



## 29th International Conference of Alzheimer's Disease International

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**Dementia:** Working Together for a Global Solution

1 - 4 May 2014, San Juan, Puerto Rico

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# Abstract Booklet





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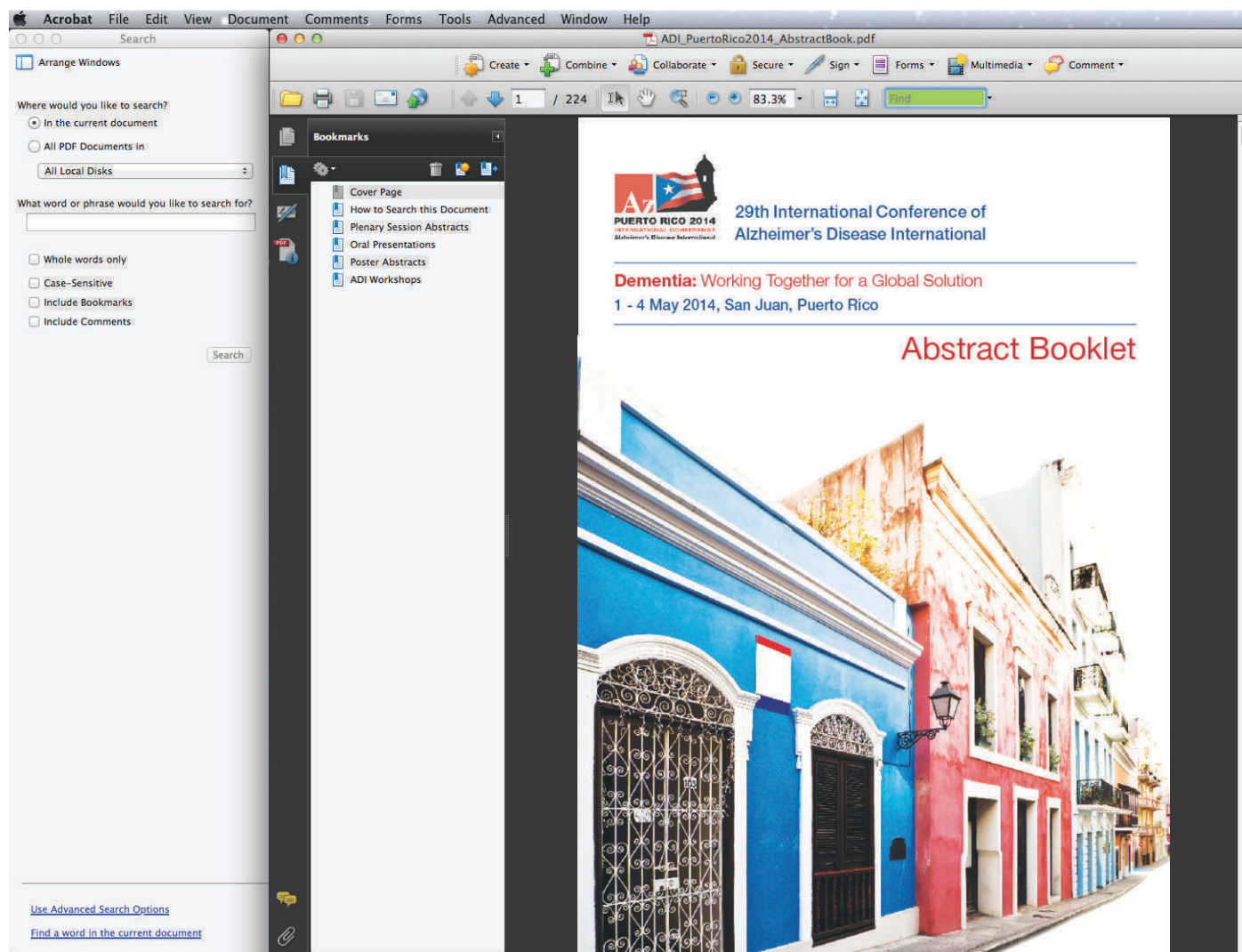
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## Opening Ceremony

**Date:** Thursday 1 May 2014

**Session:** Opening Ceremony

**WE USE SOCIAL MEDIA TO REDUCE STIGMA AND RAISE DEMENTIA AWARENESS ACROSS THE WORLD.  
WE WILL SHARE OUR STORY AND HELP YOU DO THE SAME!**

Gill Phillips <sup>1</sup>, \*Kate Swaffer <sup>2</sup> and Alzheimer's Australia Dementia Advisory Committee

<sup>1</sup>Founder, Nutshell Communications Ltd, Coventry, United Kingdom, <sup>2</sup>South Australia, Alzheimer's Australia's Dementia Advisory Committee, Adelaide, Australia

**Are you submitting a scientific or non scientific abstract?:** Non Scientific

**Objectives:** People love stories! This is an inspirational global story which offers some very practical outcomes for ADI 2014 delegates. Kate Swaffer, who lives with younger onset dementia in Australia and is Chair of the new Alzheimer's Australia's Dementia Advisory Committee, writes a daily blog charting her experiences. She writes with humour, honesty, poignancy and powerful humanity.

