasting Memories / LLM (www.longlastingmemories.eu) are presented. The study, after the approval of the local ethical committee, has involved until now 31 (13 males) elderly participants (age 70.71 ± 5.17), who performed an intensive neuroplasticity-based computerized program. A complete neuropsychological estimation was performed as a pre and post outcome measure, yielding promising results. Synchronization analysis on resting state (eyes closed) electroencephalographic data was performed through the method of relative wavelet entropy [2]

Results: A strict threshold value was selected in order to identify the most prominent differences. The feature selection method resulted in 16 electrode pairs that submitted to paired samples t-tests. These pairs were equally distributed to the left and the right hemisphere. Mean synchronization values were significantly higher ($p < 0.05$) after the training for all the 8 electrode pairs regarding the right hemisphere, whereas statistically significant desynchronization occurred for the left hemisphere.

Conclusion: These results may be attributed to an intervention-induced activation of the right hemisphere. The opposite inter-hemispheric synchronization pattern should be further investigated towards the formation of an engagement hypothesis of employment of distinct brain regions as a result of neuroplasticity.

References: [1] J. Dauwels, F. Vialatte and A. Cichocki, "Diagnosis of Alzheimer's Disease from EEG Signals: Where Are We Standing?," *Current Alzheimer Research*, vol. 7, No.6, pp. 487-495(19), 2010.

[2] O. A. Rosso, et al., "Wavelet entropy: a new tool for analysis of short duration brain electrical signals, *Journal of Neuroscience Methods*, Vol. 105, Issue 1, pp. 65-75, 2001.

Disclosure of Interest: None Declared

P022

COGNITIVE AND FUNCTIONAL IMPACT OF REPEATED CAT CYCLES IN ALZHEIMER'S DISEASE

D. Gollin^{1,*}, E. Talassi¹, A. Ferrari¹, A. Peruzzi¹, C. Ruaro¹, A. Codemo¹, A. La Sala¹, S. Poli¹, A. M. Chiamenti¹, C. Gabelli¹

¹Centro Regionale Invecchiamento Cerebrale (CRIC), Ulss5, Valdagno (Vicenza), Italy

Objectives: CAT protocol (Cognitive Activation Therapy) has been shown to be effective in treating cognitive decline of people with mild to moderate Alzheimer's Disease (AD). Aim of this study was to assess the cognitive and functional changes of AD subjects in undergoing cognitive activation protocol over a longer period.

Methods: CAT protocol results from previous experiences: Reality Orientation Therapy, Reminiscence, errorless learning principles with the addition of social educational animation. CAT was applied on small groups (3-5 people), treated for 18 sessions of 4 hours each (1° cycle) and for 18 sessions of 2 hours each (2° cycle). 89 patients, affected by mild-moderate AD under stabilized pharmacological therapy, were treated in two different cycles 3 months apart. At the beginning and at the end of each treatment, an assessment battery test was given to each subject: Direct Assessment of Functional Status (DAFS), MMSE and SF-12. SPSS package was used for the statistical analysis.

Results: At the end of the first CAT cycle, a significant improvement was observed: MMSE (1.8 ± 2.4 ; $p < .0001$) and DAFS (7.3 ± 5.7 ; $p < .0001$). Again, we found a significant improvement of both MMSE ($p < .0001$) and DAFS ($p < .000$) at the end of the second cycle. However, we observed an average loss of DAFS score (-6.9 ± 8.0 points) and of MMSE score (-1.1 ± 2.5 points) during the gap between the two cycles.

To better analyze the improvements/losses in the different phases, we divided the subjects into quartiles (Q) depending to the degree of response (Δ) obtained at MMSE and DAFS after the first cycle. At the end of the first cycle subjects starting from a lower baseline show stronger improvement at DAFS and MMSE.

The analysis of the final effects shows an increasing trend from Q1 to Q4, with a substantial stabilization/improvement of the cognitive status, and a more robust improvement of the functional aspects at the end of the two cycles (6 months).

Conclusion: Cognitive and functional impact of repeated CAT cycles during the six months led to a stabilization/improvement of both cognitive and functional status in the majority of patients.

Disclosure of Interest: None Declared

P023

CONTRIBUTION OF A COGNITIVE ACTIVATION PROTOCOL (CAT) TO IMPROVE FUNCTIONAL ABILITIES IN ALZHEIMER'S DISEASE PATIENTS

D. Gollin^{1,*}, A. Ferrari¹, E. Talassi¹, A. Peruzzi¹, C. Ruaro¹, A. Codemo¹, A. La Sala¹, S. Poli¹, A. M. Chiamenti¹, C. Gabelli¹

¹Centro Regionale Invecchiamento Cerebrale (CRIC), Ulss5, Valdagno (Vicenza), Italy

Objectives: CAT protocol is part of non-pharmacological approaches that have been shown to be useful to treat cognitive decline in dementia. Aim of the study is to quantify the efficacy of CAT on functional status of subjects with mild to moderate Alzheimer's Disease (AD).

Methods: CAT protocol results from previous experiences: Reality Orientation Therapy, Reminiscence, errorless learning principles with the addition of social educational animation.

These organic whole techniques have been applied on small groups (3-5 people) treated for 18 sessions of 4 hours each. A total of 206 patients in stable pharmacological treatment (3 months minimum) were recruited (MMSE score 14-24).

CAT group (206) was compared with a control group (40) with similar age, gender, functional and cognitive status, and drug therapy. Direct Assessment of Functional Status (DAFS) was used to evaluate the effect on simple and complex abilities of everyday life, at the beginning and at the end of each treatment. MMSE was used to evaluate cognitive changes and SF-12 to test the perceive of health status. SPSS package was used for the statistical analysis.

Results: Both the MMSE and DAFS scores showed a significant improvement after CAT of 1.4 ± 2.6 points ($m \pm SD$; $p < .0001$) and 6.9 ± 6.2 points ($m \pm SD$; $p < .0001$), respectively. While in the control group no significant change in MMSE and DAFS was observed, the comparison between the two groups was highly significant for both scales ($p < 0.0001$).

The analysis of the distribution of variation of the DAFS score after treatment shows that most of subjects in the CAT group had a shift toward the improvement (86.3% from 1 to 24 points). In contrast, the DAFS variation in the control group was distributed around the zero area. No difference in SF-12 score was found between the two groups.

Conclusion: CAT protocol may represent an additional therapeutic strategy in association with pharmacological treatments. It was found effective to ameliorate not only cognition but also functional status of subjects with mild to moderate Alzheimer's Disease.

Disclosure of Interest: None Declared

P024

TRADITIONAL CHINESE MEDICINAL PLANTS INHIBIT ACETYLCHOLINESTERASE AND GLYCOGEN SYNTHASE KINASE 3 IN VITRO, TWO KNOWN ALZHEIMER TARGETS

D. Kaufmann^{1,*}, A. Kaur Dogra², A. Tahrani¹, M. Ashour³, F. Herrmann¹, M. Wink¹

¹Institute for Pharmacy and Molecular Biotechnology, Department for Biology, Ruprecht-Karls-University Heidelberg, Heidelberg, Germany, ²Centre for Pharmacognosy and Phytotherapy, The School of Pharmacy, University of London, London, United Kingdom, ³Faculty of Pharmacy, Ain Shams University, Cairo, Egypt

Objectives: Alzheimer's Disease (AD) is a progressive neurodegenerative disorder and the most common form of dementia in the elderly with more than 26 million suffering from AD worldwide. No cure or therapy is available yet, but several medications for treating AD are on hand, most of them inhibiting acetylcholinesterase (AChE). But also the inhibition of glycogen synthase kinase 3 β (GSK3 β) seems to be a promising way to prevent the formation and progression of AD.

Based on the fact that several drugs derived from nature are used to treat Alzheimer's Disease, this study aimed at screening various plants from Traditional Chinese Medicine for their potential as anti-AD drugs.

Methods: More than 80 Traditional Chinese Medicinal (TCM) plants as well as various essential oil components were screened for their potential inhibition of GSK3 β and AChE *in vitro* using an enzymatic radioactive assay and an adapted version of the Ellman assay.

Results: Extracts from two of these plants showed apparent inhibition of GSK3 β , some of them a notably stronger effect than the known GSK3 β inhibitor lithium chloride.

AChE activity was affected by various extracts from different plants. The most remarkable inhibition of AChE was observed for the methanolic extract of *Coptis chinensis*, having a more than 100-fold stronger AChE inhibitory activity than the already known AChE-inhibitor galantamine.

Selected components of essential oils, which carry a variety of important functional groups, were also analysed for their potential inhibition of AChE. The highest inhibitory activity was observed for myrtenal, a component of the essential oil of *Glycyrrhiza glabra*.

This is the first study showing these anti-AD activities of various Traditional Chinese Medical plants and myrtenal. Furthermore, the mode of AChE inhibition of crude extracts was classified as clearly synergistic.

Conclusion: Taken together these results suggest that plants from Traditional Chinese Medicine are an interesting source of inhibitors of both GSK3 β and AChE. With a favourable toxicity/activity profile, these extracts as well as myrtenal should be tested *in vivo* to ascertain their beneficial effects in a mouse or rat model of AD.

Disclosure of Interest: None Declared

P025

SYSTEMATIC REVIEW OF THE EFFECTIVENESS OF SENSORY, PSYCHOLOGICAL AND BEHAVIOURAL INTERVENTIONS FOR MANAGING AGITATION IN OLDER ADULTS WITH DEMENTIA

G. Livingston^{1,*}, C. Cooper¹, C. Katona¹, L. Kelly¹, E. Lewis-Holmes¹, S. Morris², R. Omar³

¹Mental Health Sciences, ²Epidemiology and Public Health, ³Dept of Statistical Science, UCL, London, United Kingdom

Objectives: We will report our findings in this study which aims to systematically review non-pharmacological interventions for reducing agitation in older adults with dementia when compared with normal care, in order to determine their effectiveness at decreasing agitation, and improving functional capacity, and quality of life for the person with dementia and their family carer

Methods: We have finalised search terms in email consultation with an advisory group consisting of patient and carer representatives, and clinicians and academics from a range of disciplines. We have searched electronic databases and reference lists from individual and review articles. We are using Reference Manager software to keep a data trail of all studies and reasons excluded. We have defined agitation as a state of chronic restlessness and increased psychomotor activity.

We have selected studies using our explicit predetermined inclusion criteria. The first decision was made on titles and, where available, abstracts. These will be assessed against the. All potentially relevant abstracts have been read independently by two research assistants to identify those of relevance. The reasons for rejecting any potentially relevant paper has been recorded. For studies that appear to meet the inclusion criteria, or in cases when a definite decision cannot be made based on the title and/or abstract alone, the full paper will be obtained for detailed assessment against the inclusion criteria.

Results: We have designed a data extraction and quality assessment tool, and data is being extracted by two research assistants independently. We are categorising the papers by treatment modality. If three or more studies are identified, we will undertake a meta-analysis to combine their findings if the studies are homogenous and of high quality. If formal pooling of results is inappropriate, a narrative approach will be used.

The study is ongoing We have initially found 1753 papers and are currently selecting papers. We will report results at the conference.

Conclusion: We are expecting to be able to make recommendations for effective management of agitation in specific groups of people with agitation eg mild, moderate, severe; at varying stages and in different settings. These will be reported at the congress

Disclosure of Interest: None Declared

P026

BRAINS FOR DEMENTIA RESEARCH – PROVIDING HUMAN TISSUE FOR DEMENTIA RESEARCH TO PROMOTE UNDERSTANDING OF PATHOGENESIS AND AID DRUG DISCOVERY

G. M. Hayes^{1,*}, R. Hudspeth¹, P. T. Francis¹

¹King's College London, London, United Kingdom

Objectives: Post-mortem brains have played a pivotal role in our understanding of the neurodegenerative processes in dementia and the underlying causes of the symptoms observed. With increasing research sophistication two things are clear: (1) the value of relating clinical information obtained during life to post-mortem biochemistry, and (2) genetic association studies require large numbers of samples from clinically, histopathologically and biochemically characterised tissue. This confirms the need for quality post mortem brain tissue and the requirement for greater standardisation between brain tissue banks collaboratively providing samples.

Brains for Dementia Research (BDR) is a network of six UK brain banks/collection centres that aims to address the shortage of high-quality post-mortem brains from people with dementia and suitable control cases and provide researchers with the help they need to access the tissue.

Methods: Potential donors self refer directly or are contacted through clinics and existing cohorts. BDR brain donation programme includes regular cognitive, psychological and activity tests during life, with standardised procedures for brain donation, histopathological classification, storage and distribution.

Researchers world-wide can contact us or use an online tissue database to find tissue

(www.brainsfordementiaresearch.org.uk) and complete a single tissue application form across all participating banks. BDR ethical approval includes devolved authority to review and approve tissue applications from the UK.

Results: To date we have over 1200 clinically assessed participants aged 65 and over, 70% of which are healthy controls. The brain banks provided additional cases so the tissue database contains over 400 well characterised cases available to researchers.

Conclusion: This initiative of the Alzheimer's Society and Alzheimer's Research Trust has been welcomed by those affected by dementia and their families, as seen in the numbers self-referring to participate. There is some evidence that this system is already proving an easier route for researchers to access tissue needed for their studies, and in particular will help those researchers not working within neuropathology departments.

Disclosure of Interest: None Declared

P027

USE OF THE DOLL WITH DEMENTIA-AFFECTED PATIENT WITH BEHAVIOUR DISTURBANCES IN A NURSING HOME FOR ALZHEIMER PATIENTS

I. G. Cilesi^{1,*}

¹Alzheimer Department, Foundation S. Maria Ausiliatrice, bergamo, Italy

Objectives: Reduction of medication needed to control behavior in demented patients.

Methods: 6 patients were evaluated (5 Females, 1 Male), median age 81.33 years old, CDR 3, MMSE lower than 10, MPI media, and followed for 6 months (the study is still ongoing). Staff were trained also with use of videos, care givers were informed and their consent obtained, patients were filmed and their videos were shown to their care givers as well, MMSE checked at the beginning and at the end of the period, as well as MPI and the doses of antipsychotic and benzodiazepines medications used on a regular and as required basis as reported on staff diary. Dolls were administered in established times and for established periods of time as detailed in the individual schedules prepared according to the behavioral disturbance. Handing over, observing and taking back the doll were recorded each time in the individual schedule.

Results: It was observed a reduction in the doses of antipsychotic and benzodiazepine medications administered regularly and on a as required basis, while the care giver, formal and informal, showed an ameliorated perspective of the situation.

Conclusion: Use of empathy dolls in our experience diminished the use of pharmacological intervention in Dementia-affected patients with behavior disturbances. The study is ongoing.

References: Ivo Cilesi Psychotherapist Italy (Responsible Service of Cognitive Rehabilitation and non Pharmacological Therapies in Alzheimer Centre in the Foundation S. Maria Ausiliatrice (Bergamo), Consultant Alzheimer Centre of Excellence Hospital Briolini in Gazzaniga (Bergamo), Consultant in Alzheimer Centers in Goteborg (Sweden), Consultant at the Alzheimer Center of Pio Albergo Trivulzio in Milan

Disclosure of Interest: None Declared

P028

THERAPEUTIC VIRTUAL TRAIN WITH DEMENTIA-AFFECTED PATIENTS WITH BEHAVIOUR DISTURBANCES IN A NURSING HOME FOR ALZHEIMER PATIENTS

I. G. Cilesi^{1,*}

¹Alzheimer Department, Foundation S Maria Ausiliatrice, bergamo, Italy

Objectives: Decreasing of the states of nervousness, aggressiveness and wandering

- Stimulate the attention , emotional processes, dialogue and ability report
- Facilitate the relaxation

Methods: Evaluation behavioural problem list of the people (10) that can be insert in the virtual run

- Insertion proposed to established schedules in relationship to the times of onset of the troubles
- Insertion proposed to the need in the acute phase of the trouble

Results: Decreasing of the troubles is in the acute phase of the trouble. Reduction pharmacological therapies to the need and therapies administered by therapeutic protocol

Conclusion: The resultsof experiments reinforce that the train is an important opportunity for therapeutic treatment of people with Alzheimer's disease at different times of day.

References: Ivo Cilesi Psychotherapist Italy (Responsible Service of Cognitive Rehabilitation and non Pharmacological Therapies in Alzheimer Centre in the Foundation S. Maria Ausiliatrice (Bergamo)
Consultant Alzheimer Centre of Excellence Hospital Briolini in Gazzaniga (Bergamo)
Consultant in Alzheimer Centers in Goteborg (Sweden)
Consultant at the Alzheimer Center of Pio Albergo Trivulzio in Milan

Disclosure of Interest: None Declared

P029

INTELLECTUAL DISABILITIES AND ANTI-DEMENTIA MEDICATION

K. Courtenay^{1,*}

¹Barnet Enfield Haringey Mental Health NHS Trust, London, United Kingdom

Objectives: People with intellectual disabilities are vulnerable to developing dementia disorders. The prevalence of dementia is higher than in the general population especially among people with Down Syndrome. Diagnosing dementia in people with ID can be difficult because of pre-existing cognitive deficits. Diagnosis is often made later in the course of disease often presenting with behavioural changes before cognitive changes. Various psychotropic medications are used to manage the behavioural changes and anti-dementia medication is used to manage cognitive and behavioural changes. However, the use of anti-dementia medication is low among people with ID.

Methods: The paper reviews the literature on anti-dementia use among adults with ID and dementia. A review of the literature using PsychInfo and Medline databases.

Results: The literature reveals case studies and cohort studies of people with ID using anti-dementia medication. The studies are few with small numbers. Donepezil is the most commonly used anti-dementia drug in people with ID. Rivastigmine is also used to treat dementia with little data on the use of Galanamine and Memantine. People with ID are sensitive to side effects of medication especially cardiovascular effects that can lead to discontinuation of medication.

Conclusion: The evidence base for the use of anti-dementia drugs in people with ID and dementia is limited. The quality of studies is affected by low numbers and discontinuation rates. There is a need to assess the efficacy of anti-dementia drugs in people with ID through methodologically robust, prospective studies to elucidate the role of medication in the care of adults with ID and dementia.

References: Prasher VP (2004) Review of donepezil, rivastigmine, galanamine and memantine for the treatment of dementia in AD in adults with Down syndrome: implications for the intellectual disability population. *International Journal of Geriatric Psychiatry* 19 1–7.

Kishnani PS, Sullivan JA, Walter BK et al (1999) Cholinergic therapy for Down's syndrome. *Lancet* 353 1064–6.

Mohan M, Carpenter PK & Bennett C (2009a) Donepezil for dementia in people with Down syndrome. *Cochrane Database of Systematic Reviews* 1 CD007178. DOI: 10.1002/14651858. CD007178.pub2.

Disclosure of Interest: None Declared

P030

EFFECT OF FERULIC ACID AND ANGELICA ARCHANGELICA EXTRACT ON BEHAVIORAL AND PSYCHOLOGICAL SYMPTOMS OF DEMENTIA (BPSD) OF ALZHEIMER DISEASE (AD) AND DEMENTIA WITH LEWY BODY DISEASES (DLB).

K. Kanaya ^{1,*}, S. Abe ¹, M. Sakai ¹, H. Fujii ¹, K. Koizumi ², T. Iwamoto ³, T. Azekawa ⁴, A. Itami ⁴

¹Geriatric medicine, ²Radiology, Tokyo Medical University, Hachioji Medical Center, Hachioji, ³Geriatric medicine, Tokyo Medical University, Tokyo, ⁴psychiatry, Shioiri Mental Clinic, Yokosuka, Japan

Objectives: Feru-guardTM (F) is a health food supplement in Japan, composed of ferulic acid extracted from rice bran and angelica archangelica. Although demonstrated in animal studies, ferulic acid has been reported to inhibit β -amyloid aggregation and suppress formation of senile plaque. In addition Angelica archangelica might be effected on acetyl cholinesterase inhibition. In recent years, (F) has been reported to be effective against the core symptoms and BPSD of DAT, as well as improve activities of daily living of DLB, Pick's disease and cerebrovascular dementia. We conducted a prospective study to verify the efficacy of this supplement with respect to the BPDS of dementia patients.

Methods: The subjects consisted of 32 patients who were outpatients of Hachioji Medical Center and Shioiri Mental Clinic had been definitively diagnosed with DAT or DLB. Based on an observation period of 4 months each patient took two packets of (F) daily for the two months. The assessment methods consisted of NPI-D scores combining neuropsychiatric inventory (NPI), which is an evaluation scale for BPSD, MMSE and ADAS as tests of cognitive functions, and GDS15 for a screening scale for depression. These parameters were measured before and after taking (F) followed by an examination of their changes. Moreover, for the patients of Hachioji Medical Center, SPECT were also performed, and a comparative study of changes in cerebral blood flow before and administer administration was conducted using SPM8.

Results: Mean NPI score was observed to have decreased significantly ($P=0.0157$) from 21.25 before administration to 15.59 after administration. In addition, distress scores also decreased significantly ($P=0.0056$) from 8.56 to 5.84, thus demonstrating the ameliorative effects of (F) on BPSD. There were no significant differences observed for MMSE, ADAS or GDS15 scores before and after administration. In a comparison of cerebral blood flow by SPM8, significant increases in cerebral blood flow were observed in the right frontal lobe, left parietal lobe, bilateral cingulate gyrus and pons. ($P<0.001$)

Conclusion: This study verified the usefulness of (F) for BPSD of DAT and DLB. We intend to conduct additional studies on larger numbers of subjects in the future.

Disclosure of Interest: None Declared

P031

INDIVIDUAL COGNITIVE STIMULATION THERAPY FOR DEMENTIA

L. Yates^{1,2,*}, M. Orrell¹, V. Orgeta¹, R. Woods³, E. Moniz-Cook⁴, I. Russell⁵, A. Burns⁶, Z. Hoare⁷, M. Knapp⁸, A. Spector⁹

¹Department of Mental Health Sciences, University College London, ²Research & development, North East London Foundation Trust, London, ³School of Psychology, Bangor University, Bangor, ⁴University of Hull, Hull, ⁵School of Medicine, Swansea University, Swansea, ⁶Department of Old Age Psychiatry, University of Manchester, Manchester, ⁷IMSCAR, Bangor University, Bangor, ⁸London School of Economics, ⁹Department of Clinical Psychology, University College London, London, United Kingdom

Objectives: Improving the quality of care for people with dementia and their carers has become a national priority in many countries. Cognitive Stimulation Therapy (CST) groups have been found to be beneficial in improving cognition and quality of life for people with dementia. However, many people may be unable to access CST groups due to service constraints or practical difficulties. To increase the availability of CST, an individualised version of CST is in development and will be evaluated in a large randomised controlled trial (RCT).

Individual CST consists of 75 sessions adapted from the CST and maintenance CST programmes. It will be delivered in the home by the carer for 30 minutes, 3 times a week over 25 weeks. We have created 6 instructional manuals which describe the sessions, and 6 resource manuals containing paper based activities.

A series of focus groups and individual interviews with people with dementia and carers have been conducted. In this presentation, the qualitative results of these discussions will be described.

Field testing of the individual CST programme has also been completed. Feedback from dyads who took part in this testing will be reported, including the unexpected diversity in the perception of the delivery of a therapy as the domain of a healthcare professional rather than an informal carer.

In this presentation, we will describe the development process of individual CST, providing qualitative data. In addition, plans for the next phase of the trial and the design of the main RCT will be outlined. Individual CST may help to delay institutionalisation, reduce associated costs of care, and provide another option for services to offer CST, when access to group CST is not possible. Individual CST will be an easy to use, widely available therapy package that has been robustly evaluated for effectiveness in an RCT.

Disclosure of Interest: None Declared

P032

ELECTROPHYSIOLOGICAL AND MOLECULAR ASSESSMENT OF NEUROPROTECTIVE EFFECT OF CB1 CANNABINOID RECEPTOR ACTIVATION IN A RAT MODEL OF ALZHEIMER'S DISEASE

M. Janahmadi^{1,*}, M. Haghani¹

¹Neuroscience Research Centre and Dept. of Physiology, Shahid Beheshti Medical Sciences University, Tehran, Iran, Islamic Republic Of

Objectives: The *amyloid*β (Aβ) protein is believed to be the key pathological mediator of *Alzheimer's disease*(AD) which is the first and *most well known type of* dementia, however, there is little known about the functional impact of Aβ on intrinsic neuronal properties. Here, consequences of intrinsic electrophysiological and molecular alterations induced by neurotoxin Aβ and the mechanism(s) of neuroprotection by CB1 cannabinoid receptor activation CA1 pyramidal in hippocampal CA1 pyramidal neurones were assessed.

Methods: The level of active caspase-3 in hippocampus was assessed by Western blot analysis. Whole cell patch clamp recordings from CA1 pyramidal neurones were performed to explore the impact of myloid beta (1-42) neurotoxicity on intrinsic electrophysiological properties of pyramidal neurones.

Results: Bilateral injections of the Aβ peptide fragment (1-42) into the frontal cortex caused a significant increase (P<0.01) in the level of active caspase-3 in hippocampal neurons. Furthermore, activation of CB1 receptors following Aβ treatment protected against Aβ neurotoxicity in the hippocampus. In addition, whole-cell patch clamp recordings demonstrated that profound alterations occurred in the intrinsic electrophysiological properties of pyramidal neurons in Aβ-treated rats.

Aβ treatment was associated with a significant reduction in the intrinsic action potential (AP) frequency and with an increase in the discharge irregularity in the absence of synaptic inputs. Aβ treatment induced also significant changes in both the spontaneous and activity-dependent electrophysiological responses. However, co-treatment with ACEA, a CB1 receptor agonist, preserved the normal intrinsic electrophysiological properties of pyramidal cells

Conclusion: In summary, *in vivo* Aβ treatment led to strong changes in the intrinsic neuronal properties by changing the function of intrinsic ion channels. These alterations in intrinsic neuronal excitability may contribute to the memory impairment observed in rats treated with Aβ.

Disclosure of Interest: None Declared

P033

THE EFFECT OF KOMBUCHA TEA ON ACTIVE AVOIDANCE LEARNING AND MEMORY IN RATS

M. Mirvakili^{1,*}, A. morshedi², M. H. Dashti-R²

¹emergency service, shohadaye kargar hosptal, ²physiology, Shahid Sadoughi University of Medical Sciences and Health Services, YAZD, Iran, Islamic Republic Of

Objectives: Kombucha tea is a health beverage made by incubating the Kombucha mushroom in black tea and sugar. Although various therapeutic benefits have been attributed to the drink, and it is widely consumed in many populations throughout the world, neither its beneficial effects nor adverse side effects however have been studied sufficiently. As this beverage contains some alcohol and it may have some effect on central nervous system (CNS), we proposed to study the effect of its chronic consumption on learning and memory which are among the most complex functions in the CNS.

Methods: In this study we used a Shuttle Box device to assess active avoidance learning and memory as described by Oryam et al (1). Ten Wistar male rats were equally divided into two groups. The animals in control group continued to drink tap water while the animals in the experimental groups had availability of Kombucha tea ad libitum instead, for 2 months until the onset of behavioral studies and continued up to the end of the studies. For this study 32 male Wistar rats weighting 200–250 g were provided by the Shaheed Sadoughi Medical University Animal House. For experimental procedures we got the permission of the animal ethics committee of Shahid Sadoughi Medical University (Yazd, Iran), which is in accordance with the internationally accepted principles for laboratory animal use and care mentioned by the European Community guidelines.

Results: Our data showed that although chronic consumption of Kombucha tea during 2 months led to a slight decline in number of shocks receiving by animals in all three stages of the study (learning, short term memory and long term memory), there was no significant difference between animals of the control and the experimental groups ($p=0.539$, $p=0.476$, $p=0.323$ respectively).

Conclusion: Our results indicate that chronic consumption of Kombucha tea had neither significant beneficial nor adverse side effect on learning and memory.

References: ORYAN SH, PARIVAR K and NASRI S. THE EFFECTS OF INTRAPERITONEAL INJECTIONS OF ESTRADIOLS ON ACTIVE AVOIDANCE LEARNING. JOURNAL OF SCIENCES (ISLAMIC AZAD UNIVERSITY) 2005; 14(54 (BIOLOGY ISSU)):4627-36.

Disclosure of Interest: None Declared

P034

LONG LASTING MEMORIES INTERNATIONAL PROJECT: IMPROVEMENTS IN EXECUTIVE FUNCTION IN DEMENTIA AND MILD COGNITIVE IMPAIRED PATIENTS AFTER COGNITIVE AND PHYSICAL LLM TRAINING

M. Franco Martin ^{1,*}, M. Bernate ¹, E. Parra ¹, F. Gonzalez Palau ¹, R. Losada ¹, Y. Ruiz ¹, A. Solis ¹, Y. Bueno ¹, C. Turuelo ¹, J. M. Toribio ¹, L. Perez ¹

¹Fundacion INTRAS, Zamora, Spain

Objectives: Lasting Memories (LLM) is an integrated ICT platform that aims to deliver an effective solution against age-related cognitive decline, and to allow the recovery of higher cognitive functions in people who show cognitive impairment related to Mild Cognitive Impairment and Mild Dementia. The objective of the present study was to determine the effectiveness of LLM training program in the improvement of executive function in mild cognitive impaired and mild dementia subjects.

Methods: Volunteer sample of 104 participants was recruited from residential facilities. 54 non-demented elderly, 36 subjects with Mild Cognitive Impairment and 14 elderly who met the DSM-IV criteria for dementia (mean age = 76.46 years, SD=8.4, age range= 60-92 years) were administered LLM during 12 weeks program. Executive function was measured by Trail Making Test (TMT) and Color Trail Test (CTT), before and after LLM treatment. TMT and CTT were selected in this study because are considered to be specific to executive function processes due to its requirements for switching sets and mental tracking throughout the tasks. T- test was used to compare pretest – post test differences.

Results: The involved analysis showed improvements between pretest and posttest measures in the time used to complete CTT2 task ($p=0.001$) for the three experimental groups. Significant differences were also found in the prompts given to subjects ($p=0.012$) for completing the task, showing better planning of action after treatment, of the three groups studied. TMT B results showed a decline in the errors performed by the participants during the post test ($p=0.001$) indicating improvements of planning and flexibility.

Conclusion: Dementia and Mild Cognitive Impaired subjects usually showed deficits in different cognitive functions. Although memory and attention is mostly one of the first processes involved, progressively executive function is in high risk in both pathologies. The results support the effectiveness of LLM cognitive and physical training in improving executive function, being a promising solution for cognitive training of elderly with and without cognitive impairment.

Disclosure of Interest: None Declared

P035

BARRIERS AND FACILITATORS FOR IMPLEMENTING AN EVIDENCE-BASED OCCUPATIONAL THERAPY GUIDELINE FOR OLDER PEOPLE WITH DEMENTIA AND THEIR CARERS

M. Graff^{1,*}, N. V. T. Leven², M. Vernooij-Dassen¹

¹IQ healthcare, 114, Radboud University Nijmegen Medical Center, Nijmegen, ²Centre of Expertise for Care Innovation, Rotterdam University, Rotterdam, Netherlands

Objectives: Implementing evidence-based guidelines is not self-evident. This study aimed to define barriers and facilitators for implementing the evidence based Community Occupational Therapy in Dementia (COTiD) guideline.

Methods: The grounded theory was used. Data from focus group interviews with 17 occupational therapists (OTs) and telephone interviews with 10 physicians and 4 managers. Data were analysed with the constant comparative method by identifying codes, categories, and main themes.

Results: Main themes in barriers for OTs were: OTs did not feel competent in COTiD treatment, had difficulties prioritising, both for clients and themselves, were unsure about minimal criteria for guideline adherence. Intensity of program was main barrier. Barriers physicians and managers: lack of knowledge about occupational therapy, lack of OTs. For OTs, the guideline's content and focus, evidence, and external support facilitated its use. For physicians and managers, the guideline's evidence base and its benefits for clients and carers were the main facilitators.

Conclusion: This study generates knowledge for applying innovations in healthcare settings. Improvement of the OTs' knowledge and self-confidence is needed for using COTiD and this probably will motivate their physicians and managers to refer to and facilitate COTiD.

Disclosure of Interest: None Declared

P036

THE EFFECT OF FRANKINCENSE ON COGNITION IN MICE MODEL OF ALZHEIMER'S DISEASE

M. H. Dashti-R^{1,*}, S. M. bagheri², A. akrami-a², A. dehghanpoor², M. khodayar²

¹Herbal medicine Research Center, ²Physiology, Shahid Sadoughi University of Medical Sciences and Health Services, Yazd, Iran, Islamic Republic Of

Objectives: Frankincense is a gum-resin compound yielded from different *Boswellia* species and has been assigned many therapeutic effects in traditional medicine. A few scientific reports have indicated its ant oxidative and neuroprotective activity. Since Alzheimer's disease (AD) is a neurodegenerative disorder, this study was conducted to evaluate the prophylactic and therapeutic effects of gum resin products from *Boswellia serrata* on chemical induced AD in male mice.

Methods: In this study, 40 male mice were divided randomly and equally into healthy control (Distilled water), AD control (D-galactose and NaNO₂ solution), AD prevention (Frankincense "along with" D-galactose and NaNO₂ solution) and AD treatment (Frankincense 15 consecutive days following AD induction) groups. The learning and memory functions were examined by one way active avoidance learning and memory tests, using a shuttle box device. The study was conducted according to the rules of university ethic committee which is in accordance with the internationally accepted principles for laboratory animal use and care mentioned by the European Community guidelines.

Results: In training session of active avoidance test, the avoidance response in AD control group significantly diminished as compared to the normal control group. In AD treated and AD prophylactic groups, training was improved but there was only a significant increase in the number of avoidance trials in AD prophylactic group as compared with AD control group. In this session there was no difference in avoidance responses between AD treated/AD prophylactic and normal control group. 1 week after the training session (short term memory test), the memory retention in AD control group remained significantly less than other groups but, after the 3rd week there was no significant difference in memory consolidation between AD treated and AD control groups.

Conclusion: Our findings indicate that Frankincense potently prevents the AD induction and moderately improves the learning ability and memory retention in AD mice.

Disclosure of Interest: None Declared

P037

THE EFFECT OF CROCUS SATIVUS (SAFFRON) EXTRACT ON PASSIVE AVOIDANCE LEARNING AND MEMORY TASK IN ALZHEIMER MODEL MICE.

M. Anvari^{1,*}, M. H. Dashti-r², F. Zeinali², S. M. Hosseini³

¹department of biology and anatomical sciences/research and clinical center for infertility, ²department of physiology/herbal medicine research center, shahid sadoughi university of medical sciences and health services, yazd, ³pharmaceutical school, isfahan medical university, YAZD, Iran, Islamic Republic Of

Objectives: Plants have been used as medication since the onset of human history and were used as the basis of many modern medications. Saffron is a spice impressing stimulatory effects on central nervous system. This study is conducted to examine the effects of saffron hydro- alcoholic extract on preventing Alzheimer's disease (AD) and improving learning and memory deficits in AD mice.

Methods: In this study 20 ovariectomized mice were divided randomly and equally into 4 groups: 1st healthy control (" Distilled water), 2nd AD control (D-galactose and NaNO₂ solution), 3rd AD prevention (saffron extract" with" D-galactose and NaNO₂ solution), 4th AD treatment (saffron extract 15 consecutive days following AD induction). The learning and memory functions in mice were examined by the "one way passive avoidance learning and memory" test.

Results: In passive avoidance tests, animal's step through latency (STL) an index for learning, in healthy control, AD control, AD prevention and AD treatment were $8/1 \pm 2/118$, $9/5 \pm 9/57$, 10 ± 109 , 10.07 ± 3.197 respectively. STL in all test groups was significantly greater than control group ($p < 0.05$).

Conclusion: Our findings indicate that saffron hydro- alcoholic extract prevents the AD induction and improves the learning ability in AD mice.

Disclosure of Interest: None Declared

P038

NUTRITIONAL SUPPLEMENT COMBINATION THERAPY EFFECTIVE IN AD MOUSE MODEL; NOW TESTING FEASIBILITY, SAFETY AND BIOMARKERS IN CLINICAL TRIAL WITH COGNITIVELY NORMAL ADULTS

N. B. Emerson Lombardo ^{1,*}, J. Valla ², E. Harris ¹, S. Auerbach ¹

¹Neurology, Boston University School of Medicine, Boston, MA, ²Biochemistry, Midwestern University, Glendale, Arizona, United States

Objectives: The objective of the BUSM clinical trial of NSCT is to establish feasibility and safety, and estimate biomarker effect sizes of a combination nutritional therapy, preliminary to efficacy trials. Studies in AD animals and AD patients suggest that some spices and herbs, and other plant foods can slow cognitive decline and decrease A-beta levels and/or oligomerization. Epidemiological studies using established diets found a combination of nutrients may be more powerful than any single class of nutrients. Existing evidence was used to design a whole foods Memory Preservation Nutrition (MPN) program emphasizing synergistic contributions of increasing foods with Omega-3s, with antioxidant, anti-inflammatory properties, which attenuate insulin resistance and/or improve lipid balance. Poly-nutrient interventions for clinical research on AD were derived from the MPN, including the Memory Preservation Nutrition Supplement Program (MPNSP) and the Nutritional Supplement Combination Therapy (NSCT). Dr. Jon Valla's Arizona-based team administered the MPNSP incorporated into standard mouse chow to triply-transgenic mice known to develop features of AD and tested effects on brain mitochondrial cytochrome oxidase function and cognitive behavior.

Methods: The MPNSP consists of a phyto-nutrient powder made of 100% organic freeze-dried fruits and vegetables, spices, grains and probiotics; an amalgam of herbs and spices chosen for their anti-inflammatory properties; and cod liver oil. The NSCT study is an open label Phase 1 clinical trial in 25 cognitively normal healthy older adults over an 8 month period. Blood & urine specimens, blood pressure, BMI measurements and FFQs are taken at baseline, 5 and 8 months. Outcome biomarkers include: inflammation (C-RP, IL-6), blood glucose (HbA1c), lipids, and oxidative stress.

Results: The trial of MPNSP in AD mice yielded positive results, with the main effect of significantly reversing mitochondrial dysfunction in several important regions of rat brain with secondary significant improvement in some cognitive behaviors. A clear gender effect was also evident which suggests different brain regional strategies for preservation of function. Interim results of the NSCT study will be reported.

Conclusion: Combination nutritional interventions for brain and body health are worth pursuing.

Disclosure of Interest: N. Emerson Lombardo Conflict with: President, HealthCare Insights, J. Valla: None Declared, E. Harris: None Declared, S. Auerbach: None Declared

P039

DIMEBON, A POTENTIAL DRUG FOR TREATMENT OF ALZHEIMER'S DISEASE: STUDIES OF THE MECHANISMS OF DISEASE-MODIFYING ACTION.

O. Peters^{1,*}

¹School of Biosciences, Cardiff University, Cardiff, United Kingdom

Objectives: Dimebon, a Russian developed antihistamine drug has been cited as a possibly new therapy in the treatment of Alzheimer's disease. The main aim of the project is to test our hypothesis that dimebon is a disease-modifying drug because it affects the formation and/or stability of pathological proteinaceous inclusions, to reveal intracellular pathways/systems targeted by dimebon and to design an optimal experimental in vivo system for testing the next generation of disease-modifying drugs. Specifically we shall be assessing the disease-modifying effect of dimebon on two transgenic mouse models of Alzheimer's disease pathology; TauP301S mice that develop neurodegeneration through the accumulation of hyperphosphorylated tau, and 5xFAD mice in which senile plaque formation develops throughout the brain.

Methods: Cohorts of homozygous TauP301S mice were treated with dimebon (70µg/ml) or placebo from the age of one month, administered ad libitum in the drinking water. In this mouse model pathological changes affect mainly spinal motor neurons, resulting in pronounced motor dysfunction, thus their performance on accelerating rotarod and inverted grid test was assessed regularly from the age of 3 month. Tissue samples were collected at several time points, and the spinal cord pathology and accumulation of hyperphosphorylated tau were assessed.

Results: Transgenic mice treated with dimebon significantly outperformed untreated control mice in the accelerating rotarod test at all ages tested, with a slight trend towards improved inverted grid test performance also apparent. Clear evidence of motor neuron damage was observed in untreated control mice, most prominently the accumulation of hyperphosphorylated tau, the levels of which drastically increased with age, correlating with declining motor function. Treatment with dimebon was found to substantially reduce this accumulation in the spinal cord neurons. The level of astrogliosis was also reduced in the spinal cords of dimebon treated transgenic mice.

Conclusion: Overall our experimental data suggests that the development of tau pathology in this mouse model could be slowed by chronic administration of dimebon. We are currently aiming to confirm these findings with biochemical/molecular biological techniques and are assessing whether dimebon is similarly able to ameliorate amyloid pathology in 5xFAD mice.

Disclosure of Interest: None Declared

P040

MEMANTINE FOR AGITATION (MAG-D): POST-HOC ANALYSES OF RCT. IS RETRIEVAL OF DROPOUTS THE BEST WAY TO MANAGE MISSING DATA?

R. Mcshane ^{1,*}

¹University of Oxford, Oxford, United Kingdom

Objectives: 1. To present a full analysis, including post-hoc exploration, of results of the Memantine for Agitation in Dementia (MAG-D) randomised controlled trial.

2. To quantify the impact of retrieval of dropouts on power

Methods:

149 institutionalised, agitated, patients with AD were randomised to 20mg memantine or placebo for 12 weeks. The primary outcome was Cohen Mansfield Agitation Inventory at 6 weeks. Other predefined outcomes included Clinical Global, NPI total, Severe Impairment Battery & MMSE. Posthoc outcomes included: NPI agitation item (NPI-Ag); NPI cluster (hallucinations, delusions, agitation/aggression 'NPI-CL'; CMAI physically aggressive cluster (CMAI-PhAgg).

Primary ITT analysis was of all subjects contributing data. Through assiduous retrieval of drop-outs, 97% contributed CMAI data but 23% had stopped taking drug by 6 weeks. At 12 weeks, comparable figures were 91% and 28%. Exploratory analyses also examined data from those continuing to take drug (termed 'completer' here).

Results:

There was no difference between drug and placebo on CMAI at 6 or 12 weeks in ITT or completer set. CGIC favoured MEM in completers at 6 & 12 weeks (mean diff~0.58), but not in ITT (0.33&0.4 CGI pts). NPI total favoured MEM in completers and ITT at 12 weeks (mean diff >8 NPI points) but not 6 weeks (6.9&6.2 pts). MMSE favoured MEM in ITT and completers at 6 and 12 weeks, (1.33 & 2.5 pt difference in completers). CMAI-PhAgg, NPI-Ag, NPI-CL all favoured MEM at 6 weeks in the completer set. The mean differences noted in the ITT-RDO population was typically 20% lower than in the completer set.

Repeated Measured Mixed Effects analyses confirmed the lack of effect of MEM on CMAI total, and the benefit on CGIC, MMSE, NPI, NPI-Ag, NPI-CL, CMAI-PhAgg in the completer set and the lack of effect on CGIC, CMAI and CMAI-PhAgg in the ITT-RDO dataset.

Conclusion:

Although memantine did not affect the CMAI primary, a recommendation that memantine is not of benefit in agitation is not justified by these data.

The trial set out to replicate data suggesting an effect on the NPI-Cluster. The benefit on cognitive function would be sufficient reason to recommend memantine for agitated patients. It also seems to have a benefit on physical aggression.

In dementia trials, the use of retrieved drop-outs in ITT analysis has probably been superseded by better ways of managing missing data.

Disclosure of Interest: R. Mcshane Conflict with: Local Investigator & steering committee of MAG-D study

P041

FUNCTIONAL EXAMINATION OF HU-YI-NENG, DIET SUPPLEMENT, IN ITS ANTI-OXIDANT EFFECTS

S.-J. Wu¹, M.-L. Tsei¹, T.-J. Hseih¹, C.-H. Chen^{1,1,*}

¹Kaohsiung Medical University, Kaohsiung, Chinese Taipei

Objectives: Oxidant effects were considered the potential risks to the development of dementia, and some potentially anti-oxidant effects were emphasized in some medicine, vitamins, and diet supplements to have the possible benefits in anti-oxidant effects to slow the decline of cognitive function in demented and non-demented individuals. However, few studies were conducted and designed to examine their function, especially in a comprehensive diet supplement. HU-YI-NENG is a comprehensive diet supplement, including ginkgo biloba, extract of pine bark, phosphatidyl serine, docosahexaenoic acid, and folic acid, used extensively in Taiwan. Therefore, we aimed to investigate the potential protective effects of HU-YI-NENG in cognition through various mechanisms.

Methods: H₂O₂-induced neuronal toxicity was characterized in SH-SY5Y human neuroblastoma cells by the decrease of cell viability using PrestoBlue™ assay (Invitrogen) and by the increase of intracellular reactive oxygen species (ROS) level using DCFH-DA (2', 7'-dichlorodihydrofluorescein diacetate) assays.

Results: Pretreatment with HU-YI-NENG significantly attenuated H₂O₂-induced loss of cell viability and apoptosis by 10% ($p < 0.01$). Furthermore, HU-YI-NENG dose-dependently suppressed the elevation of intracellular reactive oxygen species (ROS) level. The mechanisms of HU-YI-NENG protected neurons from oxidative stress included the induction of antioxidant enzyme, heme oxygenase-1 (HO-1). Besides, it also inhibited H₂O₂-induced phosphorylation of AKT kinase.

Conclusion: These results suggest that HU-YI-NENG has protective effects against oxidative stress, which might be an ideal comprehensive diet supplement for preventing neurodegenerative diseases.

Disclosure of Interest: S.-J. Wu Grant/Research Support from: HSIANG HO BIOTECH. CO. LTD., M.-L. Tsei: None Declared, T.-J. Hseih: None Declared, C.-H. Chen: None Declared

P042

SIMVASTATIN ATTENUATES TAU PROTEIN HYPERPHOSPHORYLATION INDUCED BY OKADAIC ACID IN RAT CORTICAL NEURONS

T. Ma^{1,*}, Y. KONG¹, X. LU¹

¹Department of Neurology, Wuxi the Second People's Hospital, wuxi, China

Abnormal phosphorylation of microtubule-associated protein tau plays a critical role in Alzheimer's disease. Okadaic acid, a specific inhibitor of protein phosphatase-2A (PP-2A) and PP-1, is used as a research model of Alzheimer's disease. to increase the tau phosphorylation. To search for the means to arrest Alzheimer-like damages, in this study we treated rat cortical neurons with okadaic acid to mimic an Alzheimer-like phosphatase-deficient system and induce the tau hyperphosphorylation, then observed the effect of simvastatin on tau hyperphosphorylation induced by okadaic acid. The levels of total and phosphorylated tau were measured. It was found that simvastatin attenuated okadaic acid-induced hyperphosphorylation of tau at Thr181 (AT270), Ser202/Thr205 (AT8). However, the levels of total tau protein had no change. These results indicate that simvastatin has potential neuroprotective effects on Tau-related neuropathology.

Disclosure of Interest: None Declared

P043

SAFFRON EXTRACT IMPROVES ACTIVE AVOIDANCE LEARNING TASK IN COGNITIVE DEFICIT OVARIETOMIZED MICE

V. Arazkhani^{1,*}, M. Anvari², M. H. Dashti-r³

¹Oveisi Middel school, Edareh Amozesh va parvaresh 2 Yazd, ²Shahid Sadoughi University of Medical Sciences and Health Services, YAZD, Iran, Islamic Republic Of, ³Department of physiology/Herbal Medicine Research Center, Shahid Sadoughi University of Medical Sciences and Health Services, YAZD, Iran, Islamic Republic Of

Objectives: This study was conducted to examine the effects of saffron hydro-alcoholic extract on learning and memory function in mice model of Alzheimer's disease (AD).

Methods: In this study 20 ovariectomized mice were randomly and equally divided into 4 following groups: healthy control (Distilled water), AD control (D-galactose and NaNO₂ solution [1]), AD prevention (saffron extract with D-galactose and NaNO₂ solution), and AD treatment (saffron extract 15 consecutive days following AD induction). All injections were administered intraperitoneally (IP) for 60 consecutive days. The cognitive functions were examined using "one way active avoidance learning and memory" test in a shuttle box apparatus [2] and the mean number of shock free trials (M.Sh.F.T.) was considered as an index for learning (1 day after the treatments), short term memory (one week after training) and long term memory (one month after training).

Results: M.Sh.F.T. for healthy control, AD control, AD prevention and AD treatment groups was 13.93±0.8667, 1.933±1.235, 9.000±2.200, 17.47±3.459, respectively in learning, 18.47±1.733, 1.933±0.5207, 11.93±1.733, 20.00±0.5292, respectively in short term memory and 19.07±2.210, 3.667±0.9684, 13.53±0.5207, 27.80±0.1155, respectively in long term memory. In all 3 sets of experiments (learning, short and long term memory), M.Sh.F.T. in AD control group was significantly less than all other groups (p<0.05), but there was no significant difference between AD treatment and healthy control groups (p>0.05).

Conclusion: Our findings indicate that saffron hydro-alcoholic extract prevents the induction of AD and improves the learning ability and memory recall in AD mice model.

References: [1] Hua, X. et al. (2007) Life Sci. 80:1897-1905.

[2] Das, A. et al. (2003) Indian J. Pharmacol. 35:47-50.

Disclosure of Interest: None Declared

P044

FOOT MASSAGE VS PRESENCE FOR AGITATION

W. Moyle^{1,*}, E. Beattie², M. Cooke¹, D. Shum³, M. Casey¹, S. O'Dwyer¹

¹RCCCPI, Griffith University, ²DCRC-CC, QUT, ³Psychology, Griffith University, Brisbane, Australia

Objectives: This study sought to investigate the effect that a foot massage intervention, involving a 10 minute session 5 days a week for a 3 week period, had on levels of agitation and by association levels of emotion and discomfort, in older people with moderate to severe dementia.

Methods: A randomised cross-over design, with foot massage intervention and quiet presence control groups was employed. Fifty-three participants from five aged care facilities in Queensland, Australia were recruited. Participants were assessed three times; baseline, mid-point (after the first intervention arm) and post intervention (after the second intervention arm) for agitation on the Cohen Mansfield Agitation Inventory- short form (CMAI-SF), Pittsburgh Agitation Scale (PAS); and for emotion on the Observed Emotion Rating Scale (OERS) and levels of discomfort on the Discomfort Scale for Dementia (DSD).

Results: A mixed model analysis found agitation was greater under quiet presence but there were no significant differences between foot massage or quiet presence interventions in levels of increased agitation. Analyses of the OERS and DSD indicated no difference for emotion or discomfort scores over time regardless of treatment received. Both positive and negative emotion sub scores increased as did both comfort and discomfort sub scores but the changes were not significant.

Conclusion: While the study did not provide evidence that foot massage will result in a decline in agitation over time it raises important questions about unfamiliarity of the person doing the massage to the person with dementia. The increase in agitation, emotion and dis/comfort may have been due to changes in routine or inter-personal interactions associated with participating in the trial.

Disclosure of Interest: None Declared

P045

THE PREVALENCE OF DEMENTIA AND COGNITIVE IMPAIRMENT AMONG OLDER PEOPLE IN SUB-SAHARAN AFRICA: A SYSTEMATIC REVIEW AND META-ANALYSIS.

A. Mavrodaris ^{1,*}, J. Powell ¹, M. Thorogood ^{1,2}

¹UNIVERSITY OF WARWICK, MEDICAL SCHOOL, UK, Warwick, United Kingdom, ²UNIVERSITY OF THE WITWATERSRAND, Johannesburg, South Africa

Objectives: With an ageing world population, dementia and cognitive impairment is set to be one of the biggest public health challenges of the 21st century, and will be a particular burden in developing regions such as sub-Saharan Africa (SSA), since a large proportion of the world's elderly will be living in this region. Little is known about the prevalence of dementia and cognitive impairment in the region. This study aims to summarize what is known about the prevalence of cognitive impairment and dementia in SSA by carrying out a systematic review and meta-analysis of existing studies.

Methods: A systematic review of the literature was conducted by searching six electronic databases, contacting experts in the field and searching the references of identified papers to fulfill predefined inclusion criteria. Studies reporting population-level data were included. Each study was evaluated by at least two of the authors using a standardized checklist and validated score for quality. Studies measuring prevalence of dementia and cognitive impairment were analyzed separately and a meta-analysis performed for studies measuring prevalence of dementia.

Results: Ten studies conducted in 5 countries in SSA met the inclusion criteria. All the studies were cross-sectional, and included over 8,000 participants. The methodological quality varied, and some were poorly reported. There was variation among studies regarding diagnostic protocols, and the estimate of the prevalence of dementia ranged from around 2% to 10%. Prevalence of cognitive impairment ranged from around 7% to 12%. Alzheimer's disease accounted for most of the clinical dementia cases and age was strongly associated with cognitive decline. The effects of education were varied. Educational level may have had an effect on the validity of diagnostic strategies used.

Conclusion: This is an important area because the burden of care associated with dementia is likely to be significant in countries with very limited resources. Yet published research is very limited and estimates of prevalence are wide ranging. Further high quality research is urgently required to provide better estimates of prevalence and of any trends over time.

Disclosure of Interest: None Declared

P046

AN EVALUATION OF TELEHEALTH FOR ASSESSMENT AND MANAGEMENT OF DEMENTIA IN REMOTE SCOTTISH COMMUNITIES

A. Innes^{1,*}, L. McCabe²

¹Health and Social Care, Bournemouth University, Bournemouth, ²Applied Social Science, University of Stirling, Stirling, United Kingdom

Objectives: The assessment and diagnosis of dementia often requires specialist staff input, this poses a particular challenge for remote and rural island and mainland communities. This paper will report on an evaluation of a telehealth initiative in Scotland where local clinicians worked with a specialist to provide a local assessment and diagnosis of dementia.

Methods: Structured questionnaires were used to gather information about the technical aspects of using telehealth. Structured, face-to-face interviews were conducted with people with dementia and their carers in two remote and rural locations of Scotland, the Shetland Islands and Grampian. The sample included people with dementia and their carers who had used the telehealth service and a sample of people who had used conventional services entailing travel to a specialist centre in a large city. Interviews with staff using telehealth and staff who were not using telehealth were also conducted.

Results: Fieldwork is ongoing at the time of abstract submission and will be complete by the end of November 2011. The project end date is 31 January 2012 and therefore analysis and results will be available by the time of the conference.

Initial analysis suggests that telehealth was popular with patients and carers as it reduced the travel time required, local clinicians were able to support the person with dementia and their carer in person while specialist staff provided diagnostic expertise from a distance.

An unforeseen benefit of telehealth was the positive clinical supervision local staff received from specialist staff working some distance away.

Conclusion: Conclusions will be available by the end of January 2012 and be presented at the conference.

Disclosure of Interest: None Declared

P047

THE "NEED TO KNOW": THE VALUE OF ASSESSMENT AND DIAGNOSIS FOR CAREGIVERS OF INDIVIDUALS REFERRED TO A RURAL AND REMOTE MEMORY CLINIC

D. Morgan ^{1,*}, S. Walls-Ingram ¹, A. Cammer ¹, M. Crossley ², D. Forbes ³, A. Innes ⁴, M. O'Connell ², N. Stewart ⁵

¹Canadian Centre for Health & Safety in Agriculture, ²Psychology, UNIVERSITY OF SASKATCHEWAN, Saskatoon, ³Nursing, University of Alberta, Edmonton, Canada, ⁴School of Health & Social Care, Bournemouth University, Bournemouth, United Kingdom, ⁵Nursing, UNIVERSITY OF SASKATCHEWAN, Saskatoon, Canada

Objectives: The interdisciplinary one-stop Rural and Remote Memory Clinic (RRMC) evaluation study is aimed at improving access to diagnosis and enhanced management of early stage dementia for rural and remote seniors in the western Canadian province of Saskatchewan. The focus of the research reported here was to explore caregivers' experiences prior to the appointment, their expectations for the appointment, and the importance of a diagnosis.

Methods: A longitudinal needs assessment is underway to identify the pre and post-diagnostic support needs of informal caregivers, with semistructured interviews conducted at baseline (clinic day assessment), 6 months, and one year post-initial assessment. Thirty face-to-face interviews have been conducted with caregivers (primarily spouses and adult children) at the initial assessment before the diagnosis has been communicated, and are the focus of this analysis. Interviews were audio-recorded and transcribed verbatim. Data analysis was conducted using the constant-comparative technique.

Results: The process of seeking help from primary care providers and getting a referral to the RRMC appears driven by a "need to know." Caregivers' expectations from the diagnostic assessment include "some answers," "more understanding," "just knowing." Caregivers describe the need to seek information about whether there is a problem, how severe it is, what is causing it (naming it), whether anything can be done about it, who they can go to for support, and what to expect in the future. Having these answers allows the caregivers to "move forward" in terms of decision-making and "dealing with it" emotionally. Knowing that they are doing everything they can to help the patient is a relief, regardless of the actual diagnosis made and the availability of treatment.

Conclusion: Assessment and diagnosis is a therapeutic intervention in its own right and serves as a catalyst for moving forward. Caregivers are unable to make decisions in the absence of reliable diagnostic information; this uncertainty is a barrier to making more practical decisions related to care planning and to beginning the process of "facing up to it." Understanding the importance of the assessment process and diagnosis is important for primary care providers who are the first point of contact for patients and caregivers.

Disclosure of Interest: None Declared

P049

DEAF PEOPLE WITH DEMENTIA AND THEIR CARERS: COMMUNICATING EXPERIENCES, ATTITUDES AND SERVICE PROVISION

E. Ferguson-Coleman^{1,*}, A. Young¹, J. Keady², B. Woll³, J. Atkinson³, K. Rogers¹, T. Denmark³, R. Geall⁴, J. Marshall⁵, A. Burns⁶ and Deaf with Dementia

¹SORD, Nursing, Midwifery and Social Work, ²Dementia and Ageing Research Team, Nursing, Midwifery & Social Work, University of Manchester, Manchester, ³Deafness, Cognition & Language Centre, University College London, ⁴Head of Social Care, Royal Association for Deaf people, ⁵Language and Communication Science, City University London, London, ⁶Old Age Psychiatry, University of Manchester, Manchester, United Kingdom

Objectives: Deaf people who use BSL (British Sign Language) are a distinct linguistic and cultural minority. Their experiences of dementia and their information/support needs have never been studied. Very poor awareness of dementia in the Deaf community and a significant lack of specialist knowledge amongst service providers means that Deaf people with dementia are unlikely to be recognised early and support unlikely to be culturally appropriate. This groundbreaking study: (i)explored Deaf people's early awareness and recognition of the signs of undiagnosed dementia (ii)documented the diagnostic journey of Deaf people with dementia and plotted satisfaction with service provision at key junctures, (iii)examined Deaf people with dementia's ways of coping and adapting to their condition including decision-making and carer support. A linked but separate study explored understanding and attitudes towards dementia in the Deaf community, identifying knowledge needs and support preferences from mainstream dementia related services

Methods: Face-to-face in-depth interviews were conducted with 10 Deaf people with a diagnosis of dementia and their carers in their own language with a Deaf researcher. Questions explored individual perspectives and experiences of the process of self- awareness, assessment and diagnosis. Interpretative Phenomenological Analysis [IPA] was used. Three focus groups were held with the Deaf community and a consultation day held with 19 Alzheimer's Society staff, who provide care and support services across England. The consultation day identified how mainstream community support services might be tailored to meet Deaf people's priorities and strengths. Following the IPA approach, thematic content analysis was used to draw out common and divergent themes from different viewpoints

Results: This presentation will focus on three issues: Triggers for recognition of dementia amongst Deaf people; Characteristics of Deaf people's personal and community priorities if they are living with dementia; the elements of a culturally appropriate support response to Deaf people with dementia and their carers living in the community

Conclusion: This study is producing new evidence. It is the first time that first-hand stories of Deaf people living with dementia will be *told*. Its findings will help build a culturally appropriate response and service for Deaf people with dementia and their carers

Disclosure of Interest: None Declared

P050

RELEVANT OUTCOME SCALE ALZHEIMER'S DISEASE, VALIDATION IN MEXICAN POPULATION OF THE NATIONAL INSTITUTE OF NEUROLOGY AND NEUROSURGERY "MANUEL VELASCO SUÁREZ"

E. M. Longoria Ibarrola ^{1,*}, G. I. Acosta Castillo ¹, A. L. Sosa Ortiz ¹ and 10/66

¹Laboratorio de Demencias, Instituto Nacional de Neuología y Neurocirugía, Ciudad de México, Mexico

Objectives: The general trend in current practice is to make use of paraclinical methods and / or contribute to objectify clinimetric observations made by the physician. In dementia field, we have no tools to assess disease progression, where they consider the response to treatment, worsening of symptoms or changes in its manifestation. The rating scale ROSA (Relevant Outcome Scale for Alzheimer's Disease) provides the profile to the degree of involvement of some most significant signs of Alzheimer's disease and to document the evolution of the disease over time, this can be used in daily clinical practice by physicians and other health professionals trained. ROSA classifies severity of the disease into three stages (early, middle and late). The evaluation of the patient's abilities includes: cognition, communication, behavior and functionality. The execution and performance of the patient was classified on a numerical scale from 10 to 0 points (from optimal to poor). Resulting in a final score and profile of each valuable area. The objective of the study is to validate concurrent Relevant Outcome Scale Alzheimer's Disease, evaluating the reliability of the scale to detect the degree of impairment (cognitive, functional and behavioral) of patients with dementia, and the sensitivity to identify the changes generated after medical interventions in such patients. We will apply the scale to 100 subjects diagnosed with dementia of Cognition and Behavior Clinic at the National Institute of Neurology and Neurosurgery of Mexico, "Manuel Velasco Suárez" from August to November 2011. The assessments will be compared with clinical evaluation by medical specialists of same clinic (psychiatrists)

Methods:

References: Ferris S, Ihrl R, Robert P, Winblad B, Gauthier S, Holthoff V, Sternberg K, Tennigkeit F: Validation of the Relevant Outcome Scale for Alzheimer's disease (ROSA): a new instrument for daily medical practice.

Abstracts from the 11th International Geneva/Springfield Symposium on Advances in Alzheimer Therapy: Neurobiol Aging 2010., 31(Suppl 1)

Disclosure of Interest: None Declared

P051

SLEEP IN THE NEUROPSYCHIATRIC EVALUATION OF PATIENTS WITH DEMENTIA DUE TO ALZHEIMER'S DISEASE

F. F. Oliveira^{1,*}, P. H. F. Bertolucci¹, E. S. Chen², M. A. C. Smith²

¹Department of Neurology and Neurosurgery, ²Department of Morphology and Genetics, Federal University of São Paulo - UNIFESP, Sao Paulo, Brazil

Objectives: To evaluate the amount of sleep of patients with Alzheimer's disease, as well as which factors might influence their sleep patterns.

Methods: A total of 131 patients with dementia due to Alzheimer's disease followed at the Behavioural Neurology Section of *Hospital São Paulo, Escola Paulista de Medicina*, Federal University of São Paulo – UNIFESP were tested by way of: Mini-Mental State Examination (MMSE), severe MMSE, 15-point Clock Drawing Test (CDT), Clinical Dementia Rating (CDR), Neuropsychiatric Inventory (NPI – version with 10 items), Katz's (ADL) and Lawton's (IADL) functional assessments, and the Brazilian Version of the Zarit Caregiver Burden Interview (ZBI). Schooling and cerebrovascular risk factors (systemic hypertension, diabetes *mellitus*, hypercholesterolemia, obesity) were also assessed. Patients had to answer if their sleep was pleasing, what factors might interfere with it, and the usual amount of time slept daily. Significance was set at $p < 0.05$.

Results: Among all 131 patients, 88 were female (67.2%) and 43 were male (32.8%), 113 (86.2%) had systemic hypertension, 36 (27.5%) had diabetes *mellitus*, and 92 (70.2%) had hypercholesterolemia, all of them under treatment; mean weight was 63.7 ± 12.9 kgf, mean height was 156.6 ± 9.5 cm, mean waist circumference was 95.1 ± 12.3 cm, and mean body mass index was 25.9 ± 4.5 kg/m²; mean estimated age of Alzheimer's disease onset was 71.9 ± 6.6 years, mean schooling was 4.5 ± 3.7 years, and mean scores for the tests were: MMSE 15.7 ± 6.0 ; severe MMSE 26.4 ± 4.3 ; CDT 6.0 ± 4.6 ; CDR 1.8 ± 0.7 ; NPI 21.6 ± 16.6 ; ADL 4.8 ± 1.7 ; IADL 13.9 ± 5.1 ; and ZBI 15.5 ± 10.5 . Mean daily length of sleep was 8.9 ± 1.8 hours; 24 patients (18.32%) reported unsatisfactory sleep, more often when they slept for less than 8 hours per day ($p = 0.016$). Mean age at Alzheimer's disease onset ($p = 0.529$), cerebrovascular risk, gender ($p = 0.366$), and scores for MMSE ($p = 0.809$), severe MMSE ($p = 0.294$), CDT ($p = 0.942$), CDR ($p = 0.696$), ZBI ($p = 0.106$), ADL ($p = 0.622$) and IADL ($p = 0.072$) were not predictive of sleep disorders. Higher NPI scores ($p = 0.003$) and less than 4 years of schooling ($p = 0.024$) predicted reports of unsatisfactory sleep.

Conclusion: Low schooling impacts the evolution of patients with Alzheimer's disease as much as their sleep patterns, which are also affected by neuropsychiatric symptoms; satisfactory sleep seems to be related to its length for these patients.

Disclosure of Interest: F. Oliveira Grant/Research Support from: CAPES - Coordenação de Aperfeiçoamento de Pessoal de Nível Superior, Consultant of: Gerson Lehrman Group, P. Bertolucci Employee of: Federal University of São Paulo - UNIFESP, E. Chen Employee of: Federal University of São Paulo - UNIFESP, Grant/Research Support from: FAPESP - Fundação de Amparo à Pesquisa do Estado de São Paulo, M. Smith Employee of: Federal University of São Paulo - UNIFESP, Grant/Research Support from: FAPESP - Fundação de Amparo à Pesquisa do Estado de São Paulo

P052

AN EXPLORATION OF PATIENT EXPERIENCES AROUND DIAGNOSIS AND TREATMENT OF DEMENTIA: IMPLICATIONS FOR SERVICE DELIVERY

F. Bunn ^{1,*}, K. Sworn ², C. Goodman ¹, C. Brayne ³, S. Iliffe ⁴, G. Rait ⁴, L. Robinson ⁵, E. McNeilly ¹

¹University of Hertfordshire, Hatfield, ²University of York, York, ³University of Cambridge, Cambridge, ⁴University College London, London, ⁵University of Newcastle, Newcastle, United Kingdom

Objectives: The key objectives were to systematically review the international qualitative literature on older people's and their carer's experiences of becoming a person with dementia in order to identify: key themes, barriers and facilitators to early diagnosis and service provision, common experiences, and support which people newly diagnosed with dementia and their carers perceive as helpful and unhelpful.

Methods: We conducted a systematic review of qualitative studies that explored the experiences of diagnosis and treatment for people with dementia and their carers. To identify relevant studies we searched electronic databases, the internet and used lateral search techniques such as checking reference lists and citation searching. Studies were appraised using a design assessment checklist and synthesised using thematic analysis.

Results: We found 118 papers reporting 94 studies that met our inclusion criteria. The total number of participants across all studies was 2763, this included 1023 people with dementia and 1740 informal carers. The majority of studies had been conducted in the UK or North America and most of the participants with dementia had mild or moderate dementia and had received a diagnosis. Overall 29% of studies were judged to be high quality, 35% medium and 35% low. A number of key themes emerged. These themes related to the coping styles and strategies that people with dementia and their carers adopted to cope with the physical, social and emotional changes they encounter during the early stages of dementia. On intrapersonal and interpersonal levels this includes challenges to identity, the redefinition of roles and relationships and also the integration of support (both formal and informal) into everyday life. Two further themes acted as highly influential factors in positive and negative experiences for people with dementia and their carers, namely the process of receiving a diagnosis and the individual's own interpretation of dementia. Barriers to diagnosis include normalisation of symptoms, stigma, lack of knowledge and a lack of specialist services.

Conclusion: There is a great deal of evidence relating to the experiences of people with dementia and their family carers, particularly in relation to the impact of dementia on roles, relationships and identity. This evidence can be used to inform appropriate service provision.

Disclosure of Interest: None Declared

P053

EARLY SIGNS OF FUNCTIONAL DECLINE AND DISEASE IN AGEING PEOPLE WITH INTELLECTUAL DISABILITIES.

F. K. Larsen^{1,*}

¹Intellectual Disabilities and Ageing, Ageing and Health, Norwegian Centre for Research, Education and Service Development, Tønsberg, Norway

Objectives: The life expectancy for people with Intellectual Disabilities (PWID) has increased significantly over the past decades. The municipalities and health services experience an increased number of PWID and dementia. Detection and assessments of early signs of functional decline and diseases are often missing due to lack of knowledge and skills from the professional caregivers, lack of procedures, as well as lack of self-reporting by PWID themselves. This study aimed to show how a tool for assessing “Early Signs of Functional Decline and Disease” (“Early Signs”) in ageing PWID was developed and implemented as a proxy-based screening tool. The “Early Signs” screening tool was developed over a three year period and is since 2008 implemented in several municipalities in Norway. “Early Signs” is intended to be used by the primary carer and covers changes in health, daily activities, cognition, behaviour and events in the environment and social networks. The tool is in Norwegian and is not translated into English.

Methods: “Early Signs” is based upon existing screening instruments and is designed to detect and assess the most common mental and physical illnesses that ageing PWID may be exposed to. The “Early Signs” was tested by expert groups against clients, it was tested for correlation against changes in cognitive function by neuropsychological testing for dementia, and it was conducted an inter-rater reliability test.

Results: The results show high degree of inter-rater reliability. The tool also shows a good correlation between the changes observed in the “Early Signs” and changes observed during neuropsychological testing for dementia. Today more and more Norwegian municipalities have adopted “Early Signs” screening tool and have organized routines for an annually screening of older PWID.

Conclusion: To detect and assess early signs of dementia in PWID is a challenging task for both primary carers and for GPs and other health specialists. Therefore, it was a need to develop a screening tool. The “Early Signs” screening tool was elaborated on the basis of existing screening instruments and in collaboration with an expert group. The “Early Signs” were launched to Norwegian municipalities in year 2008 and it is reported that the screening tool is seen as important for establishing the necessary procedures to assess and to follow up ageing PWID over time.

Disclosure of Interest: None Declared

P054

DEMENTIA IN ARMENIA: THE PROBLEM, STRUCTURE AND APPROACHES

H. Manvelyan^{1,*}, A. Avetisyan¹, A. Karapetyan², A. Karapetyan¹, M. Hakobyan¹, E. Gevorgyan¹, M. Aghajanyan³
and Alzheimer Disease Association of Armenia

¹Neurology, ²Family Medicine, ³Biochemistry, YEREVAN STATE MEDICAL UNIVERSITY, Yerevan, Armenia

Objectives: The problem of Dementia (D) was underestimated in Armenia despite of the huge number of patients and high per cent of aging population. Moreover, inherited from soviet time classification unintentionally omitted the diagnosis of any type of D.

Methods: Starting 2007 was created National Dementia Research Group and in cooperation with Alzheimer Association investigation were started toward revealing and evaluation of patients with D. Education of primary care physicians to the signs and diagnosis of D was targeted. The permanently working School and Consulting services were established. There were created both the batteries in Armenian for cognitive evaluation of patients and protocols for their investigation and treatment.

Results: Over 3.000 people with memory impairment was screened for D, and in 2.490 it was proven the presence of varying severity of D. The most interesting fact was the prevalence of the Vascular D. vs Neurodegeneration or mixed cases: 1140 (46%) were with Vascular D, 330 (13%) had clear Alzheimer type, 519 (21%) had other neurodegeneration, including Parkinsonian type, and the rest (out of 2.490) 501 patients (20%) had mixed (Vascular and Alzheimer) etiology. The severity of D was distributed as following: MCI was found in 1860 patients (75%), profound D in 369 (15%), and severe D with total impairment in 261 (10%).

Conclusion: The problem of D in Armenia was elucidated, over 300 health professionals and 500 caregivers learned the symptoms of D and necessary core care. The diagnosis of D came into the wide practice and included in the educational curricula. With the guidance and help of the Alzheimer's Disease International substantial steps were done in improvement of the work of the National Alzheimer Association also.

Disclosure of Interest: None Declared

P055

EARLY DIAGNOSIS OF DEMENTIA IN PLYMOUTH: THE GPS AND CARERS EXPERIENCE

I. Sherriff^{1,*}, H. McFarlane¹

¹University of Plymouth, Plymouth, United Kingdom

The research project originated from a proposal submitted by the Plymouth branch of the Alzheimer's Society to Plymouth University's Vice Chancellors Community Research Awards. In partnership with researchers from the University's Dementia Research Team, the Society was interested in discovering what the experiences of people in Plymouth with a dementia and their carers were in receiving an early diagnosis of dementia and any follow up support, guidance and advice and access to services. Nine focus groups were conducted with GP surgeries across the city and thirty semi-structured interviews were conducted with carers and where possible people with dementia to ascertain their views and perceptions upon the diagnosis received and support given following that diagnosis. Key findings around making a diagnosis, involving carers and their family, social support and involvement and community services suggest that both receiving a diagnosis and support in dementia care is patchy at best. Conclusions and recommendations are, amongst others, for a wider provision of GP masterclasses, training and support, a co-ordinated community based service to support the dementia pathway and the establishing of a local Dementia Action Alliance.

Disclosure of Interest: None Declared

P056

EARLY ONSET ALZHEIMER'S DISEASE IN CARIBBEAN HISPANICS: ATYPICAL PRESENTATION

I. Z. Jimenez-Velazquez^{1*}, A. Maldonado¹, L. Robles¹, M. Gonzalez-Viruet², J. J. Gonzalez-Concepcion¹

¹Internal Medicine/Geriatrics, UPR School of Medicine, ²Psychology Dept, Carlos Albizu University, San Juan, United States

Objectives: Research studies have demonstrated an increased prevalence of Early Onset Alzheimer's Disease (EOAD) in Hispanics in the Caribbean. AD with a genetic origin tends to be more aggressive and sometimes presents in diverse ways. In an attempt to perform early diagnosis, physicians must be aware of atypical presentations, mostly in high risk relatives. To determine atypical presentations in Early Onset AD patients with family history in PR, a research effort was done in collaboration with Columbia University, NY.

Methods: A total of 147 families with several affected relatives which developed symptoms and were diagnosed with AD before age 65 were evaluated from 2002-2010. All patients received medical, neurological and neuropsychological testing to establish the presence or absence of dementia. Genetic samples taken.