Gill Phillips, creator of the award-winning Whose Shoes? concept, writes a similarly high profile blog in the U.K. It offers a regular opportunity to "walk in people's shoes" - clinicians, carers, people living with dementia, providers of traditional services and a wide range of people offering wonderful creative approaches to improving lives. Showcasing good practice and shining the spotlight on poor practice.

Through blogging and Twitter, Kate and Gill have joined forces. Starting as on-line friends, they have become real friends and colleagues and are now taking their powerful messages across the world, challenging the stigma and isolation associated with dementia and promoting an inclusive, assets-based approach.

They use the powerful Twitter hashtag '#dementiachallengers' to link like-minded people across the world. They also spread the word about dementiachallengers.com, an extremely practical website developed by carers for carers and also becoming internationally acclaimed.

They will briefly tell their story but, spend most of the session sharing with delegates highly useful tips to help them set up or become more effective with social media, particularly Twitter. Ideally this session will be held at the start of ADI 2014 to add maximum value to delegates' conference experience.

**Disclosure of Interest:** None Declared

*\*This abstract will be presented by Gill Phillips and Kate Swaffer*

## PL01

**Date:** Friday 2 May 2014

**Session:** What Can We Learn from the Latest Science?

### **CURRENT AND FUTURE TREATMENTS FOR ALZHEIMER'S DISEASE**

Steven T. DeKosky, MD

University of Virginia School of Medicine, Charlottesville, USA

#### **Abstract:**

Development of therapies for neurodegenerative diseases depends on advances in understanding the basic mechanisms of the disease. These advances are usually dependent on new technologies that advance either diagnosis or the ability to pursue basic research. For Alzheimer's Disease (AD) the emergence of the first therapies have very much followed this path.

Discovery of the cholinergic deficits in AD followed the publication of a new and sensitive assay for acetylcholine synthesis, and this led to the acetylcholinesterase inhibitors that are now the main therapies available. As abnormalities of glutamate metabolism were determined, the one currently approved glutamate receptor modulator memantine emerged, the last approved medication for AD in over a decade. All are directed at boosting or regulation of neurotransmitter metabolism.

As the identity of the primary proteins in neuritic plaques (NP) and neurofibrillary tangles (NFT) were determined and other neuropathological cascades identified, new therapeutic strategies and medications have evolved in the therapeutic pipeline. These are denoted as "disease-modifying" since they affect the structural changes brought about by the degeneration.

Thus two general designs of strategies of treatment are emerging. Treatments for people with MCI and AD can use biomarkers to confirm the disease and allow symptomatic studies to proceed efficiently. Biomarkers revealing the presence of disease in cognitively normal people allow initiation of studies of preclinical disease, which would enable the long sought goal of disease prevention or delay of emergence.

#### **Disclosure of Interest**

In the past two years:

Consultant for AstraZeneca.

Editor for Dementia for Up-To-Date

Site PI for Experimental Therapeutic Clinical Trials for Elan, Novartis, Janssen, Pfizer, Baxter Pharmaceuticals



## PL02

**Date:** Friday 2 May 2014

**Session:** What Can We Learn from the Latest Science?

### **NEW FINDINGS FROM THE 10/66 AND EFIGA STUDY IN PUERTO RICO.**

IZ Jimenez,

University of Puerto Rico, School of Medicine

#### **Abstract: Objectives**

To describe Dementia 10/66 Prevalence Data in Puerto Rico.

To report findings of genetic influence in Alzheimer's Disease in Puerto Rican families.

#### **Methods**

Epidemiologic Study ADI 10/66 - Two thousand people aged 65 years and over were assessed in one-phase community based cross-sectional study in a geographically defined catchment area in Puerto Rico. Health status information, risk factors for dementia, blood samples, genetic testing, neurological examination and mental exams were performed at patient's homes.

Family Study - A cohort study of Caribbean Hispanics from PR with familial early and late-onset AD using data collected from clinical history and collection of blood samples will also be presented. Over 1,300 individuals of > 300 families affected with AD have been evaluated since 2002. Studies were performed at the Clinical Research Center, University Hospital, Puerto Rico Medical Center, or at patient's homes. Neuropsychological evaluation; physical / neurological examination; blood testing for genetics and APO-E, socio-demographic data and risk factors were obtained during clinical interviews.