Results: 147 (85 ♀ and 62 ♂) affected probands were studied. 22 (15%) were diagnosed with dementia before age 49 years. The average age at onset was 56 years. Median educational level was 11 years; only 26% had college education. Proband's occupation during most working career was related to unskilled/semiskilled work, skilled trade or technical workers. 74.8% with clinical diagnosis of dementia presented memory change as first symptom. However, 18% presented with seizures and 4% with hallucinations. 46% were unable to perform any task in the Blessed test, interpreted as severe dementia. Related medical conditions reported by this sample were: hypertension 41%, diabetes 18%, head injury 13.6 %, peripheral vascular disease 11.6% and stroke 8.2%. Regarding other risk factors: 26.5 % reported smoking, 19% alcohol use and 3% illicit drug use.

Conclusion: Early onset AD cohort in PR shows a greater amount of male patients (42%) than our late onset cohort (25%). Presentation with seizures and/or hallucinations is definitely greater in this group. Our results are consistent with those reported in the literature of early onset AD patients with PS1, PS2 or APP. Subjective complaints in young patients with strong family history of EOAD should always be evaluated. Results suggest that unexplained seizures and hallucinations may be an early sign of neurodegenerative disease in this cohort.

References: Nervi, Reitz, Tang, Santana, Piriz, Reyes, Lantigua, Medrano, Jiménez-Velázquez, Lee, Mayeux. Comparison of Clinical Manifestation in Familial AD and Dementia with Lewy Bodies. *Arch Neurol.* Dec, 2008;65(12):1634–1639.

Disclosure of Interest: None Declared

P057

AGE-RELATED CHANGE IN EPISODIC MEMORY: EVIDENCE FROM ERPS

K. Kilborn^{1,*}, S. Connell¹

¹Psychology, Glasgow University, Glasgow, United Kingdom

Objectives: Changes in memory function may be due to normal brain aging. However, uneven patterns of change contribute to the difficulty in differentiating normal age-related change from pathological deficits, such those caused by incipient Alzheimer's disease. In this study, we examine behavioral and EEG measures of brain function in an episodic memory task in healthy older adults.

Methods: Participants were healthy mid-age (50-65 years, $N=50$) and older individuals (67-85years, $N=50$). In the task, paired associates consisting of an image and a spoken word were presented simultaneously. Subjects pressed a button on each trial to indicate whether each stimulus pair was previously presented (old) or not (new). 128-channel EEG was recorded continuously.

Results: Memory performance (d' and response latency) of the mid-age group was significantly better than the older group. There were no group differences on the early N100/P100 or N200. Mid-age subjects showed an earlier peak latency than older subjects on the prefrontal P400 ($p<.001$). For New items, older subjects showed increased latency ($p<.01$) and decreased amplitude ($p<.01$) on a centro-parietal positivity between 475-575ms.

Conclusion: Older and younger subjects differed on a prefrontal P400, and a centro-parietal positivity peaking just before 600ms. The P400 is associated with episodic encoding. The later P600, which typically reflects old/new differences, peaked later and was reduced in amplitude in the older group. Taken together, these results suggest that age is implicated in changes in the initial encoding of new information, and in the subsequent evaluation of remembered information.

References: Kilborn K, Conway BA, Tieges Z, Price J, Hughes A, McLean G (2009). Cognitive event-related potentials as functional biomarkers in Alzheimer's disease. *Alzheimer's and Dementia*, 5, no 4, 264-265.
Olichney J, Taylor J, Gatherwright L, Salmon D, Bressler A, Kutas M, Iraqui-Madoz V (2008). Patients with MCI and N400 or P600 abnormalities are at very high risk for conversion to dementia. *Neurology* 70, 1763-1770.
Rugg M, Curran T (2007). Event-related potentials and recognition memory. *Trends in Cognitive Sciences*, 11:251-257.

Disclosure of Interest: K. Kilborn Grant/Research Support from: ESRC Industrial CASE Award, Shareholder of: Diagnostic Potentials Ltd, S. Connell: None Declared

P059

VALIDATION OF THE INFORMANT QUESTIONNAIRE ON COGNITIVE DECLINE IN THE ELDERLY (IQCODE): PRELIMINARY FINDINGS IN THE ELDELY POPULATION OF IRAN

M. Foroughan ^{1,2,*}, A. seiger ¹, Z. Ghaemmagham Farahani ², Z. Jafari ², L. O. Wahlund ¹

¹NVS, karolinska institutet, Stockholm, Sweden, ²iranian research on aging, university of social welfare and rehabilitation sciences, tehran, Iran, Islamic Republic Of

Objectives: Formal assessment of cognitive decline with cognitive tests can be difficult in less educated people or in situations disturbed by communication barriers. Using the information provided by a proxy close to the patient can be a rational alternative. The informant Questionnaire on Cognitive Decline in the Elderly (IQCODE) is widely used to rate the changes in every day cognitive functions(1) through informations given by the care-givers. Previous studies showed that its score was not considerably affected by education, gender, language proficiency and other pre-morbid factors of the patient. This study aimed to examine the psychometric properties of IQCODE and its applicability in the Iranian elderly.

Methods: 95 elderly patients with at least 4 years of formal education who fulfilled the criteria of DSM-IV-TR for dementia, examined by Mini-Mental State Examination (2) and Abbreviated Mental Test Score (3), as gold standards. Farsi version of IQCODE administered for their primary care-givers, afterwards. The gathered data were analyzed by the software SPSS, version 13th.

Results: Calculated mean age of the participants was 76.3±6.6 and 50.5% were female .Level of education for 56.5% was elementary. Results showed a significant correlation at the level of 0.01 between the score of the questionnaire and the results of MMSE (-0.647), and AMTS (-0.641). High internal reliability of the questionnaire confirmed by Chronbach's alpha coefficient ($\alpha=0.927$) and test- retest ($r=0.81$).

Conclusion: This study showed that IQCODE is an instrument with acceptable psychometric properties which can be used for the rating of cognitive changes in the elderly population of Iran.

References: 1- Jorm AF (1994). A short form of the Informant Qouestionnaire of Cognitive Decline in the Elderly: development and cross-validation. *Psychological Medicine* 24:145-153

2- Foroughan M, Jafari Z, Shirinbayan P et al (2008). Validation of MMSE in elderly population of Tehran. *Advances in Cogitive Science* 10(2)38:29-37

3- Foroughan M. Dementia Screening: Cognitive tests validated in elderly Iranians.2010. Arjmand Publication. Tehran

Disclosure of Interest: None Declared

P060

DEPRESSION AMONG HOME-DWELLING OLDER PEOPLE AT THE TIME OF A DEMENTIA ASSESSMENT IN PRIMARY CARE

M. Gausdal ^{1,*}, K. Engedal ¹, P. K. Haugen ¹

¹Ageing and Health, Oslo, Norway

Objectives: In 2007 the Norwegian ministry of health and care services presented a Government's Dementia Plan for Norway containing strategies as well as specific initiatives for the period until 2015. The Norwegian Centre of Dementia Research was asked to carry out a three year long developmental program to implement and evaluate models for diagnosing dementia in primary health care. Data from the program is the basis for the present study on depression among home-dwelling older people undergoing dementia assessment in Norway. Depression and dementia are among the two most prevalent mental disorders globally among older people. Depression and dementia may also co-occur and the disorders are often under diagnosed.

Relatives may experience great stress of being a caregiver. Aim of the study is examine the associations between depression in home-dwelling people assessed for dementia and various variables such as gender, marital status, age, cognitive function and need of assistance. And examine the associations between depression in older people undergoing dementia assessment and caregiver burden.

Methods: The study is based on information about the patients from clinical practice in a dementia assessment in 33 municipalities in Norway. Anonymised information on 474 patients were obtained from the patients and carers. Only patients assessed for depression as part of the dementia assessment were included (n=165). Depression was measured by the Cornell scale for depression dementia (CSDD) and caregivers burden with the Relatives' Stress Scale(RSS).

Results:

Almost half of the patients have symptoms of depression (n=74). Patients with depression do not differ from patients without depression with regard to gender, age, marital status and cognitive function. The provision of social and health services in the municipalities do not differ between depressed and non-depressed patients with a possible dementia disorder. Depression correlated highly with caregiver burden. Using a cut point of 8 on the CSDD for depression, carers of patients with depression had a mean score on RSS of 24,8 (s.d.13,4), compared to 14,2 (s.d.11,1) (p >0.001) in carers who cared for non-depressed patients.

Conclusion: Assessments of depression should be emphasised more in dementia assessments in the municipalities. There should be taken more attention to the relatives to avoid a large degree of stress and burden.

Disclosure of Interest: None Declared

P061

“ON THE BATTLEFIELD” -BATTLE FOR THE NATIONAL DEMENTIA PLAN

M. Moglan^{1,*}, C. Tudose², L. Dobranici¹, C. Popescu¹

¹Romanian Alzheimer Society, Bucharest, Romania, ²Carol Davila” University of Medicine Bucharest, Romanian Alzheimer Society, Bucharest, Romania

Objectives: In primary care, the diagnosis of dementia is often delayed and the Romanian Alzheimer Society concluded that an action plan is needed to encourage early diagnosis. The goal of this project was to evaluate the cognitive functioning in a group of elderly people living in community.

Methods: Between 16th May to 16th July a free campaign for cognitive evaluation was conducted at the Romanian Alzheimer Society. Two screening scales were applied by a team of psychiatrists and psychologists: Mini Mental State Examination (MMSE) and Romanian version of the Adenbrooke's Cognitive Examination – Revised (R -ACE-R) which was validated in previous study; the Rey Auditory Verbal Learning Test (RAVLT) was also used. The scores of the subjects were compared to the normative values differentiated by age and educational level.

Results: A group of 144 elderly people were evaluated. The females prevailed (63%). Age ranged between 50 and 89 years (mean age = 67.28 ± 8.98 years). Education level ranged between 7 and 21 years (mean education years = 14.26 ± 2.55). The MMSE scores varied between 20 and 30 (mean 28.41 ± 2.12); 17% of subjects had scores below the normative median values.. On the R-ACE-R the scores ranged between 53 and 100 (mean = 91.31 ± 7.35); for 19% of subjects the scores were one standard deviation (1 s.d.) below the normative means. For 20% of subjects overall scores were below the normal range (The persons who had scores outside normal range at least one of the screening scales were subsequently examined using a comprehensive diagnostic procedure.

Conclusion: Two-stage cognitive screening strategy proved its usefulness for the early identification of persons with cognitive impairment and dementia; it will be included in our National Dementia Plan, our major priority. **The battle for dementia strategy must begin!**

Disclosure of Interest: None Declared

P063

DEMENTIA AND MILD COGNITIVE IMPAIRMENT EPIDEMIOLOGY IN COSTA RICA. FIRST DATA BASE REPORT.

N. Román-Garita ^{1,*}, C. Boza-Calvo ², L. Salazar-Sánchez ², A. Kozakova-Valchuk ³

¹Neurology, Hospital San Juan de Dios, ²Centro de Investigación en Hematología, Universidad de Costa Rica,

³Geriatrics Unit, Hospital San Juan de Dios, San José, Costa Rica

Objectives: Dementia and Mild Cognitive Impairment (MCI) are clinical entities for which further growth is expected in the coming decades. This first approach -at a national level- intends to describe the epidemiological characteristics –socio demographic and diagnostic features– in patients with memory loss complaints referred to the Memory and Brain Aging Clinic (CMEC in Spanish) of the Neurology Department at the Hospital San Juan de Dios (HSJD). This study pretends to be a support for the development of national policies on treatment and management of these pathologies.

Methods: A cognitive and functional assessment was established by a protocol that included screening, clinical history, neuropsychological evaluation, neurological examination, brain imaging, and medical record review. Diagnosis was made by consensus among the multidisciplinary team.

Results: Between 2009 and 2010 a total of 100 patients were attended at the CMEC. The most frequent diagnosis was MCI (43%) which occurs predominantly in women (31%). The predominant education level was between 5-9 years, while age onset was found between 50 and 69 years old. The second most common diagnosis was dementia (36%). In this group, Alzheimer's disease was the most important with 53% of the cases, with an age onset between 70 and 79 years old. It was followed by Vascular Dementia –and subtypes– with 22% of the cases; occurred mainly in men with and age onset between 70 and 79 years old. Among other diagnoses are mood disorders – mainly major depression, 6% –, psychiatric disorders (1%) and anxiety disorders (1%). The most common co morbidity diagnosis was deficient B₁₂ vitamin levels and neuropathies.

Conclusion: CMEC is capturing patients mainly in early stages, especially those with MCI, which is the most frequent diagnosis. This highlights the importance of providing follow-up and also reinforces the need to include in the treatment protocol the use of biomarkers – Tau protein, β -amiloid ¹⁻⁴² – as a useful tool for early diagnosis.

References: Dementia, MCI, prevalence, epidemiology, Memory Clinic.

Disclosure of Interest: None Declared

P064

INFRARED SPECTRA OF PERIPHERAL MONONUCLEAR LEUKOCYTES AS A TOOL FOR ALZHEIMER DISEASE DIAGNOSTICS

P. Carmona ^{1,*}, A. Toledano ², I. Alvarez ², S. Ruiz ², A. Feliu ², M. Molina ³, M. Calero ⁴, P. Martínez ⁵, F. Bermejo ⁶

¹Instituto de Estructura de la Materia, ²Instituto Cajal, CSIC, ³Escuela de Optica, Universidad Complutense de Madrid, ⁴Centro Nacional de Microbiología, Instituto de Salud Carlos III, ⁵AD Research Unit, Fundación CIEN, Centro Alzheimer F. Reina Sofía, ⁶Neurology Department, Hospital 12 de Octubre, Madrid, Spain

Objectives: Diagnosis of Alzheimer disease (AD) can be unequivocally stated only post-mortem, and living patients can be clinically diagnosed only as having "probable" Alzheimer disease. Current neuroimaging techniques and cerebrospinal biomarkers provide further diagnostic accuracy. However, these tools are less useful for early or presymptomatic stages of the disease. This study explores the use of infrared (IR) spectroscopy as a tool to elucidate the underlying biomolecular differences between mononuclear leukocytes from AD patients and healthy controls and their diagnostic potential.

Methods: The study has been performed with 50 AD patients at various disease stages and with 15 healthy age-matched controls. Peripheral mononuclear leukocytes were collected using a centrifugation-filtration process. Freshly prepared leukocyte fractions were deposited on a ZnSe window, air-dried for spectral measurements and subsequent mathematical treatments for two-dimensional (2D) correlation analyses and calculation of protein β -sheet structure in the 1640-1620 cm^{-1} range. Diagnostic performance of IR spectroscopy was analyzed by receiver operating characteristic (ROC) curves.

Results: The resolution enhanced IR spectra show increasing intensity in protein β -sheet structure within the course of AD disease, associated to a small intensity increase of the carbonyl band in the 1750-1700 cm^{-1} range attributable to oxidative stress. At the ROC cut-off level of 10% β -sheet percentage, sensitivity and specificity are 83% and 80%, respectively.

Conclusion: These results demonstrate that infrared spectroscopy of peripheral mononuclear leukocytes can discriminate AD patients from healthy subjects. Further research is needed to explore the potential of this methodology as a diagnostic tool for AD.

Disclosure of Interest: None Declared

P065

NEW DIAGNOSTIC GUIDELINES FOR ALZHEIMER'S DISEASE DO PATIENTS BENEFIT? ?

P. Whitehouse^{1,*}, D. George², G. Perry³

¹Neurology, Case Western Reserve University, Cleveland, ²Medical Humanities, Penn State, Hershey, ³University, Texas San Antonio, San Antonio, United States

Objectives: We analyzed the new National Institute on Aging/Alzheimer's Association (NIA/AA) Guidelines, including those for asymptomatic AD, MCI, Alzheimer's disease (AD), and neuropathological criteria (draft), with regards to focus (research or clinical), science (level of evidence), clinical utility, health economics, and ethics. We also compared them to the Dubois et al international criteria published in The Lancet Neurology in 2007.

Methods: An interdisciplinary team including basic scientist/pathologist, clinician/ethicist and anthropologist/medical humanities scholar read the guidelines, critically, discussed them, and solicited input from a wide range of other experts.

Results: Many problematic issues were identified. In the NIA/AA the dual foci on research and clinical practices were not often clear, especially for MCI. The level of evidence for the clinical use of biomarkers was not adequate. No attention to economics and affordability was paid. The ethical foundation of testing asymptomatic persons in the absence of specific therapies can be questionable, even in research. Also under emphasized was the fact that the proposed divorce of clinical and pathological criteria of AD undermines a fundamental aspect of previous thinking that autopsy provided "definite" information. Hence, if microscopic examination is not suitable for validation then surely inadequately understood biomarkers are likewise flawed. The largely European guidelines focus on memory (rather than a broader concern of cognition in the NIA/AA guidelines), do not divide "stages" of disease, are more clearly research only, and require biomarker validation.

Conclusion: The difference between the two sets of guidelines is instructive. Our understanding of so-called AD is less certain now than it was in 1984 when the first guidelines were published. AD appears to be more heterogeneous and overlap to a greater extent with vascular and frontal lobe dementia than originally thought and to be intimately related to brain aging. Thus these new proposed narrative attempts to sharpen boundaries amongst conditions seem rather to reveal fuzzy thinking about what the word "Alzheimer's" really even means.

Disclosure of Interest: None Declared

P066

ALGORITHMIC CASE PREDICTION OF DEMENTIA IN RELATION TO LOCAL CLINICIAN DIAGNOSIS IN AN INDIGENOUS SOUTH AFRICAN POPULATION.

R. Vanderpoel^{1,*}, M. Heyns² and 10/66 Dementia Research Group

¹Unibs, University of the Free State, ²Alzheimer's South Africa, Bloemfontein, South Africa

Objectives: To evaluate the differences in case prediction between two computerized algorithms for dementia and subsequent comparison with local clinician-based diagnoses.

Methods: Participants aged 65 years and older from 230 households were interviewed using the 10/66 Dementia Research Group's core minimum data set, including a household interview, background socio-demographic and risk factor interview, clinical interview, cognitive test battery and physical and neurological examination. Interview schedules were translated into the local indigenous (Sesotho) language. Probable dementia cases were identified by applying the 10/66 Dementia Research Group's diagnostic algorithm for dementia (1066 or DSM-IV dementia) on 206 subjects. All probable dementia cases were then also subjected to local clinician based dementia assessment and diagnosis.

Results: Of the 206 subjects assessed by the computerized algorithm (1066 or DSM-IV dementia), 36 cases of probable dementia were identified, including 12 cases by DSM-IV algorithm and 24 additional cases by 1066 algorithm respectively. Of the 36 probable cases, 15 were lost to attrition, and 21 were assessed by a panel of local clinicians. Of these, 16 received a diagnosis of dementia.

Conclusion: 10/66 algorithmic case prediction amounted to 17.4% of total sample compared to DSM-IV algorithmic case prediction of 5.8%. Eventual confirmed cases according to local clinician diagnosis amounted to 7.7%, excluding probable cases lost to attrition

References: Prince M, et.al. The protocols of the 10/66 Dementia Research Group population-based research programme. BMC Public Health. 2007 Jul 20; 7 (1): 165.

Prince M, et.al; 10/66 Dementia Research group. The 10/66 Dementia Research group's fully operationalised DSM-IV dementia computerized diagnostic algorithm, compared with the 10/66 dementia algorithm and a clinician diagnosis: a population validation study. BMC Public Health. 2008 Jun 24; 8:219.

Disclosure of Interest: None Declared

P067

DIABETES, DEPRESSION, ADVERSE CHILDHOOD EXPERIENCES AND SUBJECTIVE MEMORY COMPLAINTS IN YOUNG OLD ADULTS IN ASABA, SOUTH SOUTH NIGERIA.

R. Uwakwe^{1,*}, I. -.- Adaigho², I. A. Modebe³

¹Mental Health, Faculty of Medicine Nnamdi Azikiwe Univeristy, Nnewi, ²Mental Health, Federal Medical Center, ASABA, ³Public Health , Faculty of Medicine Nnamdi Azikiwe Univeristy, Nnewi, Nigeria

Objectives: Objectives. To assess the sequence of occurrence of diabetes and depression, and their contribution to subjective memory complaints in older adults.

Methods: Methods: Data for the present report was taken from a larger study of adverse childhood experiences (ACE) and depression in a diabetic clinic in a 165 bed Federal Government of Nigeria Medical Centre in Southern Nigeria. Structured ACE and depression screening questionnaires were administered to a systematically sampled participants in a diabetic clinic over 4 months. Screen positives for depression were interviewed with CIDI and Hamilton Depression Scale. Memory was subjectively assessed by enquiring into forgetfulness (This aspect was yet to be analyzed at the time of writing the abstract).

Results: Results. The study participants comprised 114 subjects: 89 females (60.5%), 51 (44.7%) widowed, 79 (69.3%) not actively employed, 32 (28.1%) with positive family history of diabetes and 28 (24.6%) with no formal education. The diabetes began between the age of 33 and 63 years. About three quarters (74.6%) had experienced from one to eight adverse childhood events between ages 1-14 years. Depression was present in 14.9%. Depression was more likely in older females with low education (OR 2.4, 95% CI 0.85-7.0). Those with adverse childhood events were more likely to have clinical depression, with a dose response relationship between ACE and depression.

Conclusion: Comments and conclusions. In older adults with diabetes, depression was commoner in females, those with little education and who had experienced ACE. The association between cognitive impairment, diabetes, and ACE will be presented in the full paper.

Disclosure of Interest: None Declared

P069

COGNITIVE TESTING IN ELDERLY TURKISH IMMIGRANTS

T. R. Nielsen ^{1,*}, G. Waldemar ¹

¹Department of Neurology, DDRC, Copenhagen University Hospital, Copenhagen, Denmark

Objectives: The elderly population is increasing in all European countries, which will lead to an increase in the number of people with dementia. Immigrants from Turkey form the largest ethnic minority in Western Europe, and the proportion of elderly within this population is expected to increase drastically during the next 20 years. With the changing composition of ethnic, linguistic and cultural populations in European countries, the availability of methods for accurate assessment of cognitive functioning in patients from diverse backgrounds becomes increasingly important. The objective of this study was to investigate the cross-cultural applicability of the Rowland Universal Dementia Assessment Scale¹ (RUDAS), Recall of Pictures Test (RPT), Clock Reading Test² (CRT) and Supermarket Fluency (SF) in elderly Turkish immigrants in Denmark.

Methods: A random sample of elderly community-dwelling Turkish immigrants was recruited from the greater Copenhagen area. All participants were screened for factors known to affect cognitive test performance. Included subjects underwent a one and a half hour assessment, where the RUDAS, RPT, CRT and SF were applied as a part of a comprehensive battery of cognitive tests. A Danish research neuropsychologist administered all cognitive tests with the assistance of an interpreter trained for the purpose.

Results: A total of 72 cognitively healthy participants aged 50 or more were included in the study. The mean years of residence in Denmark was 31.7 years (SD 8.6, range 11-43). The mean years of schooling was 3.8 (SD 4, range 0-16), and 36.1% did not speak Danish. Performance data for the RUDAS, RPT, CRT and SF will be presented and the impact of demographic variables will be discussed.

Conclusion: We believe that the four tests have great cross-cultural potential, and consider the RUDAS, RPT, CRT and SF to be important cognitive tests for assessment of dementia in elderly patients from ethnic minority migrant populations.

References: ¹ Storey, J. E., Rowland, J. T., Basic, D., Conforti, D. A. and Dickson, H. G. (2004). The Rowland Universal Dementia Assessment Scale (RUDAS): a multicultural cognitive assessment scale. *Int.Psychogeriatr.*, 16, 13-31.

² Schmidtke, K. and Olbrich, S. (2007). The Clock Reading Test: validation of an instrument for the diagnosis of dementia and disorders of visuo-spatial cognition. *Int.Psychogeriatr.*, 19, 307-321.

Disclosure of Interest: None Declared

P070

DIAGNOSTIC TEST ACCURACY OF INFORMANT QUESTIONNAIRE FOR COGNITIVE DECLINE IN THE ELDERLY (IQCODE) – SYSTEMATIC REVIEW

T. Quinn^{1,*}, P. Fearon¹, A. Noel-Storr², R. McShane², D. Stott¹

¹University of Glasgow, Glasgow, ²Cochrane Dementia and Cognitive Improvement Group, University of Oxford, Oxford, United Kingdom

Background: The Informant Questionnaire on Cognitive Decline in the Elderly (IQCODE) is a screening tool that seeks to retrospectively ascertain change in cognitive and functional performance based on family/care-giver reports. IQCODE has theoretical advantages over direct screening tools and is popular in practice and research.

Objectives: To collate evidence on diagnostic properties of IQCODE for cross-sectional and longitudinal dementia diagnosis in a variety of clinical settings.

Methods: Methods: We used inclusive search terms across a variety of multidisciplinary, electronic databases. Two independent researchers screened titles for relevance; reviewed selected abstracts for inclusion; selected full papers for review based on pre-specified criteria; described data reporting using QUADAS and STARD tools and extracted data to a proforma. We considered all papers describing diagnostic test accuracy of IQCODE against a reference standard of clinical dementia diagnosis. We grouped data as longitudinal or cross-sectional studies and as secondary care; community based studies or other settings. Data on sensitivity and specificity were extracted and meta-analysis is planned.

Results: Results: From 1277 titles, we assessed 77 full papers and identified 39 studies (n=9093 subjects) suitable for inclusion. There was substantial heterogeneity across the studies. Most studies described cross-sectional dementia diagnosis (n=38 trials) and few had data on longitudinal diagnosis (n=4 trials). Subjects were from a variety of settings: community study (n=13); specialist ward/clinic (n=24); clinical trial (n=2); other (n=4). Translated IQCODE was used in 22 studies (11 languages). Six differing "short" versions of IQCODE were used (n=16 papers). Meta-analysis data will be presented.

Conclusion: Conclusions: There is a substantial literature on diagnostic test properties of IQCODE, although clinical heterogeneity limits the conclusions that can be drawn across the studies. Majority of studies have been cross-sectional and we would encourage further study of the properties of IQCODE for longitudinal dementia diagnosis.

Disclosure of Interest: None Declared

P071

RELIABILITY OF 'DEMENTIA' OUTCOME

T. Quinn^{1,*}, R. McShane²

¹University of Glasgow, Glasgow, ²Cochrane Dementia and Cognitive Improvement Group, University of Oxford, Oxford, United Kingdom

Distinguishing dementia from mild cognitive impairment (MCI) can be challenging.

The NIA-AA and proposed DSM-5 diagnostic criteria do not address the central question which continues to bedevil all diagnostic studies in dementia: when can the functional impairment of a patient be regarded as sufficient to make a diagnosis of dementia? The inherent unreliability of this concept requires a process to optimise this key outcome measure.

Poor reliability of functional assessment is of more than academic interest, variability in grading implies inherent misclassification and there are several "real world" examples of studies in MCI subjects where substantial numbers of early dementia subjects have been erroneously recruited due to variability in functional assessment. This impacts on validity of study data and increases the chance of type II statistical error.

Similar problems have been described in the assessment of disability for stroke trials. Using a variety of approaches including training resources; video technologies and remote group adjudication we have quantified variability; modelled the potential effect on study endpoints and developed systems to improve consistency. We see many parallels with functional assessment in dementia and all of these techniques and technologies may be transferable to MCI studies.

Disclosure of Interest: None Declared

P072

A METHODOLOGICAL APPROACH FOR MONITORING SPEECH PERSEVERATION IN ALZHEIMER'S DISEASE

V. Nemes^{1,*}, D. Nikolic², A. Barney², P. Garrard¹

¹Division of Clinical Sciences, St George's University of London, London, ²ISVR, University of Southampton, Southampton, United Kingdom

Objectives: Perseveration is a common feature of Alzheimer's disease (AD) and becomes more prominent as the condition progresses. Recording the occurrence and severity of perseverative speech could serve as a marker of real-world cognitive performance, contributing to early diagnosis and monitoring of disease-modifying treatments. Continuous speech recording in a real world setting would, however, violate privacy and would be difficult to interpret without manually segmenting the various sources of recorded language (i.e. patient and interlocutors). If, however, speech were captured by recording energy fluctuations from the vocal apparatus (bone conducted speech) using an accelerometer, the data would derive exclusively from the patient, would be devoid of linguistic meaning, and could be automatically analyzed using signal processing techniques. In this study we aimed to develop a methodology to record and interpret bone-conducted speech in a real world environment, allowing possible repetitive speech patterns to be detected and quantified.

Methods: We carried out proof of concept experimental testing on healthy subjects. An accelerometer was affixed to the skin above the Temporo-Mandibular Joint to record speech-related vibrations while the subjects read aloud scripts with embedded repeated short questions and statements. Audio recording via a conventional microphone served as reference to validate the accelerometer data. Recorded signals were pre-processed to reduce background noise and remove silence periods.

Results: A set of features extracted from each recorded signal were combined to obtain the one-dimensional representation of the feature vector. At the end, frequently occurring patterns in the feature vector were detected using a motif-discovery algorithm.

Conclusion: The initial results indicate that the adopted approach has a potential of detecting repetitive speech patterns. In the next stage of the study we will record bone-conducted speech in patients with possible or probable AD to establish the feasibility and tolerability of the proposed methodology in a natural environment. Future work will include larger subject populations, with the aims of: correlating rates of perseveration with stage and progression in dementia; calibrating treatment effects from established interventions; and defining distinct patterns of perseverative speech.

Disclosure of Interest: None Declared

P073

PHASE AVERAGE WAVEFORM OF ELECTROENCEPHALOGRAPH SIGNALS IN ALZHEIMER DISEASE USING WAVELET TRANSFORMATION

Z. Meiyun^{1,*}, Z. Benshu², J. Nan³

¹Neurology Department, Tianjin Union Medicine Center, ²Neurology Department, General Hospital, Tianjin Medical University, ³School of Mechanical Engineering, Tianjin University, Tianjin, China

Objectives: To study phase average waveform of the EEG signals in Alzheimer disease by multi-scale wavelet transform analysis.

Methods: The EEG records of 17 mild AD patients (MMSE 15-24), 19 severe AD patients (MMSE 0-14) and 18 normal controls were analyzed by wavelet transform. Multi-scale phase averaged waveforms were extracted from EEG signals by wavelet coefficient index using a conditional phase averaging technique. Wavelength of phase average waveform for two groups of Alzheimer disease were compared with that of normal controls.

Results: The wavelength of phase-averaged waveform at scale 9 of T3, corresponding the central frequency was 10Hz, was $0.1437 \pm 0.02087s$ in severe AD group, $0.1182 \pm 0.01074s$ in mild AD group and $0.1017 \pm 0.00857s$ in normal group. There was statistical difference among the three groups ($F=38.72$, $P<0.05$). Pair-wise comparisons between any two of the groups also show significant difference. The wavelength of phase-averaged waveform at scale 9 of T3 was correlated with the score of MMSE in AD patients ($r=-0.526$, $P<0.01$). Therefore the wavelength of phase-averaged waveform at scale 9 in AD was longer than normal, which means lower frequency of EEG in AD. The longer of this parameter, the severer of the disease.

Conclusion: Wavelet transform can reveal significant aspects of EEG in AD. The wavelength of phase averaged waveform at scale 9, as a new parameter, is useful in diagnosis and evaluation of AD.

Disclosure of Interest: None Declared

P074

ETHICAL DILEMMAS OF NURSES WORKING IN ELDERLY HEALTH CARE SERVICES FACILITIES AND DEALING WITH DILEMMAS IN SETTINGS OF CARING FOR ELDERLY DEMENTIA RESIDENTS

A. Fujino ^{1,*}, Y. Momose ¹, H. Matsuoka ¹, N. Amaki ¹

¹Nursing & Health, Aichi Prefectural University, Nagoya, Japan

Objectives: In recent years, there has been increased awareness of human rights of the elderly. A focus has begun to be placed on everyday ethics surrounding the elderly in elderly health care services facilities. This study aimed to describe the characteristics of ethical dilemmas of nurses working in these facilities and how they dealt with the dilemmas in settings of supporting the daily living of elderly dementia residents.

Methods: Data was obtained from semi-structured interviews with 20 female nurses (age 35-59) in 12 elderly health care services facilities. Extraction and codification were performed for situations in which nurses had difficulty choosing between two or more options when caring for elderly dementia residents and in which nurses dealt with such dilemmas. The similarities and differences in codes were compared and categorized.

Results: Ethical dilemmas were categorized into four types :

- (1) Nurses' conflicts between their respect for autonomy of the elderly residents who spend time freely and their beneficence to maintain the safety and sleep of the elderly
- (2) Nurses' conflicts between their respect for autonomy of the elderly residents who live freely and their beneficence to alleviate pain and maintain physical abilities of the elderly
- (3) Nurses' conflicts between their respect for autonomy of the elderly residents who eat freely and nonmaleficence to limit eating behavior that endangers residents' health
- (4) Nurses' conflicts between their respect for autonomy of individual elderly residents and justice in treating all elderly residents equally

while nurse's dealing with ethical dilemmas were categorized into four types:

- (1) Multi-professional approach to deal with the dilemmas in the best ways possible
- (2) Formation of better relationships between the elderly residents and their families
- (3) Ignoring of doubts
- (4) Decisions based on nurses' one-sided standard of values

Conclusion: Development of educational program in nursing ethics was thought to be necessary to resolve various dilemmas that nurses face in elderly health care services facilities. Such a program must take into account characteristic ethical issues in these facilities.

Disclosure of Interest: None Declared

P075

ENGAGING CARERS AND THE LAY PUBLIC IN DEMENTIA RESEARCH: THE ALOIS EXPERIENCE

C. Struthers^{1,*}, A. Noel-Storr¹, R. McShane¹, J. McCleery¹

¹Cochrane Dementia and Cognitive Improvement Group, Oxford, United Kingdom

Objectives:

Relatives of people with dementia often want to participate in research, but their time is limited because of their caregiving role.

The first, innovative part of the proposal was to recruit carers and former carers of people with dementia to a well-defined task: reading trial reports, extracting basic information, and entering it into the Dementia Group's online register of studies - ALOIS.

The volunteers are also invited to work through a series of e-learning modules about EBM using examples, all directly related to dementia research.

A range of publicity and outreach methods were used to recruit volunteers including a very well-attended EBM skills workshop for carers in Oxford. We are also conducting a before-and-after evaluation study where the participants' skill at the coding task will be rated, and a questionnaire will be used to assess changes in involvement with dementia-related NHS activities, primary dementia research, and attitudes.

We have now recruited over 60 volunteers around half of whom are carers or former carers. This has translated into more than 100 new study records being coded by new volunteers and published on ALOIS, and a further 70 studies currently assigned to volunteers for coding.

A slightly unexpected but welcome development is that schools are now interested in participating, and we are currently looking at how adapt the volunteer task for this purpose. We are also hopeful that the principle might be further adopted as a Cochrane-wide "citizen science" project in conjunction with the development of the Cochrane Register of Studies which brings the specialized registers of all Cochrane Review Groups together in one database.

We conclude that involving and training volunteer 'expert carers' in maintaining a trials register is feasible. We are exploring whether the model can be adapted to bring wider benefits for public engagement with the NHS and participation in primary research.

Disclosure of Interest: None Declared

P076

SURVEY OF YOUNG PEOPLE WITH DEMENTIA IN TOTTORI PREFECTURE, JAPAN

C. Norikoshi^{1,*}, R. Yoshino², R. Iwata³, C. Takai⁴, T. Takada⁵

¹Faculty of Medicine, School of Science, Tottori University, ²Tottori Branch, Alzheimer's Association Japan, ³Tottori Branch, Alzheimer's association Japan, ⁴Faculty of Medicine, Tottori University, Yonago, ⁵Psychiatry, Saihaku Hospital, Nanbu-cho, Japan

Objectives: The objective of this survey was to collect basic data about young people with dementia in Tottori prefecture. In Japan, understanding and knowledge of young people with dementia and their families lacking, and support systems are not fully established and thus is falling behind compared to that of elderly in Japan. When the disorder occurs in youth, these people are in prime of life. We considered that they have some problems such as working and raising children. Young people with dementia are defined as being 64 years old and under, and memory functions and other cognitive functions have become underactive to the point of causing disorder with performing daily activities due to various diseases.

Methods: First we sent a questionnaire regarding young people with dementia to all 1202 hospitals, facility service for long-term care and other medical and social welfare facilities in Tottori. This questionnaire asked about the existence of young people with dementia in these facilities within the previous 12 months. From the returned questionnaire, we then took a second questionnaire to some facilities and asked for these to be given to people who agreed to cooperate with the survey. This questionnaire included question about problems and needs regarding daily life for young people with dementia and their families.

Results: The collection rate was 40.2%. The numbers of young people with dementia were 308. Ages ranged from 22 to 87 and the average age was 61.7 years old. M=63. There were 200 people under 64 years old at the time of the survey, the average age was 57.8 years old. The percentage of males was 57%. Cerebro vascular disease (44.5%) was the most frequent cause, followed by Alzheimer's disease (26.5%). 61% of people were living at home.

Conclusion: The Ministry of Health estimates that the numbers of young people with dementia is 37,800 in Japan. Considering the size of Tottori prefecture, we estimate that the number of people to be 170. From this survey, suggest the numbers are higher than the estimates. Thus, we should discuss policies and support system for young people with dementia and their families as soon as possible and consider way of supporting these people to be able to stay their communities.

Disclosure of Interest: None Declared

P077

A STUDY OF ELDERS LIVING IN RESIDENTIAL ENVIRONMENT BASE ON NEEDS THEORY –AN EXAMPLE FROM JIAN PING DAY CARE CENTRE IN TAINAN, TAIWAN

C. Shu-Han ^{1,*}, L. Li-Fan ¹, C. Po-Tzung ¹

¹Institute of Gerontology, National Cheng Kung University, Tainan city, Chinese Taipei

Objectives: In addition to facing the disability of elderly life, the proportion of people who suffer from dementia has also increased. This causes a heavy burden not only the patient and family but also the State. This means that elderly day care centres are playing a more important role of providing community care and easing family caregivers' burden. How to provide a suitable environment for elders with dementia and disability to acquire is the purpose of this research.

Methods: This research is base on Maslow's needs theory. The study object is Jian Ping elderly day care centre, which was established by the Social Welfare Foundation in Tainan YMCA in 1998. The needs of the elderly living area is inspected. This is divided into 5 aspects, physiological, safety, care, respect and self-realization. The research method uses participant observation to record and analyze the behavior of the elders in the day care centre.

Results: The result has shown that a well equipped elderly day care centre should have spatial characters which are mentioned below: (1)To provide enough space to satisfactory the elders based on their physiological needs. (2)To make sure the elders are able to have a safe activity area and feel comfortable. (3)To provide a common space that will prompt the elders to make more interaction and to keep each other company. (4)To create a privacy space that will meet the needs of the elders. (5)To construct a platform that will allow the elders to learn and interact continuously with each other. From the qualitative conditions which are mentioned above, it will effectively encourage the elders to have more potential for independency. It prompts to enhance on the feelings of secure and the stability, the elders will also gain social interaction. It also guarantees to prolong life expectancy and quality of life.

Conclusion: In order to have perfect living spaces for elders in day care centres, the concepts of the community and the unit care must be implemented. It will allow elders to have a secure and comfortable life among the public and unit care space of different levels. Even more, it provides a chance for the elder to be more autonomous and to make continuously interaction with each other to be have dignity and quality of life.

Disclosure of Interest: None Declared

P078

FAMILY CAREGIVERS FOR THE ELDERLY

D. M. Ndeti^{1,*}

¹PSYCHIATRY, AFRICA MENTAL HEALTH FOUNDATION, Nairobi, Kenya

Objectives: **Objective:** The elderly in Africa live with their families (children and grandchildren) in multi-general households. With the emerging social trends in modernisation and urbanisation these arrangements are becoming more and more strained. This study was undertaken to assess the living arrangements of the elderly and the challenges facing the caregivers of the same at one of the informal urban settlements in Nairobi, Kenya.

Methods: Data was collected from the caregivers of 290 elderly (60 years and above) persons using a social demographic instrument, the BDI, and 'The Assessment and current care arrangements: Module 1' instrument for dementia (<http://www.alz.co.uk/intranet/1066/>).

Results: 44.1% of the elderly under care had symptoms of dementia. 70% of the caregivers were female and overwhelmingly unmarried daughters (79.6 %). The prevalence of depression amongst the caregivers was in the range of 8-15%. However, 22.2% of those caring for elderly persons with dementia had depression compared to 10.4% of those caring for elderly without dementia ($p=0.011$). The major roles played by the caregivers differed according to gender of the caregiver; women did most of the care-work, while men made major decisions and provided financial and other types of material support. 64.8% of the caregivers did not perceive giving care to the elderly persons as a burden. In the opinion of the caregivers, adequate medical services were not available at the primary Health care facilities.

Conclusion: The burden of caring for elderly particularly those with dementia in a setting with minimal health care support is clearly reflected in the level of depression among the caregivers and the significant association between dementia in the elderly and depression in the caregivers. The findings of this study call for policies and practices that identify and support the emotional needs of caregivers by improving health care to the elderly at the primary health care level and the promotion of support groups for caregivers.

Disclosure of Interest: None Declared

P079

COMPARISON OF THE ORAL TRAIL MAKING TASK PERFORMANCES OF PATIENTS WITH ALZHEIMER'S DISEASE, MCI AND HEALTHY ELDERLY

G. Bastug¹, E. T. Ozel-Kizil^{2,*}, A. Sakarya², O. Altintas², S. Kirici²

¹Department of Psychology, Cankaya University, ²Department of Psychiatry, Ankara University School of Medicine, Ankara, Turkey

Objectives: Elderly patients usually have physical restrictions, therefore computerized or pencil-paper tasks are not useful. This study aimed to examine whether Oral Trail Making Task (OTMT) differentiated between patients with Alzheimer's type of dementia (ATD), mild cognitive impairment (MCI) and healthy controls (HC).

Methods: The study sample consisted of 21 ATD, 26 MCI patients and 20 elderly HC. MMSE, TMT and OTMT were administered to all participants. Uneducated patients and patients with moderate-severe bradykinesia were excluded. According to the distribution of the data, one-way ANOVA or Kruskal-Wallis tests were used for the comparison of continuous variables. Post hoc tests were Bonferroni or Mann-Whitney U test. The correlation analysis was carried out by the Spearman Rank Correlation test.

Results: Table-1 presents statistical comparison of the clinical characteristics of three groups.

Table-1 Clinical Characteristics of the Groups

	MCI	ATD	HC	Statistical significance	Post hoc tests
Age	72.2± 9.1	77.4± 3.3	70.6± 6.6	F=5.54, p=0.006 ^a	ATD>MCI=HC
Years of Education	8.1± 4.2	9.5± 4.2	9.4± 5.7	X ² =1.43, p=0.49 ^b	NS
MMSE score	25.8± 2.5	23.6± 4.1	27.3± 1.7	X ² =12.9, p=0.002 ^b	ATD=MCI
TMT-A(sec)	107.5± 66.6	139.5± 64.3	78.1± 34.9	X ² =12.3, p= 0.002 ^b	ATD>MCI=HC
TMT-B(sec)	307.27± 173.8	467± 228.7	204.7± 108.3	X ² =16.8, p<0.001 ^b	ATD>MCI>HC
OTMT-A(sec)	8.5± 2.7	10± 3.2	7.4± 2.1	X ² =10.5, p=0.005 ^b	ATD>HC
OTMT-B(sec)	87.2± 61.5	110.9± 59.2	46.6± 21.1	X ² =16.1, p<0.001 ^b	ATD=MCI>HC

1. One-way ANOVA

2. Kruskal-Wallis test

TMT-A, TMT-B and OTMT-A were positively correlated with age, but OTMT-B was not. While MMSE, TMT-A and TMT-B were correlated with education, OTMT-A and OTMT-B were not. Both OTMT-A and OTMT-B were positively correlated with TMT-A and TMT-B, they were negatively correlated with MMSE scores.

Conclusion: Both OTMT-A and OTMT-B differentiated between ATD and HC, while OTMT-B also differentiated patients with MCI and HC. OTMT-B, which is not affected either by the age or the education of the patients, is a valid tool in detecting cognitive impairment. Therefore, OTMT-A and B can be used in patients with visual or motor deficits.

References: 1. Ruchinskas RA. Limitations of the oral trail making task in a mixed sample of older individuals. Clin. Neuropsychology 2003;17:137-42.

2. Mrazik M, Millis S, Drane DL. The oral trail making test: effects of age and concurrent validity. Archives Clin Neuropsychology 2010;25:236-43.

Disclosure of Interest: None Declared

P080

EMOTIONAL CONFLICT RESOLUTION PROCESSES IN PATIENTS WITH ALZHEIMER'S TYPE OF DEMENTIA

Z. Baran¹, E. T. Ozel-Kizil^{2,*}, B. Cangoz¹

¹Department of Psychology, Hacettepe University Faculty of Literature, ²Department of Psychiatry, Ankara University School of Medicine, Ankara, Turkey

Objectives: The present study aimed to investigate whether selective attention processes associated with emotionally valenced stimuli were different in elderly patients with Alzheimer's type of dementia (ATD) and Major Depressive Disorder (MDD) compared to healthy elderly and young subjects. An emotional Stroop-like task was used to compare reaction times (RT) for conflict resolution.

Methods: The data was collected from 20 young and 20 elderly (>60years of age) subjects without any neuropsychiatric disorder, 20 patients with ATD, and 20 patients with MDD. Subjects were asked to evaluate the emotional valence of 63 words which were presented on 63 emotionally valenced pictures. RT were compared by using 4 (group) x 2 (congruency of the emotional valence of the word and the picture) x 3 (valence of the words) repeated measures ANOVA.

Results: Repeated measures ANOVA yielded significant main effects of the group ($F(3, 76)=27.40$, $p<.001$, $\eta^2=.52$), the congruency ($F(1, 76)=11.25$, $p=.001$, $\eta^2=.13$), and the valence ($F(2, 152)=9.37$, $p<.001$, $\eta^2=.11$). GroupXCongruencyXValence ($F(6, 152)=4.65$, $p<.001$, $\eta^2=.16$) was significant. Post hoc analyses (Bonferroni test) showed that mean RT of the young subjects was significantly shorter than the other groups ($p<.001$ for each pairwise comparison), and mean RT of the subjects with ATD were significantly longer than the healthy elderly subjects ($p=.002$). Only in the ATD group, RTs for neutral-congruent stimuli were significantly shorter than pleasant/unpleasant-congruent stimuli ($p=0.003$). Congruency or the emotional valence of the stimuli did not have a significant effect on RTs in the other groups.

Conclusion: Previous research have demonstrated psychomotor slowing and impaired selective attention (conflict resolution) in ATD patients. The present study showed that selective attention processes associated with emotional stimuli were also impaired in patients with ATD. Further research should explore the relationship between selective attention and memory performances associated with emotional stimuli in ATD patients.

References: Gorus E, De Raedt R, Lambert M, Lemper JC, Mets T. Attentional processes discriminate between patients with mild Alzheimer's disease and cognitively healthy elderly. *Int Psychogeriatr.* 2006 Sep;18(3):539-49. Fernandez-Duque D, Black SE. Selective attention in early Dementia of Alzheimer Type. *Brain Cogn.* 2008 Apr;66(3):221-31.

Disclosure of Interest: None Declared

P081

NEUROPSYCHIATRIC SYMPTOMS IN DEMENTIA. EXPERIENCE IN A CLINICAL POPULATION OF THIRD LEVEL AND A COMMUNITY STUDY IN MEXICO

A. L. Sosa Ortiz ¹, E. M. Longoria Ibarrola ^{1,*}, G. I. Acosta Castillo ¹, M. F. Velez Mijangos ¹ and 10/66

¹Laboratorio de Demencias, Instituto Nacional de Neurológica y Neurocirugía, Ciudad de México, Mexico

Objectives: To analyze neuropsychiatric symptoms reported by relatives or caregivers of patients with different types of dementia in a clinical population not hospitalized in tertiary care and community-based study

Methods: A cross-sectional descriptive. Evaluating a sample of 163 subjects of Cognition and Behavior Clinic at the National Institute of Neurology and Neurosurgery (38 AD, 10 vascular, 76 mixed, 7 Lewy, 32 Frontotemporal) and 180 community-based study group of 10/66 (42 Alzheimer's disease, 20 vascular, 15 mixed, 3 Lewy, 11 frontotemporal, 89 undifferentiated) who were apply the Neuropsychiatric Inventory (NPI-Q). The diagnosis is made based on DSM –IV TR (Diagnostic and Statistical Manual of Mental Disorders) criteria and based on the algorithm developed by the 10/66 group and against clinical criteria in population samples. We used a computer algorithm to estimate the severity of the dementia syndrome based on the Clinical Dementia Rating Scale [CDR]. For the evaluation of the neuropsychiatric symptoms we applied Neuropsychiatric Inventory Questionnaire [NPI-Q Neuropsychiatric Inventory Questionnaire]

Results: The most common symptom in all groups depression, irritability added frontotemporal dementia, in vascular anxiety, irritability and in Lewy in undifferentiated depression and sleep disorders

Conclusion: The prevalence of these symptoms varies among diseases, to characterize the profiles and their relation to cognitive impairment could help the realization of the finest clinical diagnoses and appropriate treatment of its these manifestations

References: KAUFER, D. I., CUMMINGS, J. L., KETCHEL, P., SMITH, V., MACMILLAN, A., SHELLEY, T., LOPEZ, O. L. & DEKOSKY, S. T. 2000. Validation of the NPI-Q, a brief clinical form of the Neuropsychiatric Inventory. *J.Neuropsychiatry Clin.Neurosci.*, 12, 233-239

PRINCE, M. J., DE RODRIGUEZ, J. L., NORIEGA, L., LOPEZ, A., ACOSTA, D., ALBANESE, E., ARIZAGA, R., COPELAND, J. R., DEWEY, M., FERRI, C. P., GUERRA, M., HUANG, Y., JACOB, K. S., KRISHNAMOORTHY, E. S., MCKEIGUE, P., SOUSA, R., STEWART, R. J., SALAS, A., SOSA, A. L. & UWAKWA, R. 2008b. The 10/66 Dementia Research Group's fully operationalised DSM-IV dementia computerized diagnostic algorithm, compared with the 10/66 dementia algorithm and a clinician diagnosis: a population validation study. *BMC Public Health*, 8, 219.

Disclosure of Interest: None Declared

P082

LOW-THRESHOLD SUPPORT FOR FAMILIES WITH DEMENTIA AS A PART OF COMMUNITY CARE IN GERMANY

I. Hochgraeber^{1,*}, B. Holle¹, S. Bartholomeyczik¹

¹Witten, German Center for Neurodegenerative Disease (DZNE), Witten, Germany

Objectives: Low-threshold support services are a special part of the German health care system offered for people with restricted activities of daily living. People with dementia are the major user group. Services can be divided into activities for groups (social care groups) and home social care which can be used hourly. The direct care is carried out by trained volunteers supervised by professionals. The amount of scientific literature in Germany concerning low-threshold support services is very limited, although the number of this kind of service is growing continuously. Up to now no study is published which investigates low-threshold support services in a region regarding perspectives of main persons involved: people with dementia, their relatives, volunteers and institutions' representatives. The research question is: **Which aspects should be focused for a needs-based development and implementation of low-threshold support services from different involved perspectives?**

Methods: Quantitative and qualitative methods are combined in order to get a wide insight into the research field. Therefore we have developed questionnaires focusing on the structural description and appraisal of the situation concerning low-threshold support services in the project region. The analysis will be descriptive. The qualitative part consists of group discussions and interviews with participants of the different perspectives. Analysis will be done according to the documentary method of Bohnsack (2010) and based upon the coding of the Grounded Theory (Strauss & Corbin, 1998).

Results: Especially flexibility, accessibility, adjacency of the service as well as the guidance and involvement of volunteers will be investigated in the first part. First results will be presented and discussed.

Conclusion: This project is a first attempt to describe the field of low-threshold support services comprehensively. Results are expected to further develop these services and the community care for people with dementia and their family caregivers.

References: Bohnsack, R. (2010). Documentary Method and Group Discussions. In R. Bohnsack, N. Pfaff & W. Weller (Eds.), *Qualitative Analysis and Documentary Method in International Educational Research* (pp. 99-124). Opladen&Farmington Hills: Barbara Budrich Publishers.
Strauss, A., & Corbin, J. (1998). *Basics of Qualitative Research. Techniques and Procedures for Developing Grounded Theory*. Thousands Oaks: Sage Publications.

Disclosure of Interest: None Declared

P083

PODCAST: PREVENTION OF DECLINE IN COGNITION AFTER STROKE TRIAL: A FACTORIAL RANDOMISED TRIAL OF BLOOD PRESSURE AND LIPID LOWERING

L. Stokes^{1,*}, S. Ankolekar¹, P. M. Bath¹

¹Division of Stroke, University of Nottingham, Nottingham, United Kingdom

Objectives: Stroke and dementia are common, economically costly to society, and devastating to patients and their family. Elevated BP and cholesterol are common after stroke and may be associated with increasing cognitive decline. Although BP-lowering post-stroke may reduce cognitive decline, there is little evidence to date that lipid lowering is effective in preventing cognitive decline. Critically, it is unknown whether BP and cholesterol should be lowered intensively, or moderately as per current guidelines. The aim of the proposed trial is to determine if intensive BP and/or lipid lowering therapy after stroke is better in preventing cognitive decline, compared to current guideline treatment.

Methods: Stroke and dementia are common, economically costly to society, and devastating to patients and their family. Elevated BP and cholesterol are common after stroke and may be associated with increasing cognitive decline. Although BP-lowering post-stroke may reduce cognitive decline, there is little evidence to date that lipid lowering is effective in preventing cognitive decline. Critically, it is unknown whether BP and cholesterol should be lowered intensively, or moderately as per current guidelines. The aim of the proposed trial is to determine if intensive BP and/or lipid lowering therapy after stroke is better in preventing cognitive decline, compared to current guideline treatment.

Results: None yet available. The trial has Ethics and NHS RD approvals and has commenced recruitment in September 2010.

Conclusion: Not yet available.

Disclosure of Interest: None Declared

P084

INVOLVING CARERS AND PEOPLE WITH DEMENTIA IN ALZHEIMER'S SOCIETY'S RESEARCH FUNDING PROGRAMME

M. Murray ^{1,2,*}, J. Pickett ¹, C. Ballard ^{1,3}

¹Research, Alzheimer's Society, ²Gerontology, ³Wolfson Centre for Age Related Diseases, King's College London, London, United Kingdom

Objectives: Alzheimer's Society is the leading support and research charity for people with dementia, their families and carers in the UK. Since 1990, Alzheimer's Society has invested £20 million in funding research under the themes of cause, cure, care and prevention of all types of dementia. Currently the annual investment is £3million per annum into new research.

The Society has pioneered Patient and Public Involvement (PPI) in medical research, currently managing a network of 210 people with dementia, carers and former carers who actively prioritise, review, monitor and disseminate all research funded by the Society. PPI is increasingly positioned as an essential process in ensuring that research meets the needs and concerns of stakeholders. However, to date the assumed benefit of PPI in a research funding programme has not been robustly evaluated. Identification of appropriate outcome measures is challenging as impact may be indirect, diffuse or delayed over a long time period.

Alzheimer's Society uses PPI in a variety of ways to support the research funding programme including setting priorities for research, supporting the development of research proposals and generating research ideas, assessing and selecting research for funding, monitoring funded research projects and supporting the dissemination of research findings. Clear examples of each scenario and their impact on the research project, as well as an overall evaluation of PPI in a research programme will be presented. This will ensure that Alzheimer's Society invests in research that provides the most benefit for people with dementia and their carers. The rigorous evaluation of a longstanding PPI programme has widespread implications for public policy and other regulatory initiatives.

References: www.alzheimers.org.uk/researchnetwork

Disclosure of Interest: None Declared

P085

THE DEMOGRAPHIC FEATURES OF PATIENTS WITH ALZHEIMER'S DISEASE IN TAIWAN

M.-S. Li^{1,*}, Y.-T. Chen¹, Y.-K. Huang¹, Y.-H. Yang¹, C.-H. Chen¹

¹Neurology, Kaohsiung Medical University Hospital, Kaohsiung City, Chinese Taipei

Objectives: Alzheimer's disease (AD) is one of the most important neurodegenerative diseases in the world. Most of demographic results of AD patients are mainly derived from the West, such as age, gender, socioeconomic status, etc. However, we have little data about of patients with AD in Taiwan. The aim of this study is to collect and investigate the demographic data for AD patients in Taiwan.

Methods: We interviewed patients who have been diagnosed with Alzheimer's disease according to DSM-IV criteria. The patients were recruited from Department of Neurology, Kaohsiung Medical University Hospital, a medical center in southern Taiwan. We recorded and analyze their age, sex, native language, education level, cohabitants, degree of independence of daily life, living environment, marital status, dominant hand, clinical dementia rating (CDR) scale.

Results: 174 AD patients were recruited in this study from August 2004 to July 2011. Their average age are 79.47 ± 8.474 years old (50 to 101 years old), about three quarters are female (73%). Taiwanese is the major native language (74.1%) and the second one is Chinese (21.8%). Mean education years are 9.3 ± 4.712 years (Max: 16 yrs; min: 0 yrs). In our study, most of these patients live with their relatives/friends (41.4%) or with spouse (34.5%). Patients with totally independence and totally dependence of daily life are 35.6% and 20.1%, separately. More than 95% patients are married (95.4%); unfortunately, half of them loss their spouse (43.1%). 93.7% patients are right-handed. Assessing by clinical dementia rating (CDR) scale, 72% of patients are in mild grade (CDR=0.5 or 1); 26% in moderate grade (CDR=2); 2% in severe grade (CDR=3).

Conclusion: According to our study, the majority of Alzheimer's disease is mild and they mostly live with their relatives or spouse. This result may differ from the western society.

However, the small number of patients in our study and localized in the south Taiwan are limitation in our study. It is necessary to collect and evaluate more cases to make our study improve.

Disclosure of Interest: None Declared

P086

NURSING CARE FOR ELDERLY WITH DEMENTIA BEING TREATED AT GENERAL HOSPITALS

N. Amaki^{1,*}, Y. Momose¹, M. Hiroko¹, A. Fujino¹

¹Nursing & Health, Aichi Prefectural University, Nagoya, Japan

Objectives: In Japan, 23.1% of the total population is 65 years and over. There are an increasing number of the elderly with dementia who are receiving treatment, and nurses in general hospitals are having difficulty in managing and caring for these patients. This study aims to elucidate (1) the difficulties that such nurses have in dementia care and (2) care for dementia that they provide.

Methods: The subjects were 1269 nurses who work at general hospitals in Japan. Data were collected by the use of a self-administered questionnaire. We obtained information on age, general nursing experience, and experience in dementia care training. The nurses provided open-ended questions, and content that caused difficulties in giving care for dementia, were extracted. Care that the nurses provided were measured by a 20-item questionnaire generated from our previous research. We used factor analysis and Mann-Whitney U test to analyze the data. Respondents participated on a voluntary basis and the return of a completed questionnaire was taken as consent to participate.

Results: Nurses were aged 20 to 63 years (mean=35.3), and their nursing experience ranged from 0.5 to 36 years (mean=12.0). 29.6% of the nurses had dementia care training. Content of difficulties were in decreasing order: verbal abuse and violence, patient wandering, self-removal of tubes, fall risk behavior, and lack of mutual understanding (multiple answers, 912 subjects responded). Care that the nurses provided were mainly accident prevention, adjustment of healthcare environment, and alleviation of physical pain. A factor analysis was performed involving care for dementia, and three factors were extracted (I. respect for elderly and emphasis on comfort, II. accident prevention, and III. utilization of ability that one possesses). The scores of factors I and II were significantly higher in nurses with 11 years or more experience and in nurses 31 years or older. The scores of all factors were significantly higher in nurses who participated in training in dementia nursing care.

Conclusion: Nurses in general hospitals felt it difficult to manage patients' aggressive speech and conduct and to avoid accidents. Care for dementia consisted of 3 structures and the nurses who participated in training provided nursing care appropriate for patients.

Disclosure of Interest: None Declared

P087

AN INNOVATIVE PATIENT AND PUBLIC INVOLVEMENT-FOCUSED MODEL FOR TRAINING IN RESEARCH

O. Bazin^{1,*}, C. Merritt¹, T. McGrath²

¹Thames Valley DeNDRoN, National Institute for Health Research, Oxford, ²DeNDRoN, National Institute for Health Research, London, United Kingdom

Objectives: The Dementias and Neurodegenerative Diseases Research Network (DeNDRoN) is part of the National Institute for Health Research Clinical Research Network. The Thames Valley DeNDRoN team works across Berkshire, Buckinghamshire, Milton Keynes, Leicestershire, Northamptonshire and Oxfordshire.

Thames Valley DeNDRoN has introduced innovative training sessions for research staff with a model of involving patient and public representatives as mentors. The sessions employ role-play to address the practical requirements and challenges faced by research staff when assessing mental capacity and obtaining informed consent. The patient representatives are people with expertise based on direct personal experience of dementia or neurodegenerative disease (mainly carers or ex-carers). Professional actors have often played the role of patients or carers in such scenarios. The involvement of patient representatives offers a novel approach. Their contribution helps to make the training more relevant and builds a bridge between the users and producers of research, giving staff experience of the consent process in a supportive environment. A crucial part of the process is feedback provided by the representatives from their own (the patient/carer) perspective. This training model has also been used to offer clinicians practice at raising the question of research participation during a clinical consultation.

The sessions are run regularly and feedback has been consistently positive. This model enables clinicians to develop the skills they need to refer and recruit patients into studies, while giving patient representatives an influential voice and partnership role in the development of best practice in NHS research.

Disclosure of Interest: None Declared

P088

SERVICE USER INVOLVEMENT AS A MEANS TO LIVE WELL WITH DEMENTIA: A SINGLE CASE COLLABORATIVE STUDY BETWEEN A SERVICE USER AND A CLINICIAN

R. Guss^{1,2,*}, K. Oliver³, I. Asquith^{1,4}

¹Older Adult Psychology Services, Kent and Medway NHS Partnership Trust, Dover, ²PSIGE, British Psychological Society, Leicester, ³Service User, Young Onset Dementia Services, ⁴Psychology, University of Kent, Canterbury, United Kingdom

Objectives: - To form a collaboration between a service user's wish to be engaged in service user involvement activities as a means of living well with dementia and a consultant psychologist's (clinical lead in young onset dementia) agenda to develop dementia services.

- To form a report on its progression and outcomes from the service user and psychologists perspective.

- To systematically capture the experience of service user involvement activities and evaluate their impact on the person during and after the event.

- To be mindful of ethical considerations and wider implications for clinical practice and service user involvement projects in dementia services.

Methods: Data will be collected from 01/01/11 – 31/12/11 (one full year post-diagnosis).

Development of an evaluation questionnaire containing qualitative questions and service user ratings with regard to perceived usefulness, enjoyment and negative impact of the activities.

Dementia related events include public awareness raising, memory clinics, group work, training staff, trialling equipment, commenting on leaflets and presenting to an NHS trust board. Non-dementia related events will be analysed for comparison.

This is a mixed design, single case study.

Analysis will entail qualitative IPA, and descriptive statistics.

Results: Themes emerging from IPA will be presented along side descriptive statistics of ratings. Findings will be presented on positive and more problematic activities. As data collection is still ongoing, the complete results are not available as yet; however, early IPA analysis indicates themes of: improved preparation by the service user, strong relationships being formed, continuity of interests, development of new experiences, positive attitude and a network of support are important for service user involvement resulting in living well with dementia.

Conclusion: The service user will present feedback on and reflect upon the legacy from the experiences, and discuss how participating in service user involvement has assisted him in living well with dementia.

The clinician will present reflections on ethical issues arising and recommendations for future clinical practice and service user involvement in dementia services.

Disclosure of Interest: None Declared

P089

EARLY ONSET ALZHEIMER' DISEASE COMPARED WITH LATE ONSET

S. Katayama ^{1,*}, C. WATANABE ¹, S. ARAI ¹

¹NEUROLOGY, HIROSHIMA NISHI MEDICAL CENTER, Otake, Japan

Objectives: Onset of Alzheimer's disease is a wide age from a young age to old age, otherwise differences in the age is not clear. We clarify the difference of intellectual dysfunction among early onset of AD and late onset of AD. Among patients with similar memory impairment, we clarify difference of the brain dysfunction except memory impairment.

Methods: During April 2007 to March 2011, visited the clinic to forget things, forget without obvious pathological motor dysfunction, hearing impairment and visual dysfunction in daily life, by receive the brain function tests (Rivermeadbehavioral memory test (RBMT), test of frontal assessment battery(FAB) and MMSE), the head MRI, showed no lesions other than the obvious brain atrophy, and SPECT (3D-SSP analysis), showed low perfusion in the posterior cingulate gyrus, parietal and temporal lobe, the patient was diagnosed with Alzheimer's disease. Among them, the degree of memory impairment, MMSE 2 or 3 points/3 on word registration and standard profile score (SPS) of RBMT 1-5points/ 24 in 403 patients among 55~85 years-old, SPS of RBMT for each three age group (A :55-65, B :66-75, C:76-85 age group) differences of the values of the each brain functional test were analyzed, statistically. Furthermore, the change of the value of the each test 400 days after re-examined was compared in each age group.

Results: In the same degree of memory impairment using SPS of RBMT, early onset of AD (group A) showed significant lower point of m8, m9, or m11 of MMSE than elder onset (group B, C).

Conclusion: Early onset patients of Alzheimer's disease revealed more intellectual dysfunction than elder onset patients in the same degree of memory impairment.

Disclosure of Interest: None Declared

P090

EXPERIENCES OF CARERS OF PEOPLE WITH DEMENTIA IN CRISIS: FINDINGS FROM NARRATIVE INQUIRY ANALYSIS

S. Toot^{1,*}, R. Ledger², K. Burnell¹, J. Hoe¹, M. Devine³, M. Orrell¹

¹Department of Mental Health Sciences, University College London, ²Research & Development, ³North East London NHS Foundation Trust, London, United Kingdom

Objectives: The objectives of this study were the following;

- To map the diversity of experiences of carers of people with dementia around the time of crisis/referral/admission.

- To determine how and why carers seek help, reasons/decisions to present at that time (and why not earlier/later) and how carers interpret events and understand their experiences.

Methods: Family carers of people with dementia who had experienced a crisis were screened for eligibility into the study. A semi structured interview schedule was developed with interviews lasting approximately 2 hours. With the participants' permission the narrative inquiry interviews were audio tape-recorded. Ten carers were interviewed in total, at which point the data collection reached theoretical saturation. This generated a rich dataset informing the social processes around crises. The data was qualitatively analysed and key themes for processes, causes and management of crises were drawn from the narratives.

Results: The narratives for this study are to be analysed using a two-stage analysis model. The first stage analyses the narratives using a thematic analysis approach, to provide us with the *narrative content*. The second stage will be to analyse the narrative content by *narrative form*. At this stage the narratives will be categorised according to the way in which the narrator tells the story, known as the narrative form. The narratives will be categorised as *resolved*, *adapted* or *unresolved* narratives. The clinical background/ knowledge of the research team as well as the researchers' insight whilst conducting the interviews themselves determined the decision to base the narrative forms on levels of resolution amongst family carers.

Conclusion: Family carers of people with dementia experience various types of crises and consequently their interpretations and experiences vary greatly. It was found that family carers have either resolved, adapted or unresolved crises and as a result their interpretation of events and feelings associated with the crises vary considerably. The findings from this study have provided a sound insight into understanding carers' involvement in crises involving people with dementia which should be taken into consideration when implementing crisis interventions and care plans.

Disclosure of Interest: None Declared

P091

LESSONS LEARNED FROM PATIENT AND PUBLIC INVOLVEMENT IN THE DEVELOPMENT OF APPLICATIONS FOR THE NATIONAL INSTITUTE FOR HEALTH RESEARCH DEMENTIA THEMED CALL

T. McGrath ^{1,*}

¹DeNDRoN Patient and Public Involvement, NIHR DeNDRoN, London, United Kingdom

Objectives: National Institute for Health Research (NIHR) funding programmes ask for evidence of patient and public involvement (PPI) in the design of research proposals. When the NIHR issued the dementia themed call in 2011, the Dementias and Neurodegenerative Diseases Research Network (DeNDRoN) offered researchers comprehensive support with applications, including managed PPI, drawing on previous DeNDRoN experience of impact of PPI in research¹.

The main PPI support provided for 22 proposals was lay focus groups with detailed feedback. The use of the Local Research Network infrastructure proved invaluable, with Research Design Service support, in finding lay people for focus groups and other PPI. DeNDRoN provided detailed website PPI guidance to researchers and lay guidance around conflicts of interest. Where proposals had emerged from pre-existing DeNDRoN Writing Groups, there was already substantial PPI incorporated.

Although researchers were encouraged to attend focus groups, this was not essential. When researchers did attend, they were often nervous in presenting to a focus group, but their presence made discussions markedly more reflective and fruitful. It became clear that much of the support from DeNDRoN was helping researchers to communicate technical and scientific information to lay people. Sound logistical management proved crucial when aiming to tackle complex, potentially distressing issues. The involvement of people with marked cognitive impairment is particularly challenging. The lay people were mainly carers but groups successfully involved people with cognitive impairment, without causing distress. The discussions were best when focussed on design quandaries, study feasibility, and ideas around recruiting and retaining study participants.

Researchers responded positively to the PPI, with significant changes to study designs as a consequence. This strengthens the evidence for impact of PPI in dementia research².

References: 1. Iliffe, S., McGrath, T. and Mitchell, D. (2011), The impact of patient and public involvement in the work of the Dementias & Neurodegenerative Diseases Research Network (DeNDRoN): case studies. Health Expectations. doi: 10.1111/j.1369-7625.2011.00728.x

2. Staley K Exploring impact: Public involvement in the NHS, public health and social care research. INVOLVE, Eastleigh 2009.

Disclosure of Interest: None Declared

P092

THE UNTAPPED POTENTIAL OF PARTICIPATORY ACTION RESEARCH (PAR) TO ENGAGE PEOPLE WITH DEMENTIA AND THEIR FAMILIES IN RESEARCH: WHAT DOES THE LITERATURE TELL US?

T. Gallagher^{1,*}, M. Downs¹, A. Capstick¹

¹Bradford Dementia Group, University of Bradford, Bradford, United Kingdom

Objectives: Patient and public involvement (PPI) is enshrined in government legislation and policy. It is rapidly becoming the norm in research and increasingly a pre-requisite for funding. One way to facilitate user involvement is participatory action research (PAR). At the heart this is an equitable partnership between researchers and people in communities. Involving a cyclical process of exploration, knowledge construction and action it seeks to break down barriers, build capacity and empower otherwise marginalised people in communities, including older people. However, there is little published evidence using PAR in dementia care.

Purpose:

The purpose of this study was to identify effective strategies for engaging people with dementia in PAR, by learning from effective approaches used with people with mental health issues and learning disabilities and difficulties.

Methods: Following the Centre for Reviews and Dissemination (CRD) guidance a systematic approach was used to search electronic databases Cinahl, Medline and Psychinfo using the following search terms: mental health, learning difficulties and disabilities, participatory action research.

Results: The empirical studies in cognate areas of people with mental health issues and learning disabilities and difficulties highlight key challenges to PAR. These included time demands and potentially conflicting priorities between researchers and participants and within groups of participants. Effective strategies to address time demands include ensuring appropriate planning and resources, including funding and training to support participants to effectively engage in PAR. Effective strategies addressing conflicting priorities involved a range of proactive approaches to communication and engagement including advisory groups, focus groups and individual meetings.

Conclusion: PAR in cognate areas of mental health and learning difficulties and disabilities provide valuable insight to guide participatory action research with people with dementia and their families. This provides us with an additional route to ensure that we effectively and meaningfully involve people with dementia in research that is of relevance to their concerns.

Disclosure of Interest: None Declared

P093

OVERVIEW OF THE SOCIO-DEMOGRAPHIC CHARACTERISTICS OF CAREGIVER FOR PERSON WITH ALZHEIMER'S DISEASE (AD) IN TAIWAN

Y.-K. Huang^{1,*}, M.-S. Li¹, Y.-T. Chen¹, M.-C. Chou²

¹Kaohsiung Medical University, Kaohsiung, Taiwan, ²Department of Neurology, Kaohsiung Medical University Hospital, Kaohsiung Medical University, Kaohsiung City, Chinese Taipei

Objectives: Several recent studies support the importance of caregiver characteristics for the survival of patient with Alzheimer's disease (AD). This study gives an overview of the socio-demographic characteristics of caregiver for person with Alzheimer's disease (AD) in Taiwan.

Methods: Between January 2010 and July 2011, we enrolled 174 patients with AD and their caregivers. All the care recipients were diagnosis of AD according to DSM-IV criteria. In our interview with principles caregiver of AD, information regarding age, sex, education background, relationships with care recipients, cohabitation with care recipients was asked for. All the information from respondents was recruited from Department of Neurology, Kaohsiung Medical University Hospital, a medical center in southern Taiwan.

Results: 174 caregivers, along with their care recipients, were recruited. 31.4% are men and 68.6% are women. The mean age of caregivers in is 56.58 ± 12.20 (19~88years old), mean education is 11.9 ± 4.14 (0~20 years). Analyses of relationship with AD patient, 65.5% are adult children (include son or daughter in law), 13.8% are spouse, and 6% are household workers. The report also revealed 56 % of caregivers live with their care recipients.

Conclusion: In Taiwan, the large majority of caregivers provide care for their parents or parents in law. It seems the Taiwan caregivers are more likely than western caregivers to care for parents or parents in law, and the rate of cohabitation is also higher than western countries. However, the number of subjects in this study was small, and it may confound the interpretation of our results, collect more patients, more information from caregiver or patients may be a reasonable method to improve our study.

Disclosure of Interest: None Declared

P094

DISRUPTED CIRCADIAN RHYTHMS OF ACTIVITY AND SLEEP IN RELATION TO COGNITIVE FUNCTION IN PATIENTS WITH ALZHEIMER'S DEMENTIA

Y. Sun^{1,*}, C.-J. Lu¹

¹Neurology, En Chu Kong Hospital, New Taipei City, Chinese Taipei

Objectives: Disturbed sleep cycles is one of the main causes of institutionalization in dementia and represent a major clinical problem. We aimed to evaluate the relationship between cognitive function and maintenance of circadian rhythms in patients with mild to moderate Alzheimer's dementia.

Methods: We prospectively enrolled mild to moderate Alzheimer's dementia with CDR score 1 or 2, who also received neuroimage studies and blood tests to rule out other cause of dementia. They underwent actigraphy for 7 days. Mental tests were performed to classify mild (MMSE \geq 20 or CDR=1) and moderate dementia (MMSE $<$ 20 or CDR=2). We compared total activity score and sleep duration in day time and night time between mild and moderate dementia.

Results: Fifty-two patients (age 79.2 ± 6.8 years, 60% women) with CDR score 1 or 2 were enrolled. After adjustment for age, gender and education, the independent factors related to cognitive function (measured by MMSE) are total wake-up time ($p=0.0005$), total moving time ($p=0.0009$), total activity score ($p=0.006$) in daytime; continuous sleep blocks in sleep time ($p=0.03$); day and night ratio of mean activity score ($p=0.04$). The aforementioned factors are also consistently associated with mental function scored by CDR.

Conclusion: Maintenance of wake-up and movements in daytime, continuous sleep in bedtime, and clearly circadian rhythm with more moving activities in daytime than in sleep time are significantly related to cognitive function.

Disclosure of Interest: None Declared

P095

RELATIONSHIPS BETWEEN CAREGIVERS AND SEVERITY OF ALZHEIMER'S DISEASE IN TAIWAN

Y. T. Chen ^{1*}, Y.-K. Huang ¹, M.-S. Li ¹, Y.-H. Yang ¹

¹Neurology, Kaohsiung Medical University Hospital, Kaohsiung City, Chinese Taipei

Objectives: Several studies have indicated that caregiver's characters are potentially important factors to be associated with the decline or mortality of Alzheimer's disease (AD). The characteristics of caregivers for AD have been well-studied in western society in compare to eastern society. Different cultural background and social condition were existed between eastern and western societies, and these differences make the issues, relationships between caregiver and AD, be examined in eastern society, Taiwan. We conducted a study to examine the relationship between caregiver and AD with its various severity.

Methods: Clinically diagnosed AD patients received a series comprehensive neuropsychological assessments, including mini-mental status examination (MMSE), cognitive ability screening instrument (CASI), neuropsychiatric inventory (NPI), and clinical dementia rating scale (CDR) were recruited in this study at the outpatient department of neurology, Kaohsiung Medical University Hospital, a medical center in southern Taiwan. Demographic characteristics data were recruited through the Chinese version of uniform data set(UDS), and the diagnosis of AD was made according to DSM-IV criteria.

Results: One hundred and seventy-four AD patients were recruited, in which 126 patients have the global CDR-score 1, mild dementia, 45 patients are moderate dementia with CDR 2, and 3 patients were severe dementia with CDR 3. To their caregivers, sixty-eight percent (n=118) of caregivers is women in charge of the majority, 70% and n=83, of mild dementia patients. Most of caregivers (n=99) are adult children and 69% of their care recipients are mild dementia with CDR 1. Only 24 caregivers are spouse for the major patients, n=18, 75%, were mild dementia CDR1. Sixty-seven mild dementia CDR1 and 29 moderate dementia CDR2 patients were lived together with their care givers.

Conclusion: In Taiwan most of the mild stage dementia patients were lived together with their caregivers, and most of the caregivers are female, including children and spouse. These conditions, in parts, were quite different from that in western society. These differences should be considered and evaluated to fit the long term care necessity.

Disclosure of Interest: None Declared

P096

A CONSULTATION WITH KEY STAKEHOLDERS TO DEVELOP A NEW RATING SCALE FOR ALZHEIMER'S

Y. Morrison ^{1,*}

¹Dementia Services Development Centre, University of Stirling, Stirling, United Kingdom

Objectives: Regulatory bodies (European Medicines Agency, U.S. Food and Drug Administration) have acknowledged that current assessment scales lack the sensitivity to detect change in function in drug trials for early Alzheimer's disease (AD). Memory impairment is unarguably the primary feature in early AD, but recent evidence suggests other domains may also be affected, particularly executive functions (EF) (e.g. Voss & Bullock, 2004). Consulting with individuals with AD, their carers and professionals to identify key symptoms, how these impact on daily functioning and opinions on current scales, will help facilitate development of a relevant scale to meet the standards of regulatory bodies.

Methods: Interviews with key stakeholders and analysis of transcripts identified key themes relating to difficulties with EF for those with AD and difficulty in measuring EF among professionals. Themes identified were used to construct a questionnaire for distribution to a larger sample for verification. Findings from this fieldwork will inform the development of a new scale, with guidance from experts in dementia research, neuropsychological assessment and clinical trials management. Feedback will be sought from stakeholders on completion of a draft assessment scale.

Results: Emerging themes from interviews with people with dementia and their carers include difficulties with planning, organisation, divided attention and problem solving. In addition, current scales are reported to be too simplistic and demeaning. Emerging themes from professionals include usefulness of testing EF, lack of standardised EF tests and the importance of comprehensive guidelines for administration and scoring.

Conclusion: Preliminary analysis supports the need for a new rating scale to address the inadequacies of those currently available. Using a bottom-up, user and recipient led approach will facilitate development of a relevant scale that measures key areas of impairment and ability. This paper will discuss the key elements for a new rating scale to be used in clinical trials for AD. Consultation with regulatory bodies and extensive validation studies will be the subject of future research to ensure the scale is valid, reliable and meets regulatory demands.

References: Voss, S.E. & Bullock, R.A. 2004, "Executive Function: The Core Feature of Dementia?", *Dementia and Geriatric Cognitive Disorders*, vol. 18, pp. 207-216.

Disclosure of Interest: None Declared

P097

DIFFERENT BIOMAKERS PROFILES IN DIAGNOSIS OF PRIMARY PROGRESSIVE APHASIA (PPA)?

A. Flé^{1,*}, I. Saulnier¹, B. Beaumatin¹, M.-A. Picat¹, G. Lapu¹, T. Dantoine¹

¹87000, CMRR-Pôle Personnes âgées et soins à domicile-CHU, Limoges, France

Objectives: [Dubois et al. 2007] underlined biomarkers association in new criteria of Alzheimer's disease (AD) cerebrospinal fluid, cerebral MRI, functional brain imaging and neuropsychological biomarkers. The objective is to describe 2 patients showing discordant biomarkers.

Methods: We report 2 cases of 75 and 79 year-old women, primary learning certificate's level coming in the Limoges university, Center of Memory (France). Both, initially complained about language's disorders without declining biomarkers activities of daily living. They underwent a standard assessment (anamnesis, clinical examination, neuropsychological tests, cerebral MRI, FDG-PET and lumbar puncture).

Results:

Diagnosis	PPA		AD	
Patients	Clinical Symptoms	FDG-PET results	fMRI results	CSF markers
Case n°1	Free Recall/cued recall 16 items : Cortico-sub-cortical profile	↓ fronto-parieto-temporal left metabolism	Bilateral hippocampal Atrophy Leucopathy	Amyloidβ normal Total-tau ← Phospho-tau ← IATl= 0,46
Case n°2	Impossible encoding at Free Recall/cued recall	↓ fronto-parieto-temporal left metabolism	Hippocampal and left temporal atrophy	Amyloidβ normal Total-tau ← Phospho-Tau ← IATl= 0,38

Case n°1 : The patient described difficulties to find words, a loss of words in spontaneous speech and in naming (no compensation, by phonemic assistance). The speech was fluent. The semantic fluency was poor. Mini Mental State examination score was 22/30. **Case n°2 :** The patient complained because she didn't find words, had difficulties to express an idea. We showed arthric and phonemic troubles. Semantic fluencies were limited. In spontaneous speech, language is fluent despite a loss of words and difficulties to elaborate a sentence.

Conclusion: Functional neuroimaging (FDG-TEP) and clinical examination hypothesized PPA diagnosis despite CSF markers were more in favor of AD. In this case, only the histopathological history (autopsy) should make the distinction between the two diagnosis. A therapeutic test by anticholinesterase prescription has been introduced.

References: 1. Dubois B, Feldman HH, Jacova C, Cummings JL, Dekosky ST, Barberger-Gateau P, ...Scheltens P. Revising the definition of Alzheimer's disease: a new lexicon. *The Lancet Neurology*, 2010, 9(11): 1118-1127.
2. Semah F. Biomarqueurs et démences. *Neurologie*, 2010, 13 (127).
3. Assal F, & Regno Pasquier C. L'aphasie Primaire progressive : un diagnostic simple ou complexe ? *Schweizer Archiv für neurologie und psychiatrie*, 2009, 160 (7): 275-9.

Disclosure of Interest: None Declared

P098

MAINTENANCE COGNITIVE STIMULATION THERAPY (CST) FOR DEMENTIA: A SINGLE-BLIND, MULTI-CENTRE, RANDOMIZED CONTROLLED TRIAL OF MAINTENANCE CST VS. CST FOR DEMENTIA TUDY PROTOCOL

E. Aguirre^{1,*}

¹Mental Health Sciences, University College London, London, United Kingdom

Objectives: Psychological treatments for dementia are widely used in the UK and internationally, but only rarely have they been standardised, adequately evaluated or systematically implemented. There is increasing recognition that psychosocial interventions may have similar levels of effectiveness to medication, and both can be used in combination. Cognitive Stimulation Therapy (CST) is a 7-week cognitive-based approach for dementia that has been shown to be beneficial for cognition and quality of life and is cost-effective, but there is less conclusive evidence for the effects of CST over an extended period.

Methods: This multi-centre, pragmatic randomised controlled trial (RCT) to assess the effectiveness and cost-effectiveness of Maintenance CST groups for dementia compares a intervention group who receive CST for 7 weeks followed by the Maintenance CST programme once a week for 24 weeks with the control group who receive CST for 7 weeks, followed by treatment as usual for 24 weeks.

The primary outcome measures are quality of life of people with dementia assessed by the QoL-AD and cognition assessed by the ADAS-Cog. Secondary outcomes include the person with dementia's mood, behaviour, activities of daily living, ability to communicate and costs; as well as caregiver health-related quality of life. Using a 5% significance level.

Results: To be confirmed in December and presented at the conference. Updated abstract to be sent.

Conclusion: A pilot study of longer-term Maintenance CST, offering 16 weekly sessions of maintenance following the initial CST programme, previously found a significant improvement in cognitive function (MMSE) for those on the intervention group. The study identified the need for a large-scale, multi-centre RCT to define the potential longer- term benefits of continuing the therapy. This study aims to provide definitive evidence of the potential efficacy of maintenance CST and establish how far the long-term benefits can be compared with antidementia drugs such as cholinesterase inhibitors.

Disclosure of Interest: None Declared

P099

OMEGA-3 POLYUNSATURATED FATTY ACIDS AND MIXED DEMENTIA

I. Culum^{1,*}, J. B. Orange², D. Forbes³, M. Borrie⁴

¹Health and Rehabilitation Sciences, ²School of Communication Sciences & Disorders, The University of Western Ontario, London, ³Faculty of Nursing, University of Alberta, Edmonton, ⁴Department of Geriatric Medicine, Parkwood Hospital, London, Canada

Objectives: The two most common distinct types of dementia are Alzheimer's disease (AD) and vascular dementia (VaD). In many cases, both of these dementia types are observed in the same person, which is often referred to as mixed dementia (MD). Regardless of dementia type, dementia is a debilitating disease for which there is no cure. Current treatments are able to combat disease symptoms for a limited time in approximately half of AD patients in the mild to moderate stages of the disease. VaD management aims to reduce the risks for occurrence or re-occurrence of cerebrovascular events as well as reducing other vascular risks, such as hypertension, diabetes, smoking, physical inactivity, and others. Treatments for MD usually involve a combination of both AD and VaD treatments. Similarly, research also is focused on either AD or VaD and not MD. The purpose of this paper is to examine any similarities between AD and VaD, and discuss whether there may be a treatment for MD that addresses both degenerative and vascular components.

Methods: Through a comprehensive review of scientific literature, we examined the mechanisms of action of omega-3 fatty acids in the contexts of both AD and VaD in order to determine if the use of omega-3s could be applicable in regards to MD.

Results: Omega-3 fatty acids may be beneficial to persons with MD by potentially reducing neuroinflammation associated with both AD and VaD symptoms.

Conclusion: There is very little research in regards to MD. Since there are common threads between AD and VaD, such as neuroinflammation, therapies that target these common threads, such as omega-3 supplementation should be explored. Since many persons with dementia exhibit both AD and VaD pathology, such treatments would be extremely beneficial if demonstrated to be efficacious.

Disclosure of Interest: None Declared

P100

HOMEOSTATIC RESPONSES DURING PROGRESSIVE TAUOPATHY IN CORTICAL PYRAMIDAL CELLS OF TAU MUTANT MICE

J. L. Crimins^{1,*}, A. B. Rocher¹, J. Lewis², J. I. Luebke¹

¹Anatomy & Neurobiology, Boston Univ. School of Medicine, Boston, ²Neuroscience, Univ. Florida, Gainesville, United States

Objectives: The aim of this study was to comprehensively assess the effects of progressive tauopathy on structural and functional properties of layer 3 frontal cortical pyramidal cells from 1, 3, 8.5 and 13-month-old (M) rTg4510 tau mutant mice (TG) vs. non-transgenic (NT) littermate control mice.

Methods: Whole-cell patch-clamp recordings in *in vitro* slices were used to measure electrophysiological properties of individual cells. During recordings cells were filled with biocytin then subsequently imaged with confocal microscopy and reconstructed in 3D.

Results: TG cells exhibited depolarized resting potentials, increased sag potentials and increased firing rates compared to NT cells at every age. At 3M the frequency of spontaneous excitatory postsynaptic currents was decreased, whereas at the other 3 ages frequency was either the same or increased in TG cells. TG cells did not differ from NT cells with regard to dendritic parameters at 1 and 3M, but by 8.5M they exhibited significantly reduced dendritic arbors and spines and by 13M they were severely dystrophic. Suppression of mutant tau expression with lifelong doxycycline (dox) treatment resulted in the complete rescue of structural and functional changes in 13M TG cells. Surprisingly, cells from 13M TG mice that had been treated with dox until 4M only also did not differ from NT cells, suggesting that the detrimental effects of mutant tau on cells occurs during an early developmental window.

Conclusion: In early-stage tauopathy, prior to NFT deposition and cell loss, cells are structurally intact but exhibit increased intrinsic excitability, indicating that pre-fibrillar tau species or signaling cascades upstream of mature tangle formation are responsible for electrophysiological changes at this time. While hyperexcitability may ultimately be detrimental to cells, increased excitation in deafferented networks in advanced-stage tauopathy may serve to maintain overall network function for a time. Interestingly, even at 13M, when most surviving cells are extraordinarily dystrophic, relatively normal action potential firing is maintained and synaptic responses are not reduced, providing compelling evidence for homeostatic responses by surviving cortical pyramidal cells during progressive tauopathy.

References: Crimins JL, Rocher AB, et al., **Homeostatic responses by surviving cortical pyramidal cells in neurodegenerative tauopathy.** *Acta Neuropath.* 2011 Oct 4

Disclosure of Interest: J. Crimins: None Declared, A. Rocher: None Declared, J. Lewis Conflict with: Holds the patent associated with rTg4510 mice, J. Luebke: None Declared

P101

COGNITIVE IMPAIRMENT IN LATE LIFE PSYCHOSIS AND IMPLICATIONS FOR TREATMENT

L. L. Tan ^{1,*}

¹Changi General Hospital, Singapore, Singapore

Objectives: With the rapid ageing of our population, there is an increasing need for elderly mental health services. Clinical experience supports the view that patients with late onset psychosis tend to have cognitive deficits and poor adherence to treatment. There is a need to consider how cognitive impairment in late life psychosis impacts treatment compliance and prognosis.

Methods: 64 subjects with first presentation late onset psychosis (≥ 40 years) and very late onset psychosis (≥ 60 years) were consecutively recruited. Psychiatric diagnoses were obtained based on DSM IV. For those with a primary psychotic disorder, the Positive and Negative Symptoms Scale (PANSS) was used to evaluate general psychopathology. The Mini-mental State Examination (MMSE) was used for assessment of cognitive function. This was a naturalistic study and treatment was not controlled. Subjects were rated again on PANSS at 12 months to evaluate relationships between treatment and outcome.

Results: A total of 55 subjects were enrolled into the study (7 with dementia and 2 with psychotic depression were excluded). There was a high preponderance of females (80%). Cognitive impairment not amounting to clinical dementia was found in a majority of subjects. The mean MMSE score was 18.5 and 73.8% scored < 24 . Computerized tomography brain scans were obtained in 43 subjects. 70.4% showed mild changes while 29.6% showed moderate to severe changes. Over a 12 month period, there were significant reductions in total PANSS scores (75.8 vs 54, $p < 0.001$) in subjects who continued treatment. About half ($n = 29$) defaulted at the end of the 12 month period. However, the mean MMSE scores for the defaulters were not lower than those who remained in treatment (21.4 vs 18.4) and more males (81.8%) defaulted follow up.

Conclusion: Our study showed that treatment of late life psychosis was effective in ameliorating symptoms but there was a high loss to follow up of male subjects. The presence of cognitive impairment did not seem to influence treatment adherence. Further research is required to elucidate treatment compliance in late life psychosis.

References: 1. Harrison G et al: Recovery from psychotic illness: a 15- and 25-year international follow-up study. *British Journal of Psychiatry* 2001; 178:506-517. 2. Miller et al: Brain lesions and cognitive function in late-life psychosis. *British Journal of Psychiatry* 1991; 158:76-82

Disclosure of Interest: None Declared

P102

SUPPORTING PEOPLE WITH ALCOHOL RELATED BRAIN DAMAGE ON THE SHETLAND ISLANDS, A REMOTE ISLAND COMMUNITY IN THE UK

L. McCabe^{1,*}, A. Innes²

¹Applied Social Science, University of Stirling, Stirling, ²Health and Social Care, University of Bournemouth, Bournemouth, United Kingdom

Objectives: Alcohol related brain damage (ARBD) is a term used to cover different forms of cognitive impairment caused by excessive alcohol use, this is also sometimes termed alcohol related dementia. Studies suggest that the prevalence of ARBD is rising and there is a need for increased awareness and recognition of the condition. This study aimed to assess current awareness among professionals and to improve knowledge about current services and support for people with ARBD on the Shetland Islands in the UK. The Shetland Islands is a remote, island community in the North Sea where there is a long standing culture of alcohol use and misuse.

Methods: The study involved two complementary elements:

- An online survey with 31 professionals and practitioners who have ARBD as part of their current or potential work remit on the Shetland Islands
- Follow-up interviews with 12 survey participants to gain a more in-depth understanding of how they work with people with ARBD

Results: Most professionals surveyed were aware of ARBD as a potential problem on the Shetland Islands but few had direct experience of working with someone with a confirmed diagnosis of a type of ARBD. Many worked with people who they suspected may have a form of ARBD. Key services available included the GP, the community mental health team and dual-diagnosis physician. Interviewees spoke of the issues faced on the islands relating to alcohol use, stigma, and living in small close-knit communities. Barriers to providing care in Shetland Islands were also discussed such as the difficulties in accessing people living in the more remote parts of the islands.

Conclusion: There are issues specific to working in a remote and rural area such as the Shetland Islands that impact on the ability of practitioners to deliver effective care and support to people with ARBD. Specialist services are expensive to set up due to the relatively small numbers of people who access different services, it is also difficult to access specialist training. People with alcohol problems may be reluctant to access help due to close knit communities where they may know staff members and this is a further barrier to providing useful and effective services. There are also positives to providing support within a small community as professionals from different organisations often work more closely together promoting integrated care.

Disclosure of Interest: None Declared

P103

TITLETHE EFFECT OF VITAMINE-E ON LEARNING AND MEMORY IN RAT

M. Heidarieh ^{1,*}

¹Herbal Medicine Research Center, Yazd.Vahidi,Pharmacy, Yazd, Iran, Islamic Republic Of

Objectives: TextRecent research has indicated that increased tissue damage to oxidative stress may be the major factor involved in CNS functional declines in aging and age-related neurodegenerative disease and that antioxidants, e. g, vitamins E, reduce or prevent these declines. Among the most important impairments in CNS function is the decline in cognitive ability due to aging, which is referred to as Alzheimer disease and there is evidence that Vitamins E slows progression of Alzheimer's in human

Methods: In order to investigate the beneficial aspects of vitamin E consumption on mental physiological functions we assessed the effects of intraperitoneal (IP) administration of vitamin E (400mg/kg) on active avoidance learning and it's related memory by using a shuttle box device.

Results: Our data showed that intraperitoneal administration of vitamin E 20 min prior to the test had not significant effect on learning in rats($p=.526$). But this supplement could significantly enhance the short term memory procedure ($p=.01$).

Conclusion: our results showed beneficial effect of acute vitamin E administration on memory processing but not on the learning ability in rats.

Disclosure of Interest: None Declared

P104

THE BEHAVIORAL SEQUELAE AND OXIDATIVE BURDEN FOLLOWING INTOXICATION OF TRIMETHYLTIN COMPOUND IN RATS

S. Kaur^{1,*}, B. Nehru²

¹Dept. of Biophysics, ²Dept of Biophysics, Panjab University, Chandigarh, India

Objectives: Trimethyltin (TMT) is a potent neurotoxicant that induces selective neurodegeneration in the hippocampus and limbic system of rodent brain. This results neurobehavioral alterations, pertaining to learning and memory deficits. Thus TMT has also been regarded as a potential tool for the study of memory dysfunction in animal models. The present study investigates the sequential alterations(0, 3, 14, 21 days)in rat behavior following TMT administration. Further these alterations have correlated with oxidative burden and apoptosis in the mid brain region.

Methods: Male SD rats weighing 250gm were given single dose of 8.5 mg/kg TMT (i.p).The markers for oxidative burden (LPO, protein carbonyl, ROS) and apoptosis marker (caspase3, caspase9) were studied.

Results: Rat exposed to TMT demonstrated tremors, aggressiveness and irritability, "TMT syndrome" begins within 3 days following treatment. Results of plus maze and active passive avoidance of TMT-intoxicated rats made more short term memory deficit as compared to long term memory errors. Maximum decline was observed on 14th day. The levels of malondialdehyde (MDA), SOD and ROS were significantly increased in the TMT treated rats after 3rd day of exposure. Exposure to TMT produced primarily apoptosis as shown by caspases activation in TMT treated rats.

Conclusion: Treatment of rats with TMT, therefore suggest that toxic interaction of TMT with hippocampus and other limbic brain regions may be causal factor for its effect on learning and memory and could be attributed to apoptosis and free radical generation in the rats.

Disclosure of Interest: None Declared

P105

THE EARLY-ONSET ALZHEIMER'S DISEASE WITH 22 MOTHS FOLLOW-UP: A CASE REPORT

Y.-T. Huang^{1,*}, W.-F. Wang¹, S.-L. Wu¹

¹Neurology, Changhua Christian Hospital, Changhua, Chinese Taipei

Objectives: The aims of this study were to compare, an early-onset Alzheimer's disease patient, the difference of cognitive performance at the beginning of the 22 months.

Methods: The 59-year-old woman had 16 years of education, worked as an English teacher in senior high school until her retirement 7.5 years ago. Her son complained of poor memory one year ago. She diagnosed of Alzheimer's disease after ruling out other-cause dementia. Cognitive Abilities Screening *Instrument* (CASI) was conducted at the initial visit (visit1) and 22 months later (visit2), which including 9 cognitive functions: long-term memory (LTM), short-term memory (STM), attention (ATTEN), mental mathematics (MENMA), orientation (ORIEN), language (LANG), abstraction (ABSTR), draw (DRAW), thought fluency (ANML).

Results: At the beginning of diagnosing Alzheimer's disease, STM (-10 points) and ANML (-5 points) were severe decline and kept that level over 22-month period. Scores of DRAW and ABSTR were improved, while MENMA (-5 points) and ORIEN (-3 points) domains were found to decrease sharply at after 22 months AD diagnosis. However, the patient still got top marks on LTM and ATTEN between two visits. The difference of total CASI scores between visit1 and visit2 only decreased 0.5 points (visit1:69.1; visit2:68.6).

Conclusion: As expected, early-onset AD is characterized by short-term memory deficits which also show late-onset patient. The initial two years of diagnosis AD, the frontal lobe dysfunctions are found CASI performances such as mental manipulation and verbal fluency.

Disclosure of Interest: None Declared

P106

HIPPOCAMPUS ATROPHY IN GERIATRIC DEPRESSION

D. Enache^{1,*}, L. Cavallin^{2,3}, E. Westman¹, L.-O. Wahlund^{1,4}, M. Gregoric Kramberger^{1,5}, V. Jelic^{1,4}, M. Eriksson^{1,4}, B. Winblad¹, D. Aarsland^{1,6}

¹Department of Neurobiology, Care Sciences and Society, ²Department of Clinical Science, Intervention and Technology, Karolinska Institutet, ³Department of Radiology, ⁴Geriatric Clinic, Karolinska University Hospital, Stockholm, Sweden, ⁵Department of Neurology, University Medical Centre Ljubljana, Ljubljana, Slovenia, ⁶Centre for Age-Related Medicine, Stavanger University Hospital, Stavanger, Norway

Objectives: The aim of this study was to explore if depression is associated with hippocampus atrophy independent of Alzheimer's disease (AD).

Methods: From a memory clinic we included subjects with AD and subjective cognitive impairment (SCI)- normal cognition testing. Depression was assessed with the Cornell Scale for Depression in Dementia (CSDD), and a cut-off > 6 was used to define depression. Magnetic resonance imaging (MRI) and computer tomography (CT) scans were rated for medial temporal lobe atrophy (MTA) using the Scheltens scale. This is a 5-point visual rating scale (0–4), where the ratings are performed on oblique-coronal sections. All patients underwent full medical examination, including neuropsychological tests and Mini Mental State Examination (MMSE), routine blood tests and cerebrospinal fluid analysis.

Results: A total of 131 participants (72.5% female) were included (63 with AD and 69 with SCI), with mean (SD) age 67.62 (7.25), MMSE 25.97 (4.00) and median (range) CSDD score was 5 (0–21). Depression was not significantly associated with age, gender or MMSE score. Median (range) right and left MTA scores for SCI was 1 (0–3) and for AD 2 (0–4). CSDD scores were not significantly correlated with right and left MTA scores in AD (Spearman rho =0.14, p=0.26 and 0.06, p=0.6) or in SCI (0.04, p=.9 and 0.09, p=.6).

Conclusion: There were no associations between MTA and depression scores in patients with SCI or AD. Further studies about the implication of hippocampus in depression in elderly people with and without AD are warranted.

References: Albert MS, DeKosky ST, Dickson D et al. The diagnosis of mild cognitive impairment due to Alzheimer's disease: recommendations from the National Institute on Aging-Alzheimer's Association workgroups on diagnostic guidelines for Alzheimer's disease. *Alzheimer's Dement* 2011; 7:270–9

Kanellopoulos D, Gunning FM, Morimoto SS et al. Hippocampal volumes and the brain-derived neurotrophic factor val66met polymorphism in geriatric major depression. *The American journal of geriatric psychiatry : official journal of the American Association for Geriatric Psychiatry* 2011; 19:13–22.

Byers AL, Yaffe K. Depression and risk of developing dementia. *Nature reviews. Neurology* 2011; 7:323–331.

Disclosure of Interest: None Declared

P107

HIPPOCAMPAL VOLUME AND DEPRESSION IN MILD DEMENTIA

F. Fritze^{1,*}, N. Chow^{2,3}, H. Honarpisheh⁴, M. K. Beyer¹, A. Rongve¹, P. M. Thompson^{2,3}, L. Apostolova², D. Årsland⁵

¹Centre for Age, Stavanger university hospital, Stavanger, Norway, ²Department of Neurology, ³Laboratory of Neuro Imaging, David Geffen School of Medicine (ULCA), Los Angeles, ⁴Pathology and Laboratory Medicine, Yale School of Medicine, New Haven, United States, ⁵Alzheimer Disease research Center Huddinge, Karolinska institute, Stockholm, Sweden

Objectives: Depression is common in Lewy Bodies dementia (LBD) and Alzheimer's Disease (AD) and has important clinical implications. Hippocampal changes have been found to be implicated in major depression. The aim of this study was to explore the association between depression and hippocampal volume in people with mild dementia.

Methods: We analyzed the T1-weighted MRI data of 82 subjects comprised of 54 AD, 20 LBD (16 Dementia with Lewy body (DLB), 4 Parkinson's disease with dementia (PDD)) and 8 with other dementias (vascular and frontotemporal dementia). Hippocampal volume were obtained with an automated hippocampal segmentation tool based on adaptive boosting (AdaBoost). Depression was assessed using the Montgomery-Åsberg-Depression-Scale (MADRS), cut off score over 6 indicating at least mild depression.

Results: Mean age was 75.2 (7.20) years, Mini Mental Status Examination (MMSE) score 23.7 (2.23). 52 (63.4 %) were female. Left hippocampus volume was 4018.8 (652), right hippocampus volume 3971.3 (693) mm³. 36 (43.9%) had depression, and MADRS median was 6 (range 23). There were no significant associations between depression scores and hippocampal volumes (Spearman's rho: left hippocampus 0.165, p = 0.14, right hippocampus: 0.90, p = 0.42). We did not find significant difference in mean hippocampal volume in depressed vs. nondepressed patients (left hippocampus: t = -1.5, p = 0.136; right hippocampus: t = -1.3, p = 0.19). Results from multivariate analyses will be presented at the conference.

Conclusion: In our study on patients with mild dementia hippocampal volume does not seem to be associated with severity of current depression.

Disclosure of Interest: None Declared

P108

ENTORHINAL CORTEX VOLUME PREDICTS COGNITIVE DECLINE IN ALZHEIMER'S DISEASE

L. Velayudhan ^{1,2,*}, P. Proitsi ³, A. Hodges ², S. Lovestone ², A. Simmons ² and The AddNeuroMed Consortium

¹Health Sciences, University of Leicester, Leicester, ²Old Age Psychiatry, ³Neurosciences, Institute of Psychiatry, Kings College London, London, United Kingdom

Objectives: Biomarkers for Alzheimer's disease (AD) based on non-invasive methods are highly desirable for diagnosis, disease progression and monitoring therapeutics. The goals of this study were to assess the associations of brain volume, specifically, hippocampal region (right and left), entorhinal cortex (ERC), whole brain volume, total grey matter, total white matter, total CSF and intracranial volume, with baseline cognition and longitudinal cognitive change in patients with AD.

Methods: 133 AD participants and 117 Non demented control (NDC) from the multi-center pan-European AddNeuroMed study underwent MRI scanning and completed cognitive testing, and clinical evaluations at baseline and quarterly follow-up up to 1 year. MR data acquisition was done using 1.5 T MR Systems with a standardized protocol, including quality control and assurance. Linear regression analyses were used to test for differences in MRI-based measures, baseline cognitive measures, age between AD cases and NDC as well as to test for differences between baseline MRI-based measures and baseline cognitive measures. Cognitive decline rate measured with change in the cognitive outcomes mini mental state examination (MMSE) and Alzheimer disease assessment scale – Cognitive (ADAS-cog) over time was estimated by fitting a random intercept and slope model using xtmixed in STATA 10.

Results: ERC > hippocampus (left > right) > total grey matter volume at baseline was significantly associated with the MMSE and ADAS-cog baseline scores, after adjusting for disease duration at baseline, gender, age at baseline and APOE ε4 presence. Mixed effects models indicated that greater baseline ERC volume was significantly associated with higher MMSE score (beta=2.793, 95% CI from 1.18 to 4.41, p=0.001) and lower ADAS-cog scores (beta=-3.92, 95% CI from -7.13 to -0.721, p=0.016). A significant interaction between follow-up time and ERC volume (interaction p=0.031) indicated that higher baseline ERC volumes were associated with slower cognitive decline measured with the MMSE and ADAS-cog.

Conclusion: Baseline ERC volume best associates with the baseline cognitive scores and also subsequent 1 year cognitive decline in AD patients. Focusing structural analyses on regions known to be first affected and associate with decline would identify individuals at greatest risk for memory decline and have a great potential for increasing the efficacy of early intervention.

Disclosure of Interest: None Declared

P109

PERIPHERAL RETINAL DRUSEN AS A POTENTIAL SURROGATE MARKER FOR ALZHEIMER'S DEMENTIA: A PILOT STUDY USING ULTRA-WIDE FIELD IMAGING

N. Barzegar-Befroei^{1,*}, T. Peto², C. W. Ritchie³ on behalf of West London Mental Health Trust, I. Lengyel⁴

¹UCL Institute of Ophthalmology, University College London, ²Research and Development, Moorfields Eye Hospital,

³Research and Development, Imperial College, ⁴UCL Institute of Ophthalmology, University College London, London, United Kingdom

Objectives: The development of Alzheimer's dementia (AD) and age-related macular degeneration (AMD) share similar histopathology, vascular risk factors and genetic predisposition and both are characterized by extracellular deposit formation. In this study we examined the prevalence and spatial distribution of macular and peripheral retinal pathologies in patients with AD.

Methods: Colour and autofluorescent (AF) images were taken by the Optos P200C AF ultra-wide angle laser scanning ophthalmoscope (200°) to determine phenotypic variations in 56 AD patients and 46 controls. Images were graded for the prevalence of drusen, pigmentary changes, atrophy or choroidal neovascularisation (CNV) in the macula as well as retinal periphery. The periphery was divided into two zones (zone 4 and 5) to extend the standard AMD grid and pathological distribution was recorded in four sectors within these zones. All subjects had blood taken for genotyping. Comparisons were made using the chi-squared test after adjustment for potential confounders.

Results: There was a positive genetic association between AD and ApoE4 ($p=0.09$). Only one control, but 4 patients were diagnosed to have AMD based on macular pathologies. In the periphery hard drusen were present in 14/55 (25.4%) of AD patients and 2/48 (4.2%) of controls [$\chi^2=9.9$, $df=4$, $p=0.04$]. After adjustment for age and a history of a transient ischaemic attack, this association remained strongly significant ($p<0.001$).

Conclusion: Ultra-wide angle imaging revealed a potential association between AD and AMD and a highly significant association between AD and peripheral hard drusen formation. These findings suggest that monitoring for the development and progression of pathological changes in the macula and most importantly in the periphery might become a valuable tool in detecting and monitoring the progression of AD. Further work is required to develop the understanding of this association which may lead to peripheral drusen acting as a surrogate marker for plaque development in the central nervous system.

Disclosure of Interest: None Declared

P110

A EUROPEAN PROJECT TO MAKE MULTIMEDIA TECHNOLOGY ACCESSIBLE FOR PEOPLE WITH DEMENTIA

D. Brooks ^{1,*}, R. Dutton ², N. Savitch ³, E. Schulze ⁴, R. Hellman ⁵

¹Trent Dementia Services Development Centre, Leicester, ²Housing 21, Bristol, ³Innovations in Dementia, London, United Kingdom, ⁴Berlin Institute for Social Research, Berlin, Germany, ⁵Karde AS, Oslo, Norway

Objectives: People with dementia can have difficulties accessing multi-media technologies in their current design and format. This European project aims to address some of these problems by giving people with dementia access to simple and intuitive IT solutions, adapted to individuals' needs and wishes using standard hardware.

The system ('Mylife') was developed by Karde AS and Tellu AS in Norway specifically for people with dementia. It harnesses available internet technologies and brings them together using a simple touch-screen interface. It allows people with dementia to easily access the day, date and time, daily and weekly appointments, news and weather, favourite music and photos. Each interface can be customised to suit the individual with a little help from a family member or carer.

This paper will describe the qualitative and quantitative methodology and interim results of focus groups and field trials to evaluate how the system meets the needs of, and is experienced by, people with dementia and their carers in the UK, Norway and Germany. The results presented will include how and why people with dementia are motivated to use the system and the potential effects on the person's independence, engagement and well being, as well as the views of carers around the usability of the system, its suitability for people with dementia and the impact of its use on carers' well being.

Ethical issues relating to the use of the system and the trials themselves will also be discussed. The project follows European and UK ethical codes of conduct and has been given approval from ethics research committees in Germany and Norway; in the UK it has been classed as 'user testing of a product' and did not require a full application for ethics review.

This European project has been funded by the Ambient Assisted Living programme, European Commission, Technology Strategy Board (UK), IT Funk (Norway) and Federal Ministry of Education and Research (Germany). Other European partners are Forget-me-not AS (Norway), Sidsel Bjørneby Sole Proprietorship (Norway).

Disclosure of Interest: None Declared

P111

SOCIAL ASSISTIVE ROBOTS FOR ALZHEIMER'S DISEASE CARE: INVOLVING END-USERS THROUGHOUT THE DESIGN AND DEVELOPMENT CYCLE

M. Pino^{1,2,*}, M. Boulay^{1,2}, A.-S. Rigaud^{1,2} and the QuoVADis project

¹Gerontology, BROCA HOSPITAL Assistance Publique-Hôpitaux de Paris, ²Research team EA 4468, Paris Descartes University, PARIS, France

Objectives: Over the past years, a number of assistive technologies have been conceived and developed to support independent living and quality of life of *older adults with Mild Cognitive Impairment (MCI) or Alzheimer's disease (AD)*. Within this area socially assistive robotics is a growing field. However, although robotics has the potential to support elderly with cognitive impairment in daily tasks, the development of usable interfaces is still a challenge. For instance, changes in perceptual and cognitive abilities should be addressed in robotics design because they affect technology use. Confidentiality, privacy issues, and *ethics should also be addressed* when developing this kind of systems.

The aim of the QuoVADis project (2008-2010), a French research project, was to develop a social assistive robot for elderly people with cognitive impairment. The robot consists of a mobile platform capable of social interaction conceived to provide cognitive and social support to the user (task reminder, cognitive training, orientation, communication and maintenance of social relationships).

For its implementation we have used a user-centred design approach. People suffering from MCI, AD and their caregivers were invited to participate throughout the design and development cycle. Iterative user evaluations were conducted with this population to identify ergonomic problems and required modifications. We present here the results of this collaborative multi-disciplinary project.

We covered from the earliest phases of user research (e.g., defining users profile) to the latest phases of product development (e.g., user tests). According to each phase of product development we used different research techniques: focus groups, surveys, heuristic evaluations and usability testing. Each one of these experiences will be shortly described and illustrated.

Our results have confirmed that socially assistive robotics is a promising field for non-pharmacological interventions targeting cognition, social and functional capacities in people with dementia. However, more experimental research on acceptability and usability issues must be done for their large-scale implementation.

Designing and development of assistive technologies to support AD patients and their caregivers requires end-user involvement throughout all the development and evaluation phases.

Disclosure of Interest: None Declared

P112

“YOUR STORY MATTERS”. LIFE STORIES, LAPTOPS AND LEARNING ENVIRONMENTS

T. Jameson-Allen ^{1,*}

¹The Life Story Network C.I.C, Topcliffe, United Kingdom

Objectives: The Life Story Network (LSN) is an organisation, which works with a range of partner organisations and individuals to promote the value of using life stories to improve the quality of life and wellbeing of people and communities, particularly those marginalised or made vulnerable through ill health or disability. The work of the LSN aims to enhance the quality of care and support delivered to individuals and communities, through embedding a human-rights based approach.

As part of the English Government's National Dementia Strategy workforce plan, the Life Story Network CIC has been commissioned to provide training about using Life Story Work within the context of a human rights based approach. The “Your Story Matters” project will provide training to 500 people across England between November 2011 and March 2012. This will include a train the trainers programme and specific training for carers in a combination of face to face and online training which will utilise a vibrant, multimedia virtual learning environment, communities of practice, an online life story book and social media. Carers and people with dementia have been core to the origins of this group and are part of the advisory panel for this work.

A commissioned evaluation by the Social Policy Research Unit aims to measure the impact of Your Story Matters on delegates undertaking the training.

Rolling out a newly developed training course, utilising a train the trainers approach required an innovative approach to managing all aspects of the 5 month project. Technology was central to providing:

- accreditation of trainers
- learning resources and support for trainers
- discussion, reflection and support for trainers
- registration, allocation and dissemination to delegates
- virtual learning environments for trainers and delegates
- assessment of baseline knowledge through to end of course learning outcomes
- quality assurance of training delivery
- capturing and sharing new learning
- creating 500 life stories

This session aims to report on the what was learnt by delegates using this technology and to explore how this learning may be used in future.

While the LSN CIC is based in the UK the network is open to international registration

Disclosure of Interest: None Declared

P113

AN EVALUATION STUDY ON THE EFFECTIVENESS OF IN HOME SERVICE TO PERSONS WITH EARLY STAGE OF DEMENTIA IN HONG KONG

L. K. C. Gemma¹, L. K. Y. Winnie², L. T. Y. Wendy^{2*}, C. K. Y. Florence²

¹School of Professional and Continuing Education, University of Hong Kong, ²Kin Chi Dementia Care Support Service Centre, St. James' Settlement, Hong Kong, Hong Kong, China

Objectives: Despite majority of people with dementia are living in community under the care of their families, the current Minimum Data Set-Home Care (MDS-HC) is mainly focused on deficits on physical health and degree of dependency on personal care at home in Hong Kong. As a result, people with early stage of dementia with only memory loss would not be eligible for home or day care services. In view of the lack of support services for dementia, in home service was therefore developed to provide cognitive training and family training to caregivers since 2010.

The purpose of the present study is to evaluate the effectiveness of in home services to people with early stage of dementia and their family caregivers.

Methods: Population in the study comprised 74 clients with confirmed diagnosis aged from 57 to 93. Assessment including health, needs/problems, medication, likes and dislikes of clients are obtained. Data at post intervention is collected at 3 months intervals. Family caregivers were also assessed of their health, coping and caregiving burden.

Results: Significant changes with improvement are identified in the aspects of day-to-day orientation, problem solving and interpersonal skills amongst the clients as well as the relationship between family caregivers and the care recipients. Case demonstration will be used to illustrate on the process of care planning, implementation of intervention and outcome measures.

Conclusion: The preliminary findings support the needs for early intervention via in home services to persons with dementia who are not yet eligible for day care services and to strengthen caregiving role via family training.

Disclosure of Interest: None Declared

P114

MAINTENANCE COGNITIVE STIMULATION THERAPY (CST) IN PRACTICE

A. Streater^{1,*}, E. Aguirre¹, A. Spector², I. Russell³, R. Woods⁴, J. Hoe¹, Z. Hoare⁵, M. Orrell¹

¹MENTAL HEALTH SCIENCES, UNIVERSITY COLLEGE LONDON, ²Department of Clinical Psychology, University College London, London, ³School of medicine, Swansea University, Swansea, ⁴School of Psychology, ⁵IMSCaR, University of Wales, Bangor, United Kingdom

Objectives: To develop, evaluate, and implement a training package of Maintenance Cognitive Stimulation Therapy (MCST) and carry out a pragmatic multi-centre randomised controlled trial (RCT) of two different training approaches:

Intervention: CST and MCST manuals, DVD, CST training day and outreach support

Treatment as usual: CST and MCST manuals, DVD and CST training.

Running concurrently alongside the RCT will be an implementation study evaluating the effectiveness of Maintenance CST in practice with people who independently bought the CST manual or CST training.

There is also a monitoring study to measure cognition and quality of life with people with dementia in pre-established or groups being set up in a variety of care settings.

Methods: For the RCT and implementation studies qualified and non qualified dementia care staff working in a variety of dementia settings will be recruited in to the trial and cluster randomized to the TAU or intervention group. All staff members will be assessed before the CST groups commence and 6 and 12 months thereafter. Focus groups will also be run with staff members to gain a qualitative account of the programme and the receipt of outreach support.

Centres will be approached, as part of the monitoring study, who are in the process of setting up CST groups and complete minimal outcome measures with the people with dementia before the CST groups start, after CST and at the end of the MCST programme.

Results: The RCT and implementation study will identify the level of attendance and adherence to the CST and MCST programme and the effect of outreach support. Focus groups will demonstrate peoples perception of the CST and MCST programme and the usefulness of the outreach support.

The monitoring study will allow us to measure if cognition and quality of life improves for the people with dementia participating in the CST and MCST programme as identified in previous research.

Conclusion: Both studies will allow us to observe the successfulness of implementing a psychosocial, evidence based, NICE recommended group therapy in the workplace and the perceived and actual barriers to implementing these.

The monitoring study will enable us to measure if the CST and MCST programme are effective in practice with a variety of dementia related care staff.

Disclosure of Interest: None Declared

P115

THE “ALZHEIMER CAFÈ”: A WAY TO DON'T FEELING ALONE

A. Bonora^{1,*}, P. Bevilacqua¹, P. Artioli¹, Z. Amadei¹, A. Budri¹, A. Cavicchioli¹, L. Borghi¹, C. Confortini¹, F. Impastato¹, A. Fabbo²

¹ASDAM onlus, Mirandola (Modena), ²Department of Primary Care, A.USL Modena, Modena, Italy

Objectives: In our country the major part (about the 80%) of the people with Dementia live at home by the relatives' care and intervention, and the support, of the social and health care services. The “home project” it's considered the best solution from the therapeutic view, but this imply the complete dependence of the sick person from his caregiver during all the day. This condition, however, may cause high level of burden in caregivers due to the tiredness, the physical and emotional exhaustion; furthermore, not always caregivers are able to ask some kind of help to services. In Mirandola's District was born a collaboration among the Halth-Care Intitute, the North Modena area of Union Cities and the ASDAMonlus, aimed to support the families that assist people with Dementia. Alzheimer's Cafè is an innovative project, which reflects similar experiences in Europe and in Italy, whose purpose is to create informal meeting places for people with dementia and their families. The Alzheimer Cafè is a “protected place” where discuss a problem like Dementia and his care with more serenity: while operators entertain the sick people through enjoyable activities, family members can meet each other, share their experiences of care and listen to the advice of experts (doctors, nurses, support etc..) involved in the meetings. The aims of this project are to provide: (1) to families of Alzheimer's patients the opportunities to meet, which creates solidarity and more resources to care the chronic problems related to the disease; (2) information and counseling about the disease; (3) interpersonal interaction of these people as long as possible and maintain their social functions: in fact, meetings are conducted in places frequented by common people and with open access (public), to favour contacts with the society. Resources involved are: volunteers of the Asdamonlus, and operators of the Consulting center for Dementia of Mirandola (physicians, nurses, health workers, etc.). Meetings are held one a month in a local Bar-Restaurant (excluding the summer months). From 2005 the Association organized more or less 10 Café during the year, with an average of 30 participants at a time.

Disclosure of Interest: None Declared

P116

USING DEMENTIA CARE MAPPING (DCM) TO DEVELOP PERSON-CENTRED CARE AND PREVENT AGITATION IN NURSING HOME RESIDENTS WITH DEMENTIA

A. M. M. Rokstad ^{1,*}, K. Engedal ¹

¹Norwegian Centre for Dementia Research, Ageing and Health, Oslo, Norway

Objectives: In this project Dementia Care Mapping (DCM) was used to develop Person-centred Care in three nursing homes in Norway. The aim of the study was to collect experiences in using DCM and evaluate the effect of this method on neuropsychiatric symptoms, quality of life and functional ability.

Methods: Fifty-two residents from six wards in three nursing homes were included. DCM was used as a tool for observation, evaluation and feed-back for the nursing staff over a period of 12 months, and the mapping and feed-back were done three times. Data was collected at baseline and after six and twelve months using the Brief Agitation Rating Scale (BARS), the Cornell scale for depression in dementia, the Quality of life in Alzheimer's disease (QUALID) and the Lawton maintenance scale. The change in mean scores was analyzed using the Wilcoxon Signed-Rank Test.

Results: Change in agitation, depression, quality of life and functional ability is shown in table 1. There was a drop out of 11 (21%) at the first and 19 (36%) at the second follow up measurement due to patients' death or change of address. In the first follow up there was a significant decrease in agitation measured using BARS, but this result was not confirmed at the 12 month follow up. The functional ability in the group of residents deteriorated significantly both at first and second follow up measures. Depression and quality of life was unchanged.

Table 1: Change in agitation, depression, functional ability and quality of life

	Baseline N= 52 Mean (SD)	First follow up N= 41 Mean (SD)	Second follow up N= 33 Mean (SD)
Agitation (BARS)	20.3 (8.5)	16.2 (7.6) p=0.008 **	17.8 (8.6) p=0.114
Depression (Cornell)	5.9 (5.7)	5.2 (5.8) p=0.216	4.3 (5.1) p=0.207
Functional ability (Lawton's maintenance scale)	18.1 (6.0)	18.2 (5.6) p=0.012 *	18.7(5.1) p<0.001**
Quality of life (QUALID)	20.8 (7.0)	20.2 (7.4) p=0.806	20.9(8.2) p=0.796

Conclusion: The sample in this study is small and the drop out rate at the second follow up was high. Taking this into consideration, the use of DCM in a 12 month systematic intervention gave a result of decreased agitation at the first follow up despite decreased scores in functional ability in the group. Controlled studies and larger samples are necessary to confirm this tendency.

Disclosure of Interest: None Declared

P117

THE EFFECT OF THERAPEUTIC TOUCH ON BEHAVIOURAL SYMPTOMS IN A PERSON WITH ALZHEIMER'S DISEASE

B. Brignoli ^{1,*}, R. Crespolini ¹

¹CDI-Alzheimer Arioli-Dolci Treviolo, Treviolo (BG), Italy

Objectives: Between 75 and 90% of nursing home residents with dementia develop behavioural and psychological symptoms (BPSD). Therapeutic touch has been shown to decrease restlessness and agitated behaviours. The purpose of this single case study was to examine the effect of therapeutic touch (Reiki) on BPSD among a resident in a day centre with dementia

Methods: a 78 years old woman attending a daily nursing home with a diagnosis of severe Alzheimer's Disease (MMSE=6/30), a moderate level of autonomy (Barthel Index=70/100) and a high frequency of agitated behaviours at the Cohen Mansfiel Agitation Inventory (CMAI), received an individual session of touch therapy for 4 weeks (three times a week). Measurement of BPSD were made daily using the CMAI, from one week before the intervention up to one week after the touch therapy. A follow-up was made one month and three months after the therapy

Results: significant differences were found in CMAI scores from pre-test to post-test. The follow-up scores confirmed the decrease of BPSD

Conclusion: this single case pilot study, suggests the effectiveness of therapeutic touch (Reiki), to reduce and manage BPSD, particularly restlessness, wandering and aggressive behaviours. Further studies will provide a larger sample and a placebo group

References: - Bowden D, Goddard L, Gruzeliier J. A randomised controlled single-blind trial of the efficacy of reiki at benefiting mood and well-being. *Evid Based Complement Alternat Med.* 2011;2011:381862.

- Woods DL, Beck C, Sinha K. The effect of therapeutic touch on behavioral symptoms and cortisol in persons with dementia. *Forsch Komplementmed.* 2009 Jun;16(3):181-9.

- Hawranik P, Johnston P, Deatrich J. Therapeutic touch and agitation in individuals with Alzheimer's disease. *West J Nurs Res.* 2008 Jun;30(4):417-34.

Doherty D, Wright S, Aveyard B, Sykes M. Therapeutic touch and dementia care: an ongoing journey. *Nurs Older People.* 2006 Dec;18(11):27-30.

Disclosure of Interest: None Declared

P118

SPECIAL CARE CONCEPTS FOR PEOPLE WITH DEMENTIA IN ACUTE CARE HOSPITALS

B. Holle^{1,*}, C. Pinkert¹

¹German Center for Neurodegenerative Diseases (DZNE), Witten, Germany

Objectives: The care of people with dementia (PwD) is one of the outstanding challenges professional caregivers have to face with in acute care hospitals. It is estimated that more than 10% of all patients being treated in German acute care hospitals have dementia. Due to the specific needs of people with dementia several hospitals in Germany have started to develop new care concepts for the specific requirements PwD have during their stay in acute hospitals. So far, there is a lack of studies that systematically assess the different approaches that exists in German acute care hospital. Therefore, the aim of the following study is to describe the different concepts that currently exist in German acute care hospital regarding the care of PwD.

Methods: In the first step an international literature review was done focusing epidemiologic studies concerning the care of PwD in acute hospitals, special risks and care concepts which are already used in hospitals. In the next step guided expert interviews and group discussions with staff members and hospital management within six acute care hospitals using specific concepts for the care of PwD were performed. The interviews focused on internal processes and decisions, as well as on difficulties regarding the implementation of special care concepts for PwD within the institutions. The interviews were analysed using the method of content analysis.

Results: Preliminary results on hospital level show, that each acute care hospital which wanted to implement care concepts for PwD was confronted with an ongoing process of professional discussions and negotiation between the different professionals (e.g. nursing staff, medical doctors, management). Different views existed towards the design and realization of the concepts within the hospitals. The overall level of professionalization and the cooperation between the different professionals seem to be key aspects within the process of implementation dementia specific concepts. Multidisciplinary teams are one of the most important factors for a successful implementation.

Conclusion: The final results of the study including possibilities as well as limits of using “dementia specific concepts” within acute care hospitals will be presented and critically discussed.

Disclosure of Interest: None Declared

P119

THE EFFECTS OF INDIVIDUALIZED LIVE AND RECORDED MUSIC ON PEOPLE WHO HAVE DEMENTIA AND ARE FRAIL AND THEIR CARERS

C. Garabedian ^{1,*}

¹School of Applied Social Sciences, University of Stirling, Stirling, United Kingdom

Objectives: The aims of this exploratory study were to investigate the effects of individualized music on this under-researched and difficult to access population, and to add to the knowledge base on effective research methods with people who have cognitive impairment.

Methods: In order to better inform methods for the main body of this research, in-depth interviews with specialists from various fields were conducted in phase I of this study.

In phase II, based on the realist evaluation model (Pawson & Tilley 1997), research methods included initial and exit interviews with carers, exit interviews with key-staff, video observation of participants, and in-depth field notes. Additionally, four Visual Analog Scales were administered to all participants at the beginning and end of the study, and basic biological measurements were taken from carers before and after each intervention.

Fieldwork involved recruitment of 12 pairs of residents and carers from care/nursing homes in Scotland.

Participants with dementia who were assessed as being especially frail were included in this study. Six-live and six-recorded music interventions of individualized music played on solo cello were conducted with each pair of participants using two video cameras to capture responses.

Analysis of video footage was carried-out using a modified version of 'PIECE-dem' (Brooker et al. 2011). Numerical data was analyzed using descriptive statistics. All data were managed using Nvivo9.

Results: Findings centre on what did and did not work, for whom, and in what circumstances. This paper will discuss issues of relationship and loss and identify some of the barriers and difficulties with research of this nature, including accessing people with dementia who are frail.

Conclusion: This paper will discuss preliminary findings as to what observed effects, individualized music had on this specific population and the feasibility of using music as a remedial resource, as well as providing recommendations for future research with people who have dementia.

References: Pawson R & Tilley N 1997, *Realist Evaluation*, London, Sage.

Brooker D, La Fontaine J, De Vries K, Porter T, Surr C 2011, *The Development of PIECE-dem: An observational framework focusing on the perspective of residents with advanced dementia living in care homes*. University of Worcester, Association for Dementia Studies.

Disclosure of Interest: None Declared

P120

EXPLORING NURSES' EXPERIENCES USING "UNDERSTANDING DIAGNOSTICS" IN DAILY CARE OF PEOPLE WITH DEMENTIA

D. Holle^{1,*}, M. Halek¹, S. Bartholomeyczik¹

¹German Center of Neurodegenerative Diseases, Witten, Germany

Objectives: Challenging behavior of people with dementia (PwD) is one of the primary concerns nurses have to face with in residential care. Studies indicate that 51-89% of residents with dementia in nursing homes show any kind of challenging behavior in the course of their disease. Challenging behavior can be the result of unmet need that people with dementia can no longer communicate directly. The concept of "understanding diagnostics" takes up this issue and focuses on the understanding of challenging behavior. So far only a few studies exist that investigated the use of the concept in daily care of PwD in German nursing homes. Therefore, the following study analyses the experiences of nurses using "understanding diagnostics" within a nine month intervention study.

Methods: The study was part of the InDemA study on the effects of "understanding diagnostics" on residents' QoL and challenging behavior (n = 107). The concept was introduced into 18 different wards of 15 nursing homes by means of educations and structured case conferences on the basis of the assessment IdA. 29 feedback interviews with single nurses and 18 group interviews were conducted to explore nurses' experiences. All interviews were analyzed using the method of hermeneutic text analysis.

Results: Dementia specific case conferences did not take place on a regular basis before the intervention started. With the implementation of "understanding diagnostics" nurses began to look for potential triggers of challenging behavior and changed their behavior towards the residents. They identified reasons for residents' challenging behavior and initiated purposive interventions. Both interactions led to changes in residents' behavior. Barriers within the implementation of "understanding diagnostics" arose from difficulties in moderating case conferences, organizational changes, high staff turnover and lack of time.

Conclusion: The study indicate that "understanding diagnostics" on the basis of structured case conferences and the assessment IdA is a useful method to explore resident's unmet needs. The results provide important information regarding the implementation of "understanding diagnostics" that should be taken in account in further studies.

References: Hardenacke D, Bartholomeyczik S, Halek M (2011). Einführung und Evaluation der Verstehenden Diagnostik am Beispiel des Leuchtturmprojektes InDemA, *Pflege & Gesellschaft*, 16 (2), 101-115

Disclosure of Interest: None Declared

P121

RECRUITING COMMUNITY DWELLING PEOPLE WITH DEMENTIA TO NON PHARMACOLOGICAL RESEARCH TRIALS: LESSONS FROM THE EVIDEM PROJECT

D. Lowery^{1,2,*}, J. Warner^{1,3}, S. Iliffe², A. Cerga-Pashoja^{1,2}, I. Thune-Boyle² and EVIDEM

¹Central & North West London NHS Foundation Trust, ²Department of Primary Care, University College London,

³Imperial College London, London, United Kingdom

Objectives: Recruitment for clinical research involving people with dementia has traditionally been challenging for researchers, particularly when seeking to recruit people who do not reside in a care home. This makes conducting studies relevant to certain parts of the dementia population difficult. 'Evidenced based interventions in dementia' (EVIDEM) is a five year research & development programme aiming to explore, evaluate and improve the quality of community based dementia care (Iliffe S et al. 2008). One of the projects embedded within EVIDEM sought to recruit community dwelling people with dementia, initially focusing recruitment through community based mental health teams and memory clinics (Cerga-Pashoja A et al. 2010). Key NHS Stakeholder support was strong for this study and so we anticipated straightforward recruitment. However, this has not been the case; from a population exceeding two thousand people with dementia, six participants were recruited over six months through clinical teams, despite minimal exclusion criteria.

Our enquiries suggested that there were a number of reasons for the poor recruitment rate. This was in part due to clinicians not distributing invitations, rather than a lack of interest from people with dementia and their carers. With recruitment alarmingly low and struggling to understand the incongruity between verbal support and limited promotion of the study, we invited clinical team recruiters to facilitated roundtable discussions. Several impediments to clinicians identifying participants to the study team emerged. In this presentation we will describe the themes that emerged from our roundtable discussions, the modifications we made to our recruitment strategy and their impact on recruitment rates.

References: Cerga-Pashoja A, et al 2010, "Evaluation of exercise on individuals with dementia and their carers: a randomised controlled trial", *BMC Trials* **11** (53)

Iliffe S, et al 2008, "Making progress in psychosocial research in dementia", *Dementia* **7** (2) 167-174.

Rendell J M, Merritt R K, & Geddes J 2008, "Incentives and disincentives to participation by clinicians in randomised controlled trials (Review)", *Cochrane Database of Systematic Reviews* no. 2.

Disclosure of Interest: None Declared

P122

ART THERAPY: "CLOWN EFFECT" WITH OLD DEMENTED RESIDENTS IN FRANCE

D. Huvent^{1,*}, C. Pagniez¹, I. Delabriere¹, P. Herreman¹ and F. Puisieux¹

¹Geriatric, Hospital les Bateliers CHRU LILLE, Lille, France

Objectives: Clown Therapy for demented patients, who no longer communicate verbally, has not yet been widely explored

AIMS :

- Enhancing these patients' quality of life thanks to creative and sensory therapy which can be stimulating for them
- Helping reduce feelings of isolation and agitation among those residents

Methods: In the Special care Unit that we set up in our hospital 13 years ago, 13 old people live permanently (63 over 95 years old). They have all reached a severe stage of Alzheimer's disease with psychomotor agitation and communication disorders. We offer them an original concept: "Clown Therapy". Two clowns come once a month for five hours, not to produce a show and provide entertainment but to engage in communication with them individually. The clowns have received training in issues relating to illness. Privacy and confidentiality rules are respected.

Results: There is evidence that Clown Therapy influences the well-being and the mood of our patients positively. In many cases it also stimulates their ability to communicate, brings back memories and allows the emergence of feelings and even pleasure. Bringing humor and smiles into facilities could help old demented residents.

Conclusion: (1) Laughter might be good therapy for our AD residents without side effects

(2) In addition to the therapeutic benefit on our patients the presence of clowns is also rewarding for our experienced nurses. It seems to increase their motivation and pleasure to work with old dementia patients.

References: (1) HUVENT D. et al : art therapie : l'effet clown auprès de résidents âgés souffrant d'une maladie d'alzheimer évoluée ou l'art de "gai-rire", La revue francophone de gériatrie et de gérontologie, 2007

(2)chticlownd@free.fr

(3) CHALUMEAU L. et al, Maladie d'Alzheimer et clown de proximité, Gériatrie, 2011

(4) BELL JP., The SMILE Study, 2011

Disclosure of Interest: None Declared

P123

IMPACT OF CEREBROVASCULAR RISK FACTORS OVER THE EVOLUTION OF DEMENTIA DUE TO ALZHEIMER'S DISEASE IN A SAMPLE OF PATIENTS WITH LOW SCHOOLING FROM SÃO PAULO, BRAZIL

F. F. Oliveira^{1,*}, P. H. F. Bertolucci¹, E. S. Chen², M. A. C. Smith²

¹Department of Neurology and Neurosurgery, ²Department of Morphology and Genetics, Federal University of São Paulo - UNIFESP, Sao Paulo, Brazil

Objectives: To evaluate the impact of cerebrovascular (CV) risk factors over the rate of progression of Alzheimer's disease (AD) in patients with low schooling.

Methods: From 129 patients with AD, 103 who had already scored 20 on the Mini-Mental State Examination (MMSE) were classified into two groups: patients scoring 20 within ≤ 3 years, or > 3 years after disease onset. Additionally, 56 patients who had already scored 15 were divided into two groups: patients scoring 15 within ≤ 4 years, or > 4 years after disease onset. Also, 80 patients with a score > 1.0 on the Clinical Dementia Rating (CDR) were allocated into two groups: patients reaching > 1.0 within < 4 years, or ≥ 4 years after disease onset. Patients were assessed for gender, schooling (≤ 8 years, or > 8 years), age of estimated disease onset (< 70 years, or ≥ 70 years), number of CV risk factors (≥ 3 , or < 3 , among hypertension, diabetes *mellitus*, hypercholesterolemia, alcoholism and smoking), weight (≥ 70 kgf, or < 70 kgf), body mass index (BMI ≥ 30 kg/m², or < 30 kg/m²) and waist circumference (≥ 102 cm, or < 102 cm). *Chi-square* was used for statistics, $p < 0.05$.

Results: For all patients (87 female and 42 male), mean estimated age of disease onset was 72.4 ± 6.2 years (range 60-88), while mean schooling was 4.43 ± 3.71 years (range 0-15), mean weight was 63.5 ± 12.9 kgf (range 33-98), mean height was 156.5 ± 9.5 cm (range 134-183), and mean waist circumference was 95.1 ± 12.3 cm (range 64-126). Gender ($p = 0.41$), age at disease onset ($p = 0.89$), BMI ($p = 0.33$), weight ($p = 0.09$) and waist circumference ($p = 0.17$) had no influence over the rate of progression to MMSE=20. For patients who had already scored 15 on the MMSE, neither gender ($p = 0.89$), nor age at disease onset ($p = 0.75$), BMI ($p = 0.53$), weight ($p = 0.38$) or waist circumference ($p = 0.22$) were significant. Considering CDR > 1.0 , there were no significant results for gender ($p = 0.71$), age at disease onset ($p = 0.38$), BMI ($p = 0.47$), weight ($p = 0.18$) or waist circumference ($p = 0.46$). Cumulative CV risk was non-significant for reaching CDR > 1.0 ($p = 0.099$), MMSE=20 ($p = 0.158$) or MMSE=15 ($p = 0.212$). Low schooling was the only significant factor for faster reaching CDR > 1.0 ($p = 0.036$) and MMSE=15 ($p = 0.014$), but not MMSE=20 ($p = 0.539$).

Conclusion: Lower schooling, but not CV risk, had a significant effect for a faster rate of progression of AD, assessed by way of MMSE and CDR scores.

Disclosure of Interest: F. Oliveira Grant/Research Support from: CAPES - Coordenação de Aperfeiçoamento de Pessoal de Nível Superior, Consultant of: Gerson Lehrman Group, P. Bertolucci Employee of: Federal University of São Paulo - UNIFESP, E. Chen Employee of: Federal University of São Paulo - UNIFESP, Grant/Research Support from: FAPESP - Fundação de Amparo à Pesquisa do Estado de São Paulo, M. Smith Employee of: Federal University of São Paulo - UNIFESP, Grant/Research Support from: FAPESP - Fundação de Amparo à Pesquisa do Estado de São Paulo

P126

THE MODERATING EFFECT OF NUTRITIONAL STATUS ON DEPRESSIVE SYMPTOMS IN VETERAN ELDERS WITH DEMENTIA A LONGITUDINAL STUDY WITH SPACED RETRIEVAL COMBINED WITH MONTESSORI-BASED ACTIVITIES

H.-S. Wu ^{1,*}, L.-C. Lin ²

¹Nursing, Chung Shan Medical University, Taichung City, ²Nursing, National Yang-Ming University, Taipei city, Chinese Taipei

Objectives: To determine if the fixed and individualized spaced retrieval (SR) combined with Montessori-based activities can reduce depressive symptoms in veteran elders with dementia through nutritional improvement over a period of time.

Methods: A single-blind, quasi-experimental and longitudinal design was conducted. Twenty-five residents in the intervention group received fixed SR combined with Montessori-based activities over 8-week, totaling 24 training sessions. In the intervention group, thirty-eight residents were given individualized SR combined with Montessori-based activities according to different learning responses of each subject. Twenty-seven residents in the control group just received routine care. The scores of the Chinese version of the Mini-Nutritional Assessment (C-MNA) and the Cornell Scale for Depression in Dementia (C-CSDD) and body mass index were recorded at pre-test, post-test, and 1-, 3-, 6-month follow-ups.

Results: After interventions, the C-MNA scores and body mass index for the intervention and groups were significantly higher than those of the control group over a period of time. In addition, the reduction of C-CSDD scores were significantly influenced by the improvement of C-MNA scores produced by fixed and individualized SR combined with Montessori-based activities.

Conclusion: The nutritional improvement caused by fixed and individualized SR combined with Montessori-based activities can moderate depressive symptoms in veteran elders with dementia. Further studies need to explore the effects of booster sessions.

Disclosure of Interest: None Declared

P127

THE FREQUENCY DISRIBUTION OF DELUSION OF JEALOUSY AMONG PEITEINTS WITH ALZHEIMER DISEASE AT KERMANSHAH PSYCHIATRIC CLINIC- IRAN 2007 - 2011

J. Shakeri ^{1,*}, N. Montazeri ¹, H. Shakeri ¹, N. Shakeri ¹

¹Behavioral Science Research Center, Kermanshah University, Kermanshah, Iran, Islamic Republic Of

Objectives: Alzheimer disease (AD) is the most common form of dementia. Although the course of Alzheimer's disease is unique for every individual, there are many common symptoms. AD is mostly a cognitive disorder with psychiatric symptoms in the senile stage. In the early stages, the most common symptom is inability to acquire new memories, observed as difficulty in recalling recently observed events. When AD is suspected, the diagnosis is usually confirmed with behavioral assessments and cognitive tests. Delusion of jealousy is another sign which can bring about mental health impairment and damage the social system of patients' family. We were interested to study this research to promote the quality of these patients' life.

Methods: In this descriptive study 485 patients (F= %55 and M=%45) who were admitted to the Clinic were screened through a demographic questionnaire, clinical psychiatric interview, and taking mental status history via their families. Collected information was statistically analyzed by SPSS.

Results: The data revealed the patients resided more in the urban areas (%63). The psychiatric sign of delusion was also found in the patients (jealousy [%32] and persecution [%22]). Approximately, %3 of the patients had attempted suicide.

Conclusion: Findings indicate these patients are in need of being at centered of attention when it comes to the matter of treatment. In order to decrease the psychological damage and mental health problems of the patients with Alzheimer's and improve their quality of their life psychiatric treatment should also be considered.

Disclosure of Interest: None Declared

P128

THE VIPS-MANUAL: A GUIDE FOR NURSING HOME STAFF ON HOW TO APPLY THE COMPLEX CONCEPTS OF PCC IN DAILY CLINICAL PRACTICE

J. Røsvik^{1,*}, M. Mjørud¹

¹Norwegian Centre for Research, Education and Servi, Oslo, Norway

Objectives: It is a challenge to apply the complex concepts of PCC in daily care in nursing homes. The VIPS-framework (Brooker 2007) sums up Person centred care (PCC) as it is described by Kitwood (1997): V- **Value** base that asserts the absolute value of all human lives

I – An **individualised** approach, recognizing uniqueness

P- Understanding the world from the **perspective** of the person with dementia

S- Promotion of positive **social environment**

Each of the four elements has six indicators that indicate whether the patients receive person centered care or not.

Objective

To create a manual to help the staff understand what person centered care is in concrete care situations.

Methods: Method

The authors, two registered nurses with experience from clinical practice in the field, have created a manual based on the VIPS-framework after simplifying the Norwegian translation. The manual is written in “everyday” language and describes Kitwood's philosophy by the use of stories of person centered care related to each indicator. The stories are based on practical care situations often told from the perspective of persons with dementia and illustrates a concept of PCC relevant to the behavior of the person. The empathy of the nurses is put into words by recounts of conversations and discussions on how best to meet the situation in a person-centred manner. The manual was used in a pilot study with focus groups in two nursing homes (Røsvik et. al in press). The nurses in the pilot study found the manual easy to read and helped them realize what person-centred care is in everyday situations.

Results: Results

The nurses in the pilot study found the manual easy to read and helped them realize what person-centred care is in everyday situations.

Conclusion: Conclusion

A revision was made and the manual is now implemented in a randomized controlled trial to study the effect of PCC using the VIPS-framework.

References: References:

Brooker, D. (2007). *Person-centred dementia care: Making services better* London: Jessica Kingsley Publishers.

Kitwood, T. (1997). *Dementia Reconsidered: The Person Comes First*: Milton Keynes: Open university Press.

Røsvik, J., Kirkevold, M., Engedal, K., Brooker, D., & Kirkevold, O. A model for using the VIPS framework for person-centred care for persons with dementia in nursing homes: a qualitative evaluative study. *Int J Older People Nurs*, 6(3), 227-236. (In press)

Disclosure of Interest: None Declared

P129

PEARL MAKING A REAL DIFFERENCE TO THE LIVES OF PEOPLE LIVING WITH DEMENTIA

J. Corrigan^{1,*}

¹Dementia Team, Four Seasons Health Care, Wolverhampton, United Kingdom

Objectives: In 2008 Four Seasons Health Care developed and introduced the PEARL project. The aim of this project was to build upon quality care and deliver Excellent Dementia Care.

Initially this benchmarking tool consisted of 100 criteria and over the past 3 years this has grown to 155 which encompass the VIPS module of care.

To date 49 homes have been awarded the PEARL status and the project has been recognised by receiving a number of awards included the Guy Rotherham Care Home Award by the Improvement Foundation as well as Dementia Care Home and Dementia Care Home Manager of the year at the National Dementia Congress.

The elements of Pearl incorporate a wide range of topics including, care documentation, well being, training, alternative therapies and life history work to name but a few.

In 2011 the criteria has been reviewed and now aligned to the new outcomes from the care commission to further help support homes.

Data has been collated from those homes which have been awarded PEARL status and I would like to share with you some of the impacts the PEARL process has had on homes, their staff and the residents who live their (including reductions of anti-psychotic medication) and enable you to see the real difference it is making on the lives of people living with dementia within our care homes.

Disclosure of Interest: None Declared

P130

ART THERAPY AND COGNITIVE EXERCISES FOR ALZHEIMER'S PATIENTS AND CAREGIVERS

J. A. Vargas^{1,*}

¹NON PHARMACOLOGICAL THERAPIES, ALZHEIMER'S FEDERATION, SAN JUAN, Puerto Rico

Objectives: Persons who are diagnosed with Alzheimer's and their caregivers will need new strategies and information for their quality of life, decision-making about their health and their dependency management. The quality of life shall be determined by the need to maintain and preserve the most intellectual activities. Cognitive, methodologically managed activities improve their intellectual capacity, autonomy and well-being if you apply them already since the beginning of the disease in unison with the drug, treatments being added value to its effectiveness. Later it will be harder to integrate this therapy with poor results. Dementia will be, in the first quarter of a century, the great social and health challenge on dependency. Society will experience and analyze the changes in each of the agents involved in the care of the person with dementia, fragile, by age, and, dependent, the loss of functional, recognizing that caregivers, family members or professionals, are exposed population of irrigation to suffer more physical and psychic disorders and intellectual capacity. Art therapists, civil society and careers professionals will share responsibilities and develop strategies for prevention and detection of crisis of the family structure, and create and develop models of care agile and adaptable to change. It is expected that caregivers will only become people with low qualifications and training in care, personal care and household chores. His limited knowledge and educational capacity longer implementation of cognitive stimulation in care, reason that confirmed imposes a new public responsibility, the train and educate these groups in order to ensure a good and proper attention to dementias. For a period of six months for four hours a week art therapy workshops and cognitive exercises will be worked in 12 Alzheimer's patients and their caregivers. The objectives for the Alzheimer's patients will be: improve communication, preservation of identity, and memory stimulation, stimulation of the rhythmic movement, emotional expression and rest and discover the pleasure of creating and its healing power. And for the 12 caregivers reduce emotional disorders, depression, anxiety, stress, insomnia, existential disorientation, lack of autonomy and self-esteem, environmental work and family issues and emotional fatigue.

Keywords: Alzheimer, art therapy, caregivers, cognitive exercises.