#### **Results**

Analysis of all data collected in both studies will be presented.

#### **Conclusions**

Puerto Rico ADI 10.66 study showed a 12.8 % dementia prevalence, comparable to Cuba and Dominican Republic. Genetic studies have shown a specific mutation, common to Caribbean Hispanics from Puerto Rican origin that will be described in the presentation.

We conclude that the high prevalence of dementia observed in Puerto Rico and the strong genetic component discovered warrant further evaluation and research.

#### **References**

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- 2- Sosa AL, Albanese E, Stephan BC, Dewey M, Acosta D, Ferri CP, Guerra M, Huang Y, Jacob KS, Jiménez-Velázquez IZ, Rodríguez JJ, Salas A, Williams J, Acosta I, González-Viruet M, Hernandez MA, Shuran L, Prince MJ, Stewart R. Prevalence, distribution, and impact of mild cognitive impairment in Latin America, China, and India: a 10/66 population-based study. *PLoS Med*. 2012 Feb;9(2):e1001170. Epub 2012 Feb 7.
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**Disclosure of Interest:** None Declared





## PL03

**Date:** Friday 2 May 2014

**Session:** What Can We Learn from the Latest Science?

### DIABETES, RELATED CONDITIONS, AND ALZHEIMER'S DISEASE

JA Luchsinger

Columbia University Medical Center, New York, NY

#### Abstract: Objectives

Diabetes, and its related conditions, insulin resistance and obesity, may be related to a higher risk of Alzheimer's disease. This is of enormous public health importance because the prevalence of diabetes, insulin resistance, and obesity is increasing worldwide, particularly in the age group most at risk for Alzheimer's disease. The objective of this presentation is to review the evidence linking diabetes and related conditions with Alzheimer's disease, discuss potential mechanisms, and therapeutic implications.

#### Methods

Representative epidemiologic, mechanistic and clinical trial data were chosen to be presented.

#### Results

Numerous studies have shown that diabetes is related to higher risk of dementia among elderly persons. This relation is stronger for vascular dementia compared to Alzheimer's dementia. Few studies have explored whether insulin resistance is related to a higher risk of dementia, but those available show a relationship. The data linking obesity with dementia is ambiguous; some studies show an inverse relationship, some a direct relationship, and some no relationship at all. Reasons for these conflicting findings include the age at which obesity is ascertained (middle age vs. old age), and the measures of obesity that are used. Pathology studies show conflicting results: some show that diabetes is related to Alzheimer's pathology in the brain, while some do not. Several clinical trials have explored diabetes-related strategies for Alzheimer's prevention and these will be discussed.

#### Conclusions

Epidemiologic data show a strong relationship between diabetes and Alzheimer's dementia. However, it is unclear whether this association is causal, or what the mechanisms might be.

#### References

<sup>1</sup> Luchsinger JA. Type 2 diabetes, related conditions, in relation and dementia: an opportunity for prevention? *J Alzheimers Dis.* 2010;20(3):723-736.

#### Disclosure of Interest

Dr. Luchsinger has served as a consultant to Nutricia. Inc. This consulting activity is unrelated to the content of the presentation.

## PL04

**Date:** Friday 2 May 2014

**Session:** Improving Care for People with Dementia

### **THE ECONOMIC AND SOCIAL IMPACTS ON HOUSEHOLDS OF PROVIDING LONG-TERM CARE TO DEPENDENT OLDER PEOPLE: INSIGHTS FROM THE 10/66 STUDY**

Peter Lloyd-Sherlock, School of International Development, University of East Anglia, Norwich, UK

Martin Prince, Institute of Psychiatry, Kings College London, UK.

Rosie Mayston, Institute of Psychiatry, Kings College London, UK.

Maelenn Guerchet, Institute of Psychiatry, Kings College London, UK.

Mariella Guerra, Instituto de la Memoria, Depresión y Enfermedades de Riesgo, Peru.

Sara Gallardo, Instituto de la Memoria, Depresión y Enfermedades de Riesgo, Peru.

Ana Luisa Sosa, National Autonomous University of Mexico, Mexico.

Veronica Montes de Oca, National Autonomous University of Mexico, Mexico.

Isaac Acosta, National Autonomous University of Mexico, Mexico.

Richard Uwakwe, Nnamdi Azikiwe Univeristy, Anambra State, Nigeria.

Peter Ezeah, Nnamdi Azikiwe Univeristy, Anambra State, Nigeria.

Yueqin Huang, Institute of Mental Health, Peking University, China.

Zhaorui Liu, Institute of Mental Health, Peking University, China.

Hong Wang, Department of Epidemiology and Bio Statistics, Peking University, China.

#### **Abstract: Objectives**

Drawing on newly-collected quantitative and qualitative survey data from China, Mexico, Peru and Nigeria, the paper will assess the extent to which the onset of dependence is associated with household impoverishment and economic vulnerability. As part of this, it will also identify pathways between care dependence and changes to household economic status and factors which influence household resilience. The paper will also consider the effects of incident care dependency on household composition and social dynamics, with a particular emphasis on gendered bargaining and decision-making.

#### **Methods**

The data are mainly derived from an integrated mixed methods study design, including a customised quantitative survey nested within the earlier baseline and incidence waves of the 10/66 surveys in Peru, Mexico, and China. In Nigeria the baseline survey was supplemented with a new incidence wave, as well as the customised survey on economic and social effects. We use an incident case-control design, sampling within the well-characterised 10/66 survey samples to identify groups of interest for detailed household interviews. The qualitative component comprises a detailed household case studies in each site. We will also collected contextual data on relevant national policies, welfare and healthcare financing, and background information about study catchment areas including local health facilities and other relevant resources.

#### **Results**

Preliminary analysis of the quantitative data for Peru, Mexico and China reveals evidence for reduced consumption among households containing care dependent older people. It also provides strong evidence for increased economic strain, health care expenditure (particularly catastrophic spending), and giving up work to care. Preliminary analysis of the qualitative household case studies for Peru and Mexico reveals the complexity of bargaining across family networks extending beyond individual households, widespread use of paid carers in some settings and the strongly gendered norms of care-giving and responsibility.

#### **Conclusions**

Preliminary analysis of the results available to date demonstrates that incident care dependency due to dementia or other causes such as stroke can have important effects on household economic wellbeing and has a particularly large effect on female relatives and paid carers. This is of relevance to policy-makers with an interest in poverty reduction and gender equity.

**Disclosure of Interest:** None Declared





## PL05

**Date:** Friday 2 May 2014

**Session:** Improving Care for People with Dementia

### METHODS FOR STUDIES IN PREVENTING COGNITIVE LOSS AND DEMENTIA

Sano, M

Icahn School of Medicine at Mount Sinai, NYC, NY and James J Peters VAMC, Bronx, NY, USA

#### **Abstract: Objectives**

The task of conducting clinical trials to test treatments for the prevention of dementia is monumental but an absolutely necessary next step. It will require engaging large communities of aging adults over long periods of time to partner with scientists using advanced technologies for diagnosis, intervention and assessment. This presentation proposes to describe advances in methodologies for conducting clinical trials to prevent cognitive loss and dementia in individuals with normal cognition and mild cognitive impairment.

#### **Methods**

The presentation will review published and unpublished data on successful recruitment of non-demented elders into clinical trials. Diagnosis and classification of non-normal and pre-symptomatic conditions and novel testing methods. New outcome measure to assess cognition and function will be considered. Planned methods to improve retention will be discussed. The Home Based Assessment trial (NCT00546767) will be used as a case study.

#### **Results**

The feasibility of recruiting non-demented elders to home based assessment has been demonstrated and the preference for methods of assessment will be described. Satisfaction with participation and study retention as well as sensitivity of new assessment tools will be described. Important metrics such as drop out, time from screening to baseline and total staff time will be presented from the HBA case study.

#### **Conclusions**

Clinical trials for the prevention of dementia and cognitive loss will require attention to participant satisfaction with efforts to reduce burden. Sufficient staff time and acceptable assessment procedures are critical to successful studies.

#### **References**

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**Disclosure of Interest:** None Declared

## PL06

**Date:** Friday 2 May 2014

**Session:** Improving Care for People with Dementia

### **CASE MANAGEMENT IN DEMENTIA – THROUGH THE EXPERIENCE IN JAPAN**

Noriyo Washizu, Alzheimer's Association Japan

#### **Abstract: Objectives**

Aged societies and dementia issues are a global phenomenon. All countries and regions need to find an effective strategy to tackle them.

Today Japan has the highest elderly population ratio and the longest life expectancy in the world.

We are conducting various approaches to aid the elderly and people with dementia.

The presentation aims to share the experience including success, trial, and errors, which we have had in the last 50 years, taking in the perspective of case management to contribute to a dementia friendly world.

#### **Methods**

Retrospective method

#### **Results**

In Part 1: The general & fundamental issues in case management.

In Part 2: Case management in dementia in Japan.

Part 2 include the history of the elderly care as well as, dementia care & case management, introducing up-to-date approaches and finally concluding with a true story.

#### **Conclusions**

People with dementia need care in all areas of life 24/7. To achieve *Living well with dementia*, both of the social resources to meet the special needs of PWDs and their families and case managements ability to utilize them with a sense of ethics are crucial. Along with the development of an aging society, case management in dementia is required to focus more on the whole community and to be more integrated.