Disclosure of Interest: None Declared

P131

PHYSICAL ACTIVITY FOR PEOPLE WITH DEMENTIA: A SCOPING STUDY

L. McCabe^{1,*}, A. Bowes¹, A. Dawson¹, R. Jepson²

¹Applied Social Science, ²Nursing and Midwifery, University of Stirling, Stirling, United Kingdom

Objectives: This paper presents a scoping study which drew on realist review methodology and aimed to identify how physical activity may be of benefit for people with dementia; how and/or if current services provide these benefits, and what support they need to do so.

Methods: The project involved a realist review of the research literature with 26 items identified for review. Mapping of current service provision was undertaken using an online survey with 73 service providers currently providing physical activity for people with dementia in the UK and Australia. A sample of 11 participants were identified from the survey for a follow-up, in-depth interview to explore in more detail the challenges and opportunities for delivering physical activity for people with dementia.

Results: The 26 items included in the realist review provided evidence of the effectiveness of physical activity for people with dementia in terms of improvements in cognition and mood, behaviour and physical condition. The review also showed very significant heterogeneity of studies in terms of populations, interventions, comparators and outcomes.

The survey and interviews showed that service providers were delivering a wide range of services broadly consistent with the scientific evidence, though they did not explicitly draw on this. Service providers tended to take a holistic view of the possible benefits, and focused especially on quality of life and well-being issues, more than specific cognitive, physical and behavioural outcomes highlighted in the literature. Service providers needed more information and resources to develop services more fully and realise their potential.

Conclusion: In conclusion, despite benefits demonstrated in literature and in practice, the mechanisms of action remain poorly understood, and there is a need for further research to optimise interventions and to consider some neglected issues such as delivery at home and in communities, impacts for carers, physical activities through activities of daily living, and individual needs.

Disclosure of Interest: None Declared

P132

THE RISK OF DELIRIUM IN HOSPITALIZED COGNITIVELY IMPAIRED ELDERLY

L. Bergamini^{1,*}, M. Turci¹, M. Veschi¹, R. Chattat², A. Fabbo¹

¹Consultorio Psicogeriatrico, Mirandola, Mirandola, ²Psychology, University of Bologna, Bologna, Italy

Objectives: Several studies have shown the relationship between cognitive impairment and development of Delirium in elderly hospitalized patients. Delirium is associated with a longer hospital stay and increase in mortality. We study the prevalence and incidence of Delirium in elderly hospitalized patients and the relation with prior cognitive impairment and depression.

Methods: Our study involved hospitalized elderly patients for whom it was requested geriatric consultant during hospitalization due to acute confusional state, cognitive impairment or mood disorders, during a 8 months-period. All patients underwent a comprehensive geriatric assessment including cognitive (MMSE) and functional (ADL and IADL) status and detection of behavioural disturbance with Neuropsychiatric Inventory (NPI). Diagnosis of delirium was made with Confusion Assessment Method (CAM) and Delirium Rating Scale (DRS).

Results: The sample consisted in 62 patients (54,8%M,45,2%F; mean age: 80,7±7,2). A percentage (43,5%) of patients already referred to a geriatric memory clinic, 71% of all sample have a cognitive impairment or dementia before hospitalization, 45,2% had mood disorders, 21% had previous delirium during past hospitalization. Mean MMSE was 17,6±6,0. 75,8% of the sample meet DSM IV criteria for Delirium. We identified all clinical subtypes of Delirium (11% hypoactive, 39 % hyperactive, 23% mixed form, 11% subsyndromal). We found a relation between incidence of delirium and moderate-severe cognitive impairment (chi-square 8,6, p=0,01). No relation were found with prior depression. Mean age of delirious patients was higher (t=2,12, p=0,03), and their functional levels measured with ADL (t=-2,88, p=0,006) and IADL (t=-3,36, p=0,001) were lower. Applying ANOVA to evaluate the variability of DRS we found that mean scores of DRS were able to define presence/absence of Delirium and also to differentiate sub-syndromal delirium from delirium [F(4,57)=24,05, p=0,000].

Conclusion: In our sample, as well as described in literature, we found a *positive correlation between development of delirium and low level of cognitive and functional impairment*. More studies are needed to define preventive interventions in these high-risk patients and therapeutic approach (psychosocial interventions especially).

References: Deiner S, Silverstein JH. Postoperative **delirium** and cognitive dysfunction.Br J Anaesth. 2009 Dec;103 Suppl 1:i41-46.

Disclosure of Interest: None Declared

P133

EFFECTIVENES OF MULTISENSORY STIMULATION IN A ALZHEIMER'S SPECIAL CARE UNIT

M. Turci¹, L. Bergamini^{1,*}, A. Bonora¹, G. Menabue², R. Chattat³, A. Fabbo¹

¹Primary Care Department, A.USL Modena, ²Mirandola, Consultorio Psicogeriatrico, Mirandola, ³Psychology, University of Bologna, Bologna, Italy

Objectives: The multi-sensory stimulation is a psychosocial treatment that takes place in a special environment called the "Snoezelen Room" (SR) which offers a failure-free activity by stimulating all of the sensory modalities simultaneously. Evidence shows that the implementation of SR as a therapeutic intervention for older people with severe dementia and behavioral symptoms (BPSD) promotes positive behaviors and reduces maladaptive behaviors.

Methods: Multisensory Treatment: each session was carried out in the presence of a therapist and consisted of using the sensory stimuli present in the SR. The stimulations were chosen based on preferences expressed by each patient and their past experiences. All participants received pharmacological therapy that was not changed during the period of the multisensory treatment. Behavioral changes were measured with: NPI (Neuropsychiatric Inventory) and GAS (Goal Attainment Scaling) a clinically relevant outcomes measures of interventions in cognitive disorders. Data were collected during admission and discharge from the care unit. Two groups of 7 patients (with similar features) living in a Special Care Unit and affected by severe Alzheimer disease and BPSD only the first group was treated with the multisensory stimuli in the Snoezelen Room. The effect of the multisensory stimulation was tested by measuring the NPI score difference between the admission(T0) and the discharge(T1) in the two groups and in the GAS changes into the experimental group

Results: in the NPI test we have significant differences with the *Paired Sample T-test*: Significant reduction of the global scores ($t=7.58$, $p<.001$) and good correlation ($r=.86$, $p=.01$) between T0 and T1 scores in the experimental group. **In the GAS** we have significant difference in the global scores (Lambda Wilks= .262, $F(1,6)= 16.88$, $p<0.01$), and good contrast within subjects in the specific domains ($F(1,6)= 16.88$, $p<0.01$). Correlation (r di Pearson) of T0, T1 and Δ of GAS e NPI in the experimental group. No significant correlation between T0 and Δ ; T1 scores approximate the significance ($r=-.452$, $p=0.3$)

Conclusion: The multisensory intervention (Snoezelen Room) can be considered an effective approach for the management of the BPSD in patients affected by Alzheimer's disease. GAS seems to be useful in evaluating outcome of the multisensory intervention for elderly patients with cognitive deficit and behavioural disorders.

Disclosure of Interest: None Declared

P134

MODELING AN INTERVENTION STUDY TO IMPLEMENT AND EVALUATE “UNDERSTANDING DIAGNOSTICS” IN DAILY CARE OF RESIDENTS WITH DEMENTIA.

M. Halek ^{1,*}, D. Holle ¹, S. Reuther ¹, I. Buscher ¹, S. Bartholomeyczik ¹

¹Witten, German Center for Neurdegenerative Diseases, Witten, Germany

Objectives: Managing challenging behavior is one of the primary concerns nurses have to face with in long-term care. Therefore, in 2006 the German Ministry of Health released a nursing guideline which contains 7 recommendations to support caregivers in their daily work of people with dementia (PwD) and challenging behavior (BMG 2007). The first recommendation refers to “understanding diagnostics”. Nurses first have to understand why a PwD behaves as she/he behaves in order to omit or release purposive interventions. So far, little research is done regarding the implementation and evaluation of “understanding diagnostics” in German nursing homes. The aim of the following project is to develop an intervention study to implement and to evaluate “understanding diagnostics” in residential care of PwD in German nursing homes.

Methods: The modeling process includes several steps:

1. Operationalisation of “understanding diagnostics” regarding to challenging behavior: Development of an assessment instrument (IdA) for description and analysis of challenging behavior and conceptualization of case conferences for implementing “understanding diagnostics”.

2. Pilot testing: Test of IdA (Validity and Practicability) and evaluation of case conferences.

3. Modeling and Refining components of intervention: Development of implementation plan and a differentiated schedule for case conferences, refining of the educational package.

4. Intervention study: Evaluation of the effects of “understanding diagnostics” on residents’ challenging behavior and QoL as well as on nurses’ stress and learning procedures and the evaluation of implementation process of “understanding diagnostics”.

Results: The result of the steps 1 to 3 will be presented as well as the design of the intervention study that will be used to evaluate the effects of “understanding diagnostics” and its implementation within daily care of PwD (step 4).

Conclusion: Modeling an intervention study to investigate the implementation and effects of psychosocial intervention like the concept of “understanding diagnostics” is rather complex due to the multitude of different factors that have to be taken into consideration within the development of an intervention study.

References: Bundesministerium für Gesundheit (Eds) (2007). Rahmenempfehlungen zum Umgang mit herausforderndem Verhalten von Menschen mit Demenz in der stationären Altenhilfe.

Disclosure of Interest: None Declared

P135

THE MANAGEMENT OF PATIENTS WITH DEMENTIA: THE KEY ROLE OF AN ALZHEIMER SPECIAL CARE UNIT

A. Bonora ¹, A. Fabbo ¹, F. Orsi ², R. Chattat ³, M. Turci ^{1,*}, L. Bergamini ¹

¹Primary Care Department, A.USL Modena, ²Mirandola, CISA- ASP Area Nord, ³Department of Psychology, University of Bologna, Mirandola, Italy

Objectives: Nearly 60 percent of nursing home residents have Alzheimer's or another dementia. Alzheimer Special Care Units (SCUs) exist to better meet dementia residents' needs. Special care unit growth has become a challenge for Alzheimer advocates concerned about the quality of long-term care. A good Alzheimer Special Care Unit creates a therapeutic environment that uses several different techniques that serve to keep the resident independent for a longer period of time in a safe, caring environment.

Methods: the Mirandola's Alzheimer special care unit has 15 places for people with dementia with severe BPSD and burden of the family. Our aim is to built a complete management program for the patient and the family during the time of the admission and after the discharge. We make a patient 's multidisciplinary assessment at the admission and discharge. Every person has an individual care project. We propose pharmacological and also psychosocial treatments like occupational therapy and multisensory therapy in a prosthetic environment. We included psychological and formative program for the caregivers

Results: From 2008 to today have been hospitalized 54 people (17 males), of which 11 are still inside the centre. The average stay was about 106 days. The mean age is 81 years. Patients were treated with psychosocial approaches (like as occupational Therapy and Multisensory Stimulation). The comparison (t-test paired samples) between the NPI total score obtained at the admission (mean global score=40,22) and the discharge (mean global score=30,48) shows a significant difference (p=0,000), in particular at the Agitation item (p=0,000). Furthermore, the number of antipsychotics (typical and atypical) was decreased. 55% of the patients discharged (living) come back to home with their family

Conclusion: Our experience seem to demonstrate the effectiveness of Special Acute Care Units for patients with AD and other related disorders in the management of BPSD, in the reduction of the use of antipsychotics and in an effective home management program.

Disclosure of Interest: None Declared

P136

THE GRIMM BROTHERS AGAINST ALZHEIMER'S

M. De Sant Anna ^{1,*}

¹Bagneux, Villa Garlande Geriatric Home, Bagneux, France

Objectives: In 2008 the HAS underlined the importance of non pharmacological interventions for patients suffering from AD. The targets are: slow down the cognitive decline, affect behaviour disorders, reduce dependency, increase communication and self esteem.

The Grimm brothers fairy tales are schematic stories which may favour autobiographical memory and methodic exercises based on those stories can stimulate different cognitive functions.

In our institution we had groupe interventions based on this method and as a result, patients increased their language fluence and there was an impact in motivation; therefore, a few targets have been achieved.

As we had constraints to offer those interventions (such as budget considerations) we decided to write down the method. It was published in March 2011 and since then, different professional and patients are using it all over France.

References: Renforcement cognitif par les contes de fées
Solal éditions, Martha de Sant'Anna

Disclosure of Interest: None Declared

P137

THE IMPORTANCE OF OUTSIDE FOR PEOPLE WITH DEMENTIA

M. Marshall ^{1,*}, A. Pollock ²

¹Dementia Services Development Centre, Stirling, ²Dementia Services Development Centre, University of Stirling, Stirling, United Kingdom

It is crucially important that people with dementia go outside regularly for their physical and mental health, and to reduce challenging behaviour, yet there is increasing evidence that this does not happen for residents in care homes and patients in hospital. This presentation will refer to this evidence and will describe research to illustrate why going outside is essential. It will then provide some guidance on the design features relating to access and to the design of the outside space itself that make it more likely that outside space will be used successfully for people with dementia. The connection with a reduction in medication will be made as will the advantages for staff in these settings.

Disclosure of Interest: None Declared

P138

WHOLE FOODS BRAIN HEALTHY NUTRITION INTERVENTION IN ASSISTED LIVING

N. B. Emerson Lombardo ^{1,*}

¹Neurology, Boston University School of Medicine, Boston, MA, United States

Objectives: A growing number of studies suggest that diets can either reduce risk and slow cognitive decline, or hasten brain demise. Many particularly potent anti-oxidant nutrients such as spices, herbs, certain vegetables and fruits have been shown to have protective effects in animal models of AD. Certain spices have similar effects as cholinesterase inhibitors approved for AD. One study in fly and mouse model found that cinnamon could inhibit oligomerization of A-beta; another found similar action by grape seed extract. Studies of established comprehensive diets such as the Mediterranean Diet or the DASH anti-hypertensive diet, can do more than single foods or nutrients in protecting the brain. Using all available brain health related evidence, we designed a whole foods Memory Preservation Nutrition (MPN) program emphasizing synergistic contributions of increasing plant foods, especially spices and vegetables, Omega-3's, foods with anti-oxidant, anti-inflammatory properties, and attenuating insulin resistance, together with reducing amounts and oxidation of LDL cholesterol. We report our experience of implementing this program for over 4 years in six U.S. Assisted Living communities serve group meals to about 500 older adults.

Multi-faceted clinical intervention which includes training and educational sessions with all facility staff (not just food services), with residents, families and referral sources. Periodic assessments and efforts to make further improvements are performed with respect to menus, recipes, pantry contents, dining experience and customer service. Changes occur in phases, with response to feedback. Goal is to achieve continual improvements toward brain healthy delicious foods that residents enjoy eating.

Results to date suggest feasibility and acceptance of this model nutritional program in 6 AL communities. In addition, education and workshop sessions with residents, staff and food services has to be ongoing given continual turnover as well as changes in food stuffs from vendors. Staff and referring providers appear eager to learn about better nutrition for themselves as well as their clients. Brain Healthy food tasting events appear to be among most effective teaching models for both residents and staff.

It is feasible to introduce brain healthier nutrition programs for older adults. These types of programs may become mainstream for both treatment and prevention purposes.

Disclosure of Interest: None Declared

P140

MUSIC THERAPY IN DEMENTIA: A SYSTEMATIC LITERATURE REVIEW USING A NARRATIVE SYNTHESIS FORMAT

O. McDermott^{1,2,*}, N. Crellin¹, H. M. Ridder², M. Orrell¹

¹UCL Mental Health Sciences Unit, University College London, London, United Kingdom, ²Doctoral Programme in Music Therapy, Aalborg University, Aalborg, Denmark

Objectives: The benefits of music therapy (MT) for people with dementia have long been recognised. However, MT systematic reviews have limitations so there is a need to evaluate not only 'what' works but also 'how'. This review uses a narrative synthesis (NS) approach to systematically evaluate literature on MT in dementia in order to determine evidence for effectiveness.

Methods: Electronic and hand-searches of literature identified 263 potentially relevant studies. 15 quantitative and 3 qualitative/mixed methods studies met the full inclusion criteria. Two reviewers independently conducted quality assessment of the selected studies. Any discrepancies in the scores were discussed and resolved. Analysis and synthesis of the studies was conducted using the NS tools including the four key elements (theory development, preliminary synthesis, exploration of the relationships between the studies, assessment of the synthesis).

Results: The quantitative and mixed-methods studies aimed to assess effects of MT on: 1) reducing behavioural and psychological symptoms, 2) inducing physiological changes, or 3) improving carer/care-receiver relationships. Qualitative elements of the studies focused on exploring the effects of MT on improving quality of life of people with dementia. Methodological approaches varied greatly between the studies. The weaknesses of the studies included: lack of explanations on study designs, use of quantitative outcome measures that were not psychometrically validated and limited explorations on why and how the interventions may have worked.

Conclusion: The narrative synthesis of music therapy studies has distinct advantages including increased transparency in reviewing both qualitative and quantitative research.

Disclosure of Interest: None Declared

P141

REMEMBERING TOGETHER: REMINISCENCE TRAINING (RTRT): A CROSS-EUROPEAN PROJECT ON REMINISCENCE FOR FAMILIES LIVING WITH DEMENTIA

P. Schweitzer^{1,*}

¹University of Greenwich, European Reminiscence Network and Honorary Research Fellow in the Humanities Department, Greenwich, United Kingdom

Objectives: In this paper I shall explain how European Reminiscence Network partners in 11 countries are co-operating on a reminiscence in dementia care project. In each country, two groups of 8 families have met over a number of weeks to share memories around key stages in their lives. The project is focused on the central relationship between carer and cared for, so they attend the groups together and revisit their past shared lives. They have benefitted from multi-sensory stimuli and worked through music, dance, drama and visual art to explore and exchange memories. The family carers have received additional input in how to incorporate reminiscence into their daily lives in order to stimulate their relative and to provide a more varied range of activities.

The families have been supported in the making of artistic end-products. Over a number of weeks they have worked with the support of artists to create Memory Boxes, life story books, cushion covers, wall-hangings and flags celebrating their lives. The process of reviewing their lives together in the presence of the artist and then together constructing their chosen end-product has helped to put the present demanding situation in the context of a shared lifetime. The products of this Europe-wide reminiscence project will hopefully be displayed in London at the time of the ADI conference for delegates to see.

The 11 Network partners are co-operating on a website featuring the RTRT programme, its methods, its results and its products. We aim to launch the website at ADI.

The presentation will include images and video.

Disclosure of Interest: None Declared

P142

EXAMINING THE COST EFFECTIVENESS OF DEMENTIA CARE MAPPING (DCM): INTERNATIONAL, EVIDENCE-BASED APPROACHES

P. Edwards^{1,*}, C. Fusek², A. Post³

¹University of Bradford, University of Bradford, Bradford, United Kingdom, ²Alzheimers Disease Association, Singapore, Singapore, ³De Friese Wouden / DCM Nederland, bERGUM, Netherlands

Objectives: There is a need to improve the quality of care for people with dementia. At the same time there is a need to keep costs to a minimum. With growing numbers of people with dementia these needs will only become more acute. Dementia Care Mapping (DCM) is a recognized approach to practice development in dementia care (NICE/SCIE, 2006) and measure of quality of life (NAO, 2010). There is a compelling need to address the humanistic and economic driver in embedding person centred care

This workshop will provide an overview of some of the cost measurement models that practitioners and researchers are using to investigate the cost effectiveness of the internationally recognised practice development methodology DCM. We will describe the challenges of measuring tangible and intangible care outcomes and propose solutions to their measurement.

This session will be of interest to a broad range to health and social care providers who are looking to measure cost effectiveness of psycho social interventions.

We will look at varying approaches at how hard (cost of anti psychotic medication, staff turnover) and soft (wellbeing, staff satisfaction) practice outcomes can be measured. In this session we will share case examples from practice and ongoing research across Europe and Asia.

The session will be interactive with contributions from Paul Edwards, University of Bradford, UK- Carol Fusek, Alzheimer's Disease Association, Singapore and Aukje Post, De Friese Wouden Netherlands.

Disclosure of Interest: None Declared

P143

TRANSFORMING INSTITUTIONAL PSYCHOGERIATRIC DAY CARE INTO LOW THRESHOLD COMMUNITY-BASED SUPPORT CENTRES FOR PEOPLE WITH DEMENTIA AND CARERS: AN IMPLEMENTATION STUDY

R.-M. Dröes^{1, 2, 3, *}, M. V. Dijk^{2, 4}, F. Meiland^{1, 2}

¹Nursing home medicine/Psychiatry, ²EMGO-institute for health and Care Research, ³Amsterdam Center on Aging,

⁴Nursing home medicine, VU University medical center, Amsterdam, Netherlands

Objectives: The Meeting Centres Support Programme (MCSP, Dröes et al., 2004) for people with dementia and their carers has proven to be an innovative example of high quality, cost-effective, support, that makes it easier for people to timely ask for help, and to stay socially integrated. Participants with dementia have less behaviour and mood problems, higher self esteem, and can longer continue living at home, while their carers feel more competent in caring and less burdened. The aim of this implementation study is to investigate the transformation of traditional psychogeriatric day cares in nursing homes into low threshold psychogeriatric day care centres in the community according to the MCSP-model. Based on the results a practical guide will be made to support providers of day care in making this transition.

Methods: Five day care centres, willing to perform the transition, are followed the year before and the year after the transition. To evaluate the (cost-)effectiveness of the new day cares data are collected with standard questionnaires among people with dementia (eg severity of dementia, needs and quality of life), their informal carers (eg sense of competence, feelings of burden) at the start of participation and after 3 and 6 months. Also, data are collected among professional carers in the centres (eg work satisfaction). Facilitators and barriers in the transition process are studied by interviews with key figures.

Results: First analysis of implementation issues on a micro level (eg criteria for target group of people with dementia and carers) and meso level (organisational aspects) show that close cooperation with regional care and welfare organizations, financial investments of the municipality, the possibility to adjust the MCSP-model to the local situation, and a suitable location are examples of facilitators of the transition. Barriers are difficulties of some staff members to work according to the new (demand-oriented) model, efforts needed to gain support from partner organizations and other meeting centres yet present in the region.

Conclusion: Based on the first study results, a preliminary transition model is presented to support regular day cares to make the transition to low threshold community-based support centers.

References: Dröes, R.M. et al. *International Journal of Geriatric Psychiatry*, 2004, 19: 1-12.

Disclosure of Interest: None Declared

P144

SYSTEMATIC REVIEW AND META-ANALYSIS OF INTERVENTIONS FOR COPING IN CARERS OF PEOPLE WITH DEMENTIA

R. Li ^{1,*}, C. Cooper ¹, A. Austin ¹, G. Livingston ¹

¹Mental Health Sciences, UCL, London, United Kingdom

Objectives: Dementia family carers experience high levels of anxiety and depression. Carer coping styles predict such morbidity cross-sectionally and likely also longitudinally. Therefore coping is an important intervention target. We systematically reviewed and meta-analysed the efficacy of interventions for carer coping, and explored the relationships between changes in coping, depression and anxiety.

Methods: We performed an electronic search to July 2011 for peer-reviewed publications using the keywords: dementia AND carers AND coping AND trial, supplemented by hand-search. We included randomised controlled trials (RCTs) of any intervention reporting coping strategies of dementia family carers using standardised measures.

We rated study quality using a standardised checklist. We extracted outcome data for carer depression, anxiety and coping (solution-focused, emotional support and acceptance-based, dysfunctional). We calculated standardised mean differences (SMDs) and relative risks (RR) using fixed-effects meta-analysis.

Results: From 430 studies identified by the search, 10 met inclusion criteria. All were of interventions on family carers.

Group CBT (cognitive-behavioural therapy) resulted in less depression versus control (4 studies, N = 360, SMD = 0.36 [0.15 – 0.57]), whilst showing no significant effect on dysfunctional coping. One study showed increased use of emotional support and acceptance-based coping (N = 86, RR = 2.24 [1.38 – 3.65]) versus control, but studies reporting continuous measures showed no effect.

Individual CBT showed no benefit on depression or anxiety. There was a small effect of increased solution-focused coping versus control reaching significance (2 studies, N = 155, SMD = 0.28 [-0.04 – 0.61]). There were no significant effects on other forms of coping.

Multimedia CBT (2 studies, N = 364) and cognitive stimulation (1 study, N = 36) showed no significant effect on any outcome measure.

Conclusion: There is good evidence that group CBT reduces depressive symptoms in dementia carers. We found no evidence that any intervention decreased use of dysfunctional coping strategies, suggesting any improvement in depression was unlikely to be mediated by dysfunctional coping. Overall, there are large gaps in the evidence base. Good quality RCTs with adequate power and follow-up are needed to determine benefits of intervention.

Disclosure of Interest: None Declared

P145

THE EFFECT OF MUSIC ON PATIENT WITH DEMENTIA AND SEVERELY DISTURBED SLEEP PATTERNS

S. Mori ^{1,*}, Y. Kimuro ²

¹Basic Medical Science , Saga University, Saga, ²Nursing, Fukuoka jyogakuin nursing college, Fukuoka, Japan

Objectives: The purpose of this study is to investigate the effect of regular music intervention on a dementia patient for sleep-awake patterns.

Methods: The patient is an 86-year-old. Female living in a nursing home in Japan. Her mini mental state examination was 4 point. She is confined to a wheelchair and needs help when she moves. Her sleep pattern is irregular. She formerly liked music and responded well to it. Actiwatch (Mini-Mitter, Actiwatch64) was used to measure her sleep pattern. (Actiwatch is an activity monitor, designed for long term monitoring of total motor activity in human). With regard to music, I discovered to the patient's favorite songs and tunes from earlier in her life, and ascertained which ones made her active or calm beforehand. I discarded music that had upset her when she listened to it, such as songs from the war. She listened to the music at regular times in the morning and at night. I used the music that made her active ,to which she sang or beat time with her hands, to help her wake up in the morning, and calm music in the evening to help her sleep peacefully. The total period was 10weeks, a 4-week intervention period with 3 weeks for no intervention both before and after. I compared the sleep and awake pattern by sleeping-awake time and Fast Fourier Transform (FFT), before and after intervention period Approval for the study was received from saga university in Japan and president of nursing home .Also we had consent to patient's family about research.

Results: FFT pattern during music intervention is close to normal pattern. Frequency time during music intervention has small unevenness and is close to normal 24 hours pattern compared to the one before music intervention. Moreover, after music intervention, the gap between maximum and minimum of cycle period is getting bigger again. As a result of frequency analysis, Average of number of power spectrum peak is smallest during music intervention compared to other period. It shows that there is less fluctuation in life cycle when there is music .

Conclusion: The patient with dementia experiencing severe sleep pattern disturbance had improved sleep-wake time and patterns when they listen to familiar music regularly.

Disclosure of Interest: None Declared

P146

DEVELOPING COGNITIVE STIMULATION THERAPY (CST) GROUPS FOR ETHNIC GROUPS

S. Mahmood ^{1,*} and Dr Saman Ahmed (CT2 psychiatry), Prof Martin Orrell (Professor of Ageing and Mental Health, UCL and NELFT), Dr Hillary Kinsler (Consultant memory service).

¹Psychiatry, North East London Foundation Trust, Ilford, United Kingdom

Objectives: CST has been shown to be clinically effective and cost effective for dementia but its English heritage has restricted its use for ethnic groups in the UK.

The aim of this project was to modify the CST groups for older people from the Indian subcontinent and make CST accessible for people who are fluent in Urdu, Hindi or Punjabi but non fluent in English.

Methods: The original CST manual was adapted using cultural and ethnic issues relevant to the Indian subcontinent. People with dementia were recruited from the Redbridge area. People with severe dementia and sensory impairment were excluded.

The group was conducted in Urdu/Hindi and Punjabi. The introduction used an old Indian song as background music, and activities were adapted to include traditional games such as the Carom board, and traditional groceries for the using money and categorising objects sessions. Other modifications included famous people from the sub-continent, and participant's experiences around the India/Pakistan division and migration. Two sessions of 50 mins each were grouped together with a tea break in between to cater for longer sessions like curry cooking, snack making and gardening.

Results: The experience of attending CST was seen as very positive and most participants reported not only cognitive benefits but marked improvement in mood and apathetic behaviour. They seemed to gain confidence in communication and day to day activities. Positive feedback was given by carers "though my mum is not cured but there are instances when her memory was nearly back to normal" "mum enjoys interacting with others that speak her language as she likes telling stories of her childhood"

Conclusion: Core knowledge of local culture and language is essential in modifying CST for other population groups. CST modules should be adjusted according to the needs of the community and this study suggests it could be easily modified to make it available for use in developing countries.

References: 1-Making a difference---The manual for group leaders (Aimee Spector, Lene Thorgrimsen, Bob Woods, Martin Orrell).

2-International Journal of Geriatric Psychiatry—20 446-451;(Orrell M, Spector, Thorgrimsen L, Woods R,(2005) a pilot study examining the effectiveness of maintenance cognitive stimulation therapy (CST) following CST for people with dementia.

Disclosure of Interest: None Declared

P147

CHALLENGING BEHAVIOUR IN CONTROL: A STRUCTURED MULTIDISCIPLINARY APPROACH TO THE MANAGEMENT OF BEHAVIOURAL PROBLEMS

S. Zwijsen ^{1,*}, M. Smalbrugge ¹, D. L. Gerritsen ², A. M. Pot ^{3,4}, J. A. Eefsting ¹

¹Nursing home medicine, VUMC - EMGO+, Amsterdam, ²Department of Primary and Community Care, Centre for Family Medicine, Geriatric Care and Public Health, Radboud University Nijmegen Medical Centre, Nijmegen,

³Department of Clinical Psychology, VUMC - EMGO+, Amsterdam, ⁴Netherlands Institute of Mental Health and Addiction, Utrecht, Netherlands

Objectives: Over 80% of residents living in dementia special care units show symptoms of behavioural problems. Not only do behavioural problems cause a diminished quality of life in residents, they also affect workload and staff burden. Although various guidelines on the management of behavioural problems or “challenging behaviour” are available, the amount of residents with behavioural problems only seems to be rising. We therefore developed a care programme that integrates the guidelines and structures the multidisciplinary management of challenging behaviour. The aim of this study is to evaluate the implementation process and the effectiveness of the care programme.

Methods: With a team of experts and care professionals we developed a structured, multidisciplinary care program. The care program will be implemented on 17 dementia special care units in the Netherlands. Through semi-structured interviews, the implementation process will be evaluated. To evaluate the effectiveness of the care program, we will collect data regarding behavioural problems, quality of life of residents, workload, and staff burden. Also, the cost-effectiveness of the care program will be evaluated.

Results: We developed a care program that consists of four phases: Detection, Analysis, Treatment and Evaluation. In each step, different disciplines (nursing staff, psychologist, physician) have their own tasks and responsibilities. Currently, 11 of the 17 dementia special care units have received the training in using the care program. Results on the effectiveness of the care program are not yet available. Qualitative interviews for process evaluation purposes show that nursing staff is getting more insight into the behavioural problems and that psychologists and physicians evaluate the care program as supporting their work and clarifying their work process.

Conclusion: Current data on the process evaluation shows a positive appreciation of the care program by the care professionals. The care program is also expected to have a positive effect on the frequency of BPs in nursing home residents with dementia and on their quality of life. The study will further provide insight in the cost-effectiveness of the care program.

Disclosure of Interest: None Declared

P148

THE KING'S FUND'S ENHANCING THE HEALING ENVIRONMENT (EHE) PROGRAMME PROMOTING DIGNITY, INDEPENDENCE AND FULFILMENT FOR PEOPLE WITH DEMENTIA IN HEALTHCARE ENVIRONMENTS

S. Waller ^{1,*}, A. Masterson ¹

¹The King's Fund, London, United Kingdom

Objectives: 25% of people accessing acute hospital services are likely to have dementia and the number of people with dementia is expected to double over the next 30 years (National Audit Office 2010). Hospital stays and ward environments can have a detrimental effect on the independence of people with dementia (Alzheimer's Society 2009). Yet, relatively straightforward and inexpensive improvements to the design and fabric of the care environment can have a strongly positive impact on the well being of people with dementia while in hospital. In particular simple interventions such as the use of colour and contrast to aid orientation can assist in the maintenance of privacy, dignity and confidence thereby reducing agitation and distress. Similarly bright and even lighting, which can be adjusted depending on the time of day prevents visual misperceptions, illusions and hallucinations e.g. high stepping over shadows, and helps people to find their way around safely. The King's Fund's innovative, award winning, EHE programme effects service improvement through environmental change by providing clinically led multidisciplinary teams, including service users and estates staff, with the knowledge and skills to undertake environmental improvement projects.

This presentation will:

- Share the emerging evidence from the King's Fund programme in 23 mental health and acute hospitals demonstrating the link between environmental transformation and positive outcomes for patients including:
 - Reduction in the use of anti-psychotic medication,
 - Significant reduction in incidents of violence and aggression,
 - Significant reduction in falls, and
 - Increased engagement in meaningful activity as well as improvements in staff morale, recruitment and retention.
- Highlight the implications for practice for professionals, researchers, policy makers. people living with dementia, and informal and professional carers.
- Make the case for further investment in research into the impact of the physical hospital environment on people with dementia.

References

Alzheimer's Society 2009, *Counting the cost*, Alzheimer's Society, London.

National Audit Office 2010, *Improving dementia services in England - an interim report*, National Audit Office, London.

Disclosure of Interest: None Declared

P149

NON-PHARMACOLOGICAL TREATMENTS IN A DEMENTIA CARE UNIT: ITS USE IN A PATIENT WITH DEMENTIA DUE TO HUNTINGTON'S DISEASE

S.-J. Chen ^{1,*}

¹Department of Psychiatry, Yuli Veterans Hospital, Yuli Mental Research Center, Hualien, Chinese Taipei

Objectives: To evaluate the efficacy of non-pharmacological treatment use in a dementia care unit, we did the survey of demented patients in a dementia day care unit and demented ones of a psychiatric clinic in eastern Taiwan

Methods: Evaluate the difference of psychotropic medication use between demented patients in a dementia day care unit and demented ones of a psychiatric outpatient department in a general hospital in eastern Taiwan in the selected month

Case report of non-pharmacological treatments in a patient with dementia due to Huntington's disease

Results: In the dementia day care unit, only 20% received 2 or more than two psychotropic drugs. We also checked the demented patients in the outpatient department. In the contrast, those from the outpatient department 57.5% received 2 or more.

Those demented ones from the outpatient department had significantly higher frequencies about anxiolytics and hypnotics use.

Non-pharmacological treatments in the dementia day care unit included behavior therapy, reminiscence therapy, and art therapy.

Case report:

Huntington's disease is a disease with multiple CAG repeats and autosomal-dominant Here we present the case of a woman with Huntington's disease who received non-pharmacological treatment in the day hospital...

The patient's Neuropsychiatric Inventory (NPI) score decreased from 64 to 21 in 2 months.

Conclusion: Non-pharmacological treatments were likely to reduce psychotropic medication use in the dementia day care unit. Integration of pharmacological & non-pharmacological treatments in the demented day care unit might provide a better therapeutic model in dementia care. Psychotropic drugs, especially anxiolytics and hypnotics use, could be reduced in demented people in the dementia day care unit other than those ones in the outpatient department. In the case report, we also noticed the demented patient with Huntington's disease with reduced NPI under less psychotropic medication

References: Landles C, Bates GP: Huntington and the molecular pathogenesis of Huntington's disease: fourth in molecular medicine review series. EMBO Rep 2004; 5:958–963

Bonelli RM, Wenning GK, Kapfhammer HP: Huntington's disease: present treatments and future therapeutic modalities. Int Clin Psychopharmacol 2004; 19:51– 62

Forbes DA: Review: sparse evidence supports non-pharmacological interventions for preventing wandering in people with dementia. Evid Based Nurs 2007; 10:15

Disclosure of Interest: None Declared

P150

HOW MOTIVATED ARE PEOPLE WITH MILD ALZHEIMER'S DEMENTIA TO PARTICIPATE IN A NON-PHARMACOLOGICAL INTERVENTION? COMPARISON WITH OTHER PATIENTS, CORRELATES, AND PREDICTION OF OUTCOME

S. Forstmeier^{1,*}, L. Pfeifer¹, T. Roth²

¹Dept. of Psychology, University of Zurich, ²Psychiatric University Hospital Zurich, Department of Gerontopsychiatry, Zurich, Switzerland

Objectives: Sufficient motivation for psychosocial treatment is an important prerequisite for its progress and outcome. The aim of this study is, first, to compare the motivation for psychotherapy of people with mild Alzheimer's dementia (AD) with patients receiving psychotherapy for other reasons; second, to examine the correlates of motivation for psychotherapy; and third, to investigate motivation for psychotherapy as predictor of treatment outcome.

Methods: We used data from the "Cognitive-Behavioral Treatment for Mild Alzheimer's Patients and their Caregivers" (CBTAC) study. The CBTAC study is a randomized controlled trial that evaluates the effect of a multi-component treatment programme on the health of patients with mild AD and their caregivers. The Questionnaire on Psychotherapy Motivation (FPTM-23, Schulz et al., 2003) was used to assess six aspects of motivation for psychotherapy. Other characteristics of the patient with dementia were assessed using Bayer Activities of Daily Living (B-ADL), the Geriatric Depression Scale (GDS), and the Apathy Evaluation Scale (AES). With the caregiver, the Satisfaction with Life Scale (SWLS) was used. In addition, the Anosognosia Questionnaire for Dementia (AQ-D) was used to assess awareness as a discrepancy measure.

Results: Compared to cognitively unimpaired psychotherapy patients treated for various mental disorders, people with mild AD receive comparable symptom-related attention and deny the need of psychosocial help to the same extent, but have significantly less psychological strain, hope, initiative, and knowledge (these are the 6 aspects of motivation). More psychological strain, hope, and initiative is mainly associated with higher caregiver's satisfaction with life, more symptoms of depression, less symptoms of apathy and functional disturbances, and more awareness of the disease. Results with regard to the prediction of treatment outcome will be presented at the conference.

Conclusion: These results suggest that experiencing depressive symptoms facilitates motivation for psychotherapy, but symptoms of apathy, functional impairment, and anosognosia impede motivation. An early evaluation of motivation for psychotherapy could thus offer a diagnostic aid in specifically preparing the patient for treatment and/or modifying the treatment to meet the patient's needs.

Disclosure of Interest: None Declared

P151

CAN A CULTURALLY APPROPRIATE, HOME-BASED EXERCISE INTERVENTION PROGRAM ENHANCE COGNITIVE FUNCTION OF PEOPLE WITH DEMENTIA IN BANGKOK, THAILAND?

S. Karuncharnpanit^{1,2,*}, J. Hendricks¹, C. Toye³, D. Galvao^{4,5}, R. Newton⁵, O. Krairit⁶

¹School of Nursing and Midwifery, Edith Cowan University, Perth, Australia, ²Borommarajonani College of Nursing, Chakiraj, Ratchaburi, Thailand, ³School of Nursing and Midwifery, Curtin Health Innovation Research Institute, Curtin University, ⁴Edith Cowan University Health and Wellness Institute, ⁵School of Exercise and Health Sciences, Edith Cowan University, Perth, Australia, ⁶Faculty of Medicine, Ramathibodi Hospital, Mahidol University, Bangkok, Thailand

Objectives: To examine whether a 12 week home-based exercise intervention can improve cognition in older Thai adults with dementia.

Methods: A randomised control trial comparing Mini Mental Status Examination-Thai scores at pre and post tests between intervention and control group were used. Older adults with mild and moderate dementia were recruited from hospitals in Bangkok, Thailand. Then, 34 and 32 were randomly assigned into the intervention and control groups respectively. Six participants withdrew for health reasons, caregiver non-availability or not being able to afford medication as all other participants do. The intervention group received a 12 week home-based exercise program and the control group received routine care from the hospital. Therefore, data from the remaining 30 participants in each group were analysed using repeated measured ANOVA.

Results: Means of Mini Mental Status Examination-Thai scores at pre and post test for participants in the intervention group were 19.80 and 21.30, respectively. Means of Mini Mental Status Examination-Thai scores at pre and post test of those in the control group were 20.37 and 20.03, respectively. There was a significant positive change in Mini Mental Status Examination-Thai scores of participants in the intervention group when compared with scores from the control group, p value < 0.05.

Conclusion: It appears the intervention helped to maintain or even improve cognitive function for people with dementia in Bangkok, however, further testing is warranted to explore this potential benefit further.

References: The committee for primary brain test Thai version. (2000). *Dementia screening test for older Thai Adults 2000*. Bangkok, Thailand: Institute of geriatric medicine Thailand.

Disclosure of Interest: None Declared

P152

DEMENTIA SERVICE CENTERS: A POSSIBLE STRUCTURE FOR EARLY DETECTION?

S. Auer^{1,2,*}, E. Span^{1,2}, Y. Donabauer¹, S. Weber¹, J. Wimmer-Elias¹, C. Wimmer¹, C. Mikenda¹, R. Sperling¹, M. Reitner¹, M. Murauer¹, A. Wiegand¹, K. Laschalt¹, D. Koukas¹, B. Reisberg³

¹M.A.S Alzheimerhilfe, Bad Ischl, ²Department for Clinical Neurosciences and Preventive Medicine, Danube University, Krems, Austria, ³NYU School of Medicine, New York, United States

Objectives: Only about 15-20% of persons with dementia receive an appropriate medical diagnosis and treatment (Holmes et al, 1995). Current models of service provision with the narrow goals of promoting early disease detection and medical treatment may not attract persons with dementia and their families as much as needed. Most families affected by dementia seek support, training and counseling throughout the course of the dementia process.

Methods: 6 low threshold Dementia Service Centers (DSC) were established throughout the county of Upper Austria since 2002. Services were developed following families needs. Persons receive psychological testing and are supported in obtaining a medical diagnosis. Family members are offered training courses and support groups. There is a telephone helpline and available social workers during working days. All elements of service are offered to families and tailored to their personal needs. A longitudinal follow up study protocol was developed, assessing cognitive, functional and behavioral parameters as well as caregiver burden. Medical information is obtained including concomitant illnesses and medications taken. To assess dementia severity, the Global Deterioration Scale (GDS) is used.

Results: Of 1,314 registered persons (851 women, 463 men) 1,270 baseline protocols could be analyzed. The mean age of the population was 76.1 years. 12 persons were normal (GDS stage 1), 141 persons had a subjective cognitive impairment (GDS stage 2), 191 persons had a mild cognitive impairment (GDS stage 3), 317 persons had mild dementia (GDS stage 4), 388 were in the moderate stage of dementia (GDS stage 5), 199 had severe dementia (GDS stage 6) and 22 persons had very severe dementia (GDS stage 7) at baseline. About 80% of studied persons received a medical diagnosis of dementia during their treatment in the DSC, about 20% did not visit a medical specialist during their treatment in the DSC.

Conclusion: A high percentage of persons in the prestages and beginning stages of dementia are attracted by the service of the DSC and receive a medical diagnosis during treatment. The model of DSC has been successfully established and is well accepted by the population.

References: Holmes C, Cooper B, Levy R. 1995. Dementia known to mental health services: first findings of a case register for a defined elderly population. *Int J Geriatr Psychiatry* 10:875-881.

Disclosure of Interest: S. Auer Grant/Research Support from: County of Upper Austria, Fonds Gesundes Österreich, E. Span: None Declared, Y. Donabauer: None Declared, S. Weber: None Declared, J. Wimmer-Elias: None Declared, C. Wimmer: None Declared, C. Mikenda: None Declared, R. Sperling: None Declared, M. Reitner: None Declared, M. Murauer: None Declared, A. Wiegand: None Declared, K. Laschalt: None Declared, D. Koukas: None Declared, B. Reisberg: None Declared

P153

THERAPEUTIC USE OF MUSICAL LEISURE ACTIVITIES IN MILD-MODERATE DEMENTIA: RANDOMIZED CONTROLLED TRIAL

T. Särkämö ^{1,2,*}, S. Laitinen ³, A. Numminen ⁴, M. Kurki ³, M. Tervaniemi ¹

¹Institute of Behavioural Sciences, University of Helsinki, Helsinki, ²Finnish Centre of Excellence in Interdisciplinary Music Research, Jyväskylä, ³Miina Sillanpää Foundation, ⁴Department of Music Education, Sibelius Academy, Helsinki, Finland

Objectives: The capacity of music to engage emotions and cognitive functions is often relatively well-preserved in dementia. Previously, music has primarily been used in therapist-lead interventions directed for patients with more advanced dementia living in long-term care institutions. Less is known about its use in everyday dementia care, especially in the early stage of dementia. The aim of the present single-blind randomized controlled trial was to determine the long-term cognitive, emotional, and social impact of a novel music intervention based on coaching the caregivers of dementia patients to use singing and listening of familiar songs in the everyday care of the patient.

Methods: 89 patients with mild-moderate level dementia were recruited together with their caregivers and randomly assigned to a singing group (n = 30), a music listening group (n = 29), or a control group (n = 30). The caregivers were either family members (n = 59) or nurses (n = 30) of the patients. In the singing and music listening groups, the patient-caregiver dyads either sung or listened to familiar songs and were coached on how to better incorporate regular musical activity into everyday life. Outcome evaluation consisted of neuropsychological testing as well as questionnaires on mood, quality of life (QOL) and carer burden performed prior to coaching, immediately after the 10-week coaching period, and 6 months later.

Results: Results indicated that the mood and orientation level of the patients improved significantly more in both the singing and music listening groups compared to the control group. In addition, music listening also had a long-term positive effect on the QOL of the patients whereas singing improved the verbal and episodic memory of the patients and reduced the psychological distress and burden of the family members. Overall, the caregivers perceived the musical activity as beneficial for the mood, arousal, and reminiscence behaviour of the patient as well as for communicating with the patient.

Conclusion: The results suggest that regular everyday musical activities, such as singing and music listening, provided by caregivers can have long-term beneficial effects on emotional, social, and cognitive wellbeing in the early stage of dementia as well as on the psychological coping of the caregivers. Thus, music coaching seems to be an effective and suitable method for dementia rehabilitation.

Disclosure of Interest: None Declared

P154

DEVELOPING A CONTINENCE ASSESSMENT TOOL SENSITIVE TO THE NEEDS OF PEOPLE WITH DEMENTIA LIVING AT HOME AND THEIR FAMILY CARERS

V. Drennan^{1,*}, S. Donovan¹, G. Rait², S. Iliffe²

¹St. George's University of London & Kingston University, ²UCL Medical School, London, United Kingdom

Objectives: To develop a continence assessment tool to be used by community nurses which is sensitive to the needs of people with dementia living at home and their family carers. Previous analysis of local English community clinical continence guidance identified that the problems of people with dementia and their carers at home were rarely addressed. Family carers reported great difficulty in getting appropriate advice and help¹.

Methods: An adapted nominal group technique² with a group of family carers and nurses specialising in home care, continence and dementia care produced an initial set of priority issues to be included in the assessment tool. The tool was refined using an adapted Delphi consultation³ with an expert group of continence specialist nurses and dementia care specialists. A second adapted Delphi consultation was undertaken to establish face and content validity with a wider expert group including experts by family caring experience, district nurses, psycho-geriatricians, general practitioners, continence specialist nurses, dementia nurse specialists and occupational therapists.

Results: A dementia focused continence assessment tool was developed to supplement local continence assessment tools used by community nurses. The assessment tool addresses the needs of the family carer as well as the person with dementia. The face validity was confirmed. The content validity for most items was high as measured by over 75 % of the expert group panellists agreeing the item was very important. However, many pointed to the need for implementation to be accompanied by training focused on best practice in working with people with dementia and their carers.

Conclusion: A continence assessment tool sensitive to the needs of people with dementia and their carers has been developed with good face and content validity and will now be tested in the field.

References: 1.Drennan VM, Cole L & Iliffe S. 2011. A Taboo within a Stigma ? A qualitative study of managing incontinence for people with dementia living at home. BMC Geriatrics in press.

2. Delbecq AL, Van der Ven AH. A group process model for problem identification and programme planning. J Appl Behav Sci 1971; 7: 466–492.

3. Murphy MK, Black NA, Lamping DL, McKee CM, Sanderson CF, Askham J et al. Consensus development methods, and their use in clinical guideline development. Health Technol Assess 1998;2(3): 1–88.

Disclosure of Interest: None Declared

P155

DEMENTIA, GARDENS AND COMMUNITY

W. Brewin^{1,3}, A. MacDonald²

¹Sensory Trust, St. Austell, ²University College Falmouth, Falmouth, United Kingdom

Objectives: Previous research shows that access to outdoor environments improves the health, wellbeing and social skills of older people with dementia and the idea that a garden can provide valuable sensory experiences is finally being recognized within care homes. Yet access to care home gardens is still often seen as an 'add-on' to care provision. In addition, summer fetes and trips out increase social interaction but generally do not have the power to address bigger issues such as the lack of dementia awareness within communities and absence of supportive environments for carers. The *Creative Spaces* project demonstrates how care home gardens can become community hubs where communities gain a better understanding of dementia and older people with dementia feel more valued. These gardens provide interest and opportunities for social interaction and shared experiences, reducing feelings of isolation, anxiety and boredom. Led by the Sensory Trust, the project is in collaboration with Cornwall Care and involves young people, community members, older people with dementia and carers. This paper examines the processes used in the Creative Spaces project to re-connect older people with dementia in residential care with their community. These processes include creative engagement techniques, garden re-design through user involvement, community and carers workshops, intergenerational activities, community events and visits. This has included recording the use, movement and flow within the garden (before and after design implementation) and its use by staff, residents and the wider community through a series of photographic interviews. The paper demonstrates the process and benefits of enhancing and using care home gardens as places where people with dementia feel valued, that improve the working environment for staff, provide places for re-connecting with relatives and community members. It argues that *Creative Spaces* is an exciting example of how co-design, community and inter-generational action can work together to improve the lives of older people with dementia, their families and carers.

Disclosure of Interest: None Declared

P156

LEISURE ACTIVITY INTERVENTION IN EARLY TO MODERATE COMMUNITY-DWELLING DEMENTED PERSONS

Y.-C. Chiu^{1,2,*}, Y.-S. Chen³, W.-C. Hsu⁴, S.-H. Lee⁵, C.-Y. Huang⁶

¹School of Nursing, Chang-Gung University, Taoyuan, ²Healthy Aging Research Center, Chang Gung, Taoyuan,

³Adult & Continuing Education, National Chung Chen University, Chia-Yi, ⁴Dementia Center, Chang Gung Memorial Hospital, Linkou, ⁵Department of Psychiatry, Chang Gung Memorial Hospital, Linkou, ⁶School of Nursing, Chang Gung University, Taoyuan, Chinese Taipei

Objectives: Studies have reported the positive relationship between leisure activities engagement and improving quality of life (QoL) of persons with dementia (PWDs). However, most of the related studies were conducted in nursing homes of western countries. Therefore, the purpose of this study was to exam the efficacy of leisure activity intervention on QoL of mild to moderate PWDs in communities in northern Taiwan.

Methods: This was a randomized control trial with four time-point repetitive measures: baseline, 9th week during the leisure activity intervention, 16th week at the end of the intervention and 6th month (post test measure). There were 31 mild to moderate PWDs in the experimental group, while 28 in the control group. The intervention was 16-week tailored leisure activities based on PWDs' interest style, cognitive functioning and ADL. PWDs were required to perform leisure activities at least 20-30 minutes, three times per week supervised by their FCGs. The outcome was PWD's quality of life with five subscales: self-esteem, sense of belonging, feelings of aesthetic, negative affect and positive affect. We conducted independent t tests and paired t tests for between group and within group analyses based on the principle of intention to treat.

Results: There were no significant differences over time between these two groups in the outcome, PWDs' QoL and its subscales. However, there was a significant improvement in patients' negative affect between the baseline and the 16 weeks in the experimental group ($t = -2.13, p < .05$). There was a significant improvement in PWD's QoL between baseline and 6 months in the control group ($t = -2.88, p < .05$). PWD's negative affect was significantly improved between baseline and 16 weeks ($t = -2.34, p < .05$) as well as between baseline and 6 months ($t = -2.16, p < .05$) in the control group. Finally, there was a trend that the total score of PWDs' QoL and its subscales were more improved in the experimental group than the control group over time.

Conclusion: Tailored leisure activity intervention has potential benefit for mild to moderate PWDs. Health related practitioners may apply leisure activity as one of non-pharmaceutical strategies to improve PWDs' quality of life.

Disclosure of Interest: None Declared

P156A

EFFECT OF COGNITIVE TRAINING PROGRAM FOR PATIENTS WITH EARLY TO MILD DEMENTIA —A KAOHSIUNG EXPERIENCE OF MODIFIED SCHOOL OF WISDOM

C.-K. Liu ^{1, 2, 3, *}, M.-C. CHOU ^{1, 2, 4}, C.-H. LI ^{1, 2, 3}, C.-C. WANG ⁵, T.-W. KUNG ⁵, L.-Y. TANG ⁶

¹Department of Master's Program in Neurology - Faculty of Medicine - College of Medicine, ²Department of Neurology, Kaohsiung Medical University, ³Kaohsiung Municipal Hsiao-Kang Hospital, ⁴Kaohsiung Municipal Ta-Tung Hospital, ⁵Kaohsiung Dementia Association, Kaohsiung, ⁶Taiwan Alzheimer's Disease Association, Taipei City, Chinese Taipei

Objectives: We examined the efficacy of cognitive training program in improving cognition and emotion of dementia patients and prompting quality of life of family caregivers.

Methods: Patients with early to mild dementia received cognitive training program, modified from School of Wisdom of Taiwan Alzheimer's Disease Association (TADA), two hours once a week for 10 weeks. We provided educational-support groups for the family caregivers. The primary parameters were Cognitive Abilities Screening Instrument (CASI) and Center for Epidemiologic Studies-Depression Scale (CES-D). The caregivers were also evaluated with CES-D and quality of life (WHO-QOL).

Results: In total, 32 patients (12 male and 20 female) participated in the study, mean age of 73.37 (SD 7.43) y/o and mean education of 8.34 (SD 5.91) years. With paired-samples T test, the CASI showed significant effect for intervention ($p=.002$) while the CES-D did not ($p=.100$). There was a significant difference of the WHO-QOL of the caregivers before and after intervention ($p=.030$). However there was no difference of the CES-D of the caregivers ($p=.263$).

Discussion: In the beginning, many of the patients may have low activation and motivation and have resistant passive behaviors. After the program, the participants showed increased social interaction, enriched verbal expression, and improved mood. Both the patients and caregivers expected a continuous program for them. During the program, patients shared their suffering and adjustment for dementia, which could help them cope with their illness; caregivers could gain psychological support to help them relieve their stress.

Conclusion: The results were consistent with findings of TADA. Cognitive training program could improve cognitive function of early to mild dementia patients and quality of life of their family caregivers. School of Wisdom of TADA deserves further promotion.

Disclosure of Interest: None Declared

P157

RELATIONSHIP BETWEEN SUPPORT SERVICES, PERCEIVED CAREGIVING STRESS, AND PERCEIVED HEALTH STATUS AMONG DEMENTIA CAREGIVERS

A. Khalil^{1, 2, *}, E. S. Dawood^{2, 3}

¹psychiatry and mental health nursing, king saud bin abdalaziz university for health scie, Jeddah, Saudi Arabia,

²psychiatry and mental health nursing, Menoufyia university, shebin Alkom, Egypt, ³psychiatry and mental health nursing, king saud bin abdalaziz university for health scie, riadh , Saudi Arabia

Objectives: The purpose of this study was to determine the relationship between support services availability and utilization and perceived caregiving stress and perceived health status among 93 informal caregivers who provided direct care to a relative with a diagnosis of dementia at home.

Methods: using a descriptive correlational research design. Participants completed the Revised Memory and Behavior Problem Checklist (Teri, Truax, Logsdon, Uomoto, Zarit, and Vitaliano, 1992) in addition to other questions concerning perceived health status and social support.

Results: Results of this study indicated a significant negative correlation between satisfaction with social support and perceived caregiving stress ($r = -.294$, $p = .01$). No significant relationship between the perceived caregiving stress and social support service utilization was found. Chi- squared revealed a statistically significant relationship between caregivers' satisfaction with the support services they received and their perceived health status ($\chi^2 = 16.553$, $p = .03$).

Conclusion: social support was found to have a strong mediating effect between perceived caregiving stress and perceived health status.

Disclosure of Interest: None Declared

P158

DIAGNOSTIC PROCESSES AND POST DIAGNOSTIC SUPPORT IN THE SCOTTISH HIGHLANDS

A. Innes^{1,*} and Paulina Szymczynska, Cameron Stark

¹Health and Social Care, Bournemouth University, Bournemouth, United Kingdom

Objectives: This paper will present findings from a Knowledge Transfer project designed to evaluate and improve the diagnostic processes and post diagnostic support offered to people with dementia and their carers in the largest remote and rural area of Scotland.

Methods: The project involved six distinct phases of work: 1) best practice review; 2) staff consultation exercise; 3) preliminary evaluation of a Community Mental Health Team; 4) consultation with service users and people with dementia; 5) delivery and evaluation of training events; 6) shadowing and service observation.

Results: A database of international best practice examples was influential in helping to shape the protocols for the different diagnostic service models in place across the region. Staff providing community mental health services were consulted via survey. The evaluation revealed a complex local context with limited resources and a growing population requiring support in a geographically challenging landscape. Findings from the survey allowed for the modelling of service delivery, the identification of inefficiencies and service gaps and the introduction to service improvement methodology for staff in that team. The training events facilitated by the KTP project team were evaluated positively, but a key finding is the lack of dementia training staff had previously received. Consultation with memory service users (people with dementia and their carers) revealed mixed views about the dementia services they had experienced, most reported appreciation for the services and support they did receive, but also concerns about the diagnostic process, available care and support, and meeting individual needs. Day to day practice of four staff members in four Community Health Partnerships were observed through a shadowing exercise. This provided examples of innovation across the region that could be replicated or adapted to meet the needs of other local teams and service users in Highland.

Conclusion: There are key building blocks in place across the NHS Highland region to provide high quality support to those with dementia from diagnosis onwards, achieving this requires the development of local initiatives across a geographical landscape that poses distinct challenges to high quality service delivery.

Disclosure of Interest: None Declared

P159

BEHAVIOURAL SUPPORT SYSTEMS – CREATING CHANGE AT THE LOCAL, PROVINCIAL AND NATIONAL LEVELS THROUGH KNOWLEDGE EXCHANGE

D. Harvey ^{1,*}

¹Alzheimer Society of Ontario, Toronto, Canada

Objectives:

New directions are required to meet the needs of responsive behaviors of older adults diagnosed with dementia and serious mental health issues experiencing responsive behaviours.

This session will describe the Canadian experience of bringing together the national, provincial, and local leaders in responsive behavioural services. Participants will learn how knowledge exchange (KE) networks and key stakeholders have successfully created the conditions for change through collaboration, dialogue and mutual accountability. This discussion will result in National Guidelines and contributed to the launch of a major project in Ontario (\$40 mil) , Canada's largest province.

Methods:

A Community of Practice, the Ontario Alzheimer Knowledge Exchange and the Canadian Dementia Research and Knowledge Exchange network have engaged in series of coordinated KE opportunities to support change, including:

- Local/regional meetings helping leaders learn how quality improvement strategies can meet their unique behavioural; support needs.
- A provincial Behavioural Supports Ontario Project supported by Ontario's Ministry of Health and Long-Term Care and other key stakeholders
- A national work group focused on creating practical tools that will translate across the country
- Some of these initiatives were partially supported by a Canadian Institutes for Health Research grant.

The workshop will enable participants to identify how information and knowledge can facilitate service development at different levels.

Results:

A combination of knowledge exchange activities across all levels have resulted in significant advancement related to behavioural support systems. Successes included the development of models for collaboration, models for service implementation, the identification of key principles and components, the identification of gaps in care, and the development of leadership abilities across all points in the care continuum. Participants will contribute to future plans in knowledge exchange in this area.

Conclusions:

Knowledge exchange networks and organizations are well-positioned to organize collaborative action to help move knowledge to practice, share best practices and resources and find solutions at national, provincial or territorial and local levels. Action across all levels will best support meaningful and timely change.

Disclosure of Interest: D. Harvey Employee of: Chief, Public Policy and Program Initiatives of the Alzheimer Society of Ontario

P160

KEY FACTORS INFLUENCING IMPLEMENTATION OF CASE CONFERENCES IN DAILY CARE OF PEOPLE WITH DEMENTIA

I. Buscher^{1,*}, D. Holle¹, S. Reuther¹, M. Halek¹, S. Bartholomeyczik¹

¹German Center of Neurodegenerative Diseases (DZNE), Witten, Germany

Objectives: For professional caregivers challenging behavior of people with dementia is often difficult to understand due to their communication problems. The method of hermeneutic case conferences can support care teams searching for potential triggers of challenging behavior and finding adequate interventions (Schrems 2008). Current research findings indicate that the implementation of case conferences into long-term care practice is difficult without professional guidance (Hardenacke et al. 2011). From literature a number of general factors are known that may influence the implementation process of innovations (Rogers 2003⁵, Harvey/Kitson 1996, Grol et al 2004). However, studies are missing that systematically analyze the conditions for implementation of case conferences in daily care of people with dementia living in nursing homes. Therefore, the following study aims to identify specific factors that influence the introduction of dementia-specific case conferences in nursing homes in Germany.

Methods: A systematic literature review and expert interviews (n=9) with persons with expertise in dementia-specific case conferences were performed. The interviews were analyzed using content analysis (Mayring 2008¹⁰). Finally the results from the literature study and the expert interviews were brought together and consented within a workshop consisting of 9 experts from nursing practice and 5 experts from nursing science.

Results: The results demonstrate key factors that influence the implementation and application of dementia-specific case conferences in nursing homes. Case conferences are often not founded on theoretical concepts. The complexity of the method and low context adaptation of case conference models were identified as influencing factors. There is a lack of qualification in the performance of case conferences. Especially moderation is not trained. Contextual factors like e.g. organizational structures, management style and attitudes further promote or hinder the implementation.

Conclusion: Following the MRC Framework (2000) the results of the study will be used to model an intervention study to assess the effect of case conference on resident's challenging behavior and quality of life as well as on nurses' stress and the impact on knowledge transfer (FallDem). Within the intervention study two different models of dementia-specific case conferences will be introduced into nursing practice.

Disclosure of Interest: None Declared

P161

DEMENTIA CARE MAPPING – STAFF MEMBERS WITHIN THE IMPLEMENTATION PROCESS

T. Quasdorf^{1,*}, C. Riesner¹, M. Dichter¹, O. Dortmann¹, M. Halek¹

¹Deutsches Zentrum für Neurodegenerative Erkrankung, Witten, Germany

Objectives: Dementia Care Mapping (DCM) is an observational method to implement person centered care and to support quality of life for persons with dementia, which has been used in a number of countries for several years. It is known that the characteristics of those individuals who are involved in the implementation of complex interventions like DCM have a high impact on its' success, thus the characteristics should be assessed before and during implementation.

Methods: Within the ongoing quasi-experimental study Leben-QD, which is investigating the effects and the implementation of DCM in German nursing homes, a questionnaire has been developed to assess the characteristics of staff members which are involved in the implementation. Nine nursing homes are participating in the study, each with one ward. 3 wards are going to start using DCM (intervention group), 3 wards are going to use an alternative intervention (comparison group 1) and 3 wards are already using DCM (comparison group 2). The questionnaire measures work satisfaction (by the Copenhagen Psychosocial Questionnaire sub scale, COPSQ), attitudes to dementia (by the Approaches to Dementia Questionnaire, ADQ), communication within the team (3 items) and perceived burden (17 items). Descriptive statistics was applied for the baseline data (n=95), and the differences of the 3 project groups were investigated by the Kruskal Wallis test (p = 0.05).

Results: Mean score for the work satisfaction scale was 62. 6 (SD 17.5) on a scale from 0 to 100 and mean score for the ADQ total scale was 67.9 (SD 7.5) on a scale from 19 to 95. Responses to team communication items certify that staff members are mainly satisfied with communication processes, while responses were varying for the perceived burden items. No significant differences could be identified between the three project groups with regard to any of the investigated domains.

Conclusion: For the upcoming implementation process, it seems that conditions are comparable with respect to the characteristics of staff members. However it will have to be investigated if the group which is already using DCM will take advantage later on. To obtain broader knowledge about such implementation processes, we recommend to assess preconditions in other studies also.

Disclosure of Interest: None Declared

P162

ADJUSTMENT PROCESSES IN CAREGIVERS OF PEOPLE WITH ALZHEIMER'S DISEASE

A. M. Cavaleiro^{1,*}, I. Leal¹

¹UIPES, Instituto Superior de Psicologia Aplicada, Lisbon, Portugal

Objectives: This study aims to understand the process of adjustment of caregivers of people with Alzheimer's disease (generally and in specifying types of caregivers and care), through the relationships established between coping strategies, psychosocial variables, including: Anxiety, Depression, Stress, Satisfaction with Perceived Social Support, Quality of Life, Self-efficacy and socio-demographic variables in order to establish specific training interventions.

Methods: It is a comparative and correlation study between formal (technicians and no technicians) and informal caregivers (n = 450) who will fill the Brief COPE, the SF-36, Anxiety and Depression Scale Stress, the Scale of Satisfaction with Social Support, Self-Efficacy Scale for Caregivers of People with Dementia (adaptation and validation into the Portuguese population) and a Questionnaire Socio-Demographic purpose built.

Results: The results obtained allow us to see the need to establish training intervention strategies, among caregivers, that promote interpersonal relationships, social activities and increase self-perceived physical and mental health. On the other hand, training interventions should focus on the use of positive coping strategies and coping strategies based on humor.

Conclusion: With this presentation, we intend to establish training intervention strategies that can provide caregivers with skills for more appropriate adjustment processes in order to a greater adaptability to the Alzheimer's disease and to the role of caring.

Will also present the correlations found between the different variables for each of the study groups (family, technicians and no technicians – supporters/helpers of direct action).

Disclosure of Interest: None Declared

P164

SUPPORT AND EDUCATION AT THE ALZHEIMER SOCIETY OF MONTREAL: MEASURING CLIENT SATISFACTION

A. Hayward^{1,*}, T. Anuza², L. Beaumier-Grant³, R. Cavaliere⁴

¹Director - Programs and Services, ²Educational Services, ³Support Services, ⁴Respite and Stimulation Services, Alzheimer Society of Montreal, Montreal, Canada

Objectives: The ASM routinely solicits feedback from its clients following service provision, both formally and informally. Increased demand for support and opportunities for development and expansion prompted us to undertake a more thorough evaluation of client satisfaction. The goals were to better understand the impact of such services on the clientele, and their efficacy. Quantitative and qualitative data was gathered over 24 months (between 2009 and 2011) for three of the ASM's main service areas: (1) Educational Support Groups for Caregivers (2) Respite and Stimulation Services - both Day Centre and In-Home, and (3) Training Sessions for Professionals Carers. Structured questionnaires were distributed using Likert scales and open-ended questions to solicit qualitative data. Initial data analysis points to an overall high level of client satisfaction and perceived quality in all levels of service. The data also points to an expressed need for additional support, in particular respite for family carers.

Disclosure of Interest: None Declared

P165

THE DEMENTIA EXPERIENCE: DEVELOPMENT AND EVALUATION OF A VIRTUAL REALITY EXPERIENCE OF DEMENTIA

B. J. J. Hattink^{1, 2, 3, *}, R. M. Dröes^{2, 3, 4}, J. Rietsema⁵, F. J. M. Meiland^{2, 3, 4}

¹Psychiatry, VU University Medical Center, ²EMGO+ institute for Health & Care Research, ³Amsterdam Center on Aging (VUmc/VU), ⁴Nursing home medicine/Psychiatry, VU University Medical Center, Amsterdam, ⁵Minase Consulting, Tilburg, Netherlands

Objectives: Research by NIVEL & Alzheimer NL shows that 82% of informal carers are severely overburdened or at risk of overburdening. The Dementia Experience (DE) will be an interactive space where a simulation creates the world of dementia and its impact on daily life. By inviting informal carers and other people involved into the simulation, DE aims to promote the understanding and awareness of the experience of people with dementia; thereby promoting more empathetic care and reducing carer burden.

Methods: Through literature study a variety of experiences of people with dementia are identified. These experiences are discussed in 4 focus groups in the Amsterdam and Tilburg area, 2 with people with dementia and 2 with informal carers. A written questionnaire is administered to a wide range of professional carers about the occurrence of these experiences in their daily practice.

Using these results and considering the technical feasibility to simulate experiences, designers will create a scenario and develop a simulation in an interactive space. A group of 15 (in)formal caregivers will use a first prototype of the simulator and assess the experience and its impact on feelings of empathy. A group of 80 (in)formal caregivers will assess the final version of the simulator on its userfriendliness and usefulness.

Results: The inventoried experiences of people with dementia are categorized into different domains: the adaptive tasks outlined in the adaptation-coping model (Dröes, 1991), the Quality of Life (QoL) aspects indicated as relevant by people with dementia (Dröes et al., 2006) and the problem areas of the Dutch National Dementia Programme. Many people express experiences regarding the adaptive tasks, most notably on coping with and accepting of one's own disability and preparing themselves for an uncertain future. Expressed experiences regarding QoL are most frequently related to maintaining self-esteem and social contact. The most expressed problem areas are feelings of loss and being frightened, angry and confused. The categorized experiences are presented in the focus groups and to professional carers. Their opinions on frequency of occurrence and impact on daily life are inventoried.

Conclusion: An overview of the different types of experiences of people with dementia as well as results of the focus groups and opinions of professional carers are presented.

Disclosure of Interest: None Declared

P166

AN APPROACH TO THE ANALYSIS OF THE CONVERSATION BETWEEN THE DEMENTIA PATIENTS AND THEIR HEALTHY INTERLOCUTORS

B. Valles ^{1,*}

¹educacion especial, UPEL-IPC, Caracas, Venezuela, Bolivarian Republic Of

Objectives: This research looked forward to achieve the following objectives: 1) To analyze the different conversation resources used by all participants (patients and healthy interlocutors) 2) To study how the use of these resources may have an influence on the structure of the conversation and 3) To value the use of other forms of communication, such as, for instance, the use of gestures or body language.

Methods: In order to achieve the objectives, a qualitative research with ethnographic base was designed. First, the sample was selected, which was constituted by two pairs of individuals (the primary caregiver and the person with dementia) and the researcher herself, who actively participated on the development of the conversations. The researcher made a number of home visits of the selected pairs and she started different conversations in which all the aforementioned interlocutors participated. Interactions were filmed on video, transcribed with gloss and analyzed from a discursive perspective.

Results: The researcher organized her interventions with questions about topics related to daily life activities, medical treatments or health problems. Patients with dementia used structures with an adequate cohesion and showed repetition, reduced interventions formed by short phrases or sentences; in their conversations, it was evident the use of paraphasia, verbal stereotypes and anomies, which they compensated with the use of gestures. The topic of the conversation was restricted to daily life activities and family events. With regard to the caregivers, it was possible to determine that both of them widened the information from what the patients expressed, even answering for them in some occasions. They also used repetitions and addition of information, anticipating themselves to the linguistic problems of the dementia patients.

Conclusion: The contributions of this study are considered important to deepen the current knowledge on the conversation of the dementia patient in a natural context of life and to analyze the role played by healthy interlocutors.

References: Bayles K Tomoeda C Cruz R Mahendra N. Communication abilities of individuals with late-stage Alzheimer Disease. *Alzheimer Disease and Associated Disorders* 2000 14 176-181.

Valles B 2006. La cohesión y la coherencia en la conversación del paciente con demencia: un estudio discursivo. *Revista ACGG - Colombia*. Vol. 20 N° 1.

Disclosure of Interest: None Declared

P167

EVALUATING A PROGRAM FOR DEVELOPMENT OF THE COMPETENCY OF CARING STAFF IN THE NORWEGIAN MUNICIPALITIES

B. S. Døble^{1,*}, K. R. Fossl¹, A. Eek¹, Ø. Kirkevold¹

¹Aging and health, Tønsberg, Norway

Objectives: In Western countries demographical changes causes an increase of the elderly population and a demand for skilled staff in the municipal services. There is a need for knowledge on the effects of programs for the development of competency. In 325 of 430 Norwegian municipalities a competency program named ABC for the care of the elderly, have been carried out.

Methods: Three studies examined the effects of the ABC programs.

In 2011 a survey examined the practical use of the ABC programs. Questionnaires were developed using focus group interviews, and the experiences of employees and managers from 250 municipalities were obtained.

In 2006-2007 effects of the ABC program on job satisfaction was examined (n=94). A quantitative study with a non-equivalent control group (n=64), using a "before- after design", was performed. A standardized questionnaire was used (Sund 2003) to collect data at baseline, and after one year.

In 2009-2010 a number of 497 ABC participants were asked about their experience with person centred care in the practice. Using a structured questionnaire (Edvardsson 2010) the data was collected at baseline, and after one year of ABC activities. This study was based on a "before-after" design, without the use of a control group.

Results: The research completed in 2011 showed effectiveness of the ABC program in both practical use and in knowledge development. Some challenges appeared, related to carrying forward new knowledge into developing practical care. Comments told that; training for coaching was necessary for the leaders. Results obtained from thee other studies were not so clear, but gave suggestions to the results.

Conclusion: The ABC participants developed knowledge for adjusting practising care, but obstructions might bee that leaders are in need of knowledge of coaching in the fields. Challenges are also related to the organisational structure of the municipal caring system.

References: Sund A. (2003) Selektiv helseovervåking med fokus på psykososialt arbeidsmiljø. In: Moen B, editor. Håndbok for bedriftshelsetjenesten, del 3. Oslo: Arbeidsmiljøforlaget.

Edvardsson D, Fetherstonhaugh D, Nay R, Gibson S. (2010) Development and initial testing of the Person-centered Care Assessment Tool (P-CAT). Int Psychogeriatr Feb;22(1):101-8.