#### **References**

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**Disclosure of Interest:** None Declared



## PL07

**Date: Saturday 3 May 2014**

**Session: The Impact of New Technology: Should You be Informed of Your Risk of Developing Alzheimer's Disease (Panel Discussion)**

### **IMPACT OF NEW TECHNOLOGY TOWARDS RISK ASSESSMENT FOR ALZHEIMER'S DISEASE: METHODS, CRITERIA, RISKS AND BENEFITS**

S Gauthier, McGill Center for Studies in Aging, 6825 Boulevard LaSalle, Montreal, QC, Canada

#### **Abstract: Objectives**

Introduce to topic of new technology towards risk assessment for AD as part of a panel discussion.

#### **Methods**

Literature review including consensus guidelines

#### **Results**

The publication by the NIA-AA workgroup on diagnostic guidelines for AD in preclinical stages (Sperling et al, 2011) has generated concern that biomarkers such as PET amyloid scans could be used outside of research protocols and that disclosure of tests results labelled "positive" for excessive amyloid load in the brain could be interpreted as equal to an immediate diagnosis of AD instead of an increased risk towards AD in later years. The concern for misuse of diagnostic tests in pre-dementia stages of AD was debated by the International Psychogeriatrics Association (O'Brien, 2013). National consensus conferences have issued concern about misuse of diagnostic tests in pre-dementia stages of AD (Gauthier et al, 2012). This debate must be put in the context of general public (Wikler et al, 2013) and special group interest in early diagnosis (Hooper et al, 2013), investigators' interest in disclosure to research study participants (Shulman et al, 2013) versus a "too much medicine" analysis by Le Couteur et al in 2013. Ethical perspectives are also available on this issue (Karlavish 2011; Gauthier et al 2013).

#### **Conclusions**

The diagnostic guidelines for pre-clinical proposed by Sperling et al "are solely intended for research purposes and do not have any clinical implications at this time". They are built-in current therapeutic trials which may lead to effective treatments in high risk populations.

#### **References**

- Hooper et al. The impact of the availability of prevention studies on the desire to undergo predictive testing in persons at risk for autosomal dominant AD. *Contemporary Clinical Trials* 36 (2013), 256-262.
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**Disclosure of Interest:** None Declared

## PL08

**Date: Saturday 3 May 2014**

**Session: The Impact of New Technology: Should You be Informed of Your Risk of Developing Alzheimer's Disease (Panel Discussion)**

### **ETHICAL ISSUES IN DISCLOSING AD BIOMARKER RESULTS**

H Chiu

Department of Psychiatry, Multi-Centre, Tai Po Hospital, 9 Chuen On Road, Tai Po, N.T. Hong Kong

#### **Abstract: Objectives**

To highlight the ethical issues in disclosing AD biomarker results to subjects.

#### **Results**

The new diagnostic guidelines for "preclinical AD" by the NIA-AA working group (Sperling et al, 2011) and "asymptomatic at risk state for AD" by Dubois et al (2007) are major advances in the field. They are very useful for research purposes and for the development of disease modifying treatment of AD (Alzheimer's Disease). However, they have also generated ethical concerns about the clinical implications of these guidelines and the impact of disclosure of the test results on the subjects.

At present, the clinical utility of a very early diagnosis of AD at the preclinical stage is limited. There is no effective disease modifying treatment and lifestyle interventions can be implemented universally without knowing the test results. In addition, the predictive value of dementia in asymptomatic subjects with positive results on biomarkers are still uncertain. One may argue that knowing the test results may facilitate advance planning for the individual. However, there may be potential harms of disclosure of test results, including fear, anxiety, depression and suicidal behavior. In addition, there are concerns about the consequences on insurance, work, driving, family relationship and stigma (Chiu & Brodaty, 2013). Of note, most of the evidence and knowledge about biomarker driven diagnosis of AD as well as disclosure of biomarker test results came from developed countries. There is an outstanding lack of studies from developing countries while most of the people with dementia live in low and middle-income countries. It is important to consider cultural factors that might be relevant during the process of disclosure. For instance, in the Chinese culture, the close relationship of the family and expectation of family members need to be taken into consideration.

#### **Conclusions**

At present, in special situations where asymptomatic research subjects would be informed of test results of AD biomarkers, there should be a protocol on the procedures of disclosure of test results to minimize the potential adverse effects or psychological distress to subjects. Further studies on the process and impact of disclosure in different countries are necessary.

#### **References**

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**Disclosure of Interest:** None Declared





## PL09

**Date: Saturday 3 May 2014**

**Session: The Impact of New Technology: Should You be Informed of Your Risk of Developing Alzheimer's Disease (Panel Discussion)**

### **ADDRESSING THE ETHICAL CHALLENGES OF DISCLOSING AD BIOMARKER RESULTS TO RESEARCH PARTICIPANTS**

J Karlawish<sup>1</sup>

<sup>1</sup>University of Pennsylvania, 3615 Chestnut Street, Philadelphia, PA, USA

#### **Abstract: Objectives**

Translating the concept of pre-clinical Alzheimer's disease (AD) into clinical practice requires research studies designed to validate whether a biomarker is either predictive or prognostic. Should subjects who participate in such studies learn that they have these biomarkers? And if they should, how should they learn this information?

#### **Methods**

I answered these questions using data came from a review of the literature on informed consent for genetic testing, a survey of clinical researchers in AD biomarker development participating in the U.S. Alzheimer's Disease Neuroimaging Initiative (ADNI) study, and a Delphi survey of experts in human amyloid imaging and informed consent for genetic testing.

#### **Results**

Studies in disclosure of APOE genetic testing to cognitively normal adults with a family history of AD support that AD risk information can be safely disclosed using methods that assure subject psychological well-being. ADNI investigators have mixed support for revealing AD biomarker results to cognitively normal subjects. This ambivalence reflects competing issues: disclosure will impact on study validity and harm subject well-being, and the biomarker result itself is not clinically valuable; on the other hand, subjects have a right to this information, research designs may require that they know it, and the information may be clinically valuable. ADNI investigators generally agreed that these competing issues mean that disclosure should be done in a research context to measure both its impact and effects on subjects. These results then supported a Delphi process that developed a method to disclose amyloid imaging to persons willing to participate in a clinical trial testing an anti-amyloid drug on cognitively normal older adults (the A4 Study). This disclosure process involves education and psychological screening; separate days when a person decides whether to have the scan, undergoes the scan, and receives their result; and immediate and long term monitoring of the impact of disclosure on well-being, quality of life and behaviours.

#### **Conclusions**

Disclosure of AD biomarker results to cognitively normal older adults who are research subjects is a novel practice with an emerging evidence base to guide and revise the process. Such a process is in place as part of the A4 Study and can be used in other clinical trials.

#### **References**

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**Disclosure of Interest:** None Declared

## PL10

**Date:** Saturday 3 May 2014

**Session:** The Impact of New Technology: Should You be Informed of Your Risk of Developing Alzheimer's Disease (Panel Discussion)

### **SHOULD YOU BE INFORMED OF THE RISK OF DEVELOPING ALZHEIMER**

Julio Solier

#### **Abstract: Objectives**

Made people aware of the importance of early diagnosis and how early treatment will give you time to set your life in order for you to take control before is too late.

#### **Methods**

Education to your family and fellow workers on the behaviour changes that may lead to identify factors that may lead a person to seek early diagnosis and treatment.



## PL11

**Date:** Saturday 3 May 2014

**Session:** The Impact of New Technology: Should you be informed of your Risk of Developing Alzheimer's Disease (Panel Discussion)

### CHALLENGES FOR CAREGIVERS WITH EARLY-ONSET ALZHEIMER'S

Pat Moffett

Author

Ice Cream In the Cupboard And Translation Helado En El Armario

#### **Abstract: Objectives**

To look into the future and see how we are going to take care of the caregiver. What can we do inside and outside the home to accomplish this.

#### **Methods**

The involvement of Social Media and the program Let's Do Dinner programs.

#### **Results**

Great success on a local level, but what about international.

#### **Conclusions**

So much more to do.

**Disclosure of Interest:** None Declared

## PL12

**Date: Saturday 3 May 2014**

**Session: Risk Factors and Prevention of Dementia**

### **LONGITUDINAL COHORT STUDIES FOR GENETIC (FAMILIAL) AND SPORADIC ALZHEIMER'S DISEASE DEFINE WINDOWS OF PRECLINICAL THERAPEUTIC OPPORTUNITY**

Colin L Masters, Florey Institute, The University of Melbourne, Australia

**Abstract:** The advent of A $\beta$  amyloid-PET scanning has facilitated the characterization of the natural history of sporadic AD. Results from the longitudinal Australian Imaging, Biomarker and Lifestyle (AIBL) cohort, now entering its 6<sup>th</sup> year, graphically depict the rates of A $\beta$  accumulation (0.05 SUVR or 3% per year) and cognitive decline (e.g. in episodic memory 0.2 SD per year). Similar rates of change in the preclinical and clinical phases have been documented for autosomal dominant forms of familial AD (the DIAN study). Coupled with fundamental kinetic data on the rates of production and clearance of A $\beta$  in the sporadic AD brain (which indicate an approximate 40% impairment in the production: clearance ratios), it is now possible to begin to calculate the effect sizes needed to delay onset of AD by five years: figures in the order of 20-25% slowing of both A $\beta$  accumulation and cognitive impairment begin to emerge.