Disclosure of Interest: None Declared

P168

MARTE MEO IN THE CARE OF PEOPLE WITH DEMENTIA, A PRACTICAL AND RESPECTFUL APPROACH

C. Pull^{1,2,*}, D. Leidisch^{3,4} on behalf of Marte Meo group Hospice civil, J. Wagner³ and David Leidisch, Yvonne Zellweger, Diane Bleser, Bettina Waller, Rosa Pinto, Daniela Trampert, Jordis Bentz, Laurence Dupont, De Angelis Jeannine, Dana Pop, Laurie Schmit

¹Psychlogy, Hospice civil Pfaffendahl, ²Familijncenter CPF, ³Board of directors, Hospice civil Pfaffendahl, ⁴Board of directors, maisons de soins Hamm, Luxembourg, Luxembourg

Objectives: We would like to present the changes that have happened in our nursing home in Luxembourg while working with the Marte Meo (MM) and inspire other carers. We are a multidisciplinary team. MM is a video based method that was developed in the late 1970's by Maria Aarts. It shows practitioners how ordinary interactions can be used to support individual development. The person with dementia and her carer are filmed during a short interaction. A MM therapist then analyzes this sequence; he/she will look for the strengths of the person with dementia, look at the message behind challenging behaviour and evaluate his/her needs. He/she will look at the strengths of the carer and reflect on how those strengths can be used for the special needs of the person with dementia. As every person is unique, there will always be a unique way to approach her/him. The presentation will be very practical, we will show short video clips and explain what is happening, how things changed and why this is important for our residents and our work and how it can inspire other people. Every member of the staff and also private carers can use MM. MM is a very respectful and client-centered method; this will be reflected in our video clips. Marte Meo is also a good anti-burnout tool for the nursing staff and other carers. (Kappert-Grosser (2007), Jura et al (2008), Zwicker-Pelzer (2008). A Danish study showed that while using MM, the number of challenging behaviour dropped from 186 to 0. (Bakke 2008)

References: Marte Meo Basic Manual. Revised 2., Aarts Productions

BAKKE L. (2008)

Marte Meo anvendt på plejehjem. Sygeplejersken no. 18, 5.

September 2008

JURA M. ET AL. (2008)

Die Marte Meo Methode im ...Seniorenzentrum Am Haarbach“.

Marte Meo Magazine 2008, Vol. 40 & 41; 14 – 18

KAPPERT-GROSSERS. (2007)

Marte Meo – Betreuungsansatz in der Altenhilfe – eine erste Erkundungsstudie.

Unveröffentlichte Diplomarbeit Evangelische Fachhochschule Nürnberg

MOSER I. (2007)

Diagnosing and acting upon dementia:

the transformative power of the Marte Meo

Method as therapeutic intervention and diagnostic instrument in dementia care.

ZWICKER-PELZER R. (HG.) (2008)

Marte Meo in Betreuung und Pflege – Subjektstellung und

Autonomieförderung in der Arbeit mit alten Menschen.

Paulo Freie Verlag Nr. 54, 2008

Disclosure of Interest: None Declared

P169

PERSPECTIVES OF NEED: RESULTS OF THE FIRST USE OF A SCOTTISH NEED ASSESSMENT IN THE GERMAN COMMUNITY CARE SYSTEM

C. Riesner^{1,*}, W. Schnepf², A. Zegelin²

¹DZNE, ²University Witten/Herdecke, Witten, Germany

Objectives: The Scottish need assessment CarenapD was developed in 1995 to assess the needs of people with dementia and their carers living at home. CarenapD can be useful in the German community care system. The aim of this research project was to test the adaptability and modality of the assessment CarenapD in Germany.

Methods: The adaptability study was carried out from the perspective of the professional user using a Convergent Mixed Methods Design. CarenapD was used by 15 professionals; they assessed 55 persons with dementia twice within 6 months. An inter-rater reliability test was made by video case vignette (n=15). Data were mainly analysed using descriptive statistics and qualitative content analysis. Ethical approval was obtained from the University Witten/Herdecke, Germany.

Results: Inter-rater agreement was very good ($\kappa > 0.795$). From the total amount of 57 CarenapD items 38% were rated with "no need", 49% showed "met need" and 11% "unmet need" (n=55). The mean time used for one assessment in T0 was reduced from 126 minutes to 102 minutes in T1 (p 0.022). Professionals and Carers tended to exclude persons with dementia from the assessment process and they had difficulties to integrate the perspectives of persons with dementia and their carers appropriate into the need-assessment process.

Conclusion: The examination of the Scottish need-assessment CarenapD in the German Community Care System showed in this first test, that the assessment itself has the potential to manage care needs of families with dementia. Professionals used the assessment with good inter-rater agreement. At the same time, results showed that professionals need more communication and management skills to provide appropriate support for people with dementia and their carers. CarenapD seems to be able to control this development, if it is used with expert knowledge.

References: McWalter G, Toner H, McWalter A, Eastwood J, Marshall M & Turvey T (1998): A community needs assessment: the care needs assessment pack for dementia (CarenapD)--its development, reliability and validity. *Int J Geriatr Psychiatry* **13**, 16-22.

Disclosure of Interest: None Declared

P170

SUPPORTING CARE AT HOME STAFF WHO CARE FOR PEOPLE WITH DEMENTIA TO DELIVER PERSON CENTRED DEMENTIA CARE: THE USE OF DEMENTIA CARE MAPPING IN DOMICILIARY CARE SETTINGS

C. Surr^{1,*}

¹Division of Dementia Studies, School of Health, University of Bradford, Bradford, United Kingdom

Objectives: Approximately two thirds of 700,000 people living with dementia in the UK reside in the community. Of the 350,000 strong care at home workforce in England around 70% provide care to people living with dementia. The international policy context of supporting people to remain at home for as long as possible, means the care at home sector is growing. The funding structure of home care often leads to short visit times and a task orientated approach, criticised as inappropriate for people with dementia. Concerns regarding quality of home care provision have been raised. The care at home sector faces many challenging in providing a service that is person-centred, including isolated working conditions, poor staff development opportunities, high turnover of staff and limited mechanisms for monitoring and supporting development of practice. Dementia Care Mapping (DCM) is an internationally employed practice development process normally used in formal care settings to monitor and improve the delivery of person centred care. It involves a cycle of briefing, observation, feedback and action planning. Until recently it had not been used in care at home services. This paper will examine the acceptability and feasibility of using DCM to support the skills development of the care at home workforce.

Methods: An acceptability and feasibility study of DCM within care at home was conducted in the UK. It included 1) revisions to the tool and process, 2) trial of the process in a care at home service 3) feedback from people with dementia, their families, care at home staff and those undertaking the DCM observations on their experiences. Questionnaires, focus, groups and interviews were utilised.

Results: People with dementia and their families found it acceptable for DCM observations to be undertaken within their homes. Care at home care workers were initially anxious about the process, however, after the observations and feedback had taken place, were able to articulate the benefits for supporting them to deliver more person-centred care. The DCM process was considered a useful support for staff to develop their practice within a care at home service.

Conclusion: A modified version of DCM is acceptable and feasible to use for supporting staff development within care at home services.

Disclosure of Interest: None Declared

P171

CAREGIVERS OF PEOPLE WITH DEMENTIA IN THE CHINESE COMMUNITIES: A REVIEW OF FINDINGS AND THE WAY AHEAD

C. Lai^{1,*} and This abstract is one of the abstracts our group intend to submit as a symposium

¹School of Nursing, The Hong Kong Polytechnic University, Hong Kong SAR, Hong Kong, China

Objectives: Family caregivers assume the most important role when people with dementia stay in the community. This review intends to identify the relationship between stress management and the quality of life (QOL) of family caregivers of elderly community dwelling Chinese with dementia in Asian countries.

Methods: We searched the literature on the caregiving experience of Chinese caregivers, how do they perceive their caregiving, the issue of burden, their stress and coping experiences, as well as their quality of life. The period from January 1990 to June 2011 has been searched in 4 databases (CINAHL, MEDLINE, PSYINFO, and Social Work Abstracts) using the keywords (Alzheimer or dementia) AND (Chinese) AND (family or family carer or caregiver or caregiver burden or stress or coping or stress management or quality of life or caregiver support). The relevance of the articles in relation to the study topic is defined as articles that are: (a) related to caregivers or carers of people with Alzheimer's disease or dementia; (b) studied informal care in a community or home setting; (c) and discussed issues relevant to caregiving experiences including the concepts of stress and coping, burden and quality of life but not on instrument validation.

Results: The studies identified will be classified into three categories according to the particular context: (1) studies of Chinese caregivers living in a foreign country as a minority group; (2) comparing Chinese and non-Chinese caregivers with data collected in their respective countries; and (3) studying the Chinese caregivers in their country of origin: the Chinese mainland, Hong Kong, and Taiwan.

Conclusion: This review is still ongoing. Not many studies are located when compared with the numbers reported in the Western countries. In general, when considering the Chinese population alone, the findings are quite consistent: caregivers are burdened by their caregiving roles and behavioural problems of dementia. What needs further attention is the potential impact of specific context and the changing culture in different Chinese communities countries without assumptions of traditional Chinese values like filial piety and collectivism. More studies on the implementation of interventions and outcome evaluation are needed.

Disclosure of Interest: None Declared

P172

PLANNING THE SPONTANEOUS – IMPROMPTU VS. STRUCTURED ACTIVITIES IN DEMENTIA CARE

D. Troxel^{1,*}, K. Rogers², C. Lilly³

¹BEST FRIENDS, Sacramento, ²Active Aging, ³Life Guidance, Atria Senior Living, Louisville, United States

Atria Senior Living is one of the leading providers of memory care services in the United States, with residential care communities in 27 states.

Foundational pieces of Atria's dementia activity programming include creativity and the arts, music, exercise, socialization, life-long learning and life story work. This expanded and ambitious activity program has enjoyed great success, but leadership also recognized that life includes much more than formal, planned and structured activities. Life is also about spontaneity, taking advantage of a beautiful day, enjoying the exploits of children or a pet, laughter, and joy in the moment. In long-term care, staff is often trained to "get the task done," and follow the "activity calendar."

This workshop will focus on how organizations can encourage staff to be more "in the moment" and engage in spontaneous activity. We define these activities as any "unplanned or self-generated activity done between a staff member and one or more residents." These activities don't typically need elaborate supplies or involve much cost. Examples could include: walks, hugs, music and singing, reminiscence, making a snack, admiring clothing, discussing recipes, naming favorite colors, reading together, enjoying a cup of tea or coffee, playing with a pet, bird watching, gardening, brushing hair, folding clothes, doing simple chores and more.

The presenters will:

- Describe how to enhance staff awareness and training about structured vs. spontaneous activities

- Show how to engage staff in short activities as part of training and learning.

- Share the benefits of actually naming your spontaneous and unplanned activities for further staff awareness.

- Examples include Atria's Moment by Moment program.

- Offer ways to encourage staff to link life story work to spontaneous activities

- Offer suggestions for evaluating your success

- Share how teaching staff how to do these spontaneous activities supports more successful personal care (bathing, dressing, toileting and other activities of daily living).

The workshop will conclude with words from members of the early-stage dementia movement about how activities in the moment (not just formal and structured activities) support dignity and success.

Disclosure of Interest: None Declared

P173

COMMUNICATING WELL WITH PEOPLE LIVING WITH DEMENTIA AND THEIR FAMILIES: STAND BY ME AND COME INTO MY WORLD... DVD ASSISTED TRAINING IN SKILLING UP PRACTITIONERS ACROSS THE DEMENTIA CARE PATHWAY

D. Brooker^{1,*}, A. Wotherspoon², S. Macreavy³, K. De Vries¹, C. poole⁴

¹Association for Dementia Studies, University of Worcester, Worcester, United Kingdom, ²Moving Image, Flinders University, Adelaide, Australia, ³Moving Image, North East Worcestershire College, Bromsgrove, ⁴Mental health Older People, Gloucestershire 2gether NHS Trust, Hereford, United Kingdom

The development of the *Stand by Me* resource was a collaborative project between NHS Worcestershire, NHS Herefordshire, the Association for Dementia Studies and t North East Worcestershire (NEW) College. The idea grew out of Professor Brooker's collaboration with a programme called *Come into My World* produced by Flinders University and South Australia & Northern Territory Dementia Training Study Centre. Both DVD assisted training packs are designed to be freely available to support training and education programmes on person centred care for people living with dementia.

Education on person-centred dementia care can sound idealistic and difficult to describe. Using the same methodology both DVD's have content that is appropriate for staff and students to reflect on the delivery of quality dementia care at all professional levels and in a variety of situations. The DVD's provide a practical demonstration of the principles of good communication. These can be used alongside a teaching resource pack to help show staff how to manage in realistic situations, applying the principles of person centred care to good effect.

Each DVD consists of a number of short films depicting the care pathway. *Stand by Me* covers the GP consultation about diagnosis, care at home, a move into a care home, paramedic emergency care, acute hospital care and palliative care at home. The scripts for the films were constructed from focus group discussions with staff and professionals working across a variety of health and social care settings. Focus groups were also held with people with dementia and family carers to test out the validity of the emerging scenarios. The majority of actors in the films are health and social care staff and people with the experience of living with dementia.

In this we will show excerpts from the films and discuss the experience of building and using these films in England and Australia.

Disclosure of Interest: None Declared

P174

"OUR STORY"..... A TEAM PERSPECTIVE, OUR JOURNEY FROM CONCEPT TO REALITY ...A PARTNERSHIP BETWEEN A FAMILY HEALTH TEAM MEMORY CLINIC AND THE ALZHEIMER SOCIETY OF LEEDS GRENVILLE

D. Wood ^{1,*}, L. Lee ^{2, 3, 4, 5, 6}

¹Executive Director , Alzheimer Society of Leeds Grenville, Ontario, Canada, ²CFFM Memory Clinic Kitchener , ³Dept. of Family Medicine, McMaster University Hamilton Ontario, ⁴Dept. of Family Medicine, The University of Western Ontario, ⁵Dept. of Family Medicine, Queen's University Kingston Ontario, ⁶School of Pharmacy, University of Waterloo, Ontario, Canada

Our story began with a presentation by Dr. Linda Lee who spoke on her experience training physicians, health care professionals and members of the Alzheimer Society in the functions of a memory clinic in a primary care setting. The idea of establishing a partnership with a Family Health Team (FHT) was thought to be an initiative that would provide a diagnosis and early access to support. The partnership between the FHT and the Alzheimer Society of Leeds Grenville has been well received by the physicians within the FHT and we have increased our clinics to twice per month." It is a joy to come to each and every clinic."

Our Presentation will discuss the teams perspectives on four key issues of care which we feel have improved since the FHT memory clinic and Alzheimer's Society partnership began. We finally have the professional tools, education and support to diagnose, treat and support those who are living with dementia as well as their families. We are able to provide recommendations to the family physician in a timely manner; and administer cognitive testing along with a comprehensive multidisciplinary assessment in a comfortable and familiar setting. We can detect caregiver burnout and intervene by providing education and peer to peer support through the Alzheimer's Society. Lastly, we are confronting the stigma and isolation of the disease by talking about it within the primary care setting as well as in the community.

Disclosure of Interest: None Declared

P175

DAY CARE CENTERS – EFFECTIVE FACILITATIONS FOR BURDENED CAREGIVERS OF PEOPLE WITH DEMENTIA?

F. Geese^{1,*}, I. L. Schaefer¹, C. Mischke¹

¹Health, Berne University of Applied Sciences, Berne, Switzerland

Objectives: The growing number of people with dementia is a great challenge for Switzerland. Approximately 24.700 people are annually affected by dementia. 60 percent of patients with dementia are cared by family members. Caring for a family member with dementia is a challenging and difficult task and often caregivers are affected by physical, psychological and financial burden. Day care centers of nursing homes are a semi-residential service that may improve caregivers' situation. The aim of this Swiss study was to describe caregivers' experience of day care for people with dementia and to identify factors that positively affect their relief of burden.

Methods: A qualitative design was chosen. Problem-based interviews according to Witzel (2000) were performed using a semi-structured interview schedule with open-ended questions. 12 caregivers were interviewed. Interview transcripts were analyzed using content analysis of Mayring (2010). This technique affords a view of caregivers' burden and needs.

Conclusion: /Results: Results will improve services for people with dementia and bolster caregivers' resources to endure their burden. Moreover a brochure based on the results will inform caregivers and nursing homes about important quality aspects of day care to optimize and enhance this semi-residential service. The study is in progress and will be finished in January 2012. It serves as a master thesis to obtain the Master's degree in nursing science at the Berne University of Applied Sciences.

References: Mayring, P. (2009). *Qualitative Inhaltsanalyse*. In U. Flick, von Kardorff, E., Steinke, I. (Hg.) (Ed.), *Qualitative Forschung. Ein Handbuch* (Vol. 7). Reinbek bei Hamburg: Rowolth Taschenbuch Verlag.

Mayring, P. (2010). *Qualitative Inhaltsanalyse. Grundlagen und Techniken* (Vol. 11). Weinheim & Basel: Beltz Verlag.

Witzel, A. (2000). *Das problemzentrierte Interview*. Forum Qualitative Sozialforschung/ Forum: Qualitative Social Research. Retrieved 12.06.2011, from <http://www.qualitative-research.net/index.php/fqs/article/viewArticle/1132/2519>

Disclosure of Interest: None Declared

P176

ENHANCING THE AUTONOMY ON CAREGIVING THROUGH PARTNERSHIP WITH FAMILY CAREGIVERS IN CARE OF CLIENTS WITH DEMENTIA IN HONG KONG

G. K. Law ^{1,*}

¹College of Life Sciences and Technology, School of Professional and Continuing Education, HKU, Hong Kong, Hong Kong, China

Objectives: Supporting family caregivers is essential since majority of the clients with Dementia continue to live at home. Family caregivers are often to take up the caregiving role with little knowledge on the condition. The rationale for adopting the “partnership” approach is that professional workers need to work closely with family caregivers whilst the family caregivers retain their autonomy on decision making over the choice of services and the delivery of care.

Methods: The family caregivers are actively involved with care planning and implementation of the interventions. Case review is held to discuss the progress on client's condition, the caregiving process and to evaluate the care plan together.

Family caregivers attended the weekly carers support group for sharing their caring problems as well as learning from each other on caring skills.

Data of pre-and post-intervention of the caregiving burden, health status, use of drug and the nature of care of individual family caregiver will be collected. The care recipients were assessed too of their socio economic characteristics, cognitive state, duration, self care abilities, health status and any challenging behaviour.

Results: The initial finding shows that family caregivers under the partnership have reduced level of caregiving burden and developed “readiness” attitudes towards their caregiving role. Case sharing will be presented to demonstrate the effectiveness of use of partnership on dementia care in Hong Kong.

Conclusion: Such approach is new to Hong Kong care service for dementia and the aim is to strengthen the home care support services and to promote the clients with dementia “ageing in place”.

References: Key words: partnership, family caregivers, autonomy and case review

Disclosure of Interest: None Declared

P177

SHIELD CARER SUPPORTER PROGRAMME: A RANDOMISED CONTROLLED TRIAL OF ONE-TO-ONE PEER SUPPORT AND LARGE GROUP REMINISCENCE FOR FAMILY CARERS OF PEOPLE WITH DEMENTIA

*G. Charlesworth ^{1,2}, N. Melunsky ², M. Orrell ^{1,2} and the SHIELD CSP-RYCT trial team

¹ University College London, ² North East London NHS Foundation Trust, London, United Kingdom

Objectives: The aim of this presentation is to introduce the NIHR-funded SHIELD Carer Supporter Research Programme. We describe the methods for a multi-site randomised controlled trial that seeks to evaluate the effectiveness and cost-effectiveness of one-to-one peer support for family carers of people with dementia, alone and in combination with large group reminiscence. Baseline characteristics of participating family carers and people with dementia are also described.

Methods:

Design: A single-blind 2x2 factorial multi-site randomised controlled trial

Setting: Community sites in England

Participants: Carers were eligible if they were adult family carers of a community-dwelling person with a primary progressive dementia. The care-recipient was also consented into the trial if there were willing and able to do so. The target sample size was 300 care dyads.

Measures: Baseline assessments took place pre-randomisation and follow-up assessments were carried out at 5 and 12 months post-randomisation. A range of psychometric tools were used, including measures of health-related quality of life, wellbeing, social networks and social support. Information on resource use was also collected, using the Client Service Receipt Inventory.

Interventions: The peer support intervention provided involved listening, encouragement and morale support from experienced family carers. The group reminiscence intervention followed the 'Remembering Yesterday, Caring Today' format (Schweitzer & Bruce, 2008) in which participating care dyads are actively involved in themed sessions that move through key life stages. The combined CSP-RYCT intervention entailed both the large group reminiscence and peer support. All interventions were of 10 months duration.

Results: Recruitment for the trial ran from September 2009 to December 2011. Baseline characteristics of participants are described, including demographic profile, well-being and social networks.

Conclusion: The SHIELD Carer Supporter Research Programme will be an important addition to the evidence-base for peer support interventions for family carers of people with dementia.

Trial Registration: ISRCTN37956201

References: Schweitzer, P. & Bruce, E. (2008) *Remembering Yesterday, Caring Today. Reminiscence in dementia care: A guide to good practice*. Jessica Kingsley.

Disclosure of Interest: None Declared

P180

SUPPORTING STAFF AND RELATIVES OF PEOPLE WITH DEMENTIA TO REDUCE ISOLATION BY CONNECTING THROUGH PUPPETRY

K. Marshall ^{1,*}

¹Creativity In Care, Ross-shire, United Kingdom

How do we improve communication with people at risk of isolation due to the effects of dementia (upon words, memory or relationships)? How can we best promote inclusive care and meaningful interactions for everyone involved? These questions underpin the creative puppetry work undertaken in a day centre for people with Alzheimer's Disease; and care homes for people diagnosed with dementia, in the Highlands of Scotland 2008-2011. Based on practice-led research, and a background in arts, health care & lecturing, the paper describes approaches, challenges and outcomes over the past four years.

The work (creativity in care) uses person-centred approaches, validation work, puppetry, puppet-making, narrative work, group work, individual sessions and consented filming. The programmes are delivered in 3-month periods. This length of time supports people dealing with their experiences of change in relationships, and builds confidence in using creative approaches to communicate, with or without words. There are many sensitivities involved, such as doubt, fear and loss, which need understanding for successful outcomes.

When staff and relatives experience the power of puppetry, there is a greater sense of hope and often much laughter. Puppets have universal appeal and connect with people on an emotional level. They offer an effective means of communication, reducing isolation or disconnection. People are often surprised by how uplifting and effective the work is. Feedback from individuals with dementia, managers and staff express how stimulating and motivating the work is. They also report that levels of interaction between staff and people with dementia have increased.

This work shows that creative communication through puppetry can improve care and create meaningful, positive interactions. Examples show that when staff and relatives realise there are ways to reduce isolation in dementia care, they are often keen to learn. People can deal with changes in relationships, when given opportunities to re-connect in a new way. Future staff training and relatives support needs to include person-centred approaches, creative working with and without words, validation techniques, confidence building and dealing with changes in relationships for greater enjoyment.

©K.Marshall 2011

Disclosure of Interest: None Declared

P181

“SCHOOL FOR FAMILY CARERS” – GOVERNMENTAL INITIATIVE GIVES RESULTS

K. Hotvedt^{1,*}

¹Ageing and Health, Norwegian Centre for Research, , Oslo, Norway

Objectives: As a part of the Norwegian Government's "Dementia Plan 2015" the Norwegian Centre for Dementia Research was instructed by the Directorate of Health Affairs to carry out a nationwide program on how to establish and run "School for Family Carers" in the municipalities. A nationwide survey in 2007 showed that 4.7 percent of the municipalities had established "schools". The aim of the "schools" is to improve knowledge about dementia and to support family carers on how to cope with the burden of care. The program was implemented from 2007 to 2010. A study among family carers who had participated showed that they had learned more about how to cope with different tasks in their role as caregivers and the participation had contributed to improved contact with professional carers, local dementia organisations and other family carers. An evaluation was carried out among the organizers in the communities.

The objective was to disseminate knowledge on how to establish and run "schools" for family carers in different parts of Norway.

Methods: The program was introduced in 48 of 430 Norwegian municipalities of different sizes and located in different geographical regions. The professional carers and volunteers in the communities received guidance on how to run schools. After completing the school a systematic evaluation was carried out by interviewing the professional carers and volunteers.

Results: The results include answers from 38 "schools" involving 49 municipalities, with a population from 1.000 to 60.000. Nearly 30 percent of the "schools" were a collaboration between smaller municipalities. In regions where local dementia organisation existed these were involved in the work. A higher proportion of the family carers in small municipalities was recruited to the schools compared with large municipalities. All the municipalities made further plans to continue this service.

Conclusion: "School for Family Carers" seems to be a good model. Collaboration between municipality health care services and local dementia organizations are of great value to reach out to the families. A new national survey in 2010 showed that the amount of municipalities running "Schools for Family Caregivers had increased to 37.9 percent. The program is followed up by the Norwegian government in 2011 and 2012.

References: Norwegian Ministry of Health and Care Services, Dementia Plan 2015 - Subplan of Care Plan 2015, Oslo, 2009

Disclosure of Interest: None Declared

P182

TUNISIAN ASSOCIATION ROLE: CAREGIVER SUPPORT AND TRAINING

L. Ben Hassine^{1,*} and Pr Leila TRABELSI ALOUANE, President of tunisian association

¹TUNISIAN ALZHEIMER ASSOCIATION, TUNISIAN ALZHEIMER ASSOCIATION, Cité Elkhadra, Tunisia

The Tunisian Alzheimer Association since its establishment considers that the caregiver is more likely to know the person they are accompanying. The association has been campaigning to convince the authorities to make them recognize the essential role of families and the support they need for their involvement in the daily support of a loved one. The caregiver despite its good intentions often ends in failure situation that intensifies his burden. One of the major objectives of the Tunisian Alzheimer Association is the dissemination of "ideas, tips and techniques that can relieve the accompanying help and serve the patient". This training will help caregivers to learn the gestures and behaviors suited to everyday situations. We will present the results of our workshops on the relief of caregivers and patients.

Disclosure of Interest: None Declared

P183

EFFECTS OF DEMENTIA AND DEPRESSION TRAINING PROGRAMS FOR ELDERCARE STAFF

L. L. Tan ^{1,*} and Dr Ng Li Ling; Dr Sin Gwen Li

¹Changi General Hospital, Singapore, Singapore

Objectives: In anticipation of the ageing population in Singapore, more eldercare workers would need to be trained. We aim to study the needs of the eldercare workers and hope to improve our training programs and quality of care of older people with dementia and depression.

Methods: The Community Psychogeriatric Program (CPGP) was set up in Changi General Hospital (CGH) to provide community mental health services for early detection and treatment of psychogeriatric disorders, mainly dementia and depression. Eldercare workers who sign up for the training programs were invited to participate in the study. Standardized questionnaires and open-ended structured interviewing were conducted at three time points: - (a) prior to training, (b) immediately post-training, and (c) 3 months after training. Training needs survey; post-training survey; Ryden's Perception Scale and Mental Health Literacy Survey (MHLS) on dementia and depression were also administered at these specified time points.

Results: A total of 99 staff were enrolled. 71% were females and a majority was Singaporeans (72%). 63% were Chinese, 8% Malays, 4% Indians and others constituting 22%. About 90% received more than primary level education. English Language was used as a first language in 76%. 46% of the eldercare workers had daily contact time with their clients. With regards to the workers' perception of their experience caring for elderly, there was significant improvement after the training except for the second item: participants' perception of their work being rewarding or thankless remained the same. The MHLS also indicated significant improvement in the immediate versus pre-training scores (mean difference: 1.7; $p < 0.01$) and 3 month versus pre-training scores (mean difference: 1.45; $p < 0.01$) although the 3 month post-training versus immediate post-training scores were insignificant (mean difference = -0.25; $p = 0.4$).

Conclusion: Training programs on dementia and depression improved participants' knowledge and this was sustained after three months. There was also improvement in their perception of the quality of care provided to older persons.

References: 1. The Committee of Ageing Issues: Report on the Ageing Population. In: Ministry of Community Development, Youth and Sports. January 2011

2. Banerjee S, Wittenberg R. Clinical and cost effectiveness of services for early diagnosis and intervention in dementia. *Int J Geriatr Psychiatry* 2009;24:748-54

Disclosure of Interest: None Declared

P184

STUDENT NURSES' EXPERIENCES OF CARING FOR OLDER PEOPLE WITH DEMENTIA IN HOSPITAL: IMPLICATIONS FOR EDUCATION

L. Baillie^{1,*}, J. Merritt¹, J. Cox²

¹Acute Health Care, University of Bedfordshire, Aylesbury, ²Acute Health Care, University of Bedfordshire, Luton, United Kingdom

Objectives: The study's objectives were to explore nursing students' experiences of caring for older people with dementia in acute hospitals, their perspectives of how care could be improved, and their educational needs.

Methods: A mixed method survey design was used. University ethics approval was obtained and principles of informed consent and confidentiality were adhered to. Questionnaires were completed anonymously by 328 nursing students in one university, who had had at least one clinical placement; data were analysed statistically using SPSS. Four focus groups were conducted to explore student nurses' experiences in more depth, the data being analysed thematically.

Results: Overall, 90% of students responded that they had cared for older people with dementia during the course's clinical placements. Students' perceived understanding of dementia and related care significantly increased during the course but still only 52% of final year students felt 'generally confident' in caring for people with dementia. In focus groups, students expressed feeling emotionally and practically unprepared, to care for older people with dementia in hospital. They encountered challenges relating to maintaining safety, ensuring food and fluid intake, communication and carrying out personal care. However, they also perceived that the hospital environment and staff attitudes presented barriers to quality care. They reported that many hospital staff could not appropriately guide students as they lacked dementia care knowledge and skills. Students described the care strategies they developed, using intuition and creativity: their examples portrayed sensitivity and that they strived to understand patients as individuals. They were also prepared to challenge practices which they believed were unethical.

Conclusion: There needs to be a comprehensive plan for dementia care education for student nurses, which should start prior to first clinical placements. Student nurses need to be supported in learning and providing best care and challenging poor practice. If student nurses' support and educational needs are addressed well, they could have a positive impact on future care of people with dementia and will be the role models for future nursing students.

Disclosure of Interest: None Declared

P185

DIFFERENT PAIN TRAINING METHODS FOR FORMAL CAREGIVERS IN DETECTING PAIN IN RESIDENTS WITH DEMENTIA

L.-C. Lin^{1,*}

¹Institute of Clinical and Community Health Nursing, NATIONAL YANG-MING UNIVERSITY, Taipei, Chinese Taipei

Objectives: The aims of this study was to compare the effects of pain assessment and facial expression of pain, and a combination of pain assessment, facial expression of pain, and demonstration and return demonstration on pain detection and management for formal caregivers.

Methods: Three hundred seventy-two residents with dementia and 162 formal caregivers were recruited from eight dementia special care units in northern Taiwan. The eight institutions were randomly assigned into experimental group I (EI), experimental group II (EII) or the control group (CG). Formal caregivers in EI received a four hour didactic training class covering pain assessment and the facial expression of pain, had a two hour video and discussion session on facial expression of pain, and two hours demonstration and then return demonstration to record the facial expression of pain. After the training class, pain assessment was then used by the caregivers as a fifth vital sign during daily care. Experimental group II (EII) received four hours of didactic training in pain assessment and facial expression of pain. The control group received no special training and conducted their usual routine assessments.

Results: Before training, the Kappa coefficient for consistency of residents' self-reported pain and formal caregivers' detected pain in the EI, EII and CG were 0.267, 0.042, and 0.125 respectively, while the Kappa coefficients after training in the EI, EII and control groups were 0.484, 0.440 and 0.188 respectively. Moreover, the resident pain frequency between pre- and post-training among the three groups were significantly different ($F=3.384$, $p=.035$; $EI>C$, $EII>C$). It revealed residents' pain detected in EI and EII was significantly higher than in the CG. There were also significant differences in muscle relaxant use between pre- and post-training among the three groups ($F=3.530$, $p=.03$; $EI>EII$, $EI>C$). However, with the exception that residents in the EI group had more muscle relaxant usage, no other significant pain relief use was found.

Conclusion: In spite of that both experimental groups had better pain detection ability after training, no significant pain relief use was found. During the study, we found formal caregivers in long-term care facilities were hesitant to use pain relief medications due to concern over possible addiction. Further training about pain management is needed.

References:

Disclosure of Interest: None Declared

P186

FAMILY OF WISDOM - A NEW SERVICE MODEL IN TAIWAN

L.-Y. Tang ^{1,*}, M.-J. Chiu ², H.-J. Lee ³ on behalf of Taiwan Alzheimer's Disease Association

¹Taiwan Alzheimer's Disease Association, ²Neurology, National Taiwan University Hospital, ³Taiwan Alzheimers Disease Association, Taipei, Chinese Taipei

Objectives: 1. To improve quality of life of people with dementia and their caregivers
2. To decrease the stress of care-giving
3. To promote the networking of caregivers
4. To test the effect of new service model

Methods: "Family of Wisdom (FOW)" is a home-like, dementia-friendly environment for people with dementia (PWD) and their carers. A same group of PWD and their carers come to FOW twice a week with a maximum of 24 persons in the same time. In this home, PWD interact with each other and participate voluntarily in activities including playing mahjong, singing karaoke, painting, writing calligraphy, watching old movies, planting, playing chess, etc. The carers help each others to take care of people with dementia and share their experience in care-giving. Carers have a good time by enjoying a cup of tea and reading books in the relaxing garden. The carers complete a simple checklist to evaluate the activities and satisfaction to facilities each time after they use the service of FOW.

Results: The carers love this new service very much. They perceived good quality support from each other. They are very happy and have a good time in the FOW. Carers shared the works of caring with each other that let them feeling less stressful. PWD love to come to FOW and join the activities. Generally, their health condition improved because they engaged in more exercise, more social interactions, and received more stimulations. They said that FOW is their SECOND HOME.

Conclusion: This is the result of the first year of a three years project. The success is more than we expected. We will conduct more sophisticated scientific evaluations to evaluate the effectiveness of the FOW in the next two years.

Disclosure of Interest: None Declared

P187

THE MARTE MEO METHOD IN DEMENTIA CARE

M. Munch^{1,*}, L.-H. Lunde¹, L.-H. Lunde¹

¹Psychogeriatric, NKS Olaviken alderspsykiatrisk sykehus, Erdal- Bergen, Norway

Objectives: NKS Olaviken is with the Norwegian Centre for health and aging, and Sykehuset Innlandet assigned responsibility for a dementia care program initiated by the Norwegian Health Ministry. NKS Olaviken contributed with a Marte Meo practitioner course. The method is based on communication and solution-oriented theories, using video tapes of daily-life interaction with patients as tools. The main objective of the project was to examine the effect of the Marte Meo practitioner course of dementia caregivers communication and relational skills; the ability to give person-centered care.

Methods: A total of 30 caregivers from four different nursing homes participated (mean age 43,4 years). The participants completed a two self report measures, The Person centered care Assessment Tool (P-CAT) and a measure regarding the psychosocial work environment, before immediately and after, as well as six months after the Marte Meo practitioner course. Focus group interviews of 12 participants in three of the groups, as well as depth interviews of three of the leaders was carried three to six months after the intervention.

Results: The participants reported significantly higher total score on both self-report measures after completing the course. The caregivers participating in the focus group interviews report: change in their own behaviour when approaching persons with dementia, increased attention on and discussions of care approaches, the importance film footages to create change in their own behaviour and the consequences for the psychosocial environment. They reported changes in patient behaviour as well; from resistance and helplessness to cooperation and initiative, as well as a change from a negative to more positive body language.

Conclusion: The results showed an effect of the Marte Meo practitioner course on care giving experience and behaviour, on perceived contentment with psychosocial work-environment and perceived patient behaviour

Disclosure of Interest: None Declared

P189

DECISION-MAKING ABOUT TREATMENT AND CARE IN DEMENTIA

M. De Vugt^{1,*}, C. Wolfs¹, F. Stevens², F. Verhey¹

¹Psychology & Psychiatry, Alzheimer Center Limburg | Maastricht University, ²Education & development, Maastricht University, Maastricht, Netherlands

Objectives: To gain insight into the decision-making process of dementia patients and caregivers with regard to treatment and care.

Methods: Four focus group interviews (n=29). Grounded Theory Analysis was used for the analysis of the transcripts.

Results: The decision-making process consists of three elementary components: 1) Identifying individual needs; 2) Exploring the options; and 3) Making the choice. The most important phase is the exploration phase as it is crucial for acceptance and adjustment to the disease. Furthermore, the choice is experienced more as an emotional than a rational one; it is influenced by personal preferences whereas practical aspects do not seem to play a substantial role.

Conclusion: Several aspects make decision-making in the case of dementia different from decision-making in other chronic diseases: (1) the difficulty to accept; (2) the progressive nature of the dementia; (3) patients reliance on surrogate decision-making as the disease progresses; and (4) strong emotions. Due to these aspects, the decision-making process is very time-consuming, especially the crucial exploration phase. A more active role is required for both the caregiver and the health care professional especially in the exploration phase, enabling easier acceptance and adjustment to the disease.

Disclosure of Interest: None Declared

P190

CONNECTING PEOPLE WITH DEMENTIA AND CAREGIVERS EARLY TO EDUCATION AND SUPPORT

M. Schulz^{1,*}

¹Education, Alzheimer Society of Canada, Toronto, Canada

Objectives: In order to connect people with Alzheimer's disease and other dementias and their families to a circle of support as early in the disease process as possible, the ASC developed First Link® (FL), a program that links people to their local Alzheimer Society (AS) and other community resources as early as possible.

The key outcomes sought from this initiative are to:

- Ensure individuals newly diagnosed with dementias and their caregivers have early access to information, services and support.
- Strengthen links between family physicians, the AS and community service providers.
- Increase awareness and effective, efficient utilization of community resources.

Methods: This initiative is based on the following approach:

- Develop a nationwide brochure for people with dementias and their caregivers to connect them to AS services and information from the time of diagnosis.
- Develop a nationwide toolkit to provide all Alzheimer Societies in Canada with strategies and helpful tips to assist with building stronger referral source relationships (such as those with family physicians) and enhancing program delivery.
- Obtain endorsement of our materials on the importance of early diagnosis by the College of Family Physicians of Canada and thus the encouragement of general practitioners to refer people proactively to the AS.
- Build capacity nationwide by providing grants to provincial Alzheimer Societies in order to strengthen FL in their community and/or foster referral source relationships.
- Learn from a FL demonstration project in four sites in Ontario (ON) and two sites in Saskatchewan (SK).

Results: The key findings from the FL demonstration project in ON (November 1, 2007 to June 30, 2009) and SK (October 1, 2007 to December 31, 2010) include:

- On average, those who were referred to the AS via FL as opposed to other channels in both ON and SK were referred 11 months sooner.
- There was increased understanding and awareness of available community resources among health care professionals.

Conclusion: By being connected to their local AS as early in the disease process as possible, people with dementias and their family members develop competency and resiliency in facing the journey through early help and planning, information and education, and connection to support services.

Disclosure of Interest: None Declared

P192

EFFECTIVE WAYS FOR PROVIDING HEALTH CARE IN SMALL-SCALE MULTIFUNCTIONAL COMMUNITY-BASED CARE

M. Irahara ^{1,*}

¹Medical Office, IRAHARA Primaty Care Hospital, Matudo, Japan

Objectives: A field survey was conducted for the purpose of determining effective ways for providing health care in the unique Japanese system of "small-scale multi-functional community-based care" in order to create a close relationship between care workers and elderly dementia patients and enable them to live with peace of mind in familiar communities until the end of their lives.

Methods: Interview surveys were conducted by visiting four different types of small-scale, multi-functional community-based care centers. A questionnaire survey was conducted on (1) an overview of the facilities and their operating status and (2) 74 care workers at the four centers. The contents of the survey consisted of the presence of personnel experienced in performing medical acts, the presence of the ability to accommodate emergencies, and the presence of personnel experienced in nursing.

Results: (1) The registered capacities of the facilities were 24 persons for one facility and 25 persons for the other three facilities, the number of transit patients ranged from 12 to 15, and the number of residents of the facilities ranged from 4 to 8. The number of transit users was 12 per day, and the number of residents ranged from an average of 1.6 to 8 per day. The number of visitors ranged from 0 to 10, indicating a considerable difference between the facilities. (2) The number of personnel having experience in gastric fistula injection and fistula aspiration increased with the number of years of experience of the care workers. 20% to 30% of care workers had experience in accommodating emergencies. 46% of the care workers had experience in providing nursing care. However, 62% of care workers expressed anxiety over the deaths of facility users.

Conclusion: Gastric fistula injection and fistula aspiration are performed to a considerable extent in the care setting. In addition, roughly half of all care workers had experience in providing nursing care. It is thought to be necessary in the future to promote nursing care in communities utilizing "small-scale multi-functional community-based care" by accepting the performing of medical acts by care workers.

Disclosure of Interest: None Declared

P193

"ONE SHOWS ONESELF THROUGH ONE'S ACTIONS." PROFESSIONAL CAREGIVERS' APPROACHES IN CARING FOR PEOPLE WITH DEMENTIA DISEASE AFTER VALIDATION METHOD TRAINING PROGRAMME. - ANALYSIS OF VIDEOTAPES

M. Söderlund ^{1,2,*}, A. Norberg ^{2,3}, G. Hansebo ^{1,2}

¹Department of Neurobiology, Care Sciences and Society, Karolinska Institutet, ²Department of Health Care Sciences, Ersta Sköndal University College, Stockholm, ³Department of Nursing, Umeå University, Umeå, Sweden

Objectives: To explore any changes in professional caregivers' approaches in caring for people with dementia disease (DD) during a validation method (VM) training programme.

Methods: A VM training programme was conducted in a nursing home where people with severe DD were living. The one-year training programme involved theoretical and practical VM training with supervision. Each caregiver chose three people with DD and practiced the VM in conversations 2-3 times a week. The practice also included video recordings of repeated conversations with one of these residents once a month. Of the 12 participating caregivers, eight had videotaped for a period of at least five months and their videotapes from the start and from the end of VM-training programme were chosen and analysed qualitatively. The focus in the present study was on the caregivers.

Results: The results showed that some caregivers already from the start had close attentive approaches, while others had more distanced approaches. The caregivers' approaches showed in the pattern of conversation styles that they used. In the videotapes from the end of the VM training programme, the caregivers had to varying degrees integrated the VM and its confirmatory, empathetic approaches. All caregivers used the validation techniques, but caregivers with close attentive approaches seemed to have internalized both the approaches and techniques and used them as a whole together.

Conclusion: Professional caregivers are differently skilled in communicating with people with DD and the techniques and methods of the VM developed may not be suitable for all. The VM is an approach that requires personal qualifications. To be able to listen attentively and be truly present in relationships, caregivers must put the person first. This may be considered something that should be a matter of course; but in the present study, not all professional caregivers managed to do this.

Disclosure of Interest: None Declared

P194

PEER SUPPORT FOR CARERS OF PEOPLE WITH DEMENTIA: PERCEPTIONS OF BENEFITS FOR CARERS AND VOLUNTEERS

N. Greenwood ^{1,*}, R. Habibi ¹, A. Mackenzie ¹, V. Drennan ¹, N. Easton ²

¹Faculty of Health and Social Care Sciences, St George's University of London and Kingston University,

²Modernisation Initiative, End of life care programme, London, United Kingdom

Objectives: Using qualitative methods to identify the perceived benefits for carers and volunteers of participating in the innovative Facing the Future Peer Support Service. The service was set up in 2010 to support carers of people with dementia to manage end of life issues. Peer volunteers, themselves former carers of people with dementia, support current carers.

Methods: Semi-structured interviews with 9 carers and 4 volunteers, undertaken as part of a service evaluation were analysed to identify themes.

Results: Carers and volunteers perceived that they benefited by realising they were not alone in their experiences and emotions. For carers this realisation reduced their sense of isolation helping them understand that others share their emotional journey. Other benefits included the opportunity to talk freely about difficult experiences and emotions such as anger and guilt, learning how others have coped, reassurance they were already doing a good job and the reminder that they should look after themselves, not just the person with dementia. Carers saw volunteers as having 'survived' and therefore offering 'light at the end of the tunnel'.

Being a peer volunteer was rewarding, satisfying and enjoyable and helped volunteers come to terms with their own, often difficult, experiences. It allowed them to 'give something back'. Volunteers also benefitted from peer support from other volunteers and the roles and skills developed during training and supervision. This also helped them realise that they were not alone and their experiences were not unique.

However, neither carers nor volunteers appeared to want to focus on end of life issues. Instead they tended to concentrate on the 'here and now'.

Conclusion: Numerous benefits of this non-professional support were revealed. The findings will inform service development by demonstrating the impact of peer support and highlighting this to practitioners. Our findings have similarities with other research but highlighting the main strength of the service as helping carers realise that they are not alone is an important new finding. Further research is needed to understand exactly why this realisation is so significant for these carers.

Disclosure of Interest: None Declared

P195

COGNITIVE THERAPY AT ALZHEIMER DEMENTIA

O. Bundaleska^{1*}, M. Bojadzievski², L. Neloska³

¹Gerontology Institute, ²Gerontology Insitute, ³Menager, Gerontology Institute, Skopje, Macedonia, The Former Yugoslav Republic Of

Objectives: What is Alzheimer dementia? Acquired intellectual deterioration caused by unspecific organic causes. It is a global decline in intellectual, emotional and cognitive skills, ex. intact state of consciousness. (deterioration) covers intellectual decline of memory, language, speech, reasoning, cognitive and visual-spatial and motor skills.

Methods: -observation patients

-talking with them

-psychological test

-cognitive behavior therapy

- talking with their family

Results: Following 80 patients from 2001 to 2008 years with vascular dementia, from whom 30 men and 50 women from 65 to 75 years old. From these patients, 3 man of them were getting better in cognitive plan, and 26 women.

Conclusion: Alzheimer dementia is an incurable chronic disease, but assistance to caregivers can reduce the severity of patients' symptoms and delay institutionalization. Because this assistance requires provision of multiple health care and social services, patients and caregivers might benefit from a coordinated system of care. The quality of care for patients with vascular dementia and their caregivers can be improved with a model of care in which services provided by the health system and community agencies are coordinated by a care patients with health insurance.

Disclosure of Interest: None Declared

P196

SYSTEMATIC REVIEWS ON BEHAVIOURAL AND PSYCHOLOGICAL SYMPTOMS OF DEMENTIA

R. Van Der Linde^{1,*}, B. C. Stephan¹, G. Savva², T. Denning³, C. Brayne¹

¹Department of Public Health and Primary Care, University of Cambridge, Cambridge, United Kingdom, ²The Irish Longitudinal Study on Ageing, Trinity College Dublin, Dublin, Ireland, ³Cambridgeshire & Peterborough NHS Foundation Trust, Fulbourn Hospital, Cambridge, United Kingdom

Objectives: Behavioural and psychological symptoms (BPS) of dementia include depressive symptoms, anxiety, apathy, sleep problems, irritability, psychosis, wandering, elation and agitation, and are common in the non-demented and demented population. We have undertaken 3 reviews on BPS: a systematic review of reviews to give a broad overview of the prevalence, course, biological and psychosocial associations, care and outcomes of BPS in the older or demented population; a review of the nature, performance and use of instruments to measure BPS to discuss common issues in the choice of the most appropriate instrument to measure BPS in research; and a systematic review on the longitudinal course of BPS to inform patients, carers and future research about the stability of symptoms.

Methods: Pubmed, Embase, Cinahl, PsychInfo and SCOPUS were searched for relevant articles using a combination of search terms for BPS, dementia, ageing, measurement instruments and longitudinal studies.

Results: 34 systematic reviews on BPS were identified. Most investigated the prevalence of symptoms, whereas only a few reviewed the possible biological mechanisms underlying BPS and the effects of BPS on outcomes and care. 83 instruments that are used to measure BPS were identified that differ in size and detail, are based on interviews with participants, informants or observation, are aimed at demented, older or adult populations and use different time frames. The Neuropsychiatric Inventory (NPI) has been cited most frequently. The systematic review on the longitudinal course of BPS is currently in progress.

Conclusion: Large heterogeneity in study design and the use of many different instruments to measure BPS means that it is difficult to make cross study comparisons. A better understanding of the occurrence and causes of BPS and clearer definitions are needed to improve measurement. Depressive symptoms are most widely studied, with other symptoms such as apathy, irritability, wandering and elation typically ignored. When choosing an instrument for research the research question should be carefully scrutinised and the symptoms of interest, population, quality, detail, time frame and practical issues should be taken into account.

Disclosure of Interest: None Declared

P197

IMPROVING ADHERENCE AND PERSISTENCE TO CHOLINESTERASE INHIBITOR THERAPY IN ALZHEIMER'S DISEASE: DEVELOPMENT OF THE CARETOCARE™ CAREGIVER SUPPORT PROGRAM

R. Brady ^{1,*}, J. Walburn ¹, J. Weinman ², C. Strohmaier ³

¹Atlantis Healthcare, ²Institute of Psychiatry, Kings College London, London, United Kingdom, ³Novartis Pharma AG, Basel, Switzerland

Objectives: Poor adherence to treatment, a barrier to optimal therapeutic outcomes, is a problem in most therapy areas and Alzheimer's disease (AD) is no exception. Adherence to cholinesterase inhibitors (ChEIs), a first-line therapy for mild-to-moderate AD, is typically suboptimal, and it is estimated that a third of patients treated with rivastigmine capsules do not reach optimal therapeutic doses. Adherence may be influenced by factors involving the patient and caregiver.

Due to the chronic, degenerative nature of AD, the caregiver's workload and role in ensuring treatment adherence increases as the disease progresses. Caregiver judgement of the patient's cognitive impairment and ability to self-administer medication, as well as unhelpful beliefs related to treatment can influence adherence; however, a multitude of other factors may also play a role. Reducing the impact of AD on the caregiver may improve treatment adherence.

The CaretoCare™ caregiver support program aims to improve adherence to rivastigmine patch through addressing caregiver treatment-related beliefs and improving caregiver well-being and confidence. Program content and personalisation have been guided by literature searches on adherence to AD treatment and the impact of AD on the caregiver; and by qualitative research. Results of a planned observational study of patients receiving rivastigmine patch, designed to identify factors affecting treatment adherence, will be used to refine the program design. A pilot support program has launched in Germany. Efficacy of the program will be monitored at three months post-program entry, six months (program end), and nine months (follow-up) using questionnaires specifically designed to assess adherence, persistence, caregiver satisfaction and confidence, the influence of the program on addressing negative treatment-related beliefs and physician perceptions of the program. By supporting caregivers, the CaretoCare™ program may improve patient adherence to AD medication.

Disclosure of Interest: R. Brady Employee of: Atlantis Healthcare, Conflict with: Atlantis Healthcare was commissioned by Novartis to develop a carer support program for patients prescribed the rivastigmine patch, J. Walburn Employee of: Atlantis Healthcare, Conflict with: Atlantis Healthcare was commissioned by Novartis to develop a carer support program for patients prescribed the rivastigmine patch, J. Weinman Employee of: Atlantis Healthcare 1 day per week, Conflict with: Atlantis Healthcare was commissioned by Novartis to develop a carer support program for patients prescribed the rivastigmine patch, C. Strohmaier Employee of: Novartis Pharma AG

P198

ACTUAL STATE OF DEMENTIA CARE PROVIDED BY CAREGIVERS AT NURSING HOMES

S. Hara ^{1,*}, S. Yoshioka ², S. Araki ³, M. Ono ¹

¹Faculty of Medicine, Shimane University, Izumo, ²Matsue City Hospital, ³Tamatsukuri Kosei-Nenkin Hospital, Matsue, Japan

Objectives: Based on an earlier study that identified elements of high-quality dementia care provided at nursing homes, this study investigated the actual state of dementia care provided by professional caregivers. The objective of this study was to clarify the frequency with which caregivers of nursing homes perform each key dementia care activity.

Methods: Study subjects were professional caregivers working in nursing homes in Japan. Subjects were asked to indicate the frequency with which they perform each of the 29 dementia care activities, which had been identified in the earlier study: 6 items in the category “creating an environment where residents can feel safe and at home”, 3 items in “support for residents in maintaining the lifestyle that they had at home”, 2 items in “support for residents in maintaining a stable rhythm of life”, 6 items in “helping residents maximize their remaining abilities”, 3 items in “support for safe daily living”, 3 items in “promotion of mutual interaction and support for social life”, 3 items in “cooperation with residents’ families”, and 3 items in “consistent and coordinated care”. Each item was scored on a five-point scale from ‘always’ to ‘rarely’. Participation in this study was voluntary.

Results: The number of valid responses was 576 (response rate: 45.5%). The study results show that “consistent and coordinated care” is frequently practiced in nursing homes. The item for which the largest number of respondents selected ‘always’ or ‘very often’ was ‘maintaining good physical condition of residents through dehydration prevention, defecation control and infection prevention’ (92.2%), which is included in the category: “support for residents in maintaining a stable rhythm of life”. On the other hand, the item for which the largest number of respondents selected ‘not very often’ or ‘rarely’ was ‘creating a comfortable home-like atmosphere furnished with personal furniture and items’ (49.8%) included in the category “support for residents in maintaining the lifestyle that they had at home”.

Conclusion: It has been suggested that professional caregivers working in nursing homes place importance on providing “consistent and coordinated care” by a care team that includes nurses. It is surmised that infrequent practice of some of the care activities included in “support for residents in maintaining the lifestyle that they had at home” is related to the care policy of the nursing homes surveyed.

Disclosure of Interest: None Declared

P199

USE OF A INNOVATIVE PART-TIME CARE FACILITY FOR PEOPLE WITH DEMENTIA IN SWITZERLAND – AN EVALUATION STUDY

S. Oppikofer^{1,*}

¹Center of Gerontology, University of Zurich, Zurich, Switzerland

Objectives: To date, a range of possibilities exist to alleviate caregivers' physical and psychological strain, e.g. patients' regular short stays at an institution or nursing home. However, the effect of this procedure upon the persons involved has not yet been evaluated in Switzerland. The most innovative part-time care center of Switzerland (Sonnweid) has been the objective of this evaluation.

Methods: A process-oriented evaluation investigated the effects of visiting the part-time care centre of a specialized institution for dementia near Zürich upon part-time patients, their family caregivers, permanent patients, and staff members. 17 family caregivers and their patients underwent standardized interviews and were observed at their homes and during their stay at the institution. The main themes were quality of life, health, care burden and amount of relief experienced. In addition, 17 staff members were interviewed on job satisfaction and care burden, and 6 permanent patients were asked about the effects of having temporary guests at their ward.

Results: Family caregivers showed slightly improved health since using part-time care in 80% of the cases, and depressive mood was reduced. About 70% of the respondents believed that by using part-time care in an institution, they would be able to keep their family members with dementia at home for longer, and 60% reported positive changes in their social activities. However, the results of this evaluation indicate benefits not only for caregivers, but also for patients: for example, aggressive behaviour was reduced in a quarter of the cases.

Conclusion: In conclusion, utilizing a part-time care facility has a positive effect on family caregivers' physical and social resources and helps them cope independently with their daily routine for a longer time.

References: Kesselring, A., Krulik, T., Bichsel, M. et al. (2001). Emotional and physical demands on caregivers in home care to the elderly in Switzerland and their relationship to nursing home admission. *European Journal of Public Health*, 11, 267-273.

Oppikofer, S. (2008). Temporäre Entlastung für pflegende Angehörige von Menschen mit Demenz. Evaluationsprojekt Tag/Nacht-Station Sonnweid. Erkenntnisse aus der Praxis - Empfehlungen für die Praxis. Zürich: Universität Zürich.

Disclosure of Interest: None Declared

P200

PSYCHOTHERAPEUTIC METHODS IN THE TRAINING PROGRAMS FOR PROFESSIONALS IN DEMENTIA CARE

S. Aavaluoma^{1,*}, R. Soisalo¹

¹The Finnish Institute of Psychology, Helsinki, Finland

Objectives: The purpose of this presentation is to share our experiences in developing new innovative training programs for social and healthcare professionals in the Finnish dementia care system.

Living with dementia is an enormous challenge to the whole family – no matter who in the family gets the memory illness. Progressive memory illness means a long lasting inner journey of grief and loss, where families need a long lasting supportive relationship. Most families seem to have many traumatic events in their early interactions. The Attachment style and difficulties in interdependence seem to affect the persons' ability to accept the illness, vulnerability and helplessness as a part of the new interaction in the family.

As the amount of the memory illnesses is growing, also the need of dementia care and dementia professionals is increasing. The knowledge of the connection of primary attachment styles, traumatic events in childhood and dementia is growing fast. There is a global need for new approaches to high quality dementia care and new approaches in training programs of professionals in dementia care.

The Finnish Institute of Psychology is developing new training programs that are based in the biopsychosocial point of view. The trainers are family psychotherapists who have long experience of working with families living with dementia. There is also a physician in the trainers group. The training programs include the latest knowledge of medical and psychotherapeutic approaches to the psychosocial dementia care. The training programs are planned to all stages of dementia care and they vary from two days seminars to one year process training.

Since January 2011 we have started six training groups of Memory Counsellor's training programs in five cities in different parts of Finland. 79 health care professionals are attending the program at the moment. The Institute is also starting one year training programs in basic skills of family work in dementia care and psychotherapeutic approaches to dementia care.

Disclosure of Interest: None Declared

P201

DISTRESS AND WORK-RELATED HEALTH AND WELL-BEING OF PROFESSIONAL NURSES CAUSED BY CHALLENGING BEHAVIOUR OF RESIDENTS IN NURSING HOMES – A LONGITUDINAL DATA ANALYSIS

S. G. Schmidt^{1,*}, M. Dichter², B. H. Müller³, H.-M. Hasselhorn⁴

¹Nursing Research Section - Institute of Safety Technology, University of Wuppertal, Wuppertal, ²German Centre for Neurodegenerative Diseases, Witten, ³Institute of Safety Technology, University of Wuppertal, Wuppertal,

⁴Department "Work and Health", Federal Institute of Occupational Health, BAuA, Berlin, Germany

Objectives: People with dementia are the largest resident group in German nursing homes (NH). They are known to frequently (prevalence app. 60-89%) exhibit different kinds of challenging behaviour (RCB). This constitutes a relevant work stressor for nursing staff. Aim of this research is to investigate associations between the change of RCB-related distress for nurses in NH and their health and well-being (HaW) two years later.

Methods: Longitudinal self-report questionnaire-data of 366 registered nurses and nursing aids in 54 German NH were used (3Q-Study, 2009 and 2011). The nurses' RCB - related distress was assessed with a scale of 9 questions concerning the degree of perceived distress due to specific caring situations with challenging behaviour patterns (scale based on NPI-NH). Validated scales to assess HaW were: "Job satisfaction" (COPSOQ), "Burnout" (CBI) und "General Health" (SF-36). Besides descriptive analyses, three linear regression models were applied to analyse associations of changing RCB-distress with follow-up scores of HaW.

Results: No differences were found between the mean RCB-distress scores in 2009 and 2011, but 28% of the nursing staff showed an increase of RCB-distress and 30% a decrease (each changing more than ½ SD). In longitudinal regression models changes in RCB-distress were significantly associated with HaW in the expected direction ("General health": $\beta = -.259$; "Burnout": $\beta = .224$; "Job satisfaction" $\beta = -.221$)

Conclusion: The results confirm that RCB in NH may constitute a significant work stressor for nursing staff with a clear impact on nurses' HaW. RCB needs more scientific and practical attention with the aim to improve work quality of professional nursing staff in NH as well as the quality of care of residents with challenging behaviour.

Disclosure of Interest: None Declared

P202

DEVELOPMENT OF A TRAINING PROGRAMME FOR VOLUNTEER PEER SUPPORTERS OF FAMILY CARERS OF PEOPLE WITH DEMENTIA

*G. Charlesworth ^{1,3}, S. Ahmad ², T. Sullivan ³ and M. Orrell ^{1,3} on behalf of the SHIELD CSP team

¹ University College London, ² Age Concern Havering, Romford, ³ North East London NHS Foundation Trust, London, United Kingdom

Objectives: Peer support for family carers is recommended in guidelines for dementia care. Having reviewed international literature and practice examples and worked with a diverse group of stakeholders to devise the content of a one-to-one peer support intervention for family carers of people with dementia, we next needed to develop an appropriate training programme for those volunteers looking to take on the peer support role. The aim of this presentation is to describe the training materials devised.

Methods: Draft materials were produced and used in a pilot training with representatives from the 'Uniting Carers for Dementia' campaign group. Feedback from the pilot was used to revise the training content, and a participant's manual was drafted. The draft powerpoint presentation was revised, and a number of film clips produced to illustrate relevant skills and potential dilemmas for carer supporters. Finally, a trainer's manual was produced to provide hints and tips on training and highlight the intended teaching points arising from the film clips and discussions.

Results: Training methods that worked well for potential volunteer carer supporters included use of illustrative care dyads and film clips to raise discussion points. The final programme consists of 6 modules covering: introductions; the importance of social support for carers; boundaries of the carer supporter role; listening and helping skills; working safely in other people's homes; dementia awareness and resources for family carers and people with dementia

Conclusion: The final carer supporter awareness and orientation programme consists of two manuals (participant and trainer) and an accompanying DVD containing a powerpoint presentation and film clips. It has been used to train potential carer supporters within the SHIELD carer supporter programme. The materials will be published and made available for use within befriending and peer support schemes.

Disclosure of Interest: None Declared

P203

ALZHEIMER'S DISEASE ILLNESS REPRESENTATIONS AMONG SOCIAL WORKERS AND NURSES

S. Altman^{1,*}, P. Werner², M. Cohen²

¹Social Work, ²Gerontology, Haifa University, Haifa, Israel

Objectives: Background: Professionals' perceptions of their patients' diseases ('Illness Representations') are a major factor which greatly influence the quality of the treatment they provide, its outcome and the personal well being of their own.

Aim: To examine and compare Alzheimer's disease (AD) illness representations among two main professional groups involved in the care of Alzheimer patients, nurses and social workers.

Methods: 202 nurses and 125 social workers, at 5 hospitals and 30 nursing homes in Israel were asked to report their cognitive representations (Dimensions of Identity, Cause, Timeline, Consequences, Control, Coherence and timeline cycle), and emotional representations using a self-complete questionnaire. Demographic and occupational characteristics were also obtained.

Results: All the participants perceived AD as a chronic disease associated with severe consequences. Statistically significant differences were found between the groups in three cognitive illness representations: perceptions of psychological causes of the disease, timeline and consequences, thus, the nurses attributed psychological reasons to AD ($M=2.25$; $SD=0.70$) more than the social workers ($M=2.00$; $SD=0.76$). Nevertheless, the social workers perceived the disease as more chronic ($M=4.46$; $SD=0.59$) with severe consequences ($M=4.33$; $SD=0.58$) compared to the nurses ($M=4.13$; $SD=0.69$) ($M=4.04$; $SD=0.68$) (respectively).

Conclusion: In spite of the resemblance in respect to some of the AD illness representations reported by the participants, there were some differences between social workers and nurses. Based on these findings, it is recommended to continue to distribute updated materials to professionals regarding AD, with special attention to the unique and specific characteristics of each professional group. Furthermore, the study's findings encourage the development of training and support programs which will deal not only with the organizational and instrumental levels of treating AD patients but also with the assessment and consequences of the professionals' illness representations on the patients' well being and on the own well-being of the professionals' as well.

Disclosure of Interest: None Declared

P204

TRAINING ELDERCARE WORKERS IN DEMENTIA CARE – FINDINGS FROM THE PILOT RUN OF THE DEMACT PROGRAMME

H. J. Koh ¹, S. L. Tan ^{1,*}, P. P. J. Lim ¹, Y. C. Kuo ¹, X. Tan ², A. T. Lin ³, Y. C. Lau ³

¹Community Psychogeriatric Programme, ²Changi General Hospital, ³Caregiver Support Service, Alzheimer's Disease Association (Singapore), Singapore, Singapore

Objectives: The Dementia Activities and Care Toolkit (DemACT) programme was introduced in February 2011 to train eldercare workers in facilitating activities with persons with dementia (PWD) using an Activity Toolkit. Inspired by “Activities for Health” in Israel, the DemACT Toolkit is a resource to facilitate activities with PWD living at home, localised to the Singaporean culture. This study aims to evaluate the benefits of the training and support provided to a group of eldercare workers recruited to provide a home activity programme for PWD.

Methods: DemACT collaborated with the Alzheimer's Disease Association Eldersit Programme in Singapore to trial a pilot run from February – August 2011. Nine participants received 18-hours of classroom training focusing on person centred care, facilitating activities with PWD, assisting with activities of daily living, and using the DemACT toolkit with PWD at home. Twelve hours of on-the-job training (OJT) was provided for the participants by occupational therapists (OTs). Seven out of nine of the participants successfully completed the training cum on-the-job training (OJT). A focus group with five out of the seven competent eldersitters was conducted in July 2011, and an evaluation form was administered to gather feedback about the DemACT programme.

Results: The classroom training modules that were ranked most useful by the five eldersitters were ‘Facilitating activities for PWD’, and ‘Assisting with activities of daily living’. The eldersitters found eight-hour training sessions too long and preferred four-hour sessions as they were learning new information. Two eldersitters preferred more case examples and hand-on practice during the sessions. Demonstrations provided by the OTs during OJT were reported to be beneficial in learning how to interact with the PWD, and to get the activity sessions started. One eldersitter felt OJT was like a test and would prefer more teaching to be provided. All five eldersitters indicated they would apply at least 2 techniques learnt to engage the PWD in activities at home

Conclusion: The findings suggest the DemACT programme is beneficial in enhancing the skills of eldercare workers in facilitating activities with PWD. Future sessions should devote more time on demonstrations by healthcare professionals and hands-on practice. The teaching curriculum should be organised to optimise learning absorption and application.

Disclosure of Interest: None Declared

P205

EXCEPTIONAL TRAINING, SUPPORT AND RETENTION FOR STAFF IN A DEDICATED ALZHEIMER'S FACILITY ENHANCES RESIDENT AND FAMILY SATISFACTION

J. Dalessandro¹, S. D. Gilster^{1,*}

¹ALOIS ALZHEIMER CENTER, Cincinnati, United States

Objectives: Staff recruitment and retention continue to be on the minds of many in long-term care, particularly those who struggle daily to secure enough staff to meet the needs of the residents with Alzheimer's disease and dementia. Turnover rates for direct staff, nurses and administrators range from 40% to well over 100% in nursing homes as well as assisted living. Perceived reasons for this tend to center around monetary and benefit issues extrinsic to the work itself, rather than intrinsic factors related to working conditions, relationships with other and autonomy within the employee's position.

Methods: This session will describe the results of research and programs on staff orientation, training, and ongoing education resulting in exceptional satisfaction and retention within a specialized Alzheimer's facility over the past 24 years. Intervention include: 1) successful staff selection; 2) interviewing strategies; 3) vision and mission; 4) staff preparation and orientation; 5) ongoing direction and support; 6) providing a stimulating and motivating environment; 7) staff participation/ownership; 8) monitoring techniques; and 9) recognizing and celebrating accomplishments. Annual staff satisfaction surveys consisting of 52 questions about all aspects of their work were conducted and data compared. Survey answers range from very unhappy, unhappy, happy, and very happy. Turnover and retention rates were calculated on a quarterly basis to analyze retention.

Results: Staff turnover continually increased and remains in the single digits. Staff satisfaction survey results in 52 categories continue to improve over time, with an overall rating of Very Happy. The facility enjoys high family satisfaction and has experienced a number of deficiency-free state surveys. In addition, the staff have received multiple individual and group awards, including Step II of the American Health Care Association's National Quality Award.

Conclusion: While there is not one simple solution to staff retention and satisfaction, opportunities exist to provide a planned, ongoing program of training and education. Improved staff education, retention and satisfaction leads to improved quality care of individuals with Alzheimer's disease and dementia, in turn increasing resident and family satisfaction.

Disclosure of Interest: None Declared

P206

ADDRESSING BEHAVIORAL CHALLENGES THROUGH COMPASSIONATE COMMUNICATION

T. Shanahan ^{1,*}

¹Lifeline, San Diego, United States

The integration of Compassionate Communication techniques as an approach to Alzheimer's care is among the most beneficial non-pharmaceutical tactics that can be used by professionals and the care partners they educate. The Ringel Institute of Gerontology produced a 1999 study which found that certain types of compassion-based communication were effective for addressing trigger behaviors. The education of care partners in compassion-based communication reduced symptoms of depression and irritability. Compassionate Communication, originally designed for the San Diego Alzheimer's Association, further explores approaches to prevention and reduction of symptoms such as: wandering, shadowing, resistance to bathing, paranoia, and hallucination. Teresa Shanahan, PhD, CMC has trained care personnel in the use of Compassionate Communication by teaching skills for acceptance of behaviors as symptoms, not problems. She coaches through a role-play methodology which professionals and care partners can employ to gain successful responses from people with dementia. She also provides recommended adaptations to environment based on innovative methods and techniques. The improvement in communication by meeting the emotional needs and desire for intrapersonal connectivity creates an optimal sense of well-being for the person with dementia and involved care partners.

Disclosure of Interest: None Declared

P208

ILLNESS PERCEPTION AND POSITIVE MENTAL HEALTH IN FAMILY CARERS OF PEOPLE WITH DEMENTIA

V. Orgeta^{1,*}, E. Lo Sterzo², M. Orrell¹

¹University College London, London, United Kingdom, ²UNIVERSITA' DEGLI STUDI DI PADOVA, PADOVA, Italy

Objectives: Positive mental health is recognized as having major consequences for health and social outcomes. Recent research has highlighted the important role of illness perception in understanding caregiver outcomes within the context of caring for a chronically ill partner. The purpose of the present study was to assess positive mental health in family carers of people with dementia and the extent to which subjective well-being in carers is affected by illness perception.

Methods: In the present study, 112 informal carers of PwD completed the Warwick-Edinburgh Mental Well-Being Scale (WEMWBS), alongside measures of key psychosocial outcomes, such as caregiver burden, quality of life, and self-reported symptoms of anxiety and depression. Illness perception was measured by the revised version of the Brief Illness Perception Questionnaire (Brief IPQ).

Results: Findings indicate that the WEMWBS, can be a useful tool in measuring positive mental well-being in carers of PwD. Understanding dementia as an illness and beliefs about the emotional impact of the disease were amongst the most important predictors of positive mental well-being. Findings are discussed in relation to understanding emotional well-being in carers of people with dementia.

Conclusion: The framework of illness perception may offer new insights for current theoretical models of dementia caregiving research, and may inform current interventions aimed at improving well-being for this population.

Disclosure of Interest: None Declared

P210

THE DEVELOPMENT OF A TRAINING PROGRAMME FOR INFORMAL CAREGIVERS OF OLDER PERSONS WITH DEMENTIA IN MACAU SAR, CHINA

W. Zeng^{1,*}, K. V. Iat¹, B. L. Gar¹, I. L. Wei¹

¹Kiang Wu Nursing College, Macau, Macau, China

Objectives: 1. Explore the cultural meaning of burden for caregivers.
2. Develop a culturally appropriate training programme for relieving caregivers' burden

Methods: Design: Phase 1 = Qualitative; Phase 2 = Intervention.

Participants: Informal caregiver of community dwelling diagnosed dementia patient. Participants will be recruited using purposive sampling:

Inclusion criteria for dementia patients: 1) Fulfill dementia diagnosis based on DSM-IV criteria; 2) A Clinical Dementia Rating (CDR) global score of 1-2 (mild to moderate); and 3) Able to communicate.

Inclusion criteria for caregivers: 1) Is the primary caregiver of the patient; 2) Living together with the patient; 3) No psychiatric illness based on DSM-IV criteria; and 4) No cognitive impairment as screened by the MSQ.

Phase 1: Explore the meaning of burden for informal caregivers: Cultural implications

A narrative study approach and narrative data analysis will be used.

Phase 2:

Develop a culturally appropriate training programme for relieving caregivers' burden

This phase will develop a culturally appropriate training programme based on results of Phase 1. The main components of the intervention will be:

1. To teach caregivers to cope with symptoms of dementia including decline in memory, functional status and behavioural problems.
2. To inform them regarding the existing resources and support available in the community
3. Stress management of caregivers through stress-management programs, formation of support groups and provision of 24 hour helplines.

Results: At present, we are at Phase 1 of this study. Some initial findings related to the burden of informal caregivers in Macau would be presented at the conference.

Conclusion: At present, we are at Phase 1 of this study. Some initial findings related to the burden of informal care-givers in Macau would be presented at the conference.

Disclosure of Interest: None Declared

P211

ACT, BELONG, COMMIT TO SINGING: A HEALTHY WAY TO LIVE FOR PERSONS WITH DEMENTIA AND THEIR CARE-GIVERS

D. Ebel^{1,*}

¹Education, Alzheimer's Australia WA, Perth, Australia

Objectives: Objectives: To offer a personal perspective on a program designed to promote and offer group singing for people with dementia and their carers.

This paper evaluates the program and its successes in terms of the own author's engagement with it, initially as a chorister/support worker and now as the group's singing facilitator. The program was designed and established in 2009 by a research team at The University of Western Australia and supported by Alzheimer's Australia WA Ltd, The Wicking Trust (a dementia charity), and Healthway (a health promotion organisation based in Western Australia). 'Act, Belong, Commit to Singing' has been an important program that has been running for five years and comprises 6 groups from across Western Australia. The program is designed to support people living with dementia and their caregivers. The group currently runs under the auspices of Alzheimer's Australia WA Ltd and is now under the direction of the author, who initially joined the program as a support worker.

In the paper, the author will present some of the objective research findings from the project, which include measureable improvements in cognitive focus and vitality. The paper will mainly explore the author's own experiences of her transition between roles and her personal experiences of the program and work with it. The paper will include the presentation of a short video which outlines the practical work in the project.

Disclosure of Interest: None Declared

P212

ANIMAL ASSISTED ACTIVITY: VOLUNTARY ACTIVITY IN FACILITIES IN JAPAN

F. Umemoto ^{1,*}, H. Shibanaï ²

¹Member, Alzheimer' Association Japan, Tokyo Chapter, ²President, Veterinary Surgeon, AkasakaAnimal Hospital, Tokyo, Japan

This is the introduction of details of Companion Animal Partnership Program, a rather unknown activity in Japan through Dr. Shibanaï, former president of the Animal Hospital Association.

The QOL of elderly in Japan has been developing steadily throughout Japan through the days of trial and error since the Long-term Care Insurance System was started in 2000. The central and local governments, hospitals, elderly facilities, and volunteer associations endeavor both in hardware and software areas in order to raise the QOL.

Other than those direct programs there are some remarkable trials by volunteers in other fields. One of those is the animal assisted visiting activity by the Japanese Animal Hospital Association that makes efforts in raising the QOL of the elderly.

Animal Assisted Activity is visiting hospitals and facilities by a group consists of an animal doctor or certified member, and volunteers with trained and health checked animals that cleared certain conditions. Veterinary surgeons and volunteer members visit mental institutions and nursing homes with daycare services, accompanied by animals such as dogs, cats, rabbits etc. that have been trained to be calm with each other and with people. Here AAA volunteer try to make residents and day service users relax, and keep their emotion stable.

This activity in Japan was first started at an accredited nursing home "SAKURA-EN" in Yokohama, in May 1986, and has spread to 40 prefectures out of 46 since then. It is not easy for geriatricians to evaluate the effects statistically; however, dramatic results could be seen in their faces that changed to calm and smiles as soon as they saw or touched those animals.

Disclosure of Interest: F. Umemoto Conflict with: Volunteer, H. Shibanaï Conflict with: Volunteer

P213

DELAYING THE PROGRESS OF DEMENTIA CONDITION AMONG THE ELDERLY IN JAPAN

K. Kanzaki-Sooudi^{1,*}, R. Terui¹, A. Shikanai²
¹Sapporo City University, ²Tenshi University, Sapporo, Japan

Objectives: As of 2011, the elderly population in Japan is 23.1%, and Japan's Ministry of Health, Labour and Welfare predicted this figure to grow as high as 25.2% by 2013. Furthermore, average life expectancy in Japan has increased by 0.05 years, making average life expectancy of women 86.39 years. As people live longer, the number of elderly with dementia, especially Alzheimer's disease (AD), which is closely related to aging, will also increase with no foreseeable cure. To delay the progress of dementia, it is important to provide challenging intellectual stimulation, while still enabling successful completion of activities.

Purpose: This study is to evaluate the effectiveness of an activity tool called Memory Magic TM among Japanese elderly with AD. The tool was developed in the U.S. to elicit more positive engagement and reduce negative behaviors among older adults with dementia.

Subjects: A total of 100 subjects (65 and up), residing in group home units (a facility where the elderly with dementia live in a homelike environment), participated.

Methods: 49 subjects (85.51 ± 5.88) used the tool over the course of 3 months, while the remaining 51 subjects (83.43 ± 6.09) were in a control group (CG). The study group (SG) used the tool 3 times/ week in observed sessions. The CG continued to participate in regularly scheduled activities. The severity of dementia of each subject was assessed before and after the intervention, employing FAST. Seven-stage FAST and 16-stage FAST were used for before-after assessment. This study was conducted Sep. 2008~Jan. 2009. T-test and Wilcoxon's Mann-Whitney's U-test were performed.

Ethical Consideration: The Ethics Committee of Sapporo City University approved the study.

Results: Changes in FAST between before using the tool and after (Mann-Whitney's U test)

Items	Assessment	Mean± D SG	Mean± D(CG)
FAST (7)	Before	5.33 ± 0.188	5.53 ± 0.173
	After	5.18 ± 0.220	5.45 ± 0.144
FAST(16)	Before	7.12 ± 0.481	7.29 ± 0.436
	After	7.22 ± 0.489	7.20 ± 0.427

Conclusion: As to FAST level, no significant change was noted between the before-intervention and after-intervention data. Thus, no significant decline in FAST stage was observed in either the SG or the CG. Although further study is needed, participating in meaningful activities such as singing, word association, and reading daily may slow the progress of dementia.

Disclosure of Interest: None Declared

P214

THE EFFECT OF DIFFERENT FORMS OF MUSIC ON THE PATIENT WITH DEMENTIA

M. Heyns^{1,2,*}, H. du Plessis²

¹Alzheimers South Africa, ²UNIBS, University of the Free State, Bloemfontein, South Africa

Objectives: The potential positive impact of music on the emotion, memory, language, and socializing behaviour of a patient with dementia is well documented. An interesting question however is whether this applies to all music genres or just to a preferred genre. A study conducted in a residential care facility in South Africa focused on the differential effect of 4 different genres, 'light classical', 'spiritual', 'golden oldies' and 'Afrikaans folk music (boeremusiek)'.

Methods: Residents of a care facility (n =12, 10 females, 2 males, average age: 80 years), all diagnosed with dementia, were exposed to the four genres of music during 16 one-hour sessions, 4 sessions per genre. During the sessions 2 independent assessors assessed the alertness, verbal and nonverbal behaviour, affect, attention level, behavioural aspects and memory of the participants. The Music Therapy Assessment Tool of Glynn was implemented.

Results: An interesting pattern of results were detected: Light classical music and golden oldies affected their mood, often making them sadder, most probably because of sentimental recollections. Listening to the spiritual music, enhanced the meaningfulness of the communication, but listening to golden oldies decreased the level of communication. Folk music inhibited the amount of communication. Light classical music, folk music as well as golden oldies facilitated long term memory. All these differences were detected when comparing scores 'before', 'during' and 'after' the listening sessions. No significant differences were detected when the scores of the different genres during the same time slot (before, during and after listening) were compared.

Conclusion: It is clear that listening to different music genres affects the mood, facilitates recollection and influences the amount and level of communication differentially. It seems as if socialization is inhibited while the music is being played but is facilitated thereafter. Listening to music enriches the experiential world of the patient with dementia but the type of music should be personalized according the patient's preference. Given the relative ease with which music can be provided, music can be a powerful therapeutic agent in a care facility.

Disclosure of Interest: None Declared

P215

'HEY, SHE'S LOOKING AT ME!' -DEVELOPING AND IMPLEMENTING AN ART KIT TO ENHANCE COMMUNICATION WITH PEOPLE WITH DEMENTIA

M. K. Herz ^{1,*}

¹Emda - Alzheimer Association of Israel, Ramat Gan, Israel

Objectives: EMDA, the Alzheimer Association of Israel, strives towards enhancing the quality of life of all people with dementia. Working towards this goal, we imported *Meet Me at MoMA* and adapted it for use in Israel in 2008. Next, in response to a strong need to make art more accessible to people with dementia in the community and in care facilities, we developed a kit, *In the Armchair with Picasso*, and launched it in 2010.

Methods: A team of professionals from the fields of art and dementia compiled a pool of paintings. These paintings were shown to people with dementia to assess their reactions. After selecting the appropriate artwork, we interviewed family caregivers, social workers, occupational therapists and other professionals to ensure that the kit met their needs. It is imperative that this tool could be used by people with no art background, and our special training sessions meet this challenge.

Results: *In the Armchair with Picasso* has become a tool for people to learn about non-judgmental communicating with people with dementia. It is also a tool which celebrates each viewer's individuality and uniqueness.

Conclusion: *In the Armchair with Picasso* is routinely used in care settings throughout Israel, with positive informal reviews of its impact on the persons with dementia and their caregivers. These reviews prompted EMDA to translate the kit into English, and to plan adaptations for the Arabic- and Russian-speaking communities. Meanwhile, EMDA is developing other innovative kits designed to enhance people's on-going abilities throughout the illness.

Disclosure of Interest: None Declared

P216

TO EXPLORE THE LIVED EXPERIENCES OF CLIENTS WITH DEMENTIA TOWARD LOSS OF SPOUSE IN HONG KONG

O. S.-K. Sin ^{1,*}, G. K. Law ¹, W. K. Lui ¹

¹Kin Chi Dementia Care Support Service Centre, St. James' Settlement, Hong Kong, Hong Kong, China

Objectives: Only a few reported that people with dementia still have the same needs and right to grief and mourn of their loved one (Grief & Myran, 2006; Lewis & Trzinski, 2006; Oyebode, 2008; Rentz, *et al.*, 2005). Declining on both cognitive and linguistic abilities could affect individual coping with the grief process. This study attempts to explore the lived experience of people with dementia when coping with loss of loved one.

Methods: This is a qualitative study to explore the lived experiences of people with dementia on death and grief. Semi-structured interview was adopted to collect qualitative data from the subjects. Purposive sampling is adopted as all subjects will be clients with dementia attending a Dementia Day Care Centre in Hong Kong. The recruitment criteria include 1. Loss of spouses within 2-5 years; 2. Confirmed diagnosis of Dementia or Alzheimer's Disease; 3. No linguistic deficits; 4. No previous history of mental illness. The subjects will be interviewed thrice with three months intervals.

Results: The preliminary observation supports that even people in their moderate stage of dementia, their senses of awareness on loss of their spouse remains strong. Their grief process seems to be similar as those without dementia. Another significance observation shows that recent loss could lead to the memory of losses from the past. Details of analysis will be presented at the conference.

Conclusion: Subject clients with dementia demonstrated to have difficulty to cope with loss of loved one especially they tend to mix up with the past experience. Therefore, early professional intervention is essential because people with dementia should not be left to grief over the death of loved one.

References: Grief, C. and Myran, D. (2006) 'Bereavement in cognitively impaired older adults: Case series and clinical considerations', *Journal of Geriatric Psychiatry & Neurology*, vol 19: p209

Lewis, M. and Trzinski, A. (2006) 'Counseling older adults with dementia who are dealing with death: Innovative interventions for practitioners', *Death Studies*, vol 30: p777

Oyebode, J (2008) 'Grief and Bereavement' in Downs, M and Bowers, B *Excellence in dementia care: principles and practice* Bershire, Open University Press pp379-394

Rentz, C. *et al.* (2005) 'Grief and mourning from the perspective of the person with a dementing illness: Beginning the dialogue', *Omega*, vol 50: p165

Disclosure of Interest: None Declared

P217

IMPACT OF MEETING PLACE FOR PERSON WITH DEMENTIA: A QUALITATIVE RESEARCH

R. Chattat^{1,*}, L. Mazzoni², P. Berti³, E. Mariani¹, A. Fabbo⁴ and The cesena working group on meeting place

¹Department of Psychology, University of Bologna, Bologna, ²Fondazione Don Baronio, ³Assiprov Forli-Cesena, Cesena, ⁴Primary Care Department,, A.USL Modena, Modena, Italy

Objectives: Within psychosocial intervention in dementia care actions aimed to give the opportunity for person with dementia and their caregivers to be involved in activities and social interactions in order to prevent social exclusion are suggested. The main objective of this study is to outline, using qualitative research methods, the impact of meetings on person with dementia and their caregivers.

Methods: In order to collect information about participants on the effects of the participations in weekly meetings a qualitative methods is used. Person with dementia (7) and caregivers (23) all actively participating in meetings are interviewed about their opinion and perception of the impact of meetings. the thematic analysis method is used to evaluate data. the meetings are an opportunity for person with dementia and for their caregivers to participate in a group setting where cognitive, occupational and leisure activities are proposed weekly. Caregivers can also discuss with expert about different themes. All activities are planned and developed by trained psychologist and occupational therapist.

Results: The main results are: caregivers reports that participation in meetings had a positive impact on behavioral symptoms of their care recipient, a better mood state and an interest in participation in activities. The possibility to participate and to meet other persons is also appreciated and described as a "coming back to social relationship". Furthermore the weekly participation is seen by caregivers as a good frequency in order to help them facing the progression of disease. Finally participation in meaningful activities of person with dementia are described as helpful for caregivers themselves.

Conclusion: We can conclude that a low threshold activities is useful for both caregivers and person with dementia. It can be also seen as a low expensive way to keep contact with families to come along the course of disease and to help both caregivers and persons with dementia in preserving social relationship, participation and wellbeing.

References: Dow B., Haralambous B., Hempton C., Hunt S., Calleja D. Evaluation of Alzheimer's Australia Vic Memory Lane Cafés. *International Psychogeriatrics* (2011), 23:2, 246–255.

Meiland F., Drees RM., De Lange J., Vernooij-Dassen m. Facilitators and barriers in the implementation of the meeting centres model for people with dementia and their carers *Health Policy* 71 (2005) 243–253.

Disclosure of Interest: None Declared

P218

IMPORTANCE OF FUN IN THE DEMENTIA EXPERIENCE

S. Commins^{1,*}

¹Alzheimer Scotland, Stirling, United Kingdom

This presentation is based on 15 years of experience which I have as a volunteer directly involving people with dementia in a range of activities that are meaningful to them, working with the Stirling and Clackmannan branch of Alzheimer Scotland and another local dementia charity. Leisure activities are usually something that we do because they are enjoyable and break up life's normal pattern, a form of relaxation. The same applies to the person with dementia but for this person such activities are an essential tool to maintain his sense of well-being and a source of mental and physical stimulation. By participating in such activities the person with dementia is able to stay at home longer because it has been shown that mental stimulation can slow down the progress of the illness. Also carers are able to maintain their role at home longer because they see the person they care for happy and relaxed. It can also offer a period of respite for the carer so they can similarly enjoy their own leisure pursuits.

Music often plays an important part in many people's lives and a person with dementia can still enjoy making and listening to music. A former cathedral organist felt valued by playing for the singsong at his day club. Listening to music can soothe or can be invigorating and promote mobility if it leads to dance or exercise. Walking with a companion is not only an aid to mobility but also a sensory experience and a time of social interaction. The same can be said for many pursuits such as art and craft work, gardening, cooking - a group of gentlemen working in a day club were delighted with the mosaic they produced and proudly showed it to everybody. Now many people with dementia can experience a whole new world or reminisce about the past using developing computer technology. Using websites a gentleman of 92 years was transported back to his days in the SAS and has learnt to use a home computer. Similarly an outing with people with like minded interests is often not only stimulating but fun. Fun is itself a very meaningful activity and is something we often forget about when caring for those with dementia.

Disclosure of Interest: None Declared

P219

MEANINGFUL MOMENTS: ACTIVITIES FOR PEOPLE WITH DEMENTIA

T. Shanahan ^{1,*}

¹Lifeline, San Diego, United States

Tailoring activities to the capabilities of people with dementia and training families in activity use will result in clinically relevant benefits. The results achieved by pharmaceutical therapy can be augmented on a deeper internal level when people with Alzheimer's disease are engaged in structured and meaningful activities. The wave of the future is the recognition that managing dementia hinges on the use of activities for relationship building and meaningful social outlets. Education of care partners is an essential step in creating person-centered activities and purpose. Practitioners will learn through this presentation how to teach guidelines for activities through concrete examples that have been successfully used with people in various stages of dementia. These examples include activities of self-expression through altruistic acts, topical discussions and tasks, and social engagement. The suggested activities and implementation methods are based on over 30 years of activity planning by Teresa Shanahan, PhD, CMC. The results achieved by Dr. Shanahan and her staff are mirrored in a 2010 study from Aguirre and Spector's Maintenance Cognitive Stimulation Programme which proved that activities enhance the quality and meaningfulness of the lives of people with dementia and reduce care partner burden.

Disclosure of Interest: None Declared

P220

EARLY ONSET ALZHEIMERS PROGRAM JAPAN "THE PERSON HIMSELF"

T. Katsuda^{1,*} and "the person himself" interchange program

¹japan alzheimers association, Toyama branch, toyama, Japan

The program for dementia and early onset Alzheimers for young people (less than 60 years old) was started at Kyoto's international conference in 2004.

In Japan this was the very first time that people who were afflicted with dementia or early onset Alzheimers expressed their own opinions in a major forum.

This came as quite a surprise because up until then it was assumed they did not have this capacity.

After the 2005 international conference the family support society started the personal interchange program called "the person himself".

There were seven people, including myself, who participated in the program. It was at this time I decided to look for more associates sharing the same concrete goal of helping people afflicted with this condition.

In my home town, Toyama, we started "the person himself" interchange program.

Participation followed with people both old and young who were afflicted with dementia along with their families and support groups.

The meetings were productive in bringing people together to discuss their hardships and difficulties related to the disease while also enjoying singing and dancing together.

We named our society "TERUTERU-BOUZU" and arranged to meet once a month.

In 2007 we met at the house of one of the members and organised activities such as sports, pottery making, discussion groups, and enjoyed an open air bath together.

After each interchange meeting the members exchange letters and emails and occasionally arrange voyages and travel together.

Every year in spring and autumn, we organise the "interchange program" and up until now have had 10 meetings.

Despite the problem of early onset alzheimers and dementia it is through the interchange program that we encourage each other and develop a positive attitude towards life which hopefully will carry to everyone, everywhere that is afflicted.

Disclosure of Interest: None Declared

P221

THE WELLBEING EVALUATION SCALE: DEVELOPMENT AND PROPERTIES

A. Papadopoulos^{1,*}

¹Clinical Psychology, Birmingham and Solihull Mental Health NHS Foundation Trust, Birmingham, United Kingdom

Objectives: The following paper describes the development and psychometric evaluation of the 47 and 18 item, self-report Well-being Evaluation Scale (WES) (Papadopoulos *et al.*, 2011)

Methods: In the development of the WES, phase one (Halloran, 2008) involved constructing 100 questions drawn from codes comprising each property and associated dimensions of the Ecosystemic Framework of Well-being (Papadopoulos, Biggs & Tinker, 2011). In phase two (Backmark, 2009), items reflecting codes of low frequency of occurrence were removed leaving a 61 item questionnaire. Evaluation of the questionnaire was based upon a convenience sample of 101 English speaking adults aged 55-85 (average age 64) 47 percent male 53 percent female. Bivariate correlational analysis undertaken between all items yielded a 51 item scale with high internal consistency (Cronbach's alpha score of 0.963). Good test re-test reliability and convergent validity correlations were reported ($0.906 \leq p \leq 0.01$). Repeated measures t test showed no significant difference between test re-test condition. Phase 3 involved a repeat of phase two (Kelly, 2010) with a larger representative sample (203 people aged over 55 and based upon 2007 Census demographic characteristics United Kingdom).

Results: Reliability analysis revealed good test-retest reliability (ICC = .61), convergent validity ($r = .69$), and internal consistency (Cronbach's alpha = .81) based upon a 47 item scale. A principal component factorial analysis revealed three factors that conceptually explain 37% of the total variance: Faith in the Self and Others; Agency; Relational Security and Contentment.

Conclusion: The findings support those of Backmark (2009) that the WES is a reliable, valid, and representative measure of well-being in adults over the age of 55. It can be used both as a clinical tool and as a demographic indicator.

References: Backmark, H. (2009) *Subjective well-being in older adults*, unpublished D.Clin.Psy thesis, University of Birmingham, United Kingdom.

Kelly, A. (2010) *Further validation of the Well-Being Assessment Schedule*, unpublished M.Res. thesis, University of Birmingham, United Kingdom.

Papadopoulos, A. Biggs, S. Tinker, A. (2011) Well-being in Later Life: A proposed Ecosystemic Framework. *British Journal of Wellbeing* 2 (6) 22-31

Papadopoulos A, Oyebode J, Kelly, A. Backmark-Goodwill, H. Halloran, L. (2011). *The Well-Being Evaluation Scale (WES)*. Pearson Publication; London.

Disclosure of Interest: None Declared

P222

THE USE OF PHYSICAL RESTRAINTS IN NURSING HOME CARE: CHANGES OVER TIME?

A. M. Pot^{1,*}, B. Willemse¹, D. Smit¹, J. de Lange¹

¹Netherlands Institute on Mental Health, Utrecht, Netherlands

Objectives: In the last years, there is increasing attention for the use of physical restraints in living arrangements for people with dementia. The Health Care Inspectorate and several field parties agreed to ban the belts in nursing home care in the Netherlands. From 2011, belts may only be applied under strict conditions. In this presentation, the changes in the use of belts and other types of physical restraints from 2009 to 2011 will be presented. Data will be used from the Living Arrangements for people with Dementia (LAD-) study. This study is an ongoing nation-wide study including around 140 living arrangements for people with dementia in the Netherlands. Every two years a measurement is carried out on the quality of care, care staff's well-being and residents' quality of life. Results of 2009 show that the mean number of physical restraints per resident was .52, ranging from 0 to 1.26. In the presentation, attention will be paid to the definition of restraints, different types of restraints, changes over time, the link with policy and ways to reduce the use of physical restraints.

Disclosure of Interest: None Declared

P223

CARE DIFFICULTIES AND DESIRED SUPPORT OF FAMILY CAREGIVERS TAKING CARE OF PEOPLE WITH DEMENTIA AT HOME

C. Greiner^{1,*}, T. Isowa², E. Kishi³, T. Ooishi⁴, A. Fukahori⁵, K. Matsuo¹

¹The Japanese Red Cross College of Nursing, Tokyo, ²Mie University, Tsu, ³Teikyo University, Tokyo, ⁴Kanagawa University of Human Services, Yokosuka, ⁵Tokyo University, Tokyo, Japan

Objectives: In Japan, 23% of the population is over 65 years old, and this percentage is expected to exceed 40% by 2055. To deal with this situation, the Japanese public long-term insurance system was introduced in 2000, and public home care services were expanded. However, social problems, such as abuse prompted by care-giver fatigue, have not been addressed, and in particular, the burden on family caregivers taking care of people with dementia remains serious. The purpose of this study is to explore the problems of such caregivers and their desired support measures.

Methods: A descriptive qualitative research design was employed using individual, semi-structured interviews. Participants are main caregivers taking care of people with dementia at home. All interviews were recorded to IC recorders with participant consent and transcribed verbatim; the contents were categorized and themes created. Ethical approval for this study has been granted by the Ethics Committee of the facility of the first author.

Results: Ten participants (8 women, 2 men), mean age 62.7 years (range 51---83 years) were interviewed. The relationships with caregivers were daughter (seven), husband (two), and wife (one). Six themes were identified as sources of care difficulty. While caregivers take care of people with dementia, they feel 'Loss of self-esteem' along with 'Economic burden' and 'Time pressure'. Caregivers face 'Anxieties about the future'. 'Behavior of care receivers' and 'Emotional instability' were background concerns. Caregivers seek a new support system, including emergency care and counseling services, construction of a social network, and the rental of interactive dolls.

Conclusion: For people with dementia to spend high quality-of-life (QOL) time in their own homes, it is also important to improve the QOL of their family caregivers. Along with the economic support system, it is important to establish a mental health support system for any caregiver experiencing 'Loss of self-esteem', 'Economic burden', and 'Time pressure'.

Disclosure of Interest: None Declared

P224

CORRELATES OF QUALITY OF LIFE IN A GROUP OF CHILEAN PEOPLE WITH DEMENTIA

C. Miranda-Castillo ^{1,*}

¹Escuela de Psicología, Universidad de Valparaíso, Valparaíso, Chile

Objectives: There is lack of evidence regarding people with dementia's quality of life in Latin America and particularly in Chile. The main aim of this study was to assess the quality of life in a group of Chilean elders with dementia and to determine whether their quality of life was associated with individual's and caregiver's factors.

Methods: Seventy family caregivers of people with dementia were interviewed about people with dementia's quality of life, needs, functional ability and behavioural and psychological symptoms. They were also asked to provide information on their own coping strategies, burden, perceived social support, depression and anxiety.

Results: People with dementia with high functional capacity ($r_s = 0.46$; $p < 0.01$), lower number ($r_s = -0.37$; $p < 0.01$) and severity ($r_s = -0.47$; $p < 0.01$) of behavioural and psychological symptoms, with less unmet needs ($r_s = -0.48$; $p < 0.01$) and less cognitive impairment ($r_s = 0.29$; $p < 0.05$) had a higher quality of life. People with dementia whose caregiver was other than the spouse ($U = 197.5$, $p < 0.05$), with higher levels of burden ($r_s = -0.38$; $p < 0.01$) and with symptoms of depression ($r_s = -0.32$; $p < 0.05$) and anxiety ($r_s = -0.41$; $p < 0.01$) had lower quality of life.

Conclusion: The results highlight the importance of establishing adequate services aimed to provide better care for people with dementia and their caregivers. Almost all the factors associated with people with dementia's quality of life could be modified through either providing appropriate pharmacological treatment or by implementing a range of psychosocial interventions focused on the person with dementia and their caregiver. By doing this, the quality of life of these groups will be ultimately improved. Finally, it is expected that the results of this study will be useful for developing a Chilean public policy about dementia.

Acknowledgement: FONDECYT # 11100457

Disclosure of Interest: None Declared

P226

WHAT WORK'S RESOURCE PACK WHEN INVOLVING AND CONSULTING WITH PEOPLE LIVING WITH DEMENTIA.

A. Rollings¹, D. Donnison^{1,*}

¹Alzheimer's Society - South West , Bristol , United Kingdom

Objectives: On behalf of the South West Dementia Partnership we would like to introduce 'what work's' resource pack when involving and consulting with people living with dementia.

This pack has been written by people living with dementia, carers, volunteers and staff and will help people with dementia and their families to be able to play an active role within their own communities by helping to support staff to develop appropriate opportunities and structure to express their own views.

There are 79,236 people living with dementia in the South West.

People living with dementia may experience problems with memory or concentration, struggle in unfamiliar surroundings or have difficulty following conversations. The resource pack is made up 18 cards each aimed at giving specific information, advice and top tips on a range of topics that will help overcome or prevent this, and support people with dementia to get involved in activities whilst recognising their current abilities.

The aim of these cards is to strengthen and directly involve people with dementia as well as their families and carers. People with dementia have been the driving force behind this project by sharing their experience and showing how they can have influence in the things that matter to them. Everyone has worked together to provide tools and techniques for staff wanting to engage and consult with people with dementia.

Intended learning outcomes:

For participants to think differently about involving people living with dementia and

1. Give people with dementia a stronger "voice", for empowerment purposes with a view to respecting their autonomy and citizenship;
2. Share an example for dissemination of good practice - anyone can utilise this credible resource - grounded in the lived experiences of people.
3. Utilising different methods, tools and techniques will provide a richness of information to inform dementia friendly communities, commissioning intentions of organisations, service improvements and evaluation of services.

Disclosure of Interest: None Declared

P227

IMPLEMENTATION OF CAPACITY BUILDING - NATIONAL OUTREACH PROGRAM - LEBANON

D. Mansour^{1,*}

¹Non Profit Organization, Alzheimer's Association Lebanon, Beirut, Lebanon

Objectives: - To provide country-wide training in Alzheimer's disease best practices

- To heighten community awareness in dementia and elderly health and wellbeing
- To improve knowledge and procedural skills of diverse professionals in the field
- To provide the Ministry of Social Affairs Community Development Centers with AD toolkits and education
- To initiate and support the establishment of Alzheimer's chapters throughout the Lebanese territory
- 6 days, 6 Mohafazat, 34 Centers, 232 trainees empowered to deliver excellence in AD care

Methods: The Capacity Building program in Alzheimer Disease (AD) is sponsored by Alzheimer's Association Lebanon (AAL) in partnership with the Ministry of Social Affairs and promoted by H.E. Mr. Selim El Sayegh. It was conducted by Zeina Chemali, MD, MPH, AAL Scientific Committee Member; and included:

- 6 workshops covering all Lebanese territories
- Public Health outreach in AD and other dementias: stronger education, equal access, excellence in care
- Region-specific and community-centered needs assessment program
- The development and dissemination of educational AD toolkit to designated public and private community organizations
- Data collection and analysis with study results published in the public domain and peer-reviewed journals
- A white paper to the Ministry of Social Affairs, the Ministry of Health and the Council of Ministers on the state of elderly affairs across Lebanese territories

Results: The Capacity Building Program has trained around 300 professionals to date and plans to spread its outreach program to patients in the most remote villages of Lebanon.

Conclusion:

The Capacity

Building Program has trained around 300 professionals to date and plans to spread its outreach program to patients in the most remote villages of Lebanon.

Follow up – Field work

In the aim of reaching out to families in the most remote villages of Lebanon, a follow-up program seek to engage directly with the affected families and the population. "Town meetings" will be held in the 6 Mohafazats, where specialized doctors will be available for FREE Q&A sessions.

References:

Disclosure of Interest: None Declared

P228

DEMENTIA - UNDERSTANDING IT AS A DISEASE IN THE SUB-SAHARA AFRICA - PERSONS WITH DEMENTIA ARE UNIQUELY INDIVIDUALS WHO HAS THE RIGHT OF FULLNESS OF LIFE AND DIGNITY

D. Boatemah ^{1,*}

¹Psycho geriatric, Pieter van Foreest, s'Gravenzande, Netherlands

The aim of this is to initiate effective mechanisms for the take off of dementia awareness campaign in Ghana and the sub-sahara Africa as a whole. The underlining reason for this mission takes into account the unfortunately perception in African society where persons with dementia are largely regarded agents of witchcraft. On ground of this superstitious believe, dementia symptom are commonly treated as manifestations of the spirit of witchcraft. Given that most of these societies recommend incarcerations or instant death for witches and wizards, it is mindboggling how many persons with dementia are persecuted with harsh punishment, including death sentenced to death. Not long in November 2010, a 72 year old grandma was set ablaze in Tema Ghana after being accused by a mob being a witch

Disclosure of Interest: None Declared

P229

DEMANDS AND COMPLAINTS OF FAMILY AND CAREGIVERS' OF PEOPLE WITH ALZHEIMER'S

F. Ortiz Moreno ^{1,*}

¹Alzheimer Monterrey, San Pedro Garza Garcia, Mexico

Objectives: As it is already well known by for almost every people, Alzheimer's is one of the most terrible diseases we can face, as it destroys not only the person who suffering this condition, but also to the same family who suffers. However, we must not forget the positive side of it. This is addressed at least for families and caregivers, since it makes us more sensitive, to know a little more human suffering, helps us appreciate what we are and what we have.

What we see in Latin American countries

What we see in Latin American countries, is the same as that seen in other countries worldwide. The family living experience is much like an every place you go one. No matter if it is Mexico, Argentina, Brazil, India, Japan and China. In each and every country the drama that the families live is the same. A world that is collapsing with us and we do not know how to confront or stop it.

However, we are still poor countries with no sufficient economic resources like other countries have in order to pay and give attention regarding to health problems. There is no financial support and the few Day Care Centre which we have there are no programs to provide adequate stimulation for people with dementia, especially Alzheimer's.

There are indeed several support groups, but there are still too much to do, like to implement a national program that brings attention to this big problem we have in or countries. It seems like our governments have already Alzheimer's and they have forgotten to do their job.

Family demands and complaints...

While facing this problem where tears, physical, economic, social and emotional factors are involved, family demands and complaints arise every day and everywhere. Here are some of their demands.

Complaints against:

- · *Misunderstanding of the family*
- · *Illness*
- · *Doctors*
- · *Nurses*
- · *Nursing homes and Day Care Centres*

Disclosure of Interest: None Declared

P230

QUALITY OF LIFE IN PEOPLE WITH DEMENTIA AND THEIR FAMILY CARERS.

F. Bruvik^{1,2,3,*}, K. Engedal^{1,2}, A. Hylen Ranhoff^{3,4}, I. Ulstein¹

¹Norwegian Centre for Dementia Research, ²Department of Geriatric Medicine, Oslo University Hospital Ullevaal,

³Kavli Research Centre for Ageing and Dementia, Haraldsplass Hospital, Oslo, ⁴Institute of Medicine, University of Bergen, Bergen, Norway

Objectives: Central to quality of life is the subjective experience and interpretation of own life-situation. Factors such as mental health, stress and disease may affect the individuals' perception of life. Dementia affects a person's cognitive ability and results in reduced ability of interpretation and understanding of relationships. Both self-reported and proxy-reported quality of life in people with dementia have their limitations.

To identify factors of importance for quality of life in people with dementia and their family carers and differences in factors of patients' self-reported versus proxy reported quality of life.

Methods: Quality of life was assessed of 230 home living persons with dementia and their family carers in 2009 - 2011. Both the persons with dementia and family carers self-reported quality of life was assessed using the "The Quality Of Life in Alzheimer's Disease" (QOL-AD) (0-52, low versus high quality of life). In addition, the person with dementia's quality of life was obtained from proxy mapping by the family carers.

Results: In this study, 177 of the 230 carers are females (77 %), their mean age is 63.5 years (SD=12) and the mean score on QOL-AD is 28.18 (SD= 5.3)

Of the 230 persons with dementia 123 (53,5%) are females, mean age 78.37 years (SD=7.5), the MSSE mean score 21.25 (SD=3.6) and their mean reported QOL-AD score 22.12 (SD=5.2). The patients' proxy rated mean score on QOL-AD by family carers is 19.72 (SD=5.2).

Conclusion: In this study, the patients rated their own quality of life to be better than their relatives did. Both measurements, self-reported and proxy-reported have limitations. We will examine how factors such as patients' cognitive and functional impairment and relatives' stress and mental health may affect the assessment of the quality of life in the patients.

Disclosure of Interest: None Declared

P232

THE CHANGING PERCEPTIONS OF PAIN ASSESSMENT AMONG NURSES IN JAPANESE LONG-TERM CARE FACILITIES

H. Tanaka ^{1,*}, Y. Momose ²

¹Department of Nursing, CHUBU UNIVERSITY, Kasugai, ²School of Nursing & Health, Aichi Prefectural University, Nagoya, Japan

Objectives: Many older people with dementia live in the long-term care facilities in Japan. Pain management is vital for both the maintenance and improvement of the quality of life of residents, in these facilities. However, regular pain assessments are not conducted. The purpose of study is to examine the change of perception in nurses regarding pain assessment following of a pain assessment tool and the conducting of regular pain assessments for people with mild dementia in long-term care facilities.

Methods: The pain assessment tool for people with mild dementia, which was developed by Tanaka and Momose, had been trialed in three Japanese long-term care facilities from June to July 2011. This pain assessment tool was conducted from one week to a month, for 14 older people with mild dementia. The semi-structured group interviews were conducted in three long-term care facilities. The subjects of this study were 18 nurses who work in those three long-term care facilities, in Aichi prefecture, Japan. A content analysis was conducted to investigate the change of perception in nurses regarding regular pain assessment following of the pain assessment tool.

Results: Change of perceptions in nurses regarding pain assessment following of the pain assessment were classified into four categories as “necessity of regular pain assessments before and after pain care in long-term care facilities”, “further understanding of residents’ pain regions and pain severity through regular pain assessments”, “understanding the characteristics of residents’ reactions to pain and countermeasures to their pain”, and “difficulty of understanding perceptions of pain in people with dementia”.

Conclusion: Conducting regular pain assessments helped nurses understand the characteristics of residents’ reactions to pain and promoting the appropriate countermeasures against the residents’ pain. However, conducting regular pain assessments in Japanese long-term care facilities can be difficult because many residents taken care of by only a few nurses. Therefore, a quick and accurate pain assessment tool is needed in Japanese long-term care facilities in order to improve the residents’ quality of life.

This study was subsidized by the Chubu University Grant A.

Disclosure of Interest: None Declared

P233

AN EVALUATION OF THE DEMENTIA QUALITY MARK FOR RESIDENTIAL CARE IN THE SOUTH WEST

I. Sherriff^{1,*}, H. McFarlane¹

¹Plymouth University, Plymouth, United Kingdom

Objectives: The Dementia Quality Mark (DQM) accreditation criteria for care homes is being introduced and processed in care homes in the South West. This innovatory way forward has mainly been informed by the 'Living Well with Dementia Strategy' (2009), 'Dementia UK Report (2007) and Tom Kitwood's (1997) original 'person to person' dementia care model. In addition, the prevalence of dementia cases, consisting of between 50-60% of beds in South West care homes, also triggered demands for extra staff training and specialist guidance. In response to these precipitating factors, David Francis, Dept. of Health South West (2010) produced a DQM assurance person centred toolkit designed around Care Quality Commission (CQC) standards. This DQM toolkit was trailed by six South West councils BANES, Bristol, Dorset, Plymouth, Gloucester and Wiltshire. The ongoing process within each council required accreditation and Plymouth University was commissioned to provide an evaluation of the implementation of the accreditation process and to provide recommendations for its future use. Findings suggest that whilst progress is being made during this phase there are particular barriers faced by the participating councils in assessing and awarding the DQM certificate. Issues ranged from staff training to both human and financial resources given to oversee this process. Overall conclusions are that further work needs to be completed around the outcomes of the process to fully appreciate the extent to which the DQM will improve the quality of care received by people living in residential care.

Disclosure of Interest: None Declared

P234

FACILITATORS AND BARRIERS TO PET FRIENDLY PRACTICES IN CARE HOMES

J. Fossey^{1,*}, V. Lawrence²

¹Psychological Services, Oxford Health NHS Foundation Trust, Oxford, ²Kings College, London, United Kingdom

Objectives: Approximately 2.75 million people requiring residential care in the UK are pet owners. Recent studies into mental health and well-being in later life have identified pet ownership as an important factor in promoting good physical and psychological health in older people. Pets can play a central to an older person's life and provide many of the emotional and psychological benefits associated with close human relationships. These can be summarised as including a long term companionship which often replaces absent human relationships; a sense of feeling needed and loved; a central focus to daily routines which frequently involve self-care as well as pet-care; and an increased exercise and mobility. A number of studies have also highlighted the benefit of visiting animals in improving communication and interaction and reducing agitation in people with dementia. However over 60% of care facilities in the UK require people to give up their pets on admission (McNicholas 2008). Given that many national policies and objectives for people with dementia focus on improving quality of life, respecting lifestyle and individual choice, the role of pets in care homes has been largely ignored.

This paper outlines the findings arising from a series of focus groups with staff in 16 care homes who are participating in a wider NIHR funded research programme aimed at improving quality of life for people with dementia. The findings are based on systematic qualitative methods to identify the barriers and facilitators which care staff perceive as affecting their engagement with pets as part of the care home environment and describes the shared constructs and areas of discordance which were identified using interpretive method of data synthesis. The findings highlight elements perceived as necessary for successful inclusion of pets in a care home and the perceived challenges to involving pets as part of care practice. A framework for good practice will be outlined based on the findings.

Disclosure of Interest: None Declared

P235

A SPECIALLY DESIGNED ENVIRONMENT AND QUALITY OF LIFE IN PERSONS WITH DEMENTIA

E. Lamb, BA, BSW, MSW¹, M. Montemuro, RN, BScN, MHSc, GNC(C)¹, J. Humphrey, RN, BScN, MSc, GNC(C)^{1,*}
¹HHSC, Hamilton, Canada

Objectives: The aim of the study was to determine if the environment has an influence on Alzheimer Disease Related Quality of Life (ADRQL™) scores.

Methods: A literature review to identify tools to assess quality of life in person with dementia was completed. The outcome of this process was the selection of the ADRQL™ tool. This tool includes 47 statements divided into five conceptual domains. The administration of the ADRQL™ was performed at Time 1 before the move to a newly designed dementia care environment and at Time 2 after the move to the new environment. Eligibility criteria included that participants be an in-patient of a chronic care hospital unit for persons with a diagnosis of dementia with behavioural disturbances, and resided on this unit for a minimum of two weeks prior to the survey. Information on the patient's quality of life was collected using the ADRQL™ tool by a research assistant who interviewed nursing staff. Data was compiled on 62 patients at Time 1 and 68 patients at Time 2.

Results: The data analyses indicated that the averages from Time 2 of the study for the five different domains, as well as the average when all the domains were totaled were slightly higher than the averages from Time 1. The total ADRQL™ for Time 1 was 62% and increased to 65% for Time 2 of the study indicating the quality of life of the patients increased slightly in all domains. There were 16 patients that were involved in the study at both Time 1 and Time 2. Analysis of the 16 matched patient survey responses showed a statistically significant difference ($p=0.03$) for the domain of "feelings and mood" following the move to the new environment. There was no significant difference in the other four domains for the 16 matched patients.

Conclusion: Patients with dementia and behavioural disturbance experienced some improved quality of life scores in a newly designed dementia care environment. The area of greatest improvement was related to the domain of "feelings and mood" for the 16 patients who were surveyed at both Time 1 and Time 2.

References: Black, B., Rabins, P. & Kasper, J (2000) *Alzheimer Disease Related Quality of Life User's Manual*. Baltimore, Maryland: DEMeasure.

Rabins, Et. Al (1999) Concepts and methods in the development of the ADRQL: an instrument for assessing health-related quality of life in persons with alzheimer's disease. *Journal of Mental Health and Aging*, 5(1): 33-48

Disclosure of Interest: None Declared

P236

SAFEGUARDING PEOPLE WITH DEMENTIA FROM FINANCIAL ABUSE

J. Manthorpe¹, K. Samsi¹, K. Chandaria^{2,*}

¹Social Care Workforce Research Unit, King's College London, ²Alzheimer's Society, London, United Kingdom

Objectives: This research aimed to explore problems faced by people with dementia and carers in the UK, in terms of money management and constructs of financial abuse, in order to develop relevant policies and responses to these risks.

Methods: A mixed method approach was adopted, including qualitative interviews, 6 focus groups, 150 postal questionnaires completed by people with dementia and their carers, and an online survey completed by Alzheimer's Society staff in 2011. Thematic analysis was undertaken at an individual transcript level, the survey findings were analysed statistically, and cross-cutting themes across the data were identified.

Results: Many people with dementia and carers encounter risks of low level financial abuse such as suspicious 'cold calling' or 'scam mail'. Despite this, discussing financial risks still seems difficult for practitioners, especially for those practitioners who may become suspicious of cases of possible abuse in families. Bank systems and processes may be significant barriers towards appropriate safeguarding of confused, vulnerable older people. Limited support and advice about managing money and accessing entitlements was also reported.

Conclusion: More information and support for people with dementia on financial management and safeguards such as lasting power of attorney may be helpful at early stages and in professional encounters. Health and social care professionals should alert people to the options of advance planning for financial matters when planning, advice seeking and decision-making are possible and need not be rushed. Banks and financial institutions should be encouraged to discuss ways to safeguard the personal and financial interests of clients with dementia. Better information sharing systems for staff who may be in a position to pick up high level risks of abuse should be part of support planning, monitoring and review.

Disclosure of Interest: None Declared

P237

QUALITY OF LIFE IN DEMENTIA CARE – CHALLENGES IN PROXY-RATINGS

J. Gräske ^{1,*}, S. Meyer ¹, K. Wolf-Ostermann ¹

¹Alice Salomon University of Applied Sciences, Berlin, Germany

Objectives: Because of a lack of curable treatment, quality of life (QoL) is considered a major outcome in dementia care. But there is no “Gold Standard” for measuring QoL in dementia care available, yet. A consensus is, that self-ratings are the most appropriate way to evaluate QoL. Various studies identified confounding factors of a valid self-rating. However, in later stages of dementia, proxy-ratings, e.g. by nursing staff, are the way of choice. This method is less critical discussed. Influencing factors on proxy-ratings, like care giver burden, are underrepresented.

The aim of our study is to identify resident- related and nursing staff-related characteristics influencing a staff-rated QoL of people with dementia in long-term care facilities.

Methods: We conducted a cross-sectional study in five nursing homes with altogether ten special care units for people with dementia using written standardized questionnaires. Nursing staffs were asked to rate each residents' QoL (QUALIDEM & ADRQL). In addition to socio-demographic characteristics of the residents, we examined the functional status (Barthel Index), need-driven behaviour (Cohen-Mansfield Agitation Inventory) and severity of dementia (Global Deterioration Scale). Furthermore we assessed the circumstances of the QoL-evaluation (e.g. beginning of the shift) and staff characteristics, e.g. socio-demographic data, Burn-Out (Maslach Burn-Out Inventory) and attitude towards people with dementia (Approach to Dementia Questionnaire).

Results: We could include 130 residents (81% female, \bar{x} 85 years old). Predominantly, the residents are with a severe level of dementia (GDS 7). More than 50% of the residents showed at least one need-driven behaviour. 88 nursing staffs (84% female, \bar{x} 37 years old) rated the residents' QoL moderately. The circumstances of the evaluations differ, e.g. done at home, or while the shift. Overall, we found great variations in the staff-rated QoL of single residents. Explaining factors will be presented at the conference.

Conclusion: The results give an understanding, how nursing staffs perceive residents' QoL. This is a precondition to obtain more valid proxy-ratings of QoL for people with dementia and finally also a basis to provide tailored care.

Disclosure of Interest: None Declared

P238

PERSON WITH DEMENTIA PARTICIPATION ON HIS/HER NURSING HOME CARE PLANNING MEETING. INCLUEM PROJECT.

J. Vila-Miravent ^{1,*}, F. Villar ¹, M. Celdran ¹

¹Psychology, University of Barcelona, Barcelona, Spain

Objectives: Annual care plans for residents living in nursing homes in Catalonia (Spain) are compulsory. Those meeting allowed professionals to share their impressions of each resident and planning activities and interventions for the next year. Usually the resident, no matter his/her cognitive health, is not included in such meetings.

This research assesses the impact of including the person with dementia in those meeting has on: (a) the overall well being of the person with dementia when is allowed to participate in his/her care plan meeting and (b) on care professionals and practitioners when the person with dementia is included in his/her care planning meeting.

Methods: A one year intervention (January-December 2011) was designed with data pre and post-intervention and with a control group. Four nursing homes were involved, collecting data from 15 people with dementia and eight professionals and practitioners on each one. Nursing home in the control group ran regular plan meetings without residents, whereas in the experimental nursing homes ran it including the person with dementia.

Resident data included a minimum of four hours of mapping using the Dementia Care Mapping (DCM) and a Catalan quality of life Scale. Regarding professionals and practitioner and interview was prepared to assess their perception regarding the inclusion of the person with dementia in his/her care plan meeting and the overall care plans in that nursing home.

Results: Once the intervention is ended we expect results confirming our two main hypothesis:

(a) There will be improvement in residents from the experimental group in their wellbeing (thought data from DCM) and their overall quality of life.

(b) Evidence of the powerful impact that the inclusion of the person with dementia in health and social care decisions will be found in the interviews with the professionals and practitioner from the experimental group

Conclusion: Behind every diagnosis is a person with needs that need to be understood and supported. Including their perspective on his/her care planning can offer an insight into how these needs can be met and how care teams can re-think the care they give so that quality across services can be improved

Disclosure of Interest: None Declared

P240

THE AID FOR THE PEOPLE WITH ALZHEIMER'S DISEASE IN SLOVAKIA

D. Grniakova¹, P. Koson^{2,3,*}, M. Cunderlikova¹, A. Vesela¹, M. Wirth¹, K. Karolova¹, H. Kosalova¹, J. Szeifova¹, L. Pokorna¹, M. Blahova¹, M. Novak³

¹Centre MEMORY npo, ²Department of Neurology of Slovak Medical University, University Hospital Bratislava Ruzinov, ³Institute of Neuroimmunology, Slovak Academy of Sciences, Bratislava, Slovakia

Objectives: In Slovakia 50 000 to 60 000 people suffer from Alzheimer's disease, with another approximately 150 000 people share the disease with them in the family. Ensuring their needs and rights, dealing with their difficult life situation and the hope for its improvement offer trinity of interconnected organizations.

Slovak Alzheimer's Society is since 1998 dedicated to help people with Alzheimer's disease in order to promote their rights and needs and thus contribute to creating conditions for their dignified life. It is a civic association bringing together dozens of disabled people, family carers, as well as professionals working in research, prevention, diagnosis and therapy, volunteers and friends of which the lives of people with Alzheimer's disease are not indifferent. For the public, there is available free Alzheimer's disease hotline.

Centre MEMORY provides social services through a dedicated daytime stay for people with Alzheimer's disease, cognitive trainings and memory training for seniors, health services in a psychiatric outpatient clinic with a nationwide scope and educational services for social workers and health facilities through training courses accredited by the Ministry of Education, Science, Research and Sports and Ministry of Labour, Social Affairs and Family of Slovak Republic.

Institute of Neuroimmunology is the research institute that conducts research at various levels. On the cognitive level (cognitive neuroscience) the Institute focuses on the impact of neurodegeneration on cognitive functions. To achieve these goals the researchers in the Institute of Neuroimmunology utilize the latest neurogenomic, neurotranscriptomic, neuroproteomic and neurometabolic methods.

Collaborative projects:

- Family education
- Building a network of contact points within the Slovak Republic for assistance in the home care
- Non-pharmacological approaches to stimulation of cognitive functions in patients with Alzheimer's disease evaluated by imaging and proteomic biomarkers
- Healthy Ageing

Disclosure of Interest: None Declared

P241

“YOUR STORY MATTERS” – A REPORT ON THE NATIONAL TRAINING PROGRAMME FOR LIFE STORY WORK - EMBEDDING A HUMAN RIGHTS BASED APPROACH TO CARE OF PEOPLE WITH DEMENTIA.

P. Kaiser ^{1,*}, A. Gaughan ¹ on behalf of Life Story Network

¹Director National Life Story Network, Life Story Network CIC, Manchester, United Kingdom

Objectives: The Life Story Network Community Interest Company is based in the UK, however the network is not limited by geographical location and is open to registration across European and International countries.

The Life Story Network (LSN) is an organisation, which works with a range of partner organisations and individuals to promote the value of using life stories to improve the quality of life and wellbeing of people and communities, particularly those marginalised or made vulnerable through ill health or disability. The work of the LSN aims to enhance the quality of care and support delivered to individuals and communities, through embedding a human-rights based approach..

As part of the English National Dementia Strategy workforce plan the Life Story Network CIC has been commissioned to provide training about Life Story Work within the context of a human rights based approach. The “Your Story Matters” project will provide training to 500 people between November 2011 and March 2012 . This will include a train the trainers programme and training for carers in a combination of face to face and online training and create a vibrant, multimedia virtual learning environment.

Carers and people with dementia have been core to the origins of this group and are part of the advisory panel for this work.

The purpose of this presentation will be to report on aspects of the training approach, especially in the context of the UK Equality and Human Rights Commission inquiry into home care, and to report the preliminary results from the independent evaluation.

In addition some of the qualitative outcomes of the training will be illustrated by some of the stories from people with a dementia and their carers.

Disclosure of Interest: None Declared

P242

ADAPTING THE CARE PROFILES TO THE CANADIAN DEMENTIA CONTEXT

S. Dupuis^{1,*}, B. Smale², J. Gillies¹, C. McAiney³, M. Nolan⁴

¹Murray Alzheimer Research and Education Program, ²Canadian Index of Well-Being, UNIVERSITY OF WATERLOO, Waterloo, ³Psychiatry and Behavioural, McMaster University, Hamilton, Canada, ⁴Sheffield Institute for Studies on Ageing, University of Sheffield, Sheffield, United Kingdom

Objectives: The Partnerships in Dementia Care Alliance (PiDC) is a collaborative research project in Canada working to facilitate sustainable long-term care (LTC) culture change reflective of a relationship-centred approach in order to enhance the care experience and quality of life for persons living with Alzheimer's disease or a related dementia (ADRD), their family members, and staff in both community and LTC settings. Part of this process involved adapting a relationship-centred tool, the Combined Assessment of Residential Environments (CARE) profiles originally developed by Faulkner et al. (2006), to the Canadian LTC and dementia contexts. The purpose of this presentation is to share our participatory process in adapting and pilot-testing the CARE profiles in dementia care.

Methods: Using a Participatory Action Research Approach integrated with the ADRD Planning Framework and Appreciative Inquiry (AI), a culture change coalition (CCC) was created in a dementia-specific LTC home in Ontario, Canada. The CCC included persons with dementia, family members, front-line staff, managers and the administrator, researchers and students, who were responsible for all decision-making related to the change process at the site.

Results: Working collaboratively to adapt the CARE profiles, CCC members: critically reflected on the original items in the CARE Profiles drawing on a relationship-centred philosophy, the Senses Framework, and AI; ensured items were accessible and relevant to the LTC home and to persons with dementia, family members, and staff in the dementia context; explored alternative ways for persons with dementia to complete the CARE profile; reviewed revised CARE profiles with the members of the CCC; and pilot-tested the tools more widely in five LTC homes in Ontario. The adapted CARE Profile questionnaires were distributed to several hundred persons with dementia, family members, and staff to refine the tools. Survey data were explored using factor analysis and reliability testing to identify the most relevant and accessible items within the dementia context.

Conclusion: Insights into the nature of a collaborative, fully participatory process demonstrated the advantages of this approach. The process served to create practical and research-based tools that capture the essence of the care experience for those involved in dementia care – persons living with dementia, family members, and staff – and for the dementia context of LTC in Canada.

Disclosure of Interest: None Declared

P245

OLDER ADULTS LIVING WITH DEMENTIA: OCCUPATIONAL THERAPISTS' PERCEPTIONS OF SAFETY

S. Davidson ^{1*}, M. Clarke ², A. Moreiro ²

¹Geriatrics, Toronto Rehabilitation Institute-University Centre, ²Occupational Science & Occupational Therapy, University of Toronto, Toronto, Canada

Objectives: The primary aim of this study is to describe safety concerns that occupational therapists have when working with community dwelling older adults with dementia. A secondary aim is to identify the types of resources occupational therapists anticipate would improve the quality of care they provide.

Methods: A mixed methods research design was used for this study. A representative sample of Canadian occupational therapists working with persons with dementia were recruited to participate in an online survey. Open and closed ended survey questions were developed; descriptive statistics were used to analyze closed ended questions; open ended questions were analyzed using thematic analysis.

Results: Data analysis generated key themes including: Balancing Independence & Risk, Supporting the Caregiver, and Resource Constraints. Participants shared challenges such as balancing individual risk with independence, determining individual insight and informed consent, as well as acknowledging the importance of an interprofessional team, and identifying their own skills and strengths.

Conclusion: Survey findings support the belief that occupational therapists play a significant role in enabling aging at home for community-dwelling older adults with dementia. However, balancing competing tensions of providing person-centred care while also addressing the safety concerns of clients is a significant issue that occupational therapists face. The ideas and perspectives that emerged from the data are being used to generate creative strategies for resource development to better equip occupational therapists working with this population.

References: Dudgeon, S. (2010). Rising tide: The impact of dementia on Canadian society (ASC Report).

Retrieved from Alzheimer Society of Canada website: www.alzheimer.ca/docs/RisingTide/Rising%20Tide_Full%20Report_Eng_FINAL_Secured%20version.pdf

Graff, M. J., Adang, E., Vernooij-Dassen, M., Dekker, J., Jonsson, L., Theijssen, M., Hoefnagels, W., & Rikkert, M.

(2008). Community occupational therapy for older patients with dementia and their care givers: cost effectiveness study. *BMJ*, 336(7639), 134-138.

Waugh, F. (2009). Where does risk feature in community care practice with older people with dementia who live alone? *Dementia*, 8(2), 205-222.

Disclosure of Interest: None Declared

P246

THE TRANSITIONAL (OBJECT) SPACE

C. Murphy^{1,*}

¹Parsons The New School for Design, New York, United States

Thresholds are the interstitial zones that exist between *spaces* and within *places*, significant areas that we mark and demarcate for ourselves. This making and marking become part of our existential archive, supported by additional artifacts of remembrance which give us our identity and allow us to be transported in time. At the threshold, this moment of beginning and transition, memories are called upon to guide us through. I propose a means of designing the interior when memory fails, but the need for familiarity and reassurance remains.

The current model for the residential care of the dementia sufferer, as with hospitals, is focused on diversion and monitoring of patients' movements. Dementia sufferers exist within the distraction and diversion that their mind already offers, and the desire to wander can often be to return to the place where their memories still exist. I recognized this as an opportunity to create an environment based on a more additive approach, in the fullest sense of the word – to alter and to improve. In acknowledging affliction more particularly than the general site of healing, and considering the passage of time which permeates both the location and predicament, design can align itself with the needs of the patient more specifically. It can offer opportunities for pleasure, comfort and reassurance. The threshold is an ideal site; it often offers the only common link to the architecture of the home, the ubiquitous point of entry and exit, familiar and non-threatening.

Thresholds acknowledge the moment of beginning, allowing the significance of passage to resonate. Interior design can offer a point of reflection during a juncture of transition. It is in moving between spaces that we pause to consider the activities or the life we lead on either side of the threshold. The dementia sufferer will also acknowledge this passage but their condition limits what can be interpreted from the space. Carefully selected materials and architectural details can offer the reassurance and familiarity that is usually achieved from memory alone. Materials, through tactility, have the power to express to each individual, their surroundings. In an environment where touch becomes privileged material choices, which are non-toxic, become an equally important consideration. The challenges of dementia do not mean that the sufferer is relegated to life devoid of design and offered only the traditional institutional setting.

Disclosure of Interest: None Declared

P248

PLYMOUTH UNIVERSITY DEMENTIA RESEARCH TEAM

I. Sherriff^{1,*}, H. McFarlane¹

¹Plymouth University, Plymouth, United Kingdom

This poster highlights the work streams of the Dementia Research Team (DRT) at Plymouth University. To date the team have completed a project focusing upon the early diagnosis of dementia within the city of Plymouth. This involved interviews and focus groups with people with dementia, their carers and GPs to understand the complexities and experiences of both giving and receiving a diagnosis and providing access to advice and support. Currently the work of the DRT is centred upon two areas. Firstly an evaluation of the implementation of a Dementia Quality Mark accreditation awarded to residential care homes who demonstrate excellence in dementia care. This is a pilot study rolled out amongst six local authorities in the South West and due for completion at the end of December 2011. Secondly the team have been influential in establishing the Plymouth Dementia Action Alliance (PDAA) alongside volunteers from the community, the Ministry of Defence and civic officials. The aim of which is to develop and promote the city of Plymouth as a dementia friendly city. At its launch in May 2011, the PDAA received enormous support from the city and, in particular, the City Centre manager who has provided valuable assistance through the engagement of nearly 500 of the city's retailers. The team have also been asked to engage in a further two forthcoming research projects. These are an evaluation of Older Persons Mental Health Services and recommendations for future directions in collaboration with NHS Plymouth and an evaluation of an innovative project of five parishes in Devon who have jointly formed the Yealm Parish project with the aim of creating and sustaining dementia friendly parishes.

Disclosure of Interest: None Declared

P249

DEVELOPMENT OF THE ENVIRONMENT FOR ELDER'S CARE BY PROFESSIONAL ENVIRONMENTAL ASSESSMENT PROTOCOL (PEAP) - A CASE STUDY OF DE HUEI YUAN CONSERVATION CARE CENTER IN TAINAN, TAIWAN

M. S. Wu ^{1,*}, Y. T. Huang ¹, P. T. Chen ¹, C. M. Chang ¹

¹National Cheng Kung University, Institute of Gerontology of medical college, Tainan, Chinese Taipei

With the increasing rate of advanced age in Taiwan, the elders with dementia also increase hardly. Quality of elder's care in institutions is a subject. However, environmental design and care service for elders with dementia are rather significant. Thus, it's also an important view that to evaluate the environment they live.

During two-month period, a study was combined with environmental observation and interview to investigate a small-scale and special care units conservation care center, which provides the elders with dementia for self-supporting in De Huei Yuan conservation center in Tainan. The concept of PEAP (Professional Environmental Assessment Protocol) which was developed in Japan in 2002, also an assessment tool includes eight domains.

The study results showed the appropriate environment for elders care with dementia in the following eight characters: (1) to provide good cognition and identification, (2) to establish a safe living space, (3) to make private life, (4) to promote sense stimulation, (5) to inspire the elder's ability of self-care, (6) to maintain the right for decision making, (7) to keep the elder's original life style, and (8) to improve the elders' social contact relationships. In addition, the combination of families, volunteers and community for establishing the model of life in institutions is needed.

In conclusion, institution is usually the last home for the elders with dementia. An appropriate environment is not only to bring them self-support, but also empower the elders live by themselves. Furthermore, it is necessary to construct their community life style. Meanwhile, this will also make a great aging in place life quality in their remaining years.

keywords Professional Environmental Assessment Protocol (PEAP), Aging in Place, Dementia, Elders

Disclosure of Interest: None Declared

P250

OUR COMMUNITY, OUR STORIES: PROMOTING A HOLISTIC VIEW OF PEOPLE WITH DEMENTIA

P. Bresba ^{1,*}

¹Alzheimer Groupe Inc., Montreal, Canada

Our Community, Our Stories is an initiative by Montreal-based Alzheimer Groupe Inc. (A.G.I.) designed to preserve, honour and share stories from the lives of people living with Alzheimer disease and related disorders (AD/RD). The project promotes a holistic view of people affected by AD/RD, within their families and the community, by recognising the importance of their life experiences and including their stories within the larger social discourse.

In the first stage, clients are invited for a private audio recording session with a close family member or friend. With support from A.G.I. staff, the family member interviews their loved one. This provides an opportunity for the two to reminisce over significant moments from the subject's life. The recording session is an affirmation of a life and stories that may often be overshadowed by the Alzheimer or dementia diagnosis. The two interview participants are provided copies of the recording so they can 'hold on to the experience' and share the memories with others. The second stage is an intergenerational component, intended to connect the storytellers with youth in the community through the use of the recordings. Students from local schools are invited to create an artistic piece inspired by excerpts from the life stories, using diverse artistic media including music, visual arts, film and dance/movement. The final stage of the project is a joint exhibition of the original stories (in the form of audio excerpts and partial transcripts) and students' art works. The exhibition acknowledges the social contributions of people living with Alzheimer and dementia and honours their lives.

Interviews started in the summer of 2011; five were completed in the first three months, and ten more are currently in process. Two schools will be incorporating the *Our Community, Our Stories* project into their curriculum during the 2011-2012 school year. Public presentations within each of the two schools are planned for the spring of 2012. AGI will also mount a public exhibition of the works in order to share the project with a wider public audience.

Disclosure of Interest: None Declared

P251

DESIGNING INNOVATIVE DAYCARE CENTERS FOR THE ELDERLY WITH DEMENTIA IN TAIWAN

P. T. Chen ^{1,*}, L. F. Liu ¹, M. S. Wu ¹

¹Institute of Gerontology, NATIONAL CHENG KUNG UNIVERSITY, Tainan City, Chinese Taipei

Since aging has become a global phenomenon, the Taiwan government actively promotes long-term care insurance for the elderly. Day-care centers play a crucial role in providing care services for the elderly with dementia to spend their golden years in the community. This study focuses on the provision of proper care services and the enhancement of social status of the elderly with dementia by daycare centers in Taiwan.

Researchers of this study utilized literature review and examined aging from the active aging perspective. A good day-care center should possess three desired characteristics: small-scale care unit, personalized care services and innovative lifestyle. The objective of this paper was to conduct participant observation experiment in 32 newly established daycare centers in Taiwan for a period of three years so as to discuss how these daycare centers provide appropriate care services and promote the welfare of the elderly with dementia in the community.

According to the research results, most of the day-care centers possess the following characteristics: (1) helping the elderly with dementia construct new social networks and social support, (2) motivating the potential for self-reliance in the elderly with dementia, (3) providing open and supportive care, (4) rebuilding the life pace of the elderly with dementia, (5) providing a variety of options and activities, (6) introducing and continuing the culture of original community life of the elderly with dementia, and (7) creating new community care culture.

In conclusion, with the provision of professional counseling mechanism in Taiwan, day-care centers are able to play an active role in helping the elderly with dementia to obtain new community life and to earn respect and identification from other community residents, and thus promote the social status of them. To help the elderly with dementia age in place successfully, more social resources are needed.

Keyword: dementia, aging in place, elderly, daycare, community care.

Disclosure of Interest: None Declared

P252

THE STUDY OF SPECIALIZING CARE UNIT AND MIXED CARE UNIT FOR THE ELDERLY WITH DEMENTIA –A CASE STUDY OF YMCA TWO DAY-CARE CENTERS IN TAINAN, TAIWAN

P. T. Chen ^{1,*}, L. J. Chu ², C. L. Hsu ², R. Y. You ²

¹Institute of Gerontology, NATIONAL CHENG KUNG UNIVERSITY, ²Tainan YMCA Senior Citizen Center, Tainan City, Chinese Taipei

With increasing population of dementia, day-care centers in Taiwan have sprung up ubiquitously. Day-care centers in Taiwan adopt the mode of specializing care units for elderly with dementia, and the mode of mixed care units for elderly with both dementia and disabilities. This study discovered the differences of life performance from the elderly with dementia caused by two different modes of day-care centers.

Through the perspective of successful aging, this study involved participation, observation and record about the 30 elderly patients in the Tung-Men dementia day-care center, and 10 elderly patients in the Chien-Ping mixed day-care center of their life style and characteristics for 11 months.

The results of the research indicated that the characteristics of the specializing care units are: (1) providing the elderly with freedom to choose suitable arrangement of their life, (2) helping the elderly develop their potential self-reliance, (3) fostering the practice of individualized care service, (4) providing the elderly with a context-aware design of time and space. And, the characteristics of the mixed care units are: (1) guiding the elderly to participate in various activities with group dynamic, (2) enhancing normal social interaction between the elderly with dementia and disabilities, (3) providing the elderly with plentiful social networks and support.

In conclusion, the mode of specializing care units for the elderly with dementia was tended to present home-like, provide individualized care, and help the elderly stabilize their mental behaviors. As to the mode of mixed care units was tended to create the multiple social network for the elderly to interact and support. Day-care service for the elderly is important to increase their opportunities for activity participation and deter deterioration of their body functions. Therefore, the existence of both modes is necessary to assist the elderly of different backgrounds and needs in acquiring suitable life style.

Key words: day care, specializing care, mixed care, dementia

Disclosure of Interest: None Declared

P253

THE DEMENTIA FRIENDLY CITIES NETWORK

S. Henry ^{1,*}

¹Ligue Alzheimer, Liège, Belgium

In Europe, 50% to 80% of people with dementia are cared for by relatives at home[1]. Yet, 'carers face significant gaps in the information, help and support they receive and only 17% consider that the level of care for the elderly in their country is good'[2].

Moreover, people with dementia and their carers tend to be isolated. These people also often face difficulties finding quality information in their own city. Yet, this type of disease requires familiar references; concerned people need to be able to rely on someone who comes from a similar background and who can provide them with specific, reliable information on the disease.

To deal with these issues, la Ligue Alzheimer has developed a series of concepts, each one related to the others. Amongst these concepts: the 'Dementia Friendly Cities', a network of cities which hold and develop activities related to Alzheimer's Disease (Alzheimer Cafés; training sessions 'Circle of Care'; home assistance to carers; Proxidem...) in consultation with la Ligue Alzheimer.

La Ligue Alzheimer has been asked to present the initiative at a WHO (World Health Organization) Congress held in Liège in June 2011. This Congress, attended by 322 participants from 30 European countries and 95 cities, has led to the drafting of an important statement on the new European policy for health and well-being: Health 2020.

The 'Dementia Friendly Cities' program entirely matches the objectives stated in this declaration.

Moreover, a 'Dementia Friendly Cities Charter' has been signed by fifteen cities on the 20th of September in Liège. This Charter specifies the sharing out of the tasks between each signatory. Besides, communal agents in each participating cities have been invited to follow a three-day training session in order to become 'Proxidem', the person who will be in charge of providing concerned people with useful and specific Alzheimer information. To promote the initiative, flyers, stickers and a brochure ('Action Plan for a Dementia Friendly City') have been made. With this initiative, la Ligue Alzheimer – representative of patients and their carers – proves that the association is part of the solution and is able to find equal partnerships for people with dementia in their familiar surrounding background.

_____ [1] Alzheimer Europe – 2006 Dementia Carers' Survey

[2] Alzheimer Europe – 2006 Dementia Carers' Survey

Disclosure of Interest: None Declared

P254

DO SHARED-HOUSING ARRANGEMENTS CONTRIBUTE TO A BETTER NUTRITIONAL STATUS OF CARE-DEPENDENT PEOPLE WITH DEMENTIA? - RESULTS FROM A ONE-YEAR FOLLOW-UP IN GERMANY

S. Meyer ^{1,*}, J. Gräske ¹, A. Worch ¹, K. Wolf-Ostermann ¹

¹Alice Salomon University of Applied Science, Berlin, Germany

Objectives: Malnutrition, weight loss and disabilities in activities of daily living are common nursing challenges in elderly care. Especially people with dementia have a high risk of malnutrition and of losing weight, particularly in later stages of dementia. They often forget to eat or the meals are no longer perceived as such. During the last years shared-housing arrangements (SHA) for older, care-dependent people, frequently with dementia evolved in Germany. SHA are an alternative to traditional residential care of people with dementia in nursing homes. But there is a lack on findings concerning nutritional status and health outcomes of people living in SHA. Therefore the presentation aims to discuss relationships of malnutrition, health outcomes and activities of daily living of residents in SHA.

Methods: We used a longitudinal design with a one year follow-up to evaluate nutritional status as well as health outcomes of residents of SHA. Standardized face-to-face interviews were conducted in June 2010 and September 2011 concerning the nutritional status (BMI, MUST and MNA), activities of daily living (Extended Barthel Index), cognitive impairment (MMSE) apathy (AES) and Quality of Life (ADRQL) as well as other socio-demographic characteristics of 104 residents from 36 SHA in Berlin/Germany.

Results: The average age of all residents is 79.0 years. The majority of the residents have a dementia syndrome (83.7%). The average MMSE was 11.5. According to MNA 16.4% have an adequate nutritional status. 14.5% are malnourished and 69.1% show a risk of malnutrition. According to the MUST 1.9% of all residents have a high risk of malnutrition. A poor nutritional status is associated with low cognitive ability, old age and low activities of daily living. There are no gender differences to be seen. The nutritional status, the cognitive impairment and the activities of daily living from the residents decrease within one year. A poor nutritional status is a clear risk factor for untimely passing away of residents.

Conclusion: The results show that residents of SHA certainly have an increased risk for malnutrition. Compared to results from inpatient facilities this risk is slightly lower but still one of the main impact factors for a loss in daily functioning.

Disclosure of Interest: None Declared

P255

COST OF FORMAL CARE IN NEWLY DIAGNOSED DEMENTIA - A 3-YEAR FOLLOW-UP

C. Vossius^{1,2}, A. Rongve³, I. Testad¹, A. Wimo⁴, D. Aarsland^{1,4,5,*}

¹Centre for Age-related medicine, Stavanger University Hospital, ²Stokka Teaching Nursing Home, Stavanger,

³Department of Old Age Psychiatry, Haugesund Hospital, Haugesund, Norway, ⁴Department of Neurobiology Caring Science and Society, Karolinska Institutet, Stockholm, Sweden, ⁵Faculty of Medicine, Akershus University Hospital, University of Oslo, Oslo, Norway

Objectives: Objective: Dementia is one the most common causes of morbidity in the elderly with significant socio-economic consequences. This study evaluates the use of formal care in a cohort of patients with dementia during the first three years after diagnosis. We further estimated costs for formal care in this patient group and evaluated cost-predicting factors.

Methods: Methods: 110 patients with mild dementia at baseline were included in the study, diagnosed according to consensus criteria based on standardised assessments, and were followed over three years. In order to evaluate cost-predicting factors, baseline data was collected by the following instruments: Mini Mental State Examination, Neuropsychiatric inventory, Greene Relative Stress Scale, the Unified Parkinson Disease Rating Scale motor subscore, and the Rapid Disability Rating Scale-2. The total burden of medical illness was described by the Cumulative illness rating scale. The use of cholinesterase inhibitors during the first year after diagnosis was as well registered. Information about formal care was collected from the municipalities' registration systems.

Results: Results: Costs for formal care were increasing from NOK 4989 (€ 604) per month at baseline to NOK 29 674 (€ 3592) per month during the third year, with a mean of NOK 19 397 (€ 2348) during the whole observation period. The major cost driver (72%) was institutional care. The costs for people with dementia with Lewy bodies (DLB) were significantly higher costs than for people with Alzheimer's disease (AD) with (NOK 26 819 (€ 3247) and NOK 15 321 (€ 1855) per month respectively. As the most important cost-predicting factors we identified the living situation, a diagnosis of non-AD, co-morbidity, and caregivers' stress. The use of cholinesterase inhibitors was related to lower costs.

Conclusion: Conclusion: Formal care costs increased significantly over time with institutional care being the most heavy cost driver.. Studies with longer observation periods will be necessary to evaluate the complete socio-economic impact of the course of dementia.

Disclosure of Interest: C. Vossius Consultant of: Lundbeck, A. Rongve: None Declared, I. Testad: None Declared, A. Wimo: None Declared, D. Aarsland: None Declared

P256

WHAT ARE THE FACTORS PREVENTING HEALTHCARE NEEDS OF CARE HOME RESIDENTS WITH DEMENTIA FROM BEING MET? A REVIEW OF THE LITERATURE

J. Dudman^{1,*}

¹Care of Older People Team, City University, London, United Kingdom

Objectives: This review of the literature explores the factors that may be contributing to the healthcare needs of residents in care homes, especially those with dementia, from being adequately met. Significant levels of dementia, dependency and co-morbidity are now common in all types of care home settings (Royal College of Physicians et al 2000, Laing and Buisson 2009) and high levels of unmet needs are often reported in the literature. This review identifies a number of factors which may be contributing to needs not being met. Whilst it may be possible for some of these to be tackled by the care home sector itself others lie outside their remit, requiring for example policy changes such as increased funding. It also highlights the need for further research which explores in greater depth the difficulties that care homes and their staff face and the support that they require to care for an increasingly dependent population. Until all these issues begin to be addressed an extremely vulnerable group of people will continue to receive care and support that is often inadequate to meet their needs.

References: Laing and Buisson. (2009) Laing's Healthcare Market Review 2009-2010. No.22nd Edition. London: Laing and Buisson.

Royal College of Physicians, Royal College of Nursing, and British Geriatric Society (2000) The health and care of older people in care homes. London: Royal College of Physicians.

Disclosure of Interest: None Declared

P257

WHAT ARE DEMENTIA ADVISERS AND WHAT DO THEY DO? A QUALITATIVE EXPLORATION OF THE EXPERIENCES OF DEMENTIA ADVISERS IN DEVELOPING THEIR ROLE AND THOSE WHO USE THEIR SERVICES IN WORCESTERSHIRE

J. La Fontaine^{1,*}, D. Brooker¹, J. Bray¹, S. K. Milosevic¹

¹Association for Dementia Studies, University of Worcester, Worcester, United Kingdom

Objectives: A key objective of the National Dementia Strategy for England is the development of specific early intervention and diagnostic services for people affected by dementia and their families. This includes the provision of a dementia adviser role to facilitate access to care, information and advice. Initial development involved piloting and evaluation of models of service provision, prior to full implementation. Worcestershire was successful in achieving demonstrator site funding, and two dementia advisers were recruited by the Alzheimer's Society. The dementia advisers work closely with the early intervention dementia service and other services within Worcestershire. Objectives for the service include establishing a single identifiable contact and providing relevant quality information tailored to individual need to people with dementia and their families. The partnership between Worcestershire County Council, PCT and the Alzheimer's Society commissioned a local evaluation of the service. This evaluation aimed to address a number of objectives, including developing an in-depth understanding of the experience of being a DA and what it was like to receive (or not to receive) their services.

Methods: Monthly qualitative, semi structured interviews were carried out with dementia advisers over the duration of the project. Eight people living with dementia and eleven family members took part in qualitative interviews at 2 time points during the pilot phase of the service. Interviews were analysed inductively, using thematic analysis.

Results: This research identified the range of knowledge, skills and attributes required of a dementia adviser, as well as the complex nature of their work. The experience of people living with dementia and their families further illustrates the diverse needs the dementia advisers are required to address in order to support people living with dementia through their journey

Conclusion: The research highlights important considerations that need to be addressed in the provision of dementia adviser services, including the facilitators and barriers to working effectively in the role, from the perspective of the dementia advisers themselves and the people who use their services.