There are at least two major genetic loci which also affect the rates of A $\beta$  accumulation and cognitive decline (the ApoE and BDNF polymorphisms). In otherwise healthy individuals with preclinical AD,  $\epsilon 4^+$  / BDNF<sup>Met</sup> subjects show clinically significant memory impairment after three years,  $\epsilon 4^+$  / BDNF<sup>Val/Val</sup> subjects are impaired after 10 years, and  $\epsilon 4^-$  subjects (irrespective of BDNF status) are likely to remain unimpaired for many years. Genetic stratification of subjects in clinical trial designs must therefore be taken into account.

Various disease modification strategies are in development or in active clinical trials. A $\beta$ -directed therapies broadly aim at either slowing the rate of production (Y- or  $\beta$ - secretase inhibitors) or utilize the "stabilize, neutralize, clear" approach for promoting the clearance of A $\beta$  from the brain. With the new data from longitudinal cohort studies, either strategy or combinations of these can now be applied in the preclinical or the earliest clinical phases of AD.

#### **Disclosure of Interest:**

CLM is an advisor to Prana Biotechnology and Eli Lilly





## PL13

**Date:** Saturday 3 May 2014

**Session:** Risk Factors and Prevention of Dementia

### PREVENTION OF DEMENTIA: AN OVERVIEW OF EUROPEAN STUDIES

L Fratiglioni<sup>1</sup>, F Mangialasche<sup>1</sup>, M Kivipelto<sup>1,2,3</sup>

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#### Abstract: Objectives

Alzheimer disease (AD), the main cause of dementia, has reached epidemic proportions, with a large human, social, and economic burden. The recent G8 Dementia Summit identified AD/dementia prevention as a major public health priority. All population-based studies up to the present have shown that 40 to 50% of people who reached the age of 90 are free of dementia, suggesting that dementia is not an unavoidable event when people are getting older. Who are these persons? Why and how do they escape dementia? Epidemiological studies have already provided some answers to these questions. In this review we will summarize the current knowledge on dementia prevention derived from observational and intervention studies in Europe.

#### Methods

Up to half of AD/dementia cases are attributable to modifiable vascular and lifestyle-related risk factors, creating a clear window of opportunity for prevention. Given the multifactorial etiology of late-onset dementia/AD, interventions targeting multiple risk factors and disease mechanisms simultaneously are the most likely to be effective. The European Dementia Prevention Initiative (EDPI) has been established by five European countries to identify effective preventive strategies for dementia/AD. Within EDPI, four countries have started four randomized controlled trials (RCTs) testing multimodal preventive interventions in at-risk community-dwelling older adults ([www.edpi.org](http://www.edpi.org), [www.hatice.eu](http://www.hatice.eu)): FINGER (Finland), MAPT (France), PreDIVA (Netherlands), and HATICE (Finland, France, Netherlands, Sweden).

#### Results

Several studies support the potential role of vascular and psychosocial factors in the pathogenetic processes and clinical manifestations of the dementing disorders, over and above genetic susceptibility. Further, the role of these factors in dementia has been confirmed by recent reports concerning time trends in prevalence, survival, and incidence of dementia and Alzheimer's disease in different countries. The four ongoing RCTs on dementia/AD prevention overall include about 11000 participants aged 60+ years. In each study, multimodal interventions target similar vascular, metabolic and lifestyle-related risk factors, with country-specific variations in content and mode of delivery. Sharing expertise and experience within EDPI will help refine and harmonize methodology, paving the way to large multinational RCTs

#### Conclusions

More than 20 years of epidemiological research has Europe is at the forefront of international efforts to find effective preventive strategies for dementia/AD. International joint collaboration is crucial to identify effective preventive strategies that can be efficiently implemented at population level.

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**Disclosure of Interest:** None Declared

## PL14

**Date: Saturday 3 May 2014**

**Session: Risk Factors and Prevention of Dementia**

### ALZHEIMER'S RISK FACTORS IN PUERTO RICAN PATIENTS

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#### Abstract: Objectives

Previous studies done in the continental USA (Latino AD patients) suggests that the incidence of Alzheimer's is higher in Caribbean people, especially in Puerto Ricans; when compared with caucasians and afro-american people. It has also been found that the age of onset of AD in Puerto Ricans is lower than in other ethno racial groups in the USA. We studied a group of Puerto Ricans patients (N=432) residing in Puerto Rico; in order to identify the age of onset, scholary and risk factors.

#### Methods

Four-hundred-thirty two AD patients, at a Memory Clinic in San Juan, Puerto Rico were studied. Consent was previously obtained. The sample included 270 female patients and 162 males.