Disclosure of Interest: None Declared

P258

MAKING IT HAPPEN, STRATEGIES DEVELOPED AND LESSONS LEARNED IN DELIVERING AN EARLY INTERVENTION DEMENTIA SERVICE IN WORCESTERSHIRE

J. La Fontaine^{1,*}, C. Edwards²

¹Association for Dementia Studies, University of Worcester, ²Mental Health Older Adults, Worcestershire Health and Care NHS Trust, Worcester, United Kingdom

Objectives: A key objective of the National Dementia Strategy for England is the development of specific early intervention and diagnostic services for people affected by dementia and their families. The provision of Early Intervention Services creates opportunities to maximise choice and autonomy, and assist the person living with dementia and their family/ supporters to adapt to the illness and make plans for the future. An evidence base exists for the provision of services which facilitate early diagnosis. Within Worcestershire Health and Care Trust, the Early Intervention Dementia Service (EIDS) commenced in July 2010. Key priorities for the service included the development of an evidence based approach and an effective, ongoing evaluation strategy which includes gaining the perspectives of people who have received the service.

Methods: Workforce development monies were obtained to fund the Association for Dementia Studies to work collaboratively with the NHS trust to deliver and evaluate an action learning set designed to support the development of evidence based practice. Additionally, a research post was funded to support the development of the evaluation strategy and to support the evaluation of the first year of operation, involving data concerning service use and a qualitative study concerning service experience.

Results: Results of the outcomes of the evaluation of the first year of operation, combined with an evaluation of the impact of structured opportunities to develop as a service have highlighted the importance of a co-ordinated approach to service development and delivery of effective early intervention dementia services. The experience of the service was positive, with high levels of satisfaction expressed by people receiving the service and their families. The structured learning provided important opportunities to constructively consider practice and develop individually and as a team, as well as building effective team working with other services including dementia advisers and admiral nurses.

Conclusion: The approach taken to service development and evaluation has enabled a reflective and critical approach to the implementation of an Early Intervention Dementia Service. Insights achieved and strategies to address service development and evaluation are planned and will be explored in this presentation.

Disclosure of Interest: None Declared

P259

EVALUATION OF THE DEM-DISC: AN ICT TOOL FOR CUSTOMIZED ADVICE ON CARE AND WELFARE SERVICES

L. Van Mierlo^{1,*}, F. Meiland¹, R.-M. Dröes¹

¹Psychiatry, VU MEDICAL CENTER, Amsterdam, Netherlands

Objectives: A wide variety of care and support services are available for the growing number of community-dwelling people with dementia and their informal carers. However, they do not (effectively) use the available care and support because often they are not aware of them, are not referred to it by health care professionals or expect that the service will not meet their needs. To provide carers of people with dementia with tailored information, the DEMentia Digital Interactive Social Chart (DEM-DISC) was developed. DEM-DISC is a demand-orientated, web-based, social chart for dementia care, which is easy accessible at anytime, anywhere by the Internet. A pilot version was tested in a controlled trial and the results were positive: compared to a control group the people with dementia and informal carers using DEM-DISC reported more met, and less unmet needs and the informal carers felt better able to fulfil their care task (higher sense of competence). The aim of the present study was to further improve the pilot version of the DEM-DISC, to evaluate the user-friendliness, usefulness and effects of the improved DEM-DISC among (in)formal caregivers and people with dementia, and to study barriers and facilitators of the implementation of DEM-DISC.

Methods: An RCT is conducted to evaluate the effects on (in)formal caregivers and people with dementia. People in the experimental group use DEM-DISC for at least half a year to one year, people in the control group receive information on available services as usual (via GP, internet). Primary outcome measures are met and unmet needs of persons with dementia and informal carers, sense of competence of informal carers, and the experienced value of DEM-DISC in professional caregivers. The user-friendliness and usefulness of DEM-DISC is measured by the USE-questionnaire administered in both informal and professional carers. A process evaluation is conducted using semi-structured interviews with stakeholders, to get insight into barriers and facilitators of implementation of the DEM-DISC. The study is performed in four regions of the Netherlands.

Results: First results are positive: professional carers appreciate the DEM-DISC and feel this will have added value in their work.

Conclusion: Preliminary results on user-friendliness and usefulness of DEM-DISC as well as identified barriers and facilitators of the implementation of DEM-DISC will be presented at the conference.

Disclosure of Interest: None Declared

P260

DAY CARE PROGRAMS FOR PERSONS WITH DEMENTIA – IMPACT ON FAMILY CARERS?

L. Taranrød^{1,*}

¹Ageing and Health, Norwegian Centre for Research, Tønsberg, Norway

Objectives: In 2007 the Directorate of Health Affairs instructed the Norwegian Centre for Dementia Research to start a nationwide program to implement and evaluate various day care programs for home dwelling persons with dementia during a period of three years as a part of the strategies in Norwegian Dementia plan 2015. In 2011 organized 188 of 430 municipalities day care programs for home dwelling persons with dementia.

The aim of this study is therefore to develop and implement day care programs for home dwelling persons with dementia in Norwegian municipalities and to evaluate the impact these programs have on family carers situation.

Methods: Twenty eight municipalities were invited to participate in the implementation and evaluation of various day care programs during a period of 12 months.

The family carers' burden of care was measured by the Relatives' Stress Scale (RSS) and they filled in a questionnaire about their home situation, support they received (formal and private) and the programs impact on their life.

Results: It was 195 family carers who participated, 84 were spouses, 100 sons/daughters and 11 other family members. The average age of the family carers was 62 years. Forty five percent lived together with a person with dementia and 55 % of these had an RSS score of 23 or higher, and 18 % of the carers who did not lived with the patients had an RSS score of 23 or higher. Furthermore, 67 % of the 171 responding carers replied that the programme provided them with an improved relief and 47 % answered that the programme covered their needs for respite to a largely extend. The family carers reported (75%) that the person with dementia received community nursing and 42 % received practical assistants in home. The person with dementia attended to day care mean 2, 5 (s.d 1, 4) days a week. Only few of the family carers participated in support groups, got individual counseling or economic support.

Conclusion: Family carers who lived together with the person with dementia had a higher stress level compared to those who did not live together. Therefore, it is important to provide them with a variety of service to reduce their burden of care. This study shows that day care programs for person with dementia can contribute to respite and a better everyday life for family cares.

References: Norwegian Dementia plan 2015

Disclosure of Interest: None Declared

P261

ROMANIAN CAREGIVERS' PERSPECTIVE ON ALZHEIMER'S DISEASE MANAGEMENT

A. Zamfirescu¹, M. Gurgu^{2,*}, S. Zgunea³

¹Geriatrics, "Sf. Luca" Hospital, ²Geriatrics, Spitalul Clinic Judetean Brasov, Bucharest, ³Department for the Elderly, Social Service, Brasov, Romania

Objectives: Our objectives were to identify needs and expectations of professional and nonprofessional caregivers regarding medical, social and psychological support services for people with Alzheimer's disease (AD).

Methods: We applied a questionnaire to 21 professional caregivers from the Social Service Department for the Elderly in Brasov, Romania and 35 nonprofessional caregivers from the same region; 4 domains were covered: home care for AD patients, access to diagnosis, social perspective of people diagnosed with AD and availability of community services. The answers of the two groups' responders were analyzed and compared.

Results: Only 5 out of 105 patients served by the Social Department were diagnosed with AD although there were 15 more with dementia-like symptoms. Professional caregivers pointed institutionalization as the most likely recommendation for care (38%), whereas nonprofessional caregivers aimed home care (57%) the spouse being mostly involved (29%). Accessibility to diagnosis is much higher in the urban areas; absence of family support, financial difficulties or immobility delays the diagnosis. Nonprofessional caregivers use behavioral disorders as the most suggestive dementia symptom. All responders highlighted the negative impact of late stage dementia diagnosis and the social stigma following. Community services imply highly qualified medico-social care and financial support (law no. 448/2006 for disability) for 95% of professional responders, and mainly financial support for nonprofessionals, the medical and social care being accessed only by 28% of them.

Conclusion: We face an emerging need to increase accessibility to information regarding diagnosis and treatment in AD, to inform population on their legal rights and existing services, to create a model of good practice, valid evaluation instruments, or to adopt an existing model, to create an integrated socio- medical service for patients and accurate support for caregivers.

Disclosure of Interest: None Declared

P262

DEMENTIA CARE MANAGEMENT: ASSESSMENT IS CONTINGENT, CONTEXTUAL AND ONGOING

M. Aronson^{1,2,*}

¹Director, Aronsoncare, Old Tappan, New Jersey, ²Population Health, Albert Einstein College of Med, New York, United States

Objectives: Alzheimer's disease is a progressive long-term illness afflicting mostly older adults. It is ubiquitous and exacts not only a huge emotional toll, but also a global financial burden. Although there is no medical treatment to prevent or cure AD, there is an increasing need for services. The challenge is to provide the right amount of care at the right time in the course of this devastating illness, to prevent excess disability and promote optimal quality of life.

The fact is that there is no magic solution yet; however a prevalent fiction is that there is nothing to be done. An expanding body of knowledge exists about management. Central to management is care coordination. Care planning, management, and coordination must be based on accurate assessment.

Most care for those afflicted is provided by families, who may turn to professional care managers. Care management occurs in a context that includes a multitude of interactions between and among the affected individual, family caregivers, paid caregivers, environment, healthcare providers, and finances, benefits and entitlements. Assessment is more than a single diagnostic process, but rather one requiring a relationship between patient, caregiver(s), and care manager. Because of the changing nature of the dementia, as well as the changes in context, assessment must be an ongoing process. Salient issues include not only the level of cognitive and functional impairment, but also: comorbidities, unmet psychiatric needs, resistance to care, financial abuse and scamming, family structure and dynamics, family neglect and abandonment, substance abuse (often hidden or revealed over time), social supports, and financial resources. Shame, stigma, and anger are prevalent confounding variables, as are denial and unrealistic expectations. There is also lack of education and training, geographic disparities in service availability and quality, variability in definition of services, and an uneven legal system. This paper will focus on longitudinal clinical data from a geriatric care management practice. Descriptive data and case vignettes will be included.

References: Aronson, MK. The Geriatric Care Manager & Family Caregivers of Frail Elders. In Cress, CJ. *Handbook of Geriatric Care Management*, Jones & Bartlett, 2007.

Aronson MK, Weiner MB. *Aging Parents, Aging Children: How to Stay Sane & Survive*. New York: Rowman & Littlefield; 2007.

Disclosure of Interest: None Declared

P263

CREATING PARTNERSHIPS THROUGH SYSTEM NAVIGATION

M. Beck^{1*}, N. Berkowitz¹, D. Schweitzer¹, L. Tremblay¹

¹Nursing and Clinical Services, Jewish Eldercare Center, Montreal, Canada

Objectives: Newly admitted residents and their families in our long term care facility expressed feelings of being overwhelmed as they had insufficient information, support and preparation during placement. Transition was difficult and safety threatened as incomplete information may be transmitted between health care providers that impact on care outcomes. Negative feelings were even more intense for those who had multiple diseases requiring interventions from many different health care providers. Gaps in communication and lack of cohesive partnerships were not allowing us to be best prepared to meet the residents' needs upon admission.

To address these concerns, we began using an innovative approach called system navigation. It is individualized and humanizing while personalizing care and partnerships between all parties particularly for someone with dementia and their family.

A social worker, the "system navigator", responds, in a timely manner, to expressed concerns while informing, guiding and supporting new residents/families before, during and after living arrangement transitions. She simplifies the admissions process by providing "one stop shopping" instead of someone having to deal with multiple professionals and resources. She facilitates the balance between the new resident's medical and non-medical needs in order to achieve positive outcomes.

Pre-admission, the system navigator clarifies misconceptions and unrealistic expectations. Newly admitted residents/families conveyed that stress and feelings of being overwhelmed by the admissions process were significantly reduced with the new approach as they receive accurate information that enables them to make informed decisions about placement and care. Time that is invested prior, during and post-admission has built rapport and trust between new residents, families and staff.

Staff also has seen the benefits of this approach. Resident and family concerns and care needs are flagged immediately to the appropriate interdisciplinary team member(s) and they feel better prepared to receive the resident and their family

We have seen an increase in the level of satisfaction of new residents, their families and staff. Residents' needs can be met in a timely manner without requiring additional staff. This system can easily be replicated in other health care settings. The System Navigator has shown itself to be a win-win for our residents, their families and staff.

Disclosure of Interest: None Declared

P264

PALLIATIVE CARE IN DEMENTIA: A EUROPEAN VIEW OF THE MODELS OF PALLIATIVE CARE

N. Davies^{1,*}, S. Iliffe¹, J. Manthorpe², S. Ahmedzai³

¹Department of Primary Care and Population Health, University College London, ²Social Care Workforce Research Unit, Kings College London, London, ³Department of Oncology, Sheffield University, Sheffield, United Kingdom

Objectives: To gain detailed insights into the models of palliative care (PC) for dementia across Europe through the development and application of an analytic framework that captures differences between health care systems. This is part of the **Implementation of quality indicators in Palliative Care sTudy (IMPACT)**; a European Commission funded project.

Methods: A mixed methodology approach was used starting with extensive literature reviews to gather information on diversity of healthcare systems. Existing literature was surveyed, to identify the range and organisation of services available. Additionally, a web based survey of a European research group on dementia (INTERDEM) and European Association for Palliative Care (EAPC) members to identify the range and quality of services available was completed. This enabled us to triangulate data to build up a comprehensive map of services and service deficiencies. Interviews with policy makers involved in the organisation of PC and representatives of patient organisations to confirm commonalities and further explore variance of the European countries and PC for dementia were conducted in five different European countries.

Results: Results reveal a mix of key points from the interviews, existing literature and surveys surrounding dementia palliative care. These included poor knowledge and understanding of dementia among professionals, patients and carers alike. Poor knowledge among professionals is compounded by poor education in palliative care, resulting in difficulties recognising when palliative care should begin. Communication and organisation of care need significant improvements, using case management or a framework similar to the Gold Standards Framework or the Care Programme Approach.

Conclusion: The results of this study will now be used within the IMPACT study to develop and implement quality indicators to improve palliative care for dementia.

Disclosure of Interest: None Declared

P265

GENERAL PRACTITIONERS USE OF THE INHIBITORS OF CHOLINESTERASE (IC) IN THE OLDER POPULATION

R. katell¹, T. ACHILLE^{2,*}, D. THIERRY²

¹GERIATRICS, GUERET HOSPITAL, GUERET, ²GERIATRICS, EA HAVAE UNIVERSITY OF LIMOGES, LIMOGES, France

Objectives: To describe how the general practitioners in Limoges community use the inhibitors of cholinesterase (IC) in the older population

Methods: It's a observational descriptive transversal study with the general practitioners (GPs) in Haute-Vienne (France). A questionnaire was sent to the all GPs by post. It contains questions about profil of the GPs, IC themselves, compliance, tolerance and evaluation of efficiency.

Results: 189 GPs (122 men and 65 women) have answered to the questionnaire (43,7%). The average age is 51,32 years. 99,47% of GPs update their knowledges, essentially with the médical continuing education and the médical press. 57,42% of GPs, practicing before 1997, think that the IC have changed the care of Alzheimer disease. 42,31% of GPs thinks that IC are a symptomatic treatment, 61,54% that they have a repercution on the evolution. 84,13% of GPs have already stopped the inhibitors of cholinestérase mainly because of a poor tolérance and a too advanced dementia. 35,59% of the GPs hope to be the first prescribers of this treatment.

Conclusion: The most part of GPs believes in the cholinergic hypothesis and thinks that IC since 1997 have changed the care of Alzheimer disease. However the majority thinks that they have a repercution on the evolution. The GPs evaluate well the compliance, essentially with the interrogation of caregivers and the monitoring of the time between the renewals. They evaluate properly the efficiency of this treatments, but they use little the existing scales. Few GPs would hope to be the first prescribers of this treatment

References: Prevost P, Vincke B, Vuillemin C. A propos de 15 000 personnes âgées en établissements et à domicile évaluées par le modèle AGGIR. La Revue de gériatrie, 1996; 21(3):179-188

Disclosure of Interest: None Declared

P266

FACTORS OF CONTINUING CARE FOR FAMILY CAREGIVERS OF ELDERLY PEOPLE WITH DEMENTIA

T. Isowa^{1,*}, C. Greiner², E. Kishi³, A. Fukahori⁴, K. Matsuo², T. Oishi⁵, N. Shimada⁶

¹Nursing, Mie University, Tsu, ²Nursing, The Japanese Red Cross College of Nursing, ³Nursing, Teikyo University, ⁴Nursing, Tokyo University, Tokyo, ⁵Nursing, Kanagawa University of Human Services, Kanagawa, ⁶Nursing, Seibo University, Tokyo, Japan

Objectives: The aim of this study was to clarify the factors of continuing care for family caregivers of elderly people with dementia in Japan.

Methods: Ten family caregivers taking care of people with dementia participated in this study. For a data collection, a qualitative descriptive research design was employed using semi-structured interviews. All interviews were tape-recorded with participant's consent and transcribed verbatim. The Ethics Committee of the Japanese Red Cross College of Nursing approved the present study.

Results: The subjects (male:2, female 8) mean age was 62.8 (range: 51-83) and the mean duration of home care was 7.8 years (range: 3-14). As factors of continuing care and techniques of home care, nine and twelve categories were extracted each. The former is described below: attitude and ability of patient, positive consciousness to home care, human environments, support system, cooperation with family, and economic condition. The latter is as follows: responses tailored to symptom of dementia, ingenuity for care, relief from care burden, support system, collecting information for home care, health control of caregiver and patient, collaboration with family, communication with neighbors, and environmental coordination.

Conclusion: The family caregivers who had been continuing caring for a long term were combining various methods to reduce the care burden and to increase positive consciousness to home care.

Disclosure of Interest: None Declared

P267

THOUGHTS AMONG PEOPLE WHOSE PARENTS HAVE EARLY ONSET DEMENTIA

Y. Ozawa ^{1,*}, H. T. Nakamura ²

¹School of Nursing, JOBU UNIVERSITY, takasaki, ²department of Occupational Therapy, Saitama Prefectural University, Koshigaya, Japan

Objectives: This study aimed to clarify thoughts among people whose parents have Early Onset Dementia (EOD).

Methods: Participants were 4 people whose parents had EOD. Data collection was done through a 90 minute group focus interview and a 90 minute individual semi structured interview after obtaining consent for this study. Interview contents were thoughts when their parents were diagnosed with EOD and thoughts towards their parents with EOD. Recorded interviews were divided into meaningful one sentences of length and then categorized.

Results: Participants were 2 men and 2 women, and age was 34.3 (SD 2.21) years old. Two of them took care of fathers and 2 took care of mothers. Nobody lived with their parents with EOD. There were 4 major categories and 10 subcategories < >. Thoughts concerning diagnosis with EOD had 2 subcategories. < Shock due to diagnosis > represented feelings as if being given a death sentence and facing that everything was finished. < Preparation > reflected participants' observation of strange behaviors of their parents. Thoughts being as children whose parents had EOD had 4 subcategories. < Gratitude > represented appreciation of being raised. < Reconciliation > was expressed about the situation that it can't be helped because of EOD and one's parents. < Distance > represented their confusion that they couldn't understand how to deal with the behavioral problems. < Supports > was expressed as providing information about care services and offering transportation when their parents used facilities. Influences for family members after getting married had 3 subcategories. < Concerning kids > represented guilty feelings towards their kids because of not being able to take care of them. < Concerning a spouse > represented guilty feelings towards one's spouse because of not being able to take care of them. < Communication within family members > was expressed as unable to be with family members due to giving care to parents with EOD. Anxiety for the future had 1 subcategory < Inheritance > which reflected anxiety whether they had EOD the same as their parents.

Conclusion: There were 4 major categories about thoughts among people whose parents had EOD. Future studies are needed addressing supports towards those thoughts which were clarified in this study.

Disclosure of Interest: None Declared

P268

MANAGING EMOTIONAL JETLAG FOR PEOPLE LIVING WITH DEMENTIA: ZOE ELKINS & PENNY GARNER

Z. Elkins ^{1,*} and Penny Garner

¹The Good Care Group, London, United Kingdom

Objectives: People with dementia display unusual behaviours & increased ill-being during the afternoon, evening & night 1. The neurological deterioration in dementia contributes to disturbances in rest-activity rhythm 2, including behavioural symptoms such as night time wandering & agitation 3. Sleep disturbances are a major feature of caregiver experience, a source of significant caregiver burden & the primary reason for institutionalization 3. The Good Care Group is a professional provider of high quality live in care for elderly people, with a dementia client base of 75%. The Good Care Group is working collaboratively with the charity SPECAL to apply the SPECAL method based on the SPECAL Photograph Album 4 in an innovative specialised domiciliary dementia care service. The method is grounded in an understanding of the subjective experience of dementia & enables people with dementia to experience sustainable wellbeing, take less medication & stay at home for longer 5.

The overall aim of our collaborative work is to utilise the method to aid orientation & wellbeing using a SPECAL Care Profile to make practical links between past memories & activities of daily life in the present, to provide 24hr sustainable wellbeing. Our current focus is establishing stable sleep patterns for people with dementia who are living in their own home. The hypothesis is that the person with dementia experiences a form of emotional jetlag unless a coherent individualised, day/night night/day transition is facilitated. The way in which Zoe Elkins, Head of Care at The Good Care Group & Penny Garner, Founder of SPECAL, are developing this strategy for The Good Care Group clients is explained through case histories.

1: Scarmeas N et al (2007). Disruptive Behaviour as a Predictor in Alzheimer Disease Arch Neurol 64(12):1755–61

2: Witting et al (1990). Alterations in the circadian rest-activity rhythm in aging and Alzheimer's disease Biological Psychiatry Vol27, Issue6, 15 1990, Pg563-572

3: Ancoli-Israel et al (2009). Rest-Activity and Behavioral Disruption in a Patient with Frontotemporal Dementia Neurocase 2009 December;15(6):515–526 doi:10.1080/13554790903061371

4. Garner P (2008 3rd Ed) The SPECAL Photograph Album, Windrush Hill Books, Hawling

5. Pritchard EJ and Dewing J (2001) A multi-method evaluation of an independent dementia care service and its approach Aging & Mental Health, Vol. 5 No. 1, pp 63-72

Disclosure of Interest: None Declared

P269

FROM VISION TO REALITY - IMPLEMENTING BAMFORD

A. Scott ^{1,*}

¹South Eastern Health & Social Care Trust, Lisburn, United Kingdom

Objectives: Bamford's vision (2006) was to make a meaningful difference to the lives of people with dementia and their families by providing care where possible in the community. The South Eastern Health & Social Care Trust made this a reality for 12 patients in Downshire Hospital. In June 2009 a contract was negotiated with Four Seasons Health Care to provide a high level of person-centred care within a dementia friendly environment. Effective project management arrangements ensured every patient was assessed for re settlement into the most appropriate community setting and that therapeutic person-centred activity were developed within a superior environment. This included a themed wall along the principles of the PEARL project, colour schemes and signage to facilitate orientation and lightening to maximise independence and a secure sensory garden to ensure access to an external area. Staff training focused on dementia awareness, conflict resolution and psychotropic medication. A comprehensive discharge including a detailed care plan, medical and medication review was developed. Negotiations with a local General Practitioner's practice secured a service level agreement to provide medical cover. Continued support post transfer from the Consultant Psychiatrist and the Nurse Consultant, whose expertise was addressing behaviours that challenge by exploring and meeting the underlying unmet need built confidence with the staff in Carnalea. Through planning and collaboration potential problems were anticipated and addressed successfully. **BENEFITS** The quality of life of our patients has been transformed. They flourished in their new surroundings clearly enjoying the activities devised by the Personal Activity Leader. We have demonstrated how the statutory and independent sector can work in partnership with families to deliver high quality person-centred care. Quotes from families confirmed we had achieved our aims and objectives. For example 'My Father is more engaging every time we visit' 'Environment is more homely' 'I never saw the residents so contented'. **EVALUATION** Key performance indicators were developed to monitor staff training, medication usage, incidents/accidents, vulnerable adults, behavioural issues, level of engagement/well being, sleep pattern, weight, mobility and re-admission to hospital. This enabled us to have measurable outcomes to assess the residents' quality of life.

Disclosure of Interest: None Declared

P270

AN EVALUATION OF DEMENTIA CARE IN MALTESE HOSPITAL WARDS

A. Innes^{1,*}, F. Kelly², C. Scerri³, S. Abela⁴

¹Health and Social Care, Bournemouth University, Bournemouth, ²Applied Social Science, University of Stirling, Stirling, United Kingdom, ³Pathology, University of Malta, ⁴Elderly, Rehabilitation Hospital, Msida, Malta

Objectives: To evaluate the quality of care provision for people with dementia living in general older people wards in a Maltese hospital. Staff are aware that improvements are required. The research design involves two evaluation periods to allow for change in the intervening year.

Methods: The study involves two periods of data collection, year 1 has been completed. Three data collection methods were used:

1. Two structured questionnaires were used to gather staff views on the person-centredness of the ward environments (Edvardsson et al 2010a,2010b).
2. The Environmental Audit Tool (Fleming et al 2003) was used to evaluate the physical environment of the wards.
3. Dementia Care Mapping (Bradford Dementia Group 2005) was used to evaluate the patient experience on the wards.

The same methods will be used at year two to allow for evaluation of improvement and change over time.

Results: Data collection has just finished and analysis is ongoing. Initial findings indicate a discrepancy between staff views of person centred care and the principles of person centred care embedded in Dementia Care Mapping. The physical environment does not meet the standards and principles underpinning the Environmental Audit Tool due to the difficulties of providing dementia care in an environment that has not been built on dementia friendly design principles. Full findings from the year 1 evaluation will be available by the time of the conference.

Conclusion: Initial conclusions are that there are building blocks in place in the hospital wards evaluated, however much is to be done to improve the quality of care provision in these settings in the future. Full conclusions from year 1 data collection will be available by the time of the conference.

References: Bradford Dementia Group (2005) The Dementia Care Mapping Method. Bradford: Bradford Dementia Group

Edvardsson, D., Fetherstonhaugh, D., Gibson, S., & Nay, R. (2010a). Development and initial testing of the person-centered care assessment tool (PCAT). *International Psychogeriatrics*, 22, 101–108.

Edvardsson, D., Koch, S., & Nay, R. (2010b). Psychometric evaluation of the English language person-centred climate questionnaire—staff version. *Journal of Nursing Management*, 18, 54–60.

Fleming, R., Forbes, I. and Bennett, K. (2003). *Adapting the ward for people with dementia*, New South Wales, Department of Health

Disclosure of Interest: None Declared

P271

TO REPORT CHALLENGES IN TAKING CARE OF ALZHEIMER'S DISEASE PATIENTS IN THE LONG TERM CARE SETTING.

P. Agarwal¹, A. Madan^{2,*}

¹Movement Disorders, Booth Gardiner Center, Washington, United States, ²Class XIII, Newstead Wood School, Orpington, United Kingdom

Objectives: Objectives: To report challenges in taking care of patients with Alzheimer's disease observed by a student volunteering in long term care setting

Background: A 12th grade student volunteered time for 1 year at a long term care setting which had both residents with and without dementia. She noted her observations about the challenges faced by patients with dementia in longterm settings.

Results: Patients with dementia tended to be isolated by other residents especially at the dinner table because they were often messy eaters. Demented patients tended to have problems with body odour from bowel or bladder accidents which led to other patients tending to shun them. Paranoid ideation especially about taking pills from caregivers led to caregivers developing an unfriendly attitude to demented patients. Visitors and volunteers tended to spend more time with non demented patients who were more likely to remember them from previous visits.

Conclusions: When long term care setting have both residents with and without dementia, non demented residents tend to get preferential treatment by both caregivers and other residents. Patients with Alzheimer's disease dementia would benefit from living at long term settings that specialize in dementia care.

Disclosure of Interest: None Declared

P272

ENHANCING INTERACTIONS BETWEEN HEALTHCARE STAFF AND PEOPLE WITH DEMENTIA

B. Willemse^{1,*}, D. Smit¹, J. de Lange¹, A. M. Pot^{1,2}

¹Program on Aging, Netherlands institute of mental health & addiction, Utrecht, ²Clinical Psychology, VU University, Amsterdam, Netherlands

Objectives: People with dementia – just like everybody else - have needs that are important for their wellbeing, such as the need for attachment, comfort, inclusion, identity and occupation. There is a growing awareness that care for people with dementia should be centered around fulfilling these needs to maintain the quality of life of residents. Daily interactions between healthcare staff and residents with dementia are assumed to be of great importance. It is hypothesized that person-detracting interactions can decrease residents' wellbeing, while person-enhancing interactions can have a positive impact.

Methods: Data are derived from a sub study of the Living Arrangements for people with Dementia (LAD-) study. The LAD-study is a nation-wide study of a wide range of living arrangements (n=136) providing nursing home care for people with dementia in the Netherlands. Dementia Care Mapping (DCM) was used to gain insight in the interactions of healthcare staff with residents and residents' wellbeing. In total 57 residents with dementia were observed in ten living arrangements participating in this study.

Results: Two third of the enhancing interactions observed were focused on the need for comfort and occupation. A considerable smaller number of the enhancing interactions was directed at the need for identity, attachment and inclusion. Residents' wellbeing increased most often after interactions that focused on enhancing the identity (64%) or the inclusion (62%) of residents. These results will be illustrated with examples of interactions observed that especially enhance residents' wellbeing.

Conclusion: Based on the positive impact found of enhancing interactions, attention should be paid to the person-centeredness of healthcare staff in living arrangements for people with dementia. Healthcare staff should be alerted that their interactions substantially influence residents' wellbeing and must be trained to interact with people with dementia in an enhancing way. Healthcare staff especially need instructions to focus their interactions more often on the need for identity, attachment and inclusion.

Disclosure of Interest: None Declared

P273

THE PERSON-CENTRED ENVIRONMENT AND CARE ASSESSMENT TOOL: ENSURING QUALITY RESIDENTIAL AGED/DEMENTIA CARE SERVICE STANDARDS

C. Burke ^{1,*}, L. Chenoweth ¹, J. Stein-Parbury ¹

¹Faculty of Nursing Midwifery & Health, University of Technology Sydney, Sydney, Australia

Objectives: To profile the Person-Centred Environment and Care Assessment Tool (*PCECAT*) and report on organisational culture, environment and care practice outcomes associated with *PCECAT* use in Australian residential aged/dementia care services.

Methods: The *PCECAT* instrument and *Guidelines for Use* were developed by the authors to assist residential aged/dementia care service providers assess and implement person-centred organizational structures, environment and care services necessary to meet Australian Government accreditation standards. *PCECAT* comprises three domains: Organisational Culture; Care and Activities, Interpersonal Relationships and Interactions; Physical Layout and Design. Items were theoretically derived from Kitwood's (1993) person-centred model and confirmed for content and face validity through four successive Delphic panel rounds with international dementia experts, clinicians and consumers. Inter-rater reliability was achieved by two independent researchers and 38 aged care managers participating in the PerCEN study (Chenoweth et al, 2010). Pilot-testing was conducted by two researchers and care managers of 72 residential aged care services of different sizes and locations, factor analyses and tests of validity were conducted and *PCECAT* was then tested and re-tested in 50 additional residential aged/dementia care services. In 2011 a pre/post-test study was conducted in 45 uncontaminated Australian residential aged/dementia care services to test the utility of *PCECAT* in improving organisational culture, environment and care practices.

Results: Post-test evaluation six months after *PCECAT* was used to assess and guide service improvements revealed an average improvement of 6.2% in person-centredness: organisational culture 9.2%; Care and Activities, and Interpersonal Relationships and Interactions 7.4%; and Physical layout and design 3.5%. These outcomes remained stable or improved at 8 months Follow-up.

Conclusion: The *PCECAT* and *Guidelines* enable residential aged and dementia care staff to identify, address and improve non-person-centred aspects of service within the framework of the Australian Residential Care Accreditation Standards, and with similar international aged care service benchmarks.

Disclosure of Interest: None Declared

P274

BEHAVIOURAL SUPPORTS IN ONTARIO: A HEALTH SYSTEM APPROACH TO HELP PERSONS WITH RESPONSIVE BEHAVIOURS

D. Harvey ^{1,*}

¹Alzheimer Society of Ontario, Toronto, Canada

Objectives: The Behavioural Support Systems in Ontario is an integrated network of people, services and supports across the continuum of care that provides quality care for those with behaviours associated with complex and challenging mental health, dementia or other neurological conditions.

Evidence demonstrates that the health system currently fails to support this group and as a result, inadequate care is provided, often in the wrong location. Families are often left on their own to find supports and manage transitions. Persons with dementia form the largest group of persons occupying acute care beds longer than they need to. In the community, persons with responsive behaviours receive less home care than others.

This project has developed a principle-driven, evidence informed framework for providing health care resources in a more effective manner. Effort is directed at improving system coordination to support transitions as needs change, integrated service delivery and building knowledge and capacity among the workforce and also with informal caregivers. Results in an extensive literature review will be presented.

This workshop will present the quality improvement process from which the system design has emerged and describe some of the small tests of change which have informed its evolution. Beginning in four health regions, the project has grown to encompass the entire province. The initial investment was largely in long term care homes, with foundational investments in community care. The investment represents the single largest initiative for this population in Canada.

Participants will be exposed to the evaluation plan in terms of performance measures designed to measure improved patient and worker experience, as well as system impact. Participants will be asked to offer their suggestions to improve the evaluation.

By participating in this session, participants will :

- Be informed of the evidence base for this behavioural initiative
- Become acquainted with Quality Improvement Tools to assist service design
- Contribute to the evaluation framework

Disclosure of Interest: D. Harvey Employee of: Chief, Public Policy and Program Initiatives of the Alzheimer Society of Ontario

P275

THE "KNACK" OF EXCELLENT DEMENTIA CARE

D. Troxel^{1,*}, V. Bell²

¹BEST FRIENDS, Sacramento, ²Alzheimer's Association, Lexington, KY, United States

Objectives: The Knack of Excellent Dementia Care

The Best Friends philosophy of dementia care created by Virginia Bell & David Troxel is a person-centered, innovative model of care now in use around the world. The philosophy has been adopted as a best practice by many US states including Oregon, Mississippi, Maine and Illinois and Alberta, Canada and used by thousands of long-term care providers throughout the world. The books are now published in English, German, Italian, Spanish, Arabic, Korean and Mandarin. Various evaluation studies and a 2010 journal article in *Alzheimer's Care Today* (Danner, DeborahD.; McGuire, Caitlin E. 11(4):236-244, October/December), have suggested that the approach may delay institutionalization and improve quality of life for persons with dementia. Best Friends stresses the importance of life-story work, relationships, activity and engagement and empathy.

Family and professional carers embracing the Best Friends approach are encouraged to employ "Knack." Knack is defined by Bell & Troxel as "the art of doing difficult things with ease" or "clever tricks and strategies." Elements of knack include: Good communication, respecting human rights, patience and flexibility, humor, supporting activities and engagement, acceptance and empathy and being well informed.

This session will review the Best Friends philosophy of care and it's use around the world, describe the key elements of "Knack," offer case studies, offer best practices, and suggest ways that programs can train professional and family carers how to develop the "knack of excellent care"

References: Virginia Bell & David Troxel, *A Dignified Life: The Best Friends Approach to Alzheimer's Care* (HCI Books, 2002)

Bell, Virginia, Troxel, David. The Best Friends Model of Alzheimer's Care-A Brief History and Update. *Alzheimer's Care Quarterly*. 8(2):148-156, April/June 2007.

Evaluation of the Best Friends Approach in Adult Day Care. Danner, DeborahD.; McGuire, Caitlin E. *Alzheimer's Care Today*. 11(4):236-244, October/December, 2010

Web site; www.bestfriendsapproach.com

Disclosure of Interest: None Declared

P276

THE ENRICHED OPPORTUNITIES PROGRAMME FOR PEOPLE WITH DEMENTIA: A RANDOMISED CLUSTER CONTROLLED TRIAL OF A COMPLEX PSYCHO-SOCIAL INTERVENTION TO DELIVER PERSON-CENTRED CARE

D. Brooker^{1,*}, E. Argyle², A. Scally³, D. Clancy⁴

¹Association for Dementia Studies, University of Worcester, Worcester, ²Centre for Applied Social Research, School of Social and International Studies, ³School of Health, University of Bradford, Bradford, ⁴School of Education, University of Solent, Southampton, United Kingdom

Objectives: The Enriched Opportunities Programme (EOP) is a multi-level psycho-social intervention focusing on quality of life for people with dementia (Brooker, Woolley & Lee, 2007). Key components of a replicable intervention and a feasible protocol were defined to compare EOP to an active control. Using a cluster randomised controlled trial, the outcomes for people living with dementia in facilities that utilised EOP were compared with schemes that employed an active control intervention.

Methods: 10 extra care housing schemes were cluster randomised to receive either the EOP intervention or active control for 18 months. Residents (20-30 per scheme, total=285) were assessed on a number of outcome measures at baseline, six months, one year and 18 months.

Results: The EOP residents rated their quality of life more positively over time (4.0 [SE 0.6] units; 14% p<0.001) than the active control (1.3 [SE:0.6] units; 4% p=0.003). There was a significant group-time interaction for depressive symptoms (p=0.003) with EOP residents showing a reduction of 25% at both 6 and 12 months and a 37% reduction at 18 months (all p<0.001). EOP residents were less likely to move to a care home or be admitted to a hospital bed. They were more likely to be seen by a range of community health professionals.

Conclusion: Improvements in the use of health care resources in the EOP resulted in significant cost savings (National Audit Office, 2010). The Enriched Opportunities Programme had a positive impact on the quality of life of people with dementia in well-staffed extra care housing schemes.

References: Brooker, D., Woolley, R. & Lee, D. (2007) Enriching Opportunities for People living with Dementia in Nursing Homes: An evaluation of a multi-level activity-based model of care. *Aging and Mental Health* 11(4): 361-370

National Audit Office (2010) *Improving Dementia Services in England- an interim report. Report by the Comptroller and Auditor General*. London: The Stationery Office.

Disclosure of Interest: None Declared

P279

SUPPORTING PEOPLE GROWING OLDER WITH AN INTELLECTUAL DISABILITY

H. Wilkinson^{1,*}, K. watchman¹

¹school of health in social science, university of edinburgh, edinburgh, United Kingdom

Objectives: The objective of the presentation and of the work it discusses is to increase awareness, understanding and communication skills of people supporting older people with an intellectual disability and dementia.

The incidence of dementia in some people with Down syndrome is known to be high. It can occur at a much younger age and has a quicker progression rate. The longer life expectancy of people with Downs and other forms of intellectual disability brings with it an increased awareness of the incidence of dementia but not of how it is experienced by people with ID and dementia from their own perspective. This lack of the person's perspective can also mean that care practices are not as person centred as they could be.

Case scenarios based on examples of good and poor practice will be used to frame a discussion of the experience of the person with dementia and intellectual disabilities. Issues of care, mealtimes, pain, the environment, relationships and support will be outlined and debated.

The film and accompanying support information that will be central to the presentation were funded by the Joseph Rowntree Foundation and produced by the University of Edinburgh.

References: JRF/University of Edinburgh (2011) Supporting Derek DVD and information pack. Pavillion Press. London

Disclosure of Interest: None Declared

P280

PEOPLE WITH DEMENTIA IN HOSPITAL: A CASE STUDY

H. Courtney-Pratt^{1,2,*}, M. FitzGerald^{1,2}, K. Ford^{1,2}, A. Robinson^{1,3}

¹School of Nursing & Midwifery, University of Tasmania, Launceston, ²Royal Hobart Hospital, Hobart, ³Wicking Dementia Research & Education Centre, University of Tasmania, Launceston, Australia

Objectives: The research is part of a program at the hospital site aimed at examining and improving patient centred care to people with dementia (PWD). The objective was to provide a rich description of the experience of the PWD, including the influence of environment and culture, and to plot the progress of care during admission.

Methods: Adopting an embedded single case study design, the progress of eight PWD was followed, ultimately producing an exploration of care provided in one institution. The state authority provided ethics approval for the study. Data included observation (n=43), documentation audit, and semi structured interviews with the participant (n=3), their carer (n=6) and health care professionals (n=17). All data was transcribed verbatim to allow immersion in the data and thematic analysis. Cycles of review and refinement of themes were continuous until no new themes emerged.

Results: The results provide a rich triangulated description of the experience of the person, carer and health care professional during hospitalisation, reported under three themes. Firstly, the theme of environment includes noise levels and the impact on individuals, but also identifies the influence of safety considerations, for example, in areas of ambulation and bed type. Secondly, the theme of care provision provides a focus on essentials such as nutrition and hygiene, highlighting a range of practices, both positive and negative. The final theme, relationships to support best practice provision is fundamental to ensuring dignity and respect between all individuals.

Conclusion: Tensions arise as the needs of PWD contrast with those of health care professionals attempting to deliver person centred care in the context of complex clinical practice areas. We argue that an increased focus on the relationships between PWD, carers and health care providers and how they work to support care is required. The next phase of the research will continue with the team committed to sharing findings with PWD, their carers, and clinicians to build on strengths in the current system and work toward improvements.

Disclosure of Interest: None Declared

P281

THE RELATIONS BETWEEN THE FAMILY CARER AND THE PERSON WITH ALZHEIMER'S DISEASE

K. Hess-Wiktor^{1,*}

¹Institute of Psychology, Jagiellonian University, Kraków, Poland

Objectives: The presented outcomes are part of a broader research project on the experience of Polish family carers of people with Alzheimer's Disease (AD). The current study is aimed at investigating the question of how family carers experience relations between them and the person they care for. The interpretative, hermeneutical approach emphasizes three features of experience: its embedding in the socio-historical context, dynamics of meaning and the role of language as "the house of Being" (Heidegger). Therefore, the study focuses on these aspects of experiencing the relationship.

Methods: The explorative study was conducted within the Interpretative Phenomenological Analysis methodology developed by J. Smith. 30 in-depth interviews with primary and secondary Polish family carers of people diagnosed with AD were conducted. The opening question was: "Tell me about your life with your [relative]" and the whole interview was followed by a projective element – the "blank sheet test". Thematic analysis of meanings of the experience of caring for a relative with dementia was conducted. The current study focuses on relations and attitudes of the carers towards the cared one and the situation of him/her having dementia.

Results: Relations between the caregiver and the patient diagnosed with AD in the group investigated can be described on three dimensions:

1. Regarding either the person or the illness as the main partner in the relation
2. The degree of objectification of the cared one
3. The tension between carer's feeling of loneliness and relative's increasing physical dependence

The interrelations between these dimensions will be shown in particular cases so as to reveal the complexity of relations between the carer and the person with AD.

Conclusion: The study revealed that Polish AD carers are strongly biased towards a disease-oriented approach to care. This can be attributed to the poor state of dementia care and knowledge on AD management in Poland (the socio-historical context), but also reinterpretations due to experiences other than caring (the dynamics of meaning). The depersonalising language patterns found in carers' statements are carefully considered and suggestions regarding the development of a person-centred approach to family care are proposed.

Disclosure of Interest: None Declared

P282

THE EN-ABLE TOOLKIT: DEVELOPING A TOOLKIT TO SUPPORT IMPLEMENTATION OF PERSON-CENTRED APPROACH TO NEED DRIVEN BEHAVIOURS

M. Winbolt^{1,*}, L. Chenoweth², E. Beattie³, R. Nay⁴

¹Victoria & Tasmania Dementia Training Study Centre, La Trobe University Melbourne, Melbourne, ²Health & Ageing Research Unit, University of Technology Sydney, Sydney, ³Dementia Collaborative Research Centre, Queensland University of Technology, Brisbane, ⁴Australian Centre for Evidence Based Aged Care, La Trobe University Melbourne, Melbourne, Australia

Objectives: The effectiveness of employing person-centred care in responding to need driven behaviours (NDBs) associated with dementia is well documented. This paper presents a toolkit developed to support and assist nursing homes to implement a person-centred approach to NDB. The program and toolkit combines the principles of person-centred care, the Need Driven Behaviour model (Algase et al, 1996) an education program, resident assessment tools and a suite of implementation tools to provide a systematic approach to implementing person-centred care to minimise the risk of and respond to NDBs.

Reference: Algase, DL., Whall, A., Beck, C., Kolanowski, A., Richards, K., Berent, S., & Beattie, E. (1996) Need-driven dementia-compromised behaviour: An alternative view of disruptive behaviour. *American Journal of Alzheimer's Disease and Other Dementias*, Vol. 11, No. 6, 10-19

Disclosure of Interest: None Declared

P283

RESISTANCE AND COOPERATION IN MORNING CARE OF PERSONS WITH DEMENTIA

M. Munch^{1,*}, K. Lyng²

¹Psychogeriatric, NKS Olaviken alderspsykiatrisk sykehus, Erdal- Bergen, ²Education, Molde University College, Molde, Norway

Objectives: Challenging behavior, psychological- and psychiatric symptoms is reported as one the most stressful experiences in dementia care giving (Sourial, McCusker, and Cole 2001; Ripich 1994). The same behavior and symptoms can also be framed as communicative expressions due to a breakdown in language and cognitive skills among people with dementia. The aim of this study is to explore to what extent resistance and challenging behavior in morning care are described and explained as communicative aspects among caregivers that experience such resistance.

Methods: Nine caregivers participated in a qualitative interview. The caregivers were recruited from a dementia unit with 26 employees and 15 patients. The participants were asked to describe their experience with resistance or participation in the morning care situation with persons with dementia. They were also asked to explain possible reasons for the patients' resistance and behavior. The interviews took on average one hour. The interviews were recorded, transcribed and coded according to (Kvale 2008) recommendations for content analysis.

Results: results show that seven of informants have a strong focus on communicative aspects of the interaction. Resistance is primarily explained in terms of interaction, communication or cognition. One of the most often reported aspect of communication is a constant search to establish some kind of shared topic of communication, avoiding questions, emphasizing nonverbal approach, such as eyecontact, smile and tone of voice. Two of the informants used force when approaching two of patients. The other seven informants approach to the same patients resulted cooperation. The informants using force explained resistance as lack of will on the side of the patient combined with dementia. They did not describe caregivers behavior as relevant to the patients resistance.

Conclusion: Communicative categories are used to describe interaction and deviant behavior among people with dementia. Attempts to turn resistance into cooperation is also described and explained within a communication framework. These communication strategies may serve for teaching and counseling purposes in the future.

References: Kvale, Steinar. 2008. *Det kvalitative forskningsintervju*. 11. ed. Oslo: Gyldendal Akademiske. Rommetveit, Ragnar. 1992. *Outlines of a Dialogically Based Social - Cognitive Approach to Human Cognition and Communication*. Oslo: Scandinavian University Press.

Disclosure of Interest: None Declared

P284

INVOLVEMENT OF PEOPLE WITH DEMENTIA AND CAREGIVERS IN CULTURE CHANGE

M. Schulz^{1,*}

¹Education, Alzheimer Society of Canada, Toronto, Canada

Objectives: ASC believes that people with dementia have the right to enjoy the highest possible quality of life and quality of care. People in the later stages of dementia often reside in a long term care (LTC) home and are at risk of not being able to speak for themselves. We need to create culture change to put the person at the centre of the home and engage champions for change within key Canadian organizations.

The key outcomes sought from this research with people with dementia and their family caregivers are to:

- Reinforce the information in the *AS Guidelines for Care: Person-centred care of people with dementia living in care homes*

- Add information contained in other resource documents and materials

- Help fill existing gaps in the delivery of person-centred care in LTC homes in Canada

Methods: This research project involving people with dementia and caregivers will be based on the following approach:

- Conduct a preliminary investigation to find relevant, applicable, current research results from other projects underway that support a culture change toward more person-centred care, so our project can build on their outcomes.

- Determine from the literature review gaps we need to fill and areas for prompted probing in our own primary research with people with dementia and their caregivers.

- Conduct primary research on administrators, front line staff, families and residents (where possible) at LTC homes to learn what they think is key in a 'successful' culture change to person-centred care.

- Possible creation of a 'toolkit' with a target audience of LTC home staff on how to begin the culture change journey, such as things to consider, essential elements, and lessons learned from other projects.

Results: At the end of this involvement project, we will determine:

- Key elements of person-centred care that are delivered, and how LTC homes manage for sustained quality delivery of each of these elements over time

- Roadblocks and gateways encountered to installing each of these elements in LTC homes

- Perspectives on other person-centred care elements that we have uncovered in the previous steps, which have not been implemented in LTC homes

Conclusion: Creating culture change is an obligation we share with a number of other organizations as we support people with dementia and their families now and as their numbers increase.

Disclosure of Interest: None Declared

P285

A NON-INTERVENTIONAL STUDY TO INVESTIGATE FACTORS ASSOCIATED WITH ADHERENCE TO RIVASTIGMINE PATCH

M. Riepe^{1,*}, J. Weinman², R. Brady³, C. Strohmaier⁴

¹University of Ulm, Ulm, Germany, ²Institute of Psychiatry, Kings College London, ³Atlantis Healthcare, London, United Kingdom, ⁴Novartis Pharma AG, Basel, Switzerland

Objectives: Cholinesterase inhibitors (ChEIs) are a first-line treatment for mild-to-moderate Alzheimer's disease (AD). However, as in many therapy areas, treatment adherence and persistence are often poor; this may be intentional or unintentional and influenced by the ability of the patient to self-medicate, caregiver perceptions of AD and the opinions of physicians. The primary objective of this study is to identify patient- and caregiver-related socio-demographic, clinical and psychological factors associated with adherence to rivastigmine patch. Secondary outcomes are to identify patient- and caregiver-related factors associated with persistence to patch therapy and caregiver satisfaction with rivastigmine patch.

Methods: This is a non-interventional study of patients with mild-to-moderate AD, who are receiving rivastigmine patch. Retrospective patient socio-demographic, clinical and psychosocial data at the time of first prescription will be reported by the physician 3 months after treatment initiation; caregivers will provide cross-sectional information on patients 3 months after treatment initiation. Caregivers will be asked to provide information on their age, physical health, mood, treatment- and disease-related beliefs and expectations, and satisfaction with the patch 3 months post treatment initiation. Primary outcomes will assess adherence (self-reported; Medication Adherence Report Scale), persistence (self-reported [2-item measure] and physicians' prescription data) and caregiver satisfaction (self-reported; shortened adaptation of AD Caregiver Preference Questionnaire) 3 and 6 months after the start of treatment.

Results: The study is ongoing, and will include approximately 148 patients and 20 physicians from centres in Germany.

Conclusion: This study will identify patient and caregiver factors associated with adherence to and satisfaction with rivastigmine patch. Study findings will be used to guide development of a clinical assessment tool, which will help physicians identify patients likely to adhere to patch therapy.

Disclosure of Interest: M. Riepe Grant/Research Support from: Novartis, Boehringer Ingelheim, Eisai, Elan, Janssen, Lundbeck, Merz, Pfizer and Wyeth, Speakers Bureau of: Novartis, Boehringer Ingelheim, Eisai, Elan, Janssen, Lundbeck, Merz, Pfizer and Wyeth, Consultant of: Novartis, Boehringer Ingelheim, Eisai, Elan, Janssen, Lundbeck, Merz, Pfizer and Wyeth, J. Weinman Employee of: Atlantis Healthcare 1 day per week, Conflict with: Atlantis Healthcare was commissioned by Novartis to develop a carer support program for patients prescribed the rivastigmine patch, R. Brady Employee of: Atlantis Healthcare, Conflict with: Atlantis Healthcare was commissioned by Novartis to develop a carer support program for patients prescribed the rivastigmine patch, C. Strohmaier Employee of: Novartis Pharma AG

P286

FROM FEAR TO HOPE- ALZHEIMER'S TRAINING AT HOME

T. Brocklebank¹, M. Carpenter^{2,*}, E. Murphy³, D. Troxel⁴

¹Home Instead Senior Care, Warrington, United Kingdom, ²Home Instead Senior Care, Omaha, United States,

³Home Instead Senior Care, Dublin, Ireland, ⁴Best Friends Approach, Sacramento, United States

Objectives: Changing the face of aging globally requires a group or organization to take a leadership role in the care for a person with Alzheimer's disease or other dementia. As the industry leader, Home Instead Senior Care[®] developed, tested and rolled out a training program for its in-home CAREGiverssm incorporate the latest thinking about person-centered and person-directed care, activity programming, social engagement and management of behaviors that can be challenging.

With the help of an expert panel in the aging industry, the program includes evidence based techniques and information. The development of the program was particularly critical since we estimate that 50% of the in-home seniors we serve each day have Alzheimer's disease or other dementia.

The presenters will:

Review the alarming costs associated with the care of people with Alzheimer's Disease or other dementias.

Describe a unique approach to Alzheimer's and dementia care at home.

Share innovative learning principles for the in-home worker on how to provide care at home.

Discuss how Home Instead piloted the program and share results.

Discuss how the approach meets the concerns and needs of family members and clients.

Discuss how the approach accompanying the curriculum is providing key elements in fostering clients, families and staff members understanding of Alzheimer's and dementia.

Share how Home Instead addressed issues of multi-culturalism, supporting programs around the world.

Describe an expert panel and consulting support play a key role in developing a training program.

Discuss the decision to use the adult learning principles to ensure learning objectives were met. From

Presenters will include members of the Home Instead Senior Care team from the US and Europe

References: homeinstead.com, homeinstead.ie, homeinstead.co.uk

caregiverstress.com

bestfriendsapproach.com

Disclosure of Interest: None Declared

P287

“HOURS OF RELIEF” PROJECT: A PRECIOUS TIME

P. Bevilacqua^{1,*}, A. Bonora¹, A. Fabbo² and A. Draghetti, D. Mazzali, P. Artioli, Z. Amadei, A. Budri, L. Borghi, C. Confortini

¹A.S.D.A.M. onlus, ²Consultorio Psicogeriatrico Distretto di Mirandola, Mirandola, Italy

Objectives: ASDAM onlus is an Italian caregivers' association that collaborates with all Social and Health Care Service present in the North Area (9 villages) of Modena' Province. It promotes different projects and activities for people with dementia and their caregivers. Since 2007 the “Hours of Relief” Project has been activated. It is a temporary assistance at home, made by qualified health workers (operators), that go to the family and stand in for the caregiver some hours. In this project work a psychologist, a nurse and a group of around 9 Operators. It offers help and support to all people that have limited resources, both economical availability and practical needs. In fact the objectives are numerous: to offer rest's hours that the caregiver can spend to do all he wants (like hobbies, errands, go to appointments), offer a psychological support, improve the knowledge about the disease during the consulting with the Psychologist, offer a better link with the social and health care service pinpointing the opportunities and the services present in that area. With the family, the psychologist and the nurse set the individual family project and decide the presence calendar of the operator. He temporarily replaces the caregiver and promotes different activities to stimulate the ill according to his residual abilities and available resources. He also involves the person in occupational activities and promotes recreational activities (card games, painting, listening to music, walking out of home). Every project plans a 20 hours “packet” and it is cost-free for the family. The nurse contacts the family when it is necessary to program changes. If it is opportune she or the operator connect the family with the psychologist for an individual consulting. In 4 years, 171 requests from all Area are arrived. Of these 95 are new and 76 are renewal requests. The families are sent to the Psycho-geriatric Consulting, the social workers, the family doctor or directly to ASDAM.

Disclosure of Interest: None Declared

P288

A SERVICE INNOVATION FRAMEWORK TO SUPPORT PERSON-CENTRED CARE FOR PEOPLE WITH DEMENTIA

P. Kotting^{1,*}

¹Institute of Neurology, University College London, London, United Kingdom

Objectives: Person-centred care sees patients, and in the case of dementia, often their carers, as equal partners in planning, developing and assessing care to ensure it meets their needs. This approach to involving 'users' in the production of services is not new or unique to health and social care. There is a long tradition in product and service innovation of putting the 'user' at the centre of efforts to design and provide the most appropriate products or services. The objectives of this research were to identify a framework for service innovation that could be applied to person-centred care for people with dementia; to propose any modifications to the framework for its use in the context of dementia; and to evaluate the framework in this context.

Methods: The innovation literature was reviewed to identify a suitable framework. Two retrospective holistic case studies of innovation in dementia services in England were conducted. Primary data was collected via semi-structured interviews. Existing documents relating to each case were used as secondary data to triangulate primary data. The data were analysed inductively using the identified framework.

Results: The Windrum & Garci-Goni (2008) framework was identified which had previously been tested in ambulatory surgical care, diabetes education and public service innovation networks. Extensions to the framework were proposed to include multiple providers and commissioners. The data in both case studies could be modeled with the framework extended for multiple providers. Neither case supported the inclusion of commissioners as "policy makers" in the framework, but both supported representation of commissioners as a separate domain in a further extension of the framework.

Conclusion: The extended framework is shown to describe dementia service innovation in both cases. As the first independent application of the framework this provides external validation and further evidence for its generalisability across healthcare contexts. Importantly for dementia services the extended model describes the interaction of multiple service providers, commissioners and service users in successful innovation. The framework therefore provides a useful tool to support the planning and delivery of person-centred care for people with dementia.

References: Windrum, P. & Garcia-Goni, M. (2008). A Neo-Schumpeterian model of health services innovation. *Research Policy*, 37, 649-672.

Disclosure of Interest: None Declared

P289

EXPRESSIONS OF SENSE OF SELF IN PEOPLE WITH ALZHEIMER'S DISEASE IN A SUPPORT GROUP WITH SELFHOOD-PROMOTING PURPOSE

R. Hedman^{1,2,*}, G. Hansebo^{1,2}, B.-M. Ternstedt^{1,3}, I. Hellström^{4,5}, A. Norberg^{3,6}

¹Department of Neurobiology, Care Sciences and Society, Karolinska Institutet, ²Department of Health Care Sciences, ³Department of Palliative Care Research, Ersta Sköndal University College, Stockholm, ⁴Department of Medical and Health Science, Centre for Dementia Research, ⁵Department of Social and Welfare Studies, Linköping University, Linköping, ⁶Department of Nursing, Umeå University, Umeå, Sweden

Objectives: The loss of autobiographic memory in people with Alzheimer's disease (AD) has often been described to imply a loss of selfhood, but it has also been argued that the sense of self is more affected by how these people are treated by others than on the memory loss, as people with AD are often exposed to treatment that may undermine their sense of self. Although some is known about how people with AD express and maintain their sense of self, this research is still sparse. Even less is known about how the sense of self is expressed and sustained in interaction between people with AD. The aim of the present study was to describe how people with AD express their sense of self in group conversations and how the communication in the group relates to their expressions of selfhood.

Methods: The communication in a support group with five participants with mild and moderate AD that met ten times during an eight month period was audiotaped and content analyzed deductively, using Rom Harré's theory of selfhood.

Results: Preliminary results show that all participants expressed their sense of self by the use of personal indexicals, such as "I". They also expressed their selfhood by narrating episodes from their past and present lives, and by describing their personal attributes, such as character traits, preferences and moral values. The participants supported each other's expressions of selfhood, by listening and encouraging each other. There were also un-supporting interactions in the group, such as ignoring and scorning, but the positive interactions were predominant.

Conclusion: Support groups may provide people with AD with an opportunity to express their sense of self and receive feedback that benefits their maintenance of selfhood.

Disclosure of Interest: None Declared

P290

THE "CENTER FOR COGNITIVE IMPAIRMENT" IN A BIO-PSYCHO-SOCIAL FRAMEWORK

S. Pradelli^{1,*}, M. Zerilli¹, L. Marinangeli², A. Buzzo³, Z. Marini¹, L. Terrassan¹, D. Salvagnin¹, P. Melan¹, C. Ferrazzi¹, B. Boselli¹, T. Fricia¹, F. Lorico¹

¹National Health Service, Center for Cognitive Impairment ULSS 3, ²National Health Service, Geriatrics Care Hospital, ³National Health Service, Primary Care, Bassano del Grappa (Vi), Italy

Objectives: According to ADI (2008) in Europe, there are currently an estimated 6.1 million people with dementia. Current dementia prevalence is expected to double in Western Europe and treble in Eastern Europe by 2040 (Ferri *et al.* 2005). Despite there have been crucial developments in recognising dementia as a public health issue in Europe (Alzheimer Europe 2008), Italy lacks a national strategic plan. Veneto region in 2007 sets out a Regional Dementia Plan in order to promote early diagnosis and to support persons with dementia and their family at home. Therefore since 2007 Veneto has established the Centers for Cognitive Impairment (CCI) as a central referral point for people with dementia, their families, general practitioners and all the interested parties.

CCI, as Memory Clinic, can fulfil a range of functions:

- Point of referral
- Early diagnosis
- Specialist assessment
- Psychoeducational support for caregivers
- Counseling and psychotherapy for person with dementia and carer
- Initiation and monitoring of symptomatic treatments
- Advice about challenging behaviours and their management
- Education of general practitioners and health planners

The CCI of Bassano del Grappa is one among the few CCI established so far. It is based in the hospital and in the community. It is composed by a multidisciplinary team:

2 geriatricians,
3 psychologists,
1 nurse,
1 occupational therapist.

The model adopted is the Enriched Model of Dementia Care (Kitwood) where other factors than neuropathology affect the manifestation of dementia. Therefore the focus of interventions is not just pharmacological but most of all psychosocial. Following the 5 factors identified by Tom Kitwood, the focus is:

- for **Neurological Impairment**: symptomatic drugs and their monitoring, cognitive training
- for **Health**: screening and treatment of concomitant mental and physical health problems
- for **Personality and Biography**: provision of support for coping strategies, grief counseling, non-directive counseling, cognitive behavioural therapy, Cognitive Stimulation Therapy to assist in providing positive experiences, and an affirming social context
- for **Social Psychology**: family counseling and support

The main aim of our interventions is trying to value people with dementia and their relatives, treat the person with dementia as a special and unique individual, assume the perspective of people with dementia and provide a supportive social environment

Disclosure of Interest: None Declared

P291

RESEARCH OF ORGANIZATIONAL MODEL IN ALZHEIMER'S DISEASE PROGRAM YIELDS HIGH FAMILY SATISFACTION AND OUTCOMES

J. Dalessandro¹, S. D. Gilster^{1,*}

¹ALOIS ALZHEIMER CENTER, Cincinnati, United States

Objectives: The success of a dementia program does not lie in the implementation of a “locked unit,” a single program or an overarching facility. What is necessary is an organizational framework which guides leadership in the development of programs that serve to create a culture of excellence, one which is economically and organizationally feasible, sustainable and successful. Such a model will be described in this session. This service model is consistent with values, concepts and principles of the American Health Care Association/National Center for Assisted Living's National Quality Award as well as the Malcolm Baldrige process, and grounded in contemporary leadership literature. Specifically, the SERVICE leadership model includes commitment to Service, Education, Respect, Vision, Inclusion, Communication and Enrichment. Themes will be described and mechanisms for incorporation into the daily operations provided. Outcomes from the use of the model in the creation of a 25 year old, successful Alzheimer's disease facility will be shared. Outcomes include family satisfaction survey results over time, a tool that includes 94 questions related to environment, nursing services, dietary, social services, admissions, activities, administration as well as overall satisfaction. Additional results will include high staff satisfaction, perfect and positive state surveys, low staff turnover, stable census, facility and individual employee awards, and financial success.

Disclosure of Interest: None Declared

P292

PHYSICAL AND EMOTIONAL ENVIRONMENT AS AN EFFECTIVE TREATMENT IN ALZHEIMER'S DISEASE.

S. D. Gilster^{1,*}, J. Dalessandro¹

¹ALOIS ALZHEIMER CENTER, Cincinnati, United States

Individualized programs and a purposeful environment serve to benefit residents as much as pharmaceutical treatments. Assessing specific individual needs and providing continuum-based dementia care better meets the individual needs of persons with dementia. Consistent staff and programs, and modifications in the emotional atmosphere/physical environment based on disease as residents progress at different rates and in unique ways, requires adjustments to programs and environments to meet individual resident needs. This presentation describes a 25 year-old continuum-based, dementia program within a 102-bed dedicated facility. A sample of residents will be described with regard to behavioral functioning, cognitive characteristics and personal care needs across four distinct, secure units. Residents, staff and environment will be characterized by unit, with a description for level of care and stimulation, atmosphere and physical environment. Beneficial treatment results identified in individuals with movement to new units will be discussed. Results are useful in terms of targeting specific populations and tailoring programs/environments along the care continuum.

Disclosure of Interest: None Declared

P293

GUIDELINES FOR NURSING HOMES DELIVERING END-OF-LIFE CARE TO RESIDENTS WITH DEMENTIA ACROSS THE ISLAND OF IRELAND

S. Cahill^{1,*}, D. Doran², M. Watson³

¹Trinity College Dublin & The Dementia Services Information and Development Centre, St James Hospital, Dublin,

²Quality Initiatives Consultancy, ³Northern Ireland Hospice & The University of Ulster, Belfast, Ireland

Objectives: This study investigated the experiences of elderly spouses whose relatives had recently died with end-stage dementia in nursing homes in Northern Ireland (NI) and in the Republic of Ireland (RoI). Whilst a myriad of quality standards exists for older people living in care homes and in nursing homes in the UK, Ireland and Northern Ireland, such generic standards or guidelines are inadequate for people dying with or from dementia due to their unique and complex needs. The needs of this large group of people with dementia, approaching end of life are so particularly challenging that they clearly warrant independent dementia-specific guidelines.

Methods: The study had two phases. Phase one involved conducting in-depth qualitative interviews with 16 spouse caregivers, whose relatives had died from dementia in long-stay care environments. Each interview was audiotaped, took up to two hours and was conducted in bereaved spouses' homes. Phase two entailed incorporating the data collected through in-depth interviews into draft guidelines and disseminating these to a multi-disciplinary group of health service professionals for their critical appraisal and ratification.

Results: Findings showed that the EOL care delivered was deemed by most elderly spouses to be of a very high quality; it was person centred, individualised, professional and kind and because of this was highly valued. Poor communication, lack of involvement in key decisions and any sense of the resident not being treated respectfully as a person or not well symptom controlled were particular areas of dissatisfaction for spouses. Based on the study's findings, a set of guidelines for the delivery of quality care in long stay residential institutions was developed in consultation with eight health service professionals. The guidelines emphasise that the key issues relating to good quality care for people with dementia approaching end of life are common to both jurisdictions even though the systems of care delivery differ considerably. End of life care must reflect an understanding of, and support for family members' needs and foster a sense of partnership and trust between staff, residents and their families. It is hoped that these guidelines will contribute to improvements in the care of people with dementia at end of life and will form the basis of future development of policy, practices and procedures.

Disclosure of Interest: None Declared

P294

DEMENTIA CHOICES: DOES SELF-DIRECTED SUPPORT WORK FOR PEOPLE WITH DEMENTIA?

T. Williamson^{1,*}

¹Development & Later Life, Mental Health Foundation, London, United Kingdom

Objectives: This presentation will explore some of the challenges of implementing the policy of 'personalisation' in the UK to benefit people with dementia and their families. Personalisation aims to give individuals decision-making control over the services and care they receive and is being implemented across both health and social care. The presentation will consider different forms of 'self-directed support' such as personal budgets and direct payments, in relation to choice and control, safeguarding and mental capacity. It will draw upon the learning and information produced by the Mental Health Foundation's *Dementia Choices* project to illustrate possible approaches to overcoming these challenges. The project worked with local services in 4 areas and people with dementia and their families that were using them to identify what would help them to access and use self directed support. Based upon this learning the project produced a range of information, guidance, films and training materials for people with dementia, their friends and families, and staff working with them.

Participants who attend this presentation will:

- Understand why there is a very low take up of self-directed support in social care, among people with dementia and their families
- Gain knowledge of policy and practice that support the take-up of self-directed support among people with dementia and their families
- Receive copies of some of the materials produced.

Disclosure of Interest: None Declared

P295

FAITH AND DEMENTIA: BEING WITH GOD SERIES

T. Williams^{1,*}

¹Publishing, Scripture Union, Milton Keynes, United Kingdom

Objectives: Why the resources were developed

As an editor I produce devotional Bible and prayer resources. For many readers, their Christian faith practice (church, regular Bible reading, prayer and worship) are fundamental elements of their routine and core to identity. Yet the onset of dementia threatens this. A conversation with a friend whose wife had dementia helped me understand how this condition excludes those affected from participation in faith practice. This prompted exploration of how we might create resources designed specifically for them, resulting in the *Being with God* series of Bible and prayer guides.

How the resources were developed

The guides were created in consultation with specialists (MHA, the Christian Council on Ageing, Alzheimer's Society) and individual carers, facilitating reflection on how to create resources which unlock memories, and bring the sense, even for a moment, of familiar faith. MHA chaplains trialled first drafts of the material.

Familiarity, simplicity, 'cues and clues' and music are keys to its usefulness, as is the recognition that the person being cared for is an individual with their own particular life story, abilities and personality.

The daily devotionals use familiar Bible passages. 'Talk about...' suggestions trigger memories and prompt conversation following from these. 'Cues and clues' give picture and activity ideas. The suggestions are not a script but recognise the unique life experience of the person with dementia. The aim is to support the carer in facilitating a faith conversation. The Lord's Prayer is routinely included; its familiarity may unlock memories and enable participation in worship. Each outline ends with a song or hymn suggestion, included in the accompanying cd, ranging from traditional hymns to children's choruses from Sunday school days.

Impact and conclusions

These resources have been welcomed by chaplains, care professionals, family carers and church visiting teams, and have received many warm endorsements.

Music included in the resources has brought quiet tears, but also fun and interaction with others.

Practical experience of these materials affirms that whilst cognitive skills may fade and interaction become difficult, emotions are still real and experienced. Those for whom Christian faith has been core to their identity are still able to participate in worship and, perhaps just for a moment, re-connect with faith and sense the reassurance of God's love.

Disclosure of Interest: None Declared

P297

DEMENTIA MONITOR: NATION WIDE SURVEY AMONGST INFORMAL CARERS

W. Werkman ^{1,*}

¹Alzheimer Nederland, Bunnik, Netherlands

To fit the needs of informal carers, you have to know them. This is the aim of the third nation wide study amongst informal carers; we want to find out how they are managing with the care for their family member with dementia and how they evaluate the (professional) care and support the person with dementia receives. At the conference we will present new results and methods used by Alzheimer Nederland to monitor the needs of informal carers and patients.

The goal is a response of 1500 questionnaires filled out by informal carers throughout the country. To achieve this response, all 52 regional branches of Alzheimer Nederland runned by volunteers, will hand out questionnaires in for example day care centres and Alzheimer Café's. In this study Alzheimer Nederland works together with an independent research agency in the healthcare sector Nivel.

Goal study

Being a patient organization, it is of course important to hear and involve the patient and his family. That's why on a regular basis Alzheimer Nederland investigates their wishes and needs through focus groups and surveys, like this nationwide study. The results of this survey under a large number of informal carers is very important to attract attention in the media

and governmental policy for the disease and the impact it has on the patient and his environment. The outcome of this study will also be used to improve the care on a regional level as results are reported per region (if sufficient response). The outcome of the previous survey has led to different improvement projects such as the introduction of casemanagement to support the patient and his environment.

Results

The results are expected by the end of February, so they can be presented at the conference in March for the first time.

Future studies

It's Alzheimer Nederland's intention to develop a so called Alzheimer panel Netherlands: a database of patients and informal carers that participate on a regular basis in studies like the above or in studies with a specific topic, for example to evaluate the day care they visit. They can participate online by filling out online questionnaires, but since this group is not yet that internet minded, they can also participate by filling out questionnaires on paper or being interviewed individually or in a group.

Disclosure of Interest: None Declared

P298

"LOOKING UPSTREAM": MAKING SENSE OF THE CHANGING LANDSCAPE OF ALZHEIMER'S DISEASE

D. George^{1,*}, S. D'Alton²

¹Humanities, Penn State College of Medicine, Hershey, ²Centre for Translational Research in Neurodegenerative Disease, University of Florida, Gainesville, United States

Objectives: For decades, dementia has been understood as a disease-event afflicting the elderly, and the public has relied on the hope that science would produce a pharmacological compound to prevent our brains from aging. And yet since 2000, over twenty AD drugs have failed, and scientists are rethinking the fundamental theories of causation that have dominated for a generation. The billions of dollars spent on research have essentially taught us that "AD" is not one thing: it is a heterogeneous syndrome rather than a specific disease and is invariably age-related. Having gained this perspective, the AD field is now looking "upstream", conceding the fact that the brain changes we now call "Alzheimer's" begin decades before symptoms appear. New diagnostic and research categories are currently being constructed to define mild and even pre-symptomatic stages, and therapies will be tested earlier in the hope that they might intercede in the process of neurodegeneration before symptoms appear.

Given these new realities, it is imperative that societies renew their public health focus on the "upstream" risk factors that precede the appearance of plaques and affect the aging of our brains across the life-course. While we cannot reverse aging processes, we can pull together as individuals, families, and communities and minimize our risk by making lifestyle changes that favor healthy diets, physical exercise, reduced exposure to toxins, lowered psychosocial stress, purposeful social interaction, and better protection from and treatment of traumatic brain injuries. The notion of "looking upstream" can therefore become a gateway for a deeper consideration not only of common sense preventative measures we can all take, but also of what it means to be a member of a community, to have intergenerational responsibility, and to feel solidarity and care for those more profoundly affected by brain aging rather than viewing them as a diseased sub-species. True hope can emerge from our common humanity and commitment to each other far more powerfully than the false promises of a silver bullet pushed by the fading disease model.

Disclosure of Interest: None Declared

P299

EFFECTS OF INTELLECTUAL HABITS, LEISURE AND PHYSICAL ACTIVITY OVER THE AGE OF ONSET AND EVOLUTION OF DEMENTIA DUE TO ALZHEIMER'S DISEASE

F. F. Oliveira ^{1,*}, P. H. F. Bertolucci ¹, E. S. Chen ², M. A. C. Smith ²

¹Department of Neurology and Neurosurgery, ²Department of Morphology and Genetics, Federal University of São Paulo - UNIFESP, Sao Paulo, Brazil

Objectives: To investigate whether intellectual, physical or leisure activities have an impact over age of onset or progression of Alzheimer's disease (AD).

Methods: A total of 129 patients (87 female, 42 male) with late-onset AD were surveyed. Activities considered had to be non-work related, happen before age 60 years-old, and be of at least moderate intensity (≥ 3 METS), involving equivalents to walking or running at least 2 km per week for 5 years or 1 km per week for 10 years, engaging in other physical activities for at least 1 hour per week for 5 years or 30 min per week for 10 years, reading at least 1 hour daily for 5 years or 30 min daily for 10 years, and leisure activities at least once weekly for more than 10 years. Mini-Mental State Examination (MMSE) and Clinical Dementia Rating (CDR) were used to evaluate the evolution of the dementia syndrome. Schooling and body mass index (BMI) were considered as confounding variables. Fisher's exact test was employed for statistical analysis, with the threshold of significance set at $p < 0.05$.

Results: Estimated age of AD onset ranged from 60 to 88 years-old. Overall, 44 patients (34.1%) had a history of involvement with physical activity, 44 patients (34.1%) had intellectual habits, and 51 patients (39.5%) reported leisure activities of various kinds. Schooling in excess of 8 years had a significant effect over a slower rate of disease progression according to MMSE scores ($p = 0.035$), but not according to CDR ($p = 0.071$). BMI had no significant effect either by way of MMSE scores ($p = 0.428$) or CDR scores ($p = 0.569$). There was only a marginally significant effect of leisure activities ($p = 0.06$) over progression of AD according to MMSE scores, but not according to CDR (0.484), and no other isolated significant relations were found among any of the surveyed activities. However, patients who were largely involved in leisure, physical and intellectual activities throughout life had a lesser chance of evolving with AD onset before age 80 years-old ($p = 0.001$).

Conclusion: Subjects who were concurrently engaged in various intellectual, physical and leisure activities earlier during their lives were less likely to develop AD dementia before turning 80 years-old; no effect of such non-work related activities was found in regard to the rate of disease progression, assessed by way of MMSE and CDR scores.

Disclosure of Interest: F. Oliveira Grant/Research Support from: CAPES - Coordenação de Aperfeiçoamento de Pessoal de Nível Superior, Consultant of: Gerson Lehrman Group, P. Bertolucci Employee of: Federal University of São Paulo - UNIFESP, E. Chen Employee of: Federal University of São Paulo - UNIFESP, Grant/Research Support from: FAPESP - Fundação de Amparo à Pesquisa do Estado de São Paulo, M. Smith Employee of: Federal University of São Paulo - UNIFESP, Grant/Research Support from: FAPESP - Fundação de Amparo à Pesquisa do Estado de São Paulo

P300

EPIDEMIOLOGY OF DEMENTIA IN SÃO PAULO, BRAZIL: RISK FACTORS AND AGE OF ONSET OF DEMENTIA DUE TO ALZHEIMER'S DISEASE

F. F. Oliveira^{1,*}, P. H. F. Bertolucci¹, E. S. Chen², M. A. C. Smith²

¹Department of Neurology and Neurosurgery, ²Department of Morphology and Genetics, Federal University of São Paulo - UNIFESP, Sao Paulo, Brazil

Objectives: To investigate the impact of previously reported sporadic risk factors over the age of onset of Alzheimer's disease (AD) in a Brazilian sample.

Methods: A total of 129 patients with late-onset AD were surveyed at the Behavioural Neurology Section of the Federal University of São Paulo – UNIFESP. Variables included gender, schooling, cerebrovascular risk factors (hypertension, diabetes *mellitus*, hypercholesterolemia, obesity, smoking, and drinking alcoholic beverages in excess of 10 l per year), history of brain trauma with loss of consciousness, systemic infections, and family history (up to second degree relatives) of AD, other brain diseases or cardiovascular diseases. The impact of these factors was investigated over age of onset of AD, and also over depressive symptoms and behavioural disturbances. *Chi-square* was employed for statistical analysis, with significance at $p < 0.05$.

Results: Mean age of AD onset was 72.4 ± 6.2 years (range 60-88), and mean schooling was 4.4 ± 3.7 years (range 0-15). Overall, 32 patients had history of brain trauma, 16 of them with loss of consciousness, 56 patients (43.4%) had depression and 47 (36.4%) had behavioural disturbances, all of them under treatment. A total of 36 (27.9%) patients had history of treated systemic infections, 47 (36.4%) had family history of AD, 29 (22.5%) had family history of other brain diseases, and 41 (31.8%) had family history of cardiovascular diseases. Female gender ($p = 0.047$) and history of systemic infections ($p = 0.033$) were associated to a greater chance of development of depressive symptoms, but no factor was associated to a greater prevalence of behavioural disturbances. Family history of brain diseases was strongly linked to an earlier age of onset of AD, both when the cut-off of 70 years-old was adopted ($p = 0.017$) and when the cut-off was 80 years-old ($p = 0.033$); however, when family history of AD or cardiovascular diseases was also considered, no significant relation was found. There was no relationship between age of onset of AD and brain trauma ($p > 0.82$), cerebrovascular risk ($p > 0.47$) or schooling ($p > 0.27$).

Conclusion: Environmental, educational and demographic factors do not seem to be significantly related to the age of onset of AD in Brazil.

Disclosure of Interest: F. Oliveira Grant/Research Support from: CAPES - Coordenação de Aperfeiçoamento de Pessoal de Nível Superior, Consultant of: Gerson Lehrman Group, P. Bertolucci Employee of: Federal University of São Paulo - UNIFESP, E. Chen Employee of: Federal University of São Paulo - UNIFESP, Grant/Research Support from: FAPESP - Fundação de Amparo à Pesquisa do Estado de São Paulo, M. Smith Employee of: Federal University of São Paulo - UNIFESP, Grant/Research Support from: FAPESP - Fundação de Amparo à Pesquisa do Estado de São Paulo

P301

A LIFESTYLE-BASED, PRIMARY PREVENTION PROGRAM FOR DEMENTIA

M. Loef¹, H. Walach^{1,*}

¹Institute for Transcultural Health Sciences, Frankfurt/Oder, Germany

Objectives: In the last decade, many promising drug developments for Alzheimer's disease (AD) have failed to prove therapeutic efficacy. The available pharmaceuticals can only delay the symptoms temporarily.

In the light of a soaring prevalence, the question of the preventability of AD has increasingly been raised, but the essential elements remain fragmentary so far.

Thus we are scrutinizing the scientific evidence with the aim of developing a prevention program in multiple steps. First, we have compiled the current knowledge of associations between the risk of AD and several environmental factors in systematic reviews. Important examples are mercury, selenium, iron and copper, the consumption of fruit and vegetables, physical exercise and obesity. Further lifestyle fields are under investigation. In contrast to other research groups, we have also pondered the methodological weaknesses of study types that are based on the long asymptomatic phase of AD and applied a best evidence approach merging data from clinical, epidemiologic and molecular sources. Second, we are comparing this evidence with the recommendations for the prevention of other chronic diseases such as diabetes and CVD, considering mixed-type dementia and estimating the effect size of a comprehensive healthy lifestyle. Third, the project seeks to uncover the socio-economic, cultural and further framework conditions of healthy living. This creates the basis for the fourth step which will investigate whether lifestyle modifications for AD prevention evoke a strong response in the public. If so, the question arises how to activate the public, maximize their adherence to lifestyle modification and tailor the prevention to individual preferences and needs. Finally, the efficacy of a multiple lifestyle behavior change may be tested in clinical trials.

In sum, our project covers four lifestyle areas: the avoidance of toxins, healthy diet, physical activity, and a culture of consciousness. It is developed in multiple steps that shed light on the scientific basis of AD prevention, may uncover the framework parameters of a healthy aging and contribute to finally free the primary prevention of dementia from the stigmata of being fiction.

Disclosure of Interest: None Declared

P302

'THE BRAIN STATION' DIGITAL SUITE OF TOOLS, SERVICES AND WORKFLOWS FOR PREVENTION, EARLY INTERVENTION AND SELF CARE IN DEMENTIA

K. Saad ^{1,*}, P. Smith ², G. Wedgwood ³

¹Regional Clinical Lead for Dementia, ²NHS West Midlands, Birmingham, ³Wedgewood Associates, London, United Kingdom

Dementia presents a major global demographic time bomb capable of bankrupting healthcare systems. The new NIA-AA research criteria (2011) have reclassified dementia into three new categories emphasising the shift towards identifying pre-dementia & Mild Cognitive Impairment (MCI). The World Alzheimer Report 2011 describes current dementia services globally as being in a state of "gross neglect", and see early diagnosis and early intervention as cost effective and worth investing in. The West Midlands is unique as a region in England in its recognition and emphasis on 'upstream' interventions. Such was our conviction that we revised the contract currency incentivising specialist prevention and early intervention closer to home. Our model, 'The Brain Station', a suite of digital tools and processes for: self assessment and scoring for MCI, devising self-care management programmes for addressing lifestyle changes, services and associated workflows, is postulated to produce useful clinical outcomes to benefit patients, carers and healthcare systems. As such, we propose that 'The Brain Station', embedded within dementia care pathways, targets 'brains at risk' in middle age (>50) for MCI and related co-morbidities. This could enable preventative strategies to forestall progression of MCI to Dementia. We describe a pilot project to usher in a radical service redesign. We estimate this intervention to accumulate efficiency savings of up to £3.8 Billion by 2033 by contributing to reducing the prevalence of dementia and thus reducing healthcare costs. The potential stigmatising effect of the concept of "pre-dementia" can be offset by empowerment of an early diagnosis and disease control for those that require it. We believe that creating a tiered approach to prevention and self care is likely to succeed, particularly if rolled out within the settings of primary care, pharmacies, leisure centres, supermarkets, social media, advertising and the food and beverage industry. The potential for public and community ownership of this is enormous. We believe that in adopting the wellbeing agenda we may locate an effective means to help combat stigma. This 'invest to save' strategy is a pressing option as 'more of the same' is no longer sustainable.

Disclosure of Interest: None Declared

P303

A MODEST PROPOSAL FOR A LONGITUDINAL STUDY OF DEMENTIA PREVENTION (WITH APOLOGIES TO JONATHAN SWIFT, 1729)

R. P. Friedland^{1,*}, S. Nandi¹
¹Neurology, University of Louisville, Louisville, United States

It has been widely proposed that dementia risk may be lowered through control of modifiable risk factors such as low levels of cognitive and physical activity, hypertension, obesity, high fat diet, head injury, diabetes, low dietary intake of fish, antioxidants, B vitamins, and smoking. However, in a recent “systematic review” supported by the Agency for Healthcare Research and Quality and the NIA Plassman and colleagues concluded that “few potentially beneficial factors were identified from the evidence on risk or protective factors associated with cognitive decline, but the overall quality of the evidence was low.” Therefore the authors concluded, “The current literature does not provide adequate evidence to make recommendations for interventions.” We agree that definitive evidence for the effectiveness of dementia prevention methods are lacking. In order to obtain the needed evidence for the effectiveness of these interventions we propose a 40-year longitudinal single-blind study of these risk factors in a population of 10,000 healthy volunteers age 20-30. Two thousand subjects will be randomly assigned to groups of either high or low levels of cognitive activity, physical activity, intake of saturated fat, head injury or smoking. The long period of observation is necessary because of the slow process by which Alzheimer's disease develops. The large number of subjects is required to allow for statistical analysis. The importance of the results justifies the long period of observation and considerable expense of the investigation. We must realize that the ultimate study of the interactions of interest in regard to lifestyle and cognitive health in aging **cannot be done!** The absence of definitive evidence should not restrict physicians from making reasonable recommendations based on the evidence that is available. Johnson et al (2008) studied the effects of blood pressure control on women with a 4.5 years follow-up, concluding that “Hypertension ... at baseline (was) not independently associated with MCI or probable dementia over time..” The result do not indicate that a lifetime of blood pressure control would not have a beneficial effect on cognitive outcomes in late life! This message should be widely promoted, at the same time as further data are acquired. (The authors acknowledge the influence of Jonathan Swift).

Disclosure of Interest: None Declared

P305

FALLS AMONGST OLD PEOPLE RECEIVING HOME CARE SERVICES

S. Holm^{1,*}, G. Berglund², M. Andersen²

¹Development Center for Home Care Services Nordland, ²Home Care Services, Leknes, Norway

Objectives: The staff at home care services in our community find that there are more elderly people who fall once or several times during the year, some of them are so unfortunate that they break the femoral neck. Even more are admitted to nursing homes because of fall injuries. Employees feel that it is difficult to propose and implement fall prevention measures in the clients home, because the client does not see the problem.

In general, it is believed that the incidence of falls in elderly people living at home are (1):

- > 65 years: approx. 30% fall at least once a year
- > 80 years: approx. 50% fall at least once each year

Vikman et al (2) conducted a survey of falls in recipients of home care services in a year. They found that 20% of the recipients had one or more falls during the year.

As part of quality improvement efforts for fall prevention, the head of Unit would have an overview of how many clients had had one or more falls during the last year. To get this, we went through all home records for 2010. What we wanted to register was if the falls had taken place outside or inside, what the cause of the fall was, what medications the client was using at the time of the fall, and the diagnostic and nutritional status of the client. In addition, we wanted to know how many people were seriously injured. A review of the home records showed that one or more falls were registered with 14% of the clients. This result is much lower than the Vikman et al (2) found. One of the reasons for this may be that the falls are not reported in the home records.

It was mainly dizziness and unsteadiness that was the cause of falls in the elderly.

On the basis of this review of the home records, the head of Unit has now initiated a systematic registration of falls for a 3 month period, to see if the actions taken have proven effective.

References: (1) Aasland, G.E Kan fall blant eldre forebygges? Sykehuset Telemark 2011. [http://www.telemark-fk.no/ITF-](http://www.telemark-fk.no/ITF-TFK/add/KnGWebsider.nsf/XAppWPLookupNewsByUniversalID/5755DD1AA87E107AC125780F0046C3BB/$FILE/Aasland.pdf)

[TFK/add/KnGWebsider.nsf/XAppWPLookupNewsByUniversalID/5755DD1AA87E107AC125780F0046C3BB/\\$FILE/Aasland.pdf](http://www.telemark-fk.no/ITF-TFK/add/KnGWebsider.nsf/XAppWPLookupNewsByUniversalID/5755DD1AA87E107AC125780F0046C3BB/$FILE/Aasland.pdf)

(2) Vikman I, Nordlund A, Naslund A, Nyberg L. Incidence and seasonality of falls amongst old people receiving home help services in a municipality in northern Sweden. *Int J Circumpolar Health* 2011 Apr;70(2):195-204

Disclosure of Interest: None Declared

P306

OCCUPATIONAL RISK FACTORS FOR ALZHEIMERS DISEASE IN SWEDEN: A NATIONWIDE EPIDEMIOLOGICAL STUDY

X. Li^{1,*}

¹Center for Primary Health Care Research, Lund University, Malmö, Sweden

Objectives: Our aims were to investigate possible associations between hospitalisation for Alzheimers disease and occupational factors.

Methods: A nationwide database was constructed by linking Swedish census data to the Hospital Discharge Register (1970–2008). Hospital diagnoses of Alzheimers disease were based on the International Classification of Diseases. Standardised incidence ratios were calculated for different socioeconomic and occupational groups.

Results: A total of 18992 individuals aged >30 years were hospitalised for Alzheimers disease. Individuals with >12 years of education were at high risk for Alzheimers disease. White-collar workers had higher risks for Alzheimers disease, and farmers lower risks. In males and/or females, risks for Alzheimers disease were increased for physicians, nurses, assistant nurses, teachers, religious, juridical and other social-science-related workers, sales agents, shop managers and assistants, gardeners and related workers, forestry workers, drivers, postal and communication workers, shoe and leather workers, plumbers, other construction workers, cooks and stewards, waiters, hairdressers, and launderers and dry cleaners. Decreased risks were observed for farmers, chemical process workers, food manufacture workers, female textile workers and female launderers and dry cleaners.

Conclusion: The present study shows that occupational status increases the risk for Alzheimers disease. However, it remains to be determined which specific factors are responsible for the observed differences in occupational risks for Alzheimers disease.

Disclosure of Interest: None Declared

P307

INCIDENCE AND RISK FACTORS OF DEMENTIA IN TWO COMMUNITIES IN BEIJING

Y. Huang ^{1,*}, Z. Liu ¹, C. Zhuo ¹, S. Li ¹, M. Prince ²

¹Institute of Mental Health, Peking University, Beijing, China, ²Institute of Psychiatry, King's College London, London, United Kingdom

Objectives: To describe the incidence along with urban-rural and population distribution of dementia for people aged 65 years and older in two communities in Beijing; to explore potential psychosocial and cardiovascular risk factors of dementia and establish a predictive model to screen high risk groups.

Methods: This 5 year follow up study was part of the 10/66 dementia study. Two thousands and twenty five non dementia people aged 65 and over in Xicheng District (urban) and Daxing District (rural) of Beijing were followed up during February, 2009 to March, 2010. The study was a comprehensive one-stage survey and dementia diagnosis was based on 10/66 dementia criteria. Cox proportional hazard regression model was conducted to explore potential risk factors and risk predictive model were established by risk factor scoring and Cox regression model.

Results: (1) One hundred and seventy three incident dementia patients were identified. The cumulative rate of dementia was 8.54% and the average annual rate was 1.77%. The rates increased consistently with increasing age. The incidence of dementia was higher in female than male, and the difference was statistically significant 2.00% vs 1.42%, $P < 0.01$ the incidence of dementia among lower educational level were higher than that in higher level groups $P < 0.01$ the difference between urban and rural community was not statically significant. (2) Multivariable Cox regression model showed that old age, smoking, big WHR and stroke history were risk factors for dementia, physical exercise was protective factor for dementia. (3) The risk factor scoring method can be used in screening for dementia high risk population.

Conclusion: The incidence of dementia in the present study is higher than previous studies. Old age, smoke, stroke and lack of physical exercise are risk factors for dementia.

Disclosure of Interest: None Declared

P308

A FOLLOW UP STUDY OF DEMENTIA IN TWO COMMUNITIES IN BEIJING

Y. Huang^{1,*}, Z. Liu¹, C. Zhuo¹, S. Li¹, M. Prince²

¹Institute of Mental Health, Peking University, Beijing, China, ²Institute of Psychiatry, King's College London, London, United Kingdom

Objectives: To investigate survival times, identify related prognostic factors and construct a prognostic index (PI) for dementia patients; to assess the predictive validity of the 10/66 dementia diagnosis.

Methods: This 5 year follow up study was part of the 10/66 dementia study and 2025 non dementia people aged 65 and over in Xicheng District (urban) and Daxing District (rural) of Beijing were followed up during February, 2009 to March, 2010. Finally, 137 dementia patients and aged and sex matched referent subjects were followed up to investigate survival times and survival rates for dementia patients. Cox proportional hazard regression model was conducted to explore potential prognosis factors and establish prognosis model to stratify dementia patients into different death risk groups. The cognitive function, disability, dependency and fatality of 137 dementia patients and 74 subjects with cognitive impairment without dementia (CIND) were assessed to testify the predictive validity of 10/66 dementia criteria.

Results: The sensitivity of risk factor scoring method was 72.31% the specificity was 63.39% area under curve (AUC) was 0.76 (95%CI 0.73-0.80). The sensitivity of Cox Regression Model method was 71.62% the specificity was 61.23% AUC was 0.73 (95%CI 0.69-0.77). Ninety one dementia patients died during the 5-year follow up. The median survival time of dementia patients was 4.2 years (95%CI: 3.8-4.6). Severity of dementia, substantial disability, co-morbidity and age were independent predictors of survival for patients with dementia. The sensitivity of prognostic index method was 76.9% the specificity was 76.3% AUC was 0.83 (95%CI: 0.76-0.90). Ninety one dementia patients (66.4%) had died double the mortality rate among those with CIND. The patients were re-examined and still met 10/66 dementia criteria. For dementia patient, there was clear evidence of clinical progression and increased needs for care and had greater cognitive function deterioration and disability increase.

Conclusion: Survival times of community-based dementia patients were shorter than that of referent subjects. Severity of dementia, substantial disability, co-morbidity and age were independent predictors of survival. The PI derived from the four predictors can stratify the mortality risk and predict life expectancy for community-dwelled dementia patients. The predictive validity of the 10/66 dementia diagnosis is good.

Disclosure of Interest: None Declared

P309

A WISH TO KNOW BUT NOT ALWAYS TELL: PERSPECTIVES FROM COUPLES LIVING WITH DEMENTIA

I. Hellström^{1,*}, S. Torres²

¹Department of Social and Welfare Studies, Norrköping, ²Department of Sociology, Uppsala, Sweden

Objectives: Research on disclosure has shown that the vast majority of people with probable dementia want to be informed about their diagnosis. Health care professionals' disclosure patterns and attitudes have also been explored. Research on couplehood within the context of dementia suggests, in turn, that disclosure preferences may affect everyday life with dementia. This study explores therefore how couples living with dementia seek knowledge and disclose information about the disease (hereby referred to as couples' disclosure preferences).

Methods: The study departs from 40 qualitative interviews (20 people with dementia and 20 co-habiting spouses) structured around the following themes: the disease, the family and social network, the home and surroundings, 'a typical day', health, informal and formal support as well as thoughts of the future.

Results: The analysis revealed four distinctive disclosure preference patterns as far as what the couples interviewed wanted to know (i.e. which type of disclosure they wanted to have – whether they wanted to know everything about the disease that abated one of them or not) and how they felt about sharing their situation with others (i.e. what they were willing to disclose to others about it). The four disclosure preferences found have been analytically called: want to know and want to tell; want to know but don't want to tell; want to know but can't decide if they want to tell and can't agree on neither knowing nor telling.

Conclusion: The results show that discrepancies exist between what the person with dementia wants to know and tell, and how their spouses feel about disclosure issues. Even though most of the couples interviewed seem to have wanted to both know and tell, there were some differences as far as the extent to which they wanted to know and who they were willing to talk about the disease. Disagreement within the couples concerning disclosure preferences seem to cause frustration and affected the way in which they handle everyday life with the disease. This study suggests therefore that much could be learned if we were to expand the scope of disclosure research to include the challenges that a couplehood perspective entail.

Disclosure of Interest: None Declared

P310

WHY DEMENTIAS ARE SO STIGMATIZED

L. Mendoza ^{1,*}

¹Education Committee, Alzheimer Guerrero, Mexico, Mexico

Objectives: The word Dementia comes from Latin and means: without mind it is very derogative, demeaning it is considered very close to madness.

The World Health Organization recommends fight against stigmatization and discrimination of all diseases that has to do with the brain, people are placed outside society and labeled with discrimination and rejection as different. It is very easy to stigmatize the one that behaves, is or look different, due to ignorance, prejudices, shock, misconceptions, stereotypes and lack of common sense.

The word stigma has been in use to mark the “different”, to differentiate people since the time of the ancient Greeks.

There is an urgent need to put dementia into the public agenda as a health priority with the necessary funds. Make dementia visible at the primary care level to reduce stigma and train GP's to do an early diagnosis and intervention. An early diagnosis can make a great difference.

The removal of stigma for those diagnosed with dementia is absolutely critical as is the recognition of that dementia, is not just Alzheimer, but a wide group of conditions each with its own unique characteristics and not only a disease of late stages.

Raise awareness, provide information, change attitudes, public understanding about dementia, talk about it in order to tackle stigma. The more dementia is talked about, the less stigma will be attached to it.

People with dementia have started a campaign against stigma, fear, ignorance through their daily stories.

Tackling stigma would make life less difficult for people with dementia and for carers.

The stigma of dementia leaves the carer just as isolated as the person with dementia. Carers frequently lose their friends and social life.

Dementia must become an accepted and visible part of society.

People with dementia must be treated with respect throughout their lives and not regarded as second class citizens, always consulted and included in any debate about them or subjects relating to their dementia. Our voices must always rank equally with others, says Peter Ashley an ambassador of the Living with Dementia Movement.

Disclosure of Interest: None Declared

P312

EDUCATIONAL PROGRAM ON ALZHEIMER'S DISEASE FOR STUDENTS OF PRIMARY SCHOOL IN THE DODECANESE PREFECTURE IN GREECE

T. Velegraki^{1,*}, C. Kadi¹, T. Pardalou¹, A. Kaloudi¹, A. Platis¹

¹Day Center for Dementia Patients, Arsinoi", Panacea, Rhodes, Greece

Objectives: The program was addressed to students of Primary schools of the Dodecanese Prefecture in Greece. The intention was to inform students about Alzheimer's disease and its consequences to the patient and his/her family, as well as to recognize and manage their feelings concerning the disease. In addition, the program targeted to update educators / teachers, who in turn guided children through activities with the grandfather or grandmother that suffers from Alzheimer's.

The intervention was held in the school year 2011-2012 in six Primary Schools, and the number of participants was 328 students, 6 - 12 years old. The basic manual used during the program is the book "Learning about Alzheimer's disease" written by Olga Lymperopoulou, cognitive neurophysiologist, and issued by the Athens Association of Alzheimer's Disease and Related Disorders. In this book, children met Jason who found out that his grandmother suffered from Alzheimer's Disease and with the help of his parents worked through some of his basic questions about this disease. During the presentation of the program, children participated in interactive memory games, also implementing the use of computer programs.

The evaluation of this program showed that there is significant need for programs on information and awareness of children and teachers regarding Dementia. Specifically in Greece, given the fact that there are 150.000 patients with Alzheimer's disease, a number that is expected to increase in the near future, similar efforts should continue especially in the field of provision.

Disclosure of Interest: None Declared

P313

FORMAL CAREGIVERS' ATTITUDES TOWARDS OLDER PEOPLE WITH DEMENTIA

M. Pinto^{1,2}, D. Figueiredo^{1,2}, A. Marques^{1,2}, V. Rocha^{1,*}, L. Sousa^{2,3}

¹School of Health Sciences, University of Aveiro, Aveiro, ²UNIFAI, ICBAS, Institute of Biomedical Sciences Abel Salazar, University of Porto, Porto, ³Health Sciences Autonomous Section, University of Aveiro, Aveiro, Portugal

Objectives: Staff positive attitudes towards people with dementia are seen as a facilitator to personalised care and job satisfaction. This study aims to analyse formal caregivers' attitudes towards older people with dementia. Specifically, it aimed to explore how caregivers' socio-demographic data (age, education level, time of working experience, formal training in dementia, subjective health) are related to their attitudes.

Methods: A cross-sectional study was conducted in the centre region of Portugal, with a convenience sample of 180 paid caregivers, who provide direct care to people with dementia in care homes and/or day centres. Data were collected using a structured questionnaire and the Portuguese version of Dementia Attitudes Scale (DAS) to assess caregivers' attitudes in two specific domains: "social comfort" and "knowledge" (each one scoring from 10 to 70). DAS global score ranges from 20 to 140 (higher scores indicate more positive attitudes). Descriptive statistics, parametric (One-way ANOVA and Independent T-Test) and non-parametric tests (Man-Whitney and Kruskal-Wallis) were used for data analysis. The level of confidence considered was 0.05.

Results: Main findings suggest that formal caregivers tend to present positive attitudes (111.70 ± 10.83), as they feel comfortable with people with dementia (56.09 ± 6.33) and consider to have knowledge about this neurological condition (55.31 ± 6.74).

It was also observed that caregivers who had undertaken specific training on dementia scored higher on the "social comfort" domain than those without training. No significant statistical differences were found between DAS scores (global, social comfort or knowledge) and caregivers' age, education level, work time and subjective health.

Conclusion: The association between specialised training and positive attitudes towards people with dementia highlights the need of long-term care settings to invest on staff training and education. Training is fundamental to improve a more person-centred approach to the care of people with dementia, as this is increasingly being seen as synonymous of best quality of care.

Disclosure of Interest: None Declared

P314

EVALUATING AN ARTS-BASED INTERVENTION TO IMPROVE MEDICAL STUDENT ATTITUDE TOWARDS PERSONS WITH DEMENTIA: A MIXED METHODS STUDY

D. George ^{1,*}

¹Humanities, Penn State College of Medicine, Hershey, United States

Objectives: Reductionism has been identified as a major problem in medical student geriatric education as well as clinical and institutional care. Emerging data suggest that student attitudes towards older patients may be positively impacted by geriatric experiences that are not based in a clinical environment, but there are no known interventions that integrate humanistic experiences using creative arts into medical student geriatric care education. This mixed methods feasibility study evaluated whether medical student participation (n = 22) in TimeSlips, a creative group-based storytelling program, with persons affected by dementia (n = 35) would improve student attitudes towards this patient population.

Methods: Pre- and post program administration of items on the Dementia Attitudes Scale were analyzed with paired t-tests to evaluate mean change in students' self-reported attitudes toward persons with dementia. A qualitative approach encompassing open-ended questioning and focus groups was used to explain quantitative results.

Results: Several items on the Dementia Attitudes Scale indicated a statistically significant improvement in medical students' attitudes towards persons with dementia. Qualitative data revealed insights into the manner in which student attitudes toward a geriatric patient population became more positive.

Conclusion: This study provides preliminary evidence that participation in a creative, group-based storytelling program may improve medical student attitudes towards persons with dementia.

References: George, DR. Stuckey, H. Dillon, CJ. Whitehead, M. (2011). Impact of participation in TimeSlips, a creative group-based storytelling program, on medical student attitudes towards persons with dementia: A qualitative study. *The Gerontologist*. doi:10.1093/geront/gnr035

George, DR. (2011). A role for humanities in a rapidly aging world: The TimeSlips Project at Penn State College of Medicine. *International Journal of Healthcare & Humanities*.

Disclosure of Interest: None Declared

P315

"MY BELOVED" - THE FACE OF ALZHEIMERS. A WONDERFUL FILM AND OUTREACH PROGRAM THAT OFFERS UNDERSTANDING AND FIGHTS SHAME AND SOLITUDE.

B. M. Tveit¹, K. Lavik^{2,*}

¹Kudos Family, Stavanger, Norway, ²Outreach Department, Kudos Family, Stavanger, Norway

MY BELOVED is a striking and honest film about fighting for love – for all it is worth - when life is changed by Alzheimer's disease. Around the film we have built an easy-access and inclusive outreach program to spread understanding and knowledge. In the centre of the program we'll find the special documentary MY BELOVED that is an easy entrance point to fight solitude, shame and suppression.

MY BELOVED is a warm and dignified documentary film that tells the story of Norway's celebrated former Minister of Fisheries, Jan Henry T. Olsen and his wife Laila Lanes. Jan Henry met the love of his life at 50 and was diagnosed with Alzheimer at the age of 51. Through the film we follow the couple through a whole year of joy and happiness, frustration and sorrow. They have chosen to be open about Jan Henry's condition to inspire and help others in the same situation all over the world.

The film tells a powerful and compelling story of the brave couple who dares to expose the realities of Alzheimer's disease. MY BELOVED is a resource for everybody who has dementia, for and all the people around them and for anybody who work with the subject. The film is a sober, honest yet inspiring documentation of the couple's daily life as the strong ex-minister slowly gets worse. For audiences and professionals, recognizing situations in the film, as well as recognizing the insights Jan Henry and Laila arrives at gives comfort, inspiration and new knowledge of how to handle day-to-day challenges. The film shows that it is okay to be ill, and as a helper there is no need for secrecy; you are not alone.

My beloved has received rave reviews from both media and professional health care workers. The film moves its viewers and gives unparalleled insight into living with the incurable disease.

Disclosure of Interest: None Declared

P316

CREATING BEHAVIOR CHANGE COMMUNICATIONS: A CASE STUDY

F. Kharas^{1,*}

¹Chocolate Moose Media, Ottawa, Canada

Objectives: The objective was to create two behavior change communications videos in English and French, to get caregivers to people with dementia to obtain assistance and to seek respite. The presentation by the film-maker, a Peabody Award-winning director, will focus on the objectives, methodology and results of creating two videos with a behavior change focus that appeals across all economic, social, linguistic, ethnic and economic strata. If possible, the videos will be played and will be distributed by DVD.

Very little literature exists on why caregivers to people with dementia do not seek assistance or seek respite. In order to overcome the obstacles, the obstacles first have to be catalogued and understood.

The film-maker, who's own father had late-stage dementia, undertook a comprehensive listing of barriers to seeking assistance. Over 50 factors were listed and studied, including the overall situation of the caregiver and loved one, who the pair are, the reaction of each person, the cultural, economic, background, ethnicity and religion of the pair, the stress felt by the caregiver, the severity of the dementia, coping with a range of emotions from loss of control to dependency on outsiders and many others.

As a result, a compelling video featuring caregivers to people with dementia appealing to their fellow caregivers to seek support and take respite was created in English and French. They were launched on Alzheimer's Day, September 21, 2011 and immediate drew widespread acclaim. Within three weeks of being placed on YouTube, over 50,000 views of the two videos had been registered

In the videos, caregivers speak movingly based on their own experiences directly to others like them on the importance of finding information, obtaining home care and other types of in-house assistance, joining support groups, and accessing respite through day programs and overnight guest houses. Caregivers appeal to their peers to obtain assistance right away, not to wait for a crisis to occur and not to be ashamed to get help. The clear message is that no caregiver to loved ones with dementia is a superman or superwoman.

The videos were produced by the Champlain Community Access Centre (www.champlain.ccac-ont.ca) the Alzheimer Society of Ottawa and Renfrew County (www.alzheimer.ca/ottawa) and the Champlain Dementia Network (www.champlaindementia.org).

Disclosure of Interest: None Declared

P317

LIVING WITH ALZHEIMER'S PATIENTS

M. A. Hoppe^{1,*} and Documentary film - a tool for empowering "Living with Alzheimer's patients"

¹Project Development, Oesterreichisches Institut fuer Validation / Austrian Validation Institute, Krumpendorf am Woerthersee, Austria

Objectives: Since its foundation in 1994, the Austrian Validation Institute (ÖIV), based on Naomi Feil's "Validation Method", has supported various activities and projects that encourage validating relationships with dementia patients. The production of documentary films about the Alzheimer's phenomenon for all professionals and affected parties who are involved in the care of dementia patients, is part of the long-term project DE-CONFUSE ALZHEIMER'S.

The ÖIV cooperates with the Validation Training Institute (VTI) (www.vfvalidation.org), the European Validation Association (EVA) (www.validation-eva.eu) and many other national and international organizations. See: www.leben-mit-alzheimerkranken.at

Methods: Documentary films focusing on specific Alzheimer's themes, including commentaries by experts

Results: How family members handle to live with their Alzheimer's relatives is a very unique process, which can be shown by a film. What the film shows, was commented on by three experts in the field:

Conclusion: Documentaries encourage humans to find their own solutions in handling problems.

References: Since its foundation in 1994, the Austrian Validation Institute (ÖIV), based on Naomi Feil's "Validation Method", has supported various activities and projects that encourage validating relationships with dementia patients.

See: www.leben-mit-alzheimerkranken.at

Disclosure of Interest: None Declared

P318

KONFETTI IM KOPF - A GRASSROOTS AWARENESS CAMPAIGN TAKING ANOTHER LOOK AT DEMENTIA AND PROMOTING A SHIFT OF PARADIGM.

M. Hagedorn ^{1,*}

¹KONFETTI IM KOPF e.V., Hamburg, Germany

The common way of communicating dementia is by using dramatic phrases and dreary colours – no wonder people's associations with it are mostly dull, desperate and fearful.

Enter KONFETTI IM KOPF (...Confetti in the head"): This multi-faceted campaign uses a respectful, resource-oriented and creative approach to counterbalance misconceptions associated with dementia. It unveils new perspectives and encourages people to look more closely into the subject and the lives of people affected. This new and much wider approach helps pave the way to an overdue shift in paradigm. We believe that only through a person-centred, eye-level approach we will be able to find answers to one of the biggest human and social challenges of our time.

After the campaign's successful kick-off in Berlin in October 2009 more than 50 cities and communities all over Germany and other countries have expressed a strong interest in participating. Stuttgart in October 2011 marked another milestone for the project. The Campaign established a much demanded, community-centered approach, enabling even smaller towns and urban districts to participate.

Core of the KONFETTI IM KOPF campaign is a large-scale open air exhibition of pictures from the most comprehensive photo project on dementia and touching stories behind these portraits. They are present in public on big banners, posters, bill-boards and screens. information desks and unique, creative supporting events such as readings, plays, films, concerts, workshops, lectures and dance-sessions help the visitors to learn and get involved. Since people with dementia take part in most of the activities, KONFETTI IM KOPF is a vivid place for face-to-face encounters. A complex, yet intuitive multilingual website provides in-depth details about the campaign and its philosophy.

KONFETTI IM KOPF has proved very successful in bringing together many different professional organisations, using synergistic effects for this important issue. Efficient network structures lay the structural foundation for local adaptations of the campaign.

High-rank politicians and celebrities participate as KONFETTI-mentors in a joint attempt to raise a maximum level of attention through all parts of society. The project under the patronage of former Federal President of Germany, Prof. Dr. Roman Herzog, has been awarded several prizes and prize nominations.

Disclosure of Interest: None Declared

P319

USING VIDEO TO TELL A DIFFERENT STORY

S. Milton ^{1,*}

¹Innovations in Dementia (CIC), Exeter, United Kingdom

For people with an early diagnosis of dementia, there is often a significant gap, sometimes of many years, between receiving a diagnosis and needing the support of traditional services. For people in this situation, the ability to live well and manage the symptoms of dementia as they develop can make a significant difference to their quality of life not just in the present, but later in life as well.

We were conscious that increasingly, people wanting to find out about dementia were turning to online sources of information. There is a great deal of good information available online about the nature of dementia, the burden upon carers, and the impact it has on people with a diagnosis. However, there is little available that talked about active management of the condition, about having a say in decisions that affect our lives, about living well with dementia.

In 2008 we set out to make films that could be published online to provide different perspectives, to enable people who have perhaps been newly diagnosed to see a different point of view. We wanted the films to be made not just about but with and by people with dementia – because we wanted the films to speak with the voice of authority.

Since we launched the films in 2010, we have used low-profile video technology in a range of projects, allowing the voices of people with dementia to be heard.

This presentation will describe the making of a series of films about and by people with dementia. The process of creating a narrative about people's experiences and the things that are important to them will be discussed. It will also explore our wider use of video technology and its potential as a tool for the empowerment of people with dementia.

Our films can be viewed at www.innovationsindementia.org.uk

Disclosure of Interest: None Declared

P320

LIFE LONG COSTS OF DEMENTIA IN EUROPE- AN INCIDENCE BASED COST OF ILLNESS MODEL

A. Wimo^{1,*}, A. Sködlunger²

¹Neurobiology, Care Sciences and Society, Karolinska Institutet, KI- Alzheimer Disease Research Center (KI-ADRC), ²Neurobiology, Care Sciences and Society, Aging Research center (ARC), Stockholm, Sweden

Objectives: In a recent report, the total societal costs of dementia was estimated at 170 billion € for 10 million people with dementia. This is an enormous economic burden of the care systems, as well as on families. The aim of this study is to estimate the life long costs of incident cases of dementia.

Methods: A 10 years Markov models was constructed, based on European epidemiologic and economic background data. The starting year of the model is 2008, costs are expressed as € and the discount rate is 3%.

Results: In 2008 it was estimated that there were 1,515,000 new cases of dementia in Europe. The accumulated 10 year mortality was 93% and the mean time of survival was 4.2 years in the model. The aggregated costs for the whole cohort of incident cases during 10 years were 112 billion € (74,000 € per person with dementia, which is a proxy for the life long costs). The average cost per year for a person in the model was 17,500 € (range 12,200-21,800 €). If the number of new cases could be reduced to 1,300,000, the costs would decrease to 96 billion €.

Conclusion: The life long costs of dementia are very high and any intervention that could reduce the incidence would be very beneficial for any society.

References: Wimo A, L J, Gustavsson A, McDaid D, Ersek K, Georges J, et al. The economic impact of dementia in Europe in 2008—cost estimates from the Eurocode project. *Int J Geriatr Psychiatry*. 2010;26(Aug):825-32. Wimo A, Prince M. *World Alzheimer Report 2010. The global economic impact of dementia*. London; 2010. SBU. *Dementia. A systematic review*. Stockholm: Staten beredning för medicinsk utvärdering (SBU) (The Swedish Council on Technology Assessment in Health Care) 2008. Report No.: 172E/1-3

Disclosure of Interest: A. Wimo Consultant of: Most drug companies involved in development of AD-drugs, A. Sködlunger: None Declared

P321

DEMENTIA ADVOCACY, SOCIAL MEDIA AND ELECTORAL POLITICS – THE ONTARIO ELECTION 2011

G. Carey ^{1,*}

¹Alzheimer Society of Ontario, Toronto, Canada

Ontario, Canada's largest province is responsible for health services within its boundaries. An election was held in October and the Alzheimer Society of Ontario was active, beginning in 2009, at all stages in advocating for progressive public policies to support persons with dementia and their families. Volunteers, known as Dementia Champions were enlisted to engage with local political candidates. An intranet was designed to support the volunteers. As well, social media – Facebook, Twitter and e-advocacy tools were also used to broaden the reach.

This session will describe advocacy activities from one- on- one relationship building encounters through to social media use. As well, the recruitment and deployment of champions will be described and the results of an evaluation will be shared. The strategic inquiry process utilized to develop the policy framework will also be presented, along with samples of materials.

Disclosure of Interest: G. Carey Employee of: CEO of the Alzheimer Society of Ontario

P322

THE DEMENTIA INDIA REPORT AND AFTER-PROMOTING EARLY DIAGNOSIS & INTERVENTIONS

M. Varghese ^{1,*}, S. Bharath ¹, J. K. Roy ² and Alzheimers & Related Disorders Society of India

¹PSYCHIATRY, NATIONAL INST OF MENTAL HEALTH & NEUROSCIENCES, Bangalore, ²Alzheimers & Related Disorders Society of India, Cochin, India

The Dementia India Report 2010 was published by the ARDSI and released on the occasion of World Alzheimer's Day in 2010. The report estimated that the 3.7 million persons with dementia in 2010 would double in the next 20 years. The societal cost in 2010 estimated as US\$ 3.415 billion was set to triple in the next 20 years. The main carers are family members and they received minimal support and training to deal with this problem. Most persons with dementia remain hidden and one of the challenges is in early detection and treatment of these persons.

Though dementia per se has not yet been recognized in a national strategy, some of the recommendations made in the report have begun to be implemented indirectly for geriatric care in general. Recently in 2011 the National Program for Health Care of the Elderly (NPHCE) was launched by the Ministry of Health. National Institutes for Ageing were announced by the Health Minister at New Delhi and Chennai on World Elders day (Oct 1, 2011). In addition eight Regional Geriatric Centers would be set up as part of the NPHCE in 2011-12. Also funds for geriatric research have been increased in the last year and special drives to attract these protocols are under way. A new National Policy for Older persons is being drafted which would include dementia.

The sparse services available in the country makes it imperative that we look at different models of care and training for family members, professionals and other caregivers who look after persons with dementia. This session would highlight how the ARDSI, India may deal with the large numbers of persons with dementia and reduce the treatment gap. The speakers will review the evidence recently published in the World Alzheimer Report 2011 on the benefits of early diagnosis and intervention (pharmacological and psychosocial) and see how this could be applied to India.

Disclosure of Interest: None Declared

P323

INTEGRATION AND AMALGAMATION IN ONTARIO: AN APPROACH TO ENHANCE ORGANIZATIONAL STRUCTURE AND INCREASE PERFORMANCE

G. Carey^{1, 1,*}

¹Alzheimer Society of Ontario, Toronto, Canada

Today's economic environment demands good governance, an exceptional talent strategy and evidence –based decision making. These are apparent themes within both the *Rising Tide: the impact of dementia on Canadian society* and the *10 by 20: Ontario's action plan for dementia* reports released in 2010 which present facts about the prevalence of dementia and the need for immediate action.

Ontario, Canada has a population size of 12,160,282 and a geographical area of 1,076,395 km². Currently there are 38 individual Alzheimer Societies within this province. The release of the *Rising Tide* (mentioned above) resulted in a greater focus on cost management and efficiencies found through integration and collaboration of these organizations. The Alzheimer Society of Ontario's members identified that internal organization structure, practices and governance are critical priorities in order to maintain a leadership position within the health sector. A number of change management and decision support tools have been developed to support the required change. Of particular interest is the development of a Service Sustainability Tool. This tool is designed specifically for Alzheimer societies to assess their capacity to respond to the growing number of people diagnosed with dementia in the upcoming years. This tool utilizes a point system and encourages collaboration and amalgamation within the Alzheimer Society of Ontario.

So far, 6 months into the project 8 out of 38 chapters in Ontario have indicated they will participate in a feasibility study in order to explore amalgamation. Support for this initiative is growing and the goal is to move forward as a strong leader within the health sector of Ontario in order to provide education, community support and resources for persons with dementia and their caregivers.

By Participating in this session, participants will:

- · Be informed of the current demands in service due to the growing population of persons with dementia in Ontario
- · Become acquainted with strategies and change management tools that have worked in Ontario
- Learn about streamlined organizational models that effectively respond to the need for increasing services to meet the demands of a growing population with dementia.

Disclosure of Interest: G. Carey Employee of: CEO of the Alzheimer Society of Ontario

P324

“PRECLINICAL” (ASYMPTOMATIC) ALZHEIMER’S: A CRITICAL ETHICAL ANALYSIS

J. Arias^{1,*}, P. Whitehouse^{2,3}

¹Bioethics, Cleveland Clinic Foundation, ²Cognitive Science, Bioethics, Nursing, History, and Organizational Behavior, Case Western Reserve University, ³University Foley Elder Center, University Hospitals, Case Medical Center, Cleveland, United States

We analyzed the ethical implications of the recently published National Institute for Aging-Alzheimer’s Association Guidelines for Preclinical Alzheimer’s disease (AD). While the Guidelines focus on identifying research frameworks, we analyzed the potential clinical implementation of the Guidelines’ hypotheses.

Our interdisciplinary partnership conducted the review using analytic philosophical, narrative, intergenerational, and environmental approaches. Legal and ethical principles guided the analysis, which was informed by input from a range of other experts, clinical practice and observation, and literature review.

We identified pivotal ethical implications which must be addressed prior to clinical use of preclinical biomarkers. While the current guidelines are proposed for research purposes which themselves raise ethical concerns (e.g. informed consent, recruitment, and disclosure of results), their potential clinical implementation is full of uncertainty. Our results indicate that significant and different concerns relevant to clinical implementation, including weighing potential harm (e.g. stress and stigma) and benefit (e.g. potential therapy) from an early label, determining who to screen, and considering opportunity costs associated with screening (e.g. attention to other conditions). Still, fundamental issues remain, including: standardization of test procedures; determination of biomarker utility (sensitivity, specificity and predictive value), determination of associations among the different proposed markers, and also importantly costs to individuals and health care payors.

The meaning of an “Alzheimer’s” diagnosis seems to be less clear now than in 1984 when the first guidelines were published. AD appears to be more heterogeneous than originally thought and intimately related to aging. Ethicists must address critical issues address key questions, including: who will benefit from tests identified in the Guidelines? How should clinicians counsel patients on the implications of an AD diagnosis prior to clinical expression? And, how the absence of effective drug therapies should influence whether to test? Through answering these questions ethicists should foster discussions to determine the boundaries between scientific claims which may or may not be promising and societal and individual harm from implementing screenings without sufficient information regarding their value.

Disclosure of Interest: None Declared

P325

IS THE CONCEPT OF RESILIENCE APPLICABLE TO A PERSON WITH DEMENTIA AND IF SO WHAT ARE THE IMPLICATIONS FOR PRACTICE?

J. Christie ^{1,*}

¹School of Applied Social Science, University of Stirling, Glasgow, United Kingdom

Objectives: A literature review on the concept of resilience in the context of an older person with dementia.

Methods: Undertaken through electronic databases, using the terms *resilience*, *hardiness*, *coping*, *recovery*. Psychometric aspects of resilience were not included however policy reports were. Articles were reviewed for definitions of resilience. The fields of *dementia* and *Alzheimer's Disease* were then added. The third stage of the review introduced the terms *social work* and *social work practice*.

Results: I have defined resilience as 'individually experienced burden in the face of the interpersonal threats of ageing with dementia'. To locate the influence of resilience within a practice model I have combined the theoretical models of Clare (2003) on self maintenance and adjustment, Parker and Penhale (1998) on crisis in dementia and Keady et al (2007) on finding balance. Considering these models together reframes different identity states as a continuum, with adjustment and crisis at opposing ends, and maintenance as the status quo. Introducing a resilience discourse assists in redefining the act of finding balance as the application of the components of resilience.

Conclusion: People with dementia experience exclusion based solely on assumptions of dependence and inability to self determine (Kitwood, 1997). The concept of resilience challenges these views as it promotes the individual finding solutions to their own situations. From my review I have identified gaps in the literature about our understanding of the concept of resilience and the important role that practitioners have in validating the identity 'resilient person with dementia'.

References: Clare, L. 2003 "Managing threats to self: awareness in the early stage of Alzheimer's disease", *Social Science & Medicine*, 57:1017-1029

Keady, J; Williams, S; Hughes- Roberts, J. 2007a. 'Making mistakes': Using Co-Constructed Inquiry to Illuminate Meaning and Relationships in the Early Adjustment to Alzheimer's Disease – A Single Case Study Approach. *Dementia*, 6: 343- 364.

Kitwood, T. 1997. *Dementia Re-considered*. Buckingham: Open University Press.

Parker, J and Penhale, B 1998 *Forgotten People. Positive Approaches to Dementia Care*. Aldershot: Ashgate/ Arena

Young, E. 2010. Narrative Therapy and Elders with Memory Loss. *Clinical Social Work Journal* 38:193-202

Disclosure of Interest: None Declared

P326

THE 'YOUNG MEMORY GUARDIANS' CONTEST: SENSITIZING YOUTH THROUGH INTERGENERATIONAL EXCHANGE

A. Hayward^{1,*}, J. Evraire², R. Godin²

¹Programs and Services, ²Fundraising, Alzheimer Society of Montreal, Montreal, Canada

Objectives: Launched on September 15, 2010 by the Alzheimer Society of Montreal, the Young Memory Guardians contest gave Montreal high school students the opportunity to connect with a person living with Alzheimer's or dementia through volunteer work. This project was initially developed by Lucie Rivest, a local expert specializing in the use of technology and web-based media to engage youth in innovative educational initiatives. It offered a unique opportunity for intergenerational exchange between students and those who have dementia. Students became witnesses and then "guardians" of history, anecdotes and memories. Students had the chance to forge relationships through their experiences. They also learned more about themselves. Each student prepared a special project documenting and describing their experience. The projects were diverse and included written accounts, visual arts, and multimedia presentations. Through this contest, youth had the opportunity to win valuable prizes; but perhaps most importantly, they benefitted from an unforgettable experience that will have a lasting impact.

Disclosure of Interest: None Declared

P327

CHANGES IN PREVALENCE OF DEMENTIA IN THE COMMUNITY-DWELLING JAPANESE ELDERLY DURING SIX-YEAR FOLLOW-UP

C. Yamamoto^{1,*}, T. Hoshi²

¹School of Nursing, Chukyo Gakuin University, Mizunami-shi, ²Department of Urban Environment, Tokyo Metropolitan University, Hachioji-shi, Japan

Objectives: The aging rate was 23.1% in 2010 and is estimated to rise to 40.5% in 2055. The average life expectancy was 79.64 for men and 86.39 for women in 2010 and is expected to be 83.67 for men and 90.34 for women in 2055. With world outstanding longevity, the number of people suffered from dementia will jump from 2 million in 2010 to 3.85 million in 2040. Since mild and moderate cognitive impairment can be improved and the progression of the disease can be prevented nowadays, municipalities have been providing community people programs of prevention and early detection of dementia to create dementia friendly communities during a past decade.

The purpose of this study is to clarify changes in prevalence of dementia in an urban elderly during six-year follow-up.

Methods: Self-administered questionnaires were mailed in 2001, 2004 and 2007 to all the community-dwelling elderly. Analysis subjects were 13,058 in 2001, 13,182 in 2004 and 15,084 in 2007. Those whose family-caregivers responded as proxies due to addressee's dementia or cognitive impairment and those who reported their own demented status were defined as the recognized-demented(RD). Cognitive scores were measured by capacities of deposits and/or withdrawals, filling out forms/documents and reading books/newspapers, whose odds ratios to demented status were shown to be high by multiple logistic regression. Allocating one point to positive answers, the cut-off point determined by receiver operator characteristic curves was 0-1/2-3. Our previous study (*Journal of Health and Welfare Statistics*, 2010) showed that proportion of lower score (0-1) cohort (LSC) was equivalent to that of overlooked dementia in association with mortality and longevity. Prevalence of dementia was calculated by the proportions of RD and LSC to the sample population.

Results: The prevalence of dementia was 9.6% (7.4% in men and 11.6% in women) in 2001, 8.4% (6.3% and 9.3%) in 2004, and 7.5% (5.8% and 8.9%) in 2007.

Conclusion: This study shows that the prevalence of dementia was steadily decreasing during six years and that programs and endeavor by municipalities to create friendly communities might have been effective.

References: Yamamoto C, Hoshi T (2010). Proportion of overlooked dementia in the community-dwelling elderly: the relationship between cognitive impairment and 5.9-year survival in an urban population. *Journal of Health and Welfare Statistics*, 57(6): 18-24.

Disclosure of Interest: None Declared

P328

BEYOND THE MYTHS: FORGETTING THE FICTIONS OF ALZHEIMER'S AND FACING THE FACTS

D. George ^{1,*}, P. J. Whitehouse ²

¹Humanities, Penn State College of Medicine, Hershey, ²Neurology, Case Western Reserve University, Cleveland , United States

Objectives: As a conference theme, "Science, Fact, Fiction" challenges us to examine the role of science and reflect on what we know to be true and what we know to be false. For decades, we have confused probable fictitious beliefs about Alzheimer's disease as immutable fact. In part, this is because we consider scientific data as objective, untouched by social, political, and economic forces, and outside the realm of human interpretation. But data does not "speak for itself", and the words and stories we tell about our scientific claims are critical in determining its validity and utility.

Chief among our misapprehensions are the longstanding notion that (1) Alzheimer's is one biological process, (2) Alzheimer's is not age-related, and (3) Alzheimer's results in a loss of self for persons affected and is always devastating for the carers. A multi billion-dollar industry has grown around this model, reinforcing its power over human beings. However, research is now proving that so-called "Alzheimer's" is age-related and syndromal, and that there is tremendous opportunity for purposeful contribution, meaningful human relationships, and sustained quality of life even for those in the throes of dementia.

Starting with the historical origins of dementia, this talk will progressively expose the fundamental "myths" about Alzheimer's that have led to failed pharmacological misadventures, the proliferation of limited brain fitness products, and the spread of damaging imagery, metaphors, and meanings about brain aging. It will then present new ideas and stories -- grounded in lived experiences -- for how we can act now to truly protect our brains and the brains of other vulnerable members of society, and how we might design local communities capable of supporting the brain health and quality of life of persons of all ages. An intergenerational health and wellness health practice based in a school will be used to illustrate what a "Healthy Brains and Healthy Communities" public health effort can achieve at the local level. Nutrition, exercise, cognitive activity, and social engagement are seen as key factors to maintain and enhance cognitive function and quality of life.

Disclosure of Interest: None Declared

P329

GLOBAL ECONOMIC COST OF DEMENTIA

J. Cziborra¹, M. Wortmann^{1,*}

¹Alzheimer's Disease International, London, United Kingdom

Objectives: Dementia is significantly affecting every health system in the world, and large amounts of resources and money are spent in caring for people with dementia. A proper understanding of the societal costs of the dementia, and how these impact upon families, health and social care services and governments is fundamental for better policies on international and national levels to improve the lives of people with dementia and their caregivers.

Methods: Alzheimer's Disease International launched the World Alzheimer Report 2009 with a systematic review of prevalence studies worldwide. The 2010 report was based on these numbers for a societal cost of illness study. Annual costs per person with dementia for each country have been applied to the estimated number affected in that country, and then aggregated up to the level of World Health Organization regions, and World Bank income groupings.

Results: The total estimated worldwide costs of dementia are US\$604 billion in 2010. About 70% of the costs occur in Western Europe and North America. Costs were attributed to informal (unpaid) care, direct costs of social care (provided by institutions and community care professionals) and the direct costs of medical care (treatment in primary and secondary care). Costs of informal care and the direct costs of social care generally contribute similar proportions of total costs, while the direct medical costs are much lower. In lower and middle income countries informal care accounts for the majority of total costs.

Conclusion: Global costs of dementia are enormous and inequitable distributed. Governments and policy makers might not be aware because costs are allocated within various budgets. There is an urgent need to develop national and international strategies the fight the disease and develop cost-effective packages of medical and social care.

Disclosure of Interest: None Declared

P330

THE 'OPEN DOORS' NETWORK IN SALFORD, GREATER MANCHESTER: A PIONEERING APPROACH TO EMPLOYING A PERSON WITH DEMENTIA IN THE UK NATIONAL HEALTH SERVICE

J. Keady ^{1,*}, M. Howorth ², C. Riley ², G. Drummond ³

¹University of Manchester, Manchester, ²Greater Manchester West Mental Health NHS Foundation Trust, ³Greater Manchester West Mental Health NHS Foundation Trust, Salford, United Kingdom

Objectives: The Open Doors network was set up to, both literally and metaphorically, 'open doors' for people with dementia and their carers in the support, delivery, development and design of dementia services within Salford, Greater Manchester, UK. The Open Doors network currently works with those newly diagnosed with dementia by the Salford Memory Assessment and Treatment Service (Watts et al., 2010), although there is an ambition to develop the network for people living with all phases and experiences of the condition. The Open Doors network is coordinated by Dr. Michael Howorth [Mike], an 80 year-old retired orthodontist with a recent diagnosis of dementia who is employed by the NHS through the Greater Manchester West Mental Health NHS Foundation Trust [GMW] to fulfil this pioneering role. This is the first post in the UK where a person with dementia has been actively recruited to work in the NHS and profiles the demographic of those most 'at risk' of acquiring the condition.

The Open Doors network is part of GMW's 'Reach Beyond' project within Later Life Services in Salford and was launched in April 2010 after a two-year planning cycle. This presentation by the main developers of the Open Doors network, including Mike, will outline the values and vision of the Open Doors network and his coordinators post, as well as some of the hurdles that had to be negotiated before its launch, including the recruitment strategy. The presentation will also include a discussion about the necessary supportive measures adopted for Mike in the workplace, such as assisting Mike in his consultative role with people newly diagnosed with dementia, and their carers, and providing educational and peer support guidance. We will conclude with Mike's achievements in post, his ambitions for the role and for the future development of the Open Doors network as a model for integration and adoption across the NHS.

Reference

Watts, S., Harkness, L., Domone, R., Shields, G., Moss, G. and Bilsborough, N. (2010). Memory services: psychological distress, co-morbidity and the need for flexible working – the reality of later life mental health care. In: J. Keady and S. Watts (Eds.). *Mental Health and Later Life: Delivering an holistic model for practice*. London: Routledge. Pp. 104-124.

Disclosure of Interest: None Declared

P331

OBSERVATION ON ALZHEIMER DISEASE OVER TAIWAN

K. L. Cheng ^{1,*}
¹Fan Tac International Company Limited, Taipei, -

Objectives: Over the past decades aging population has been escalating rapidly in Taiwan, which follows a lot of diseases for the elderly including "Dementia"!Alzheimer disease takes up more than half of the "Dementia" diagnosis in Taiwan. Taiwan's own culture/civilization which differentiate from the western world, the approach taken is not the same to the outside world!For example; most of the family of the patient prefer to take care of him/her at home instead of allocating into revelent nursing home.In my opinion, carer at home even play a more importance role than professionals working in nursing home. The reason is; he/she has to take ethicality into account whereby professionals didn't have to bother.Prior fully discussed with a couple of home carers (kids of the patient), he/she agreed that patients stayed at home could impart better result on avoiding speedy deterioration of "Amnesia", in spite of using drugs, they devoted love, care and tolerance which harmonizing patient's emotion/spirit in a matter of weeks.As aging population turn out to be a trend worldwide, Dementia will be escalating in the next decades, how to contain such disease become a big issue to all countries concerned and no exception to Taiwan.As a matter of fact, Taiwanese government has been highly alarmed on dramatic increase of dementia disease during the past years and injecting funding to address this issue.We have heaps of Non governmental Organizations cropping up during the last few years trying to help our society confronting Dementia; besides more and more nursing homes run by hospitals also join the team tackling the problem.In accrodance with my observation on dementia disease over Taiwan for the past years, I strongly believed that "psychosocial intervention" will be the most effective way to contain the disease.Even though most of us realized that there is no remedy for dementia until now, nevertheless, we can still find ways and means to delay the period of deterioration. As per above stories, carer (especially kids of the family) is playing an important role to bring patient's livelihood back to normal.Ultimately, I have to sign off with my heartiest wishes and blessings to all patients with dementia worldwide, hoping their disease could be completely wiped out one day!

Disclosure of Interest: None Declared

P332

GETTING A WORD IN EDGEWAYS: PEOPLE WITH DEMENTIA SPEAK OUT

L. Whitman^{1,*}

¹Freelance writer, editor and trainer, London, United Kingdom

Objectives: I am compiling an anthology of personal accounts by people with dementia. The contributors will describe their lives and reflect on how the condition has affected them, how they first became aware that something was amiss, their experience of diagnosis and how their life has now changed. The book will reflect the diversity of people's experience of living with dementia both in the UK and around the world, and will complement my anthology of carers' experiences, *Telling Tales About Dementia: Experiences of Caring*, (Jessica Kingsley Publishers 2009). The book is needed because the voices of people with dementia themselves are rarely heard. People with dementia generally appear in the literature as the 'cared-for', about whom others write with concern or fascination, 'objects' of other people's attention, rather than 'subjects' with their own thoughts, ideas and feelings, their own views on the situation they find themselves in, and their own tales to tell. It is still generally assumed that people with dementia have no insight into their condition and are unable to describe or analyse their experiences. There is also great stigma attached to the condition, which often leads to delay in seeking support. This volume will benefit readers who are coming to terms with the realisation that they too have dementia, as well as family members of people with dementia and professionals working in the field. The book will help to destigmatise dementia, contributing to greater awareness, both amongst the general public and health and social care professionals, about a condition which many people fear but most know little about. It will contribute towards social inclusion for a marginalised and disenfranchised section of the population, and will help to create a culture where people with dementia are respected and listened to, involved in decisions about their care and their lives, and treated as valued members of society. I am gathering contributions for this book in a collaborative way. Some people are writing their own chapter, either on their own or with help from someone they trust. Others are giving their account through interviews. My guiding principle as editor is that each contributor should feel ownership of their own chapter and be happy that it truly reflects their experiences, thoughts and feelings, and their own way of expressing themselves.

Disclosure of Interest: None Declared

P333

NEUROPSYCHIATRIC SYMPTOM CLUSTERS DIFFERENTIALLY PREDICT BURDEN AND DEPRESSION IN CHINESE FAMILY CAREGIVERS OF PERSONS WITH ALZHEIMER'S DISEASE

S.-T. Cheng^{1,*}, L. C. Lam², T. C. Kwok³

¹Department of Psychological Studies, Hong Kong Institute of Education, ²Department of Psychiatry, Chinese University of Hong Kong, Tai Po, ³Department of Medicine and Therapeutics, Chinese University of Hong Kong, Shatin, Hong Kong, China

Objectives: To investigate neuropsychiatric symptom clusters in Hong Kong Chinese persons with Alzheimer's disease (AD), the prevalence of the symptom clusters, and their relative contributions to caregiver burden and depression.

Methods: In Study 1, family carers of 224 community-dwelling persons with mild/moderate AD (Clinical Dementia Rating=1/2) provided ratings on the Neuropsychiatric Inventory (NPI). The polychoric correlation matrix of the NPI frequency scores was subject to confirmatory factor analysis (CFA) using the weighted least squares with mean and variance adjustment estimator in MPlus. Three competing models (1-, 4-, and 5-factor models) were evaluated. In Study 2, the NPI syndromes supported by the model of choice in Study 1 were investigated in a sample of 142 carers, together with the Revised Memory and Behavior Problems Checklist (RMBPC), carer's relationship to care-recipient, caregiving hours, caregiving duration, care-recipient functional and cognitive impairment, use of day care, whether living together, whether aided by domestic helper, etc. The dependent variables were Zarit Burden Interview, role overload, and Hamilton depression. Data were analyzed using multiple regression.

Results: In Study 1, CFA supported a 4-factor model, namely behavior problems (agitation/aggressiveness, disinhibition, irritability, aberrant motor behavior; prevalence=72%), psychosis (delusions, hallucinations; 45%), mood (depression/dysphoria, anxiety, apathy; 69%), and euphoria (a stand-alone item that is equivalent to the factor; 6%); $\chi^2(49)=55.99$, $p=0.229$; comparative fit index=0.983, root mean square error of approximation=0.025. In Study 2, Zarit burden and role overload were regressed on these NPI factors as well as the other predictors. The only consistent predictors were caregiving hours, NPI-behavior problems, and NPI-mood. RMBPC-memory also predicted Zarit burden. Subsequently, Hamilton depression was regressed on the same set of variables, together with Zarit burden and role overload as controls. Here, only caregiver gender, caregiving hours, and NPI-behavior problems were significant predictors.

Conclusion: Overt behavioral disturbance in Alzheimer patients was the primary determinant of burden and depression in caregivers. The behavior problems were also the most prevalent neuropsychiatric symptoms as reported by Hong Kong Chinese caregivers.

Disclosure of Interest: None Declared

P334

PRODROME IN DELIRIUM AMONG LONG-TERM CARE RESIDENTS WITH AND WITHOUT DEMENTIA

P. Voyer¹, J. McCusker², M. G. Cole³, S. Richard^{4,*}, J. Monette⁵, N. Champoux⁶, A. Ciampi⁷, E. Belzile⁷

¹Faculty of Nursing sciences, Laval University, Quebec, ²Department of Clinical Epidemiology and Community Studies, ³Psychiatry, St Mary's Hospital, Montreal, ⁴Centre for Excellence in Aging-Research Unit, St-Sacrement Hospital, Quebec, ⁵Division of Geriatric Medicine, Jewish General Hospital, ⁶Institut Universitaire de Gériatrie de Montréal, Montreal University, ⁷St Mary's Hospital, Montreal, Canada

Objectives: Delirium among long-term care (LTC) residents is frequent and associated with increased morbidity and mortality. Identification of clinical changes during the prodromal phase of delirium could lead to prevention of a full-blown episode and perhaps limit the deleterious consequences of this syndrome. The aim of the present study was to identify clinical changes observable in the 2 weeks preceding the onset of full-blown delirium among LTC residents.

Methods: Residents aged 65 and over, with or without dementia were eligible for this nested case-control study. Delirium was assessed weekly over a six-month period using the Confusion Assessment Method.

Results: Residents who developed delirium (cases = 85) were more likely to have new-onset perceptual disturbances (OR = 4.75; 95% CI 1.65-13.66), disorganized thinking (OR = 3.09; 95% CI 1.33-7.19) and a change in their psychomotor activity from agitation to retardation (OR = 4.67; 95% CI 1.08-20.19) compared to the residents who did not develop delirium (controls = 508). A worsening of the MMSE item measuring registration was also more likely observed among residents who developed delirium (OR = 2.59; 95% CI 1.24-5.41). No significant difference in the number of clinical changes was observed between cases and controls (1-2 changes: OR = 1.07; 95% CI 0.63-1.82; ≥ 3 changes: OR = 2.15; 95% CI 0.98-4.72).

Conclusion: This study provides evidence of clinical changes in the prodromal phase of delirium among LTC residents. More studies are needed to further explore the role and relevance of these clinical changes as warning signs of imminent delirium.

Disclosure of Interest: None Declared

Abstract Addendum – Alterations to the Abstract Book:

Plenary Abstracts - PL

PL04 – Paul Aisen – unfortunately Paul is unable to attend the conference – however, we are pleased to announce that Sam Gandy, from Mount Sinai School of Medicine, New York will present in his place.

PL10 – Linda Buettner – unfortunately Linda will not be at the conference to present this abstract – in her place Sue Fitzsimmons, CEO of Sunset Hills Aging and Wellness, Inc. and both a geriatric nurse practitioner and a recreational therapist will present the abstract via a Skype link

Living with Dementia Abstracts – LD

Please find the following late abstract submissions below:

LD2A

Late diagnosis of dementia a scandal?

P Dunlop

Peter is a former hospital consultant who did not have difficulties obtaining his own diagnosis but can compare that to many others he knows whose experience was very different from his own.

LD4A

Raking up the Past

James McKillop

James will share some experiences around using life story books and similar ideas. James will talk about examples where these have worked well but also share some words of caution where they have not been as helpful as intended.

LD4B

Journey into Alzheimerland

Peter Mittler

Following detailed investigations at his local memory clinic six years ago at the age of 76, he received a diagnosis of 'early, very mild Alzheimers Disease' and a prescription for 5 mg. Aricept. The deterioration which he expected has not materialised so far and there is no evidence of significant change in repeated brain scans or psychological tests. He has recently published two books and obtained high marks at undergraduate level in an Open University module in Intermediate Italian.

He continues to follow his academic and professional interests, to which he has added policy and practice for people with dementia .

Although greatly relieved to be leading a near-normal life for his age, the diagnosis has nevertheless had a major impact on my life. When he does make a mistake or something goes wrong, is it Alzheimers or just a 'normal' senior moment?

He also has a substantial hearing impairment which despite the latest hearing aids results in him frequently mishearing or misinterpreting what is being said, both in one to one conversations and on radio or television. The resulting break-downs in communication can be painful for all concerned. To what extent is his difficulty in rapidly processing information Alzheimer-related? If so, is there anything he can do about it?

Although not preoccupied with whether he has Alzheimers, Mild Cognitive Impairment or neither, he does have concerns about the quality of his life and relationships in the years that are left to him.

*Peter Mittler, Emeritus Professor of Special Needs Education, University of Manchester
Peter.Mittler@manchester.ac.uk

LD6A

You take the High Tech and I'll take the Low

Edward McLaughlin

Edward comes from an engineering background. Whilst aware of some of the assistive technology that is now around for people with dementia; would ask us to remember that sometimes these devices are hard for people to use and urges us not to forget technology that helps people get on practically with day to day life at home and offers a solution in a low tech way.

LD9A

Anticipating and Embracing the Later Me

Agnes Houston

Agnes has thought positively and practically about her own future care needs, planned an advance statement with her daughter, cared for her father who also had Alzheimer's Disease and talked with others about her own eventual death. She will share some of these conversations with you.

LD9B

End of life management a waking nightmare?

P Dunlop

Peter has strong views on this subject which favour assisted dying. Naturally he has discussed this difficult subject within his family and will be able to speak about the nature and conclusions of these discussions.

Oral Presentations

The following oral presentations have been withdrawn from the programme:

OC063 – this will be replaced by “**CONNECTING PEOPLE WITH DEMENTIA AND CAREGIVERS EARLY TO EDUCATION AND SUPPORT**” –M Schultz (formerly P190)

OC038 – **DOES IMPROVEMENT IN QUALITY OF CARE LEAD TO BETTER QUALITY OF LIFE? - RESULTS FROM A LONGITUDINAL STUDY IN GERMAN SHARED-HOUSING ARRANGEMENTS**

K. Wolf-Ostermann, A. Worch , S. Meyer and J. Gräske

Will now be presented on Saturday 10th March and has been renumbered OC120.

“TRAINING ELDERCARE WORKERS IN DEMENTIA CARE – FINDINGS FROM THE PILOT RUN OF THE DEMACT PROGRAMME”

H. J. Koh , S. L. Tan, P. P. J. Lim, Y. C. Kuo, X. Tan, A. T. Lin, Y. C. Lau

Will replace the presentation by K Wolf-Ostermann as OC038.

Poster Presentations

The following late poster presentation has been accepted

P073A

INTRODUCING THE DECIDE E-SERVICE FOR ALZHEIMER DISEASE EARLY DIAGNOSIS AND RESEARCH
M Vario- F Galeazzi – F Tanlongo

DECIDE (Diagnostic Enhancement of Confidence by an International Distributed Environment) is a European project within the Seventh Framework Programme (FP7). Based on the neuGRID project, it began in September 2010 and aims to develop a European e-service dedicated to researchers and clinicians for the study and early diagnosis of Alzheimer's and other neurodegenerative diseases. It includes among its partners internationally renowned researchers on Alzheimer's disease.

The service, now in its pilot phase, is based on a secure and unique e-infrastructure of powerful computing resources, high-speed networks and international databases. These will allow clinicians to quickly upload, analyze and compare medical imaging data, in order to produce informed diagnoses. Through a simple, user-friendly web interface, DECIDE users will exploit powerful algorithms for the automatic extraction of disease markers from MRI, PET and SPECT images and EEG charts. High levels of data security and confidentiality are enforced by the Authentication and Authorization Infrastructure (AAI), which allows users to be securely and easily authenticated on the e-infrastructure.

The potential impact for clinical use and research of the proposed e-Infrastructure will be on a large scale; DECIDE will enable clinicians from hospitals with no access to sophisticated computational algorithms, resources, and large sets of reference databases to carry out analyses remotely and efficiently. People with Alzheimer's disease will benefit from a more appropriate inclusion in clinical trials and also from advanced research therapies, given the higher accuracy in early diagnosis, thus improving patient care and family planning.

The DECIDE distributed e-infrastructure and service is up and running. It is being released for user testing by a panel of selected early adopters, who will undergo dedicated training sessions to allow them to make the best use of the tool. Their feedback will result in further improvements to the four applications deployed by the project.

Finally, the DECIDE environment provides a testing environment for new potential applications to be ported on the infrastructure.

For further information please visit: <https://www.eu-decide.eu>

Or contact info@eu-decide.eu

P210A

ONE MORE WAY TO SHOW THAT YOU CARE

S. Rabbab

“Grandma & Grandpa Book” is a social network and comprehensive tool customized for caregivers elderly people & Alzheimer patients where they can organize their day to day activities, socialize and communicate with their peers, friends as well as other groups and bodies that share similar interest. The application support the caregiver so that he/she can keep supporting their affected loved ones.

“Grandma & Grandpa Book” aims to help increase the quality of life of caregivers and their affected loved ones, draw a smile on their face, reduce physical and emotional stress on them, spread their voice and share their story because no one should face Alzheimer alone, “ Grandma &Grandpa Book “ help provides a sense of inspiration, unity and hope to all caregivers and their loved ones.

The following abstracts have been withdrawn

P006 - ROLE OF THE POLYCOMB GROUP GENE FAMILY IN AGING AND NEURODEGENERATION.

P024 - TRADITIONAL CHINESE MEDICINAL PLANTS INHIBIT ACETYLCHOLINESTERASE AND GLYCOGEN SYNTHASE KINASE 3 IN VITRO, TWO KNOWN ALZHEIMER TARGETS

P112 - “YOUR STORY MATTERS”. LIFE STORIES, LAPTOPS AND LEARNING ENVIRONMENTS

P148 - THE KING’S FUND’S ENHANCING THE HEALING ENVIRONMENT (EHE) PROGRAMME PROMOTING DIGNITY, INDEPENDENCE AND FULFILMENT FOR PEOPLE WITH DEMENTIA IN HEALTHCARE ENVIRONMENTS

P241 - “YOUR STORY MATTERS” – A REPORT ON THE NATIONAL TRAINING PROGRAMME FOR LIFE STORY WORK - EMBEDDING A HUMAN RIGHTS BASED APPROACH TO CARE OF PEOPLE WITH DEMENTIA.