#### Results

The most frequent risk factors encountered were hypertension (69%), hyperlipidemia (58%), depression (47%) and diabetes (26%). The age of onset of symptoms was found at 78.1 years, and the average scholary was 13.1 years.

#### Conclusions

In contrast to previous published data, our patients demonstrated an older age of onset (78.1) that in the latino AD patients (68.0), a difference in scholary was also observed; 13.1 years for our patients and 5.8 years for the latino AD patients. The risk factors identified are potentially modified factors. These factors might be susceptible to public health and educational programs that might reduce the incidence of AD in Puerto Rico.

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**Disclosure of Interest:** None Declared



## PL15

**Date: Sunday 4 May 2014**

**Session: Public Policy: The Power of Advocacy and Alzheimer Plans**

### **THE POWER OF PEOPLE WITH DEMENTIA IN ADVOCACY**

Scott Russell

#### **Abstract:**

Scott Russell: A Personal View

Scott was a Global Senior Human Resources Consultant before he was diagnosed with younger-onset Alzheimer's disease in 2009. He will speak from the perspective of someone living with dementia and about his priorities and expectations from initiatives around the US National Alzheimer's Project Act (NAPA).

## PL16

**Date: Sunday 4 May 2014**

**Session: Public Policy: The Power of Advocacy and Alzheimer Plans**

### **PRIME MINISTER'S DEMENTIA CHALLENGE, UK AND G8 ACTIONS**

Senior UK Government Representative

The UK Prime Minister launched a Challenge on Dementia in April 2012 with the objectives to change societal attitude and make the country more dementia friendly, increase the proportion of people with dementia that get diagnosed and double the research funding budget by the year 2015. In 2013 he put dementia on the G8 agenda and a Summit on Dementia was held in London in December 2013. This presentation will give background information on actions from the Summit as well as the steps going forward from 2014 on.





## PL17

**Date:** Sunday 4 May 2014

**Session:** Public Policy: The Power of Advocacy and Alzheimer Plans

### PRIME MINISTER'S DEMENTIA CHALLENGE

Jeremy Hughes, Chief Executive Alzheimer's Society

#### **Abstract: Objectives**

This session will highlight why British PM David Cameron made a commitment to make dementia his only personal health priority. It will set out how this ambitious programme of work is pushing further and faster to deliver major improvements in three key areas:

- Health and social care
  - Improving investment in research
  - Create dementia friendly communities
- 
- It will review progress to date against the key commitments
  - To set out some of the challenges that we face in sustain momentum beyond the Prime Minister's Challenge

#### **Methods**

Oral Presentation

#### **References**

Prime Minister's Challenge on Dementia – Delivering major improvements in dementia care and research by 2015, Department of Health, 2012

**Disclosure of Interest:** None Declared

## PL18

**Date: Sunday 4 May 2014**

**Session: Public Policy: The Power of Advocacy and Alzheimer Plans**

### **OVERVIEW OF GLOBAL ADI ADVOCACY**

Marc Wortmann

#### **Abstract:**

ADI represents the global voice of people with dementia and their families in the international field. This presentation will give an overview of the latest developments within the World Health Organization (WHO), OECD and other bodies post the G8 Summit and the tools that ADI has developed to support the work of advocates.



## OC001

**Date:** Friday 2 May 2014

**Session:** Person Centered Care

### CULTURE CHANGE TOWARD PERSON-CENTRED CARE IN LONG TERM CARE HOMES

Mary Schulz<sup>1,\*</sup>

<sup>1</sup>Education, Alzheimer Society of Canada, Toronto, Canada

**Are you submitting a scientific or non scientific abstract?:** Non Scientific

**Objectives:** In 2008, the Alzheimer Society of Canada (ASC) embarked on a “culture change” initiative focusing on the needs of people with dementia living in long term care (LTC) homes.

Most people with dementia want to live in their own homes for as long as possible. However, many will move to a LTC home. 57% of seniors living in a residential care home have a diagnosis of dementia [1], and 70% of all individuals diagnosed with dementia will die in a LTC home [2].

The culmination of **phase 1** was the launch in 2011 of the “Guidelines for Care: Person-Centred Care of People with Dementia Living in Care homes”

During **phase 2**, an exploratory qualitative research was conducted to learn what is key in a “successful” culture change to person-centred care (PCC). Based on these findings, ASC created PC-PEARLS™ tip-sheets providing tips and strategies on how to begin and sustain culture change.

Furthermore, 2 regional consultations in October 2013 will help guide **phase 3** with the goal to strengthen the relationships between residents, families and staff.

Our most important objective is to ensure that a person-centred philosophy of care is well understood and put into practice in LTC homes to improve the experience of people with dementia, their caregivers and the professionals supporting them.

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[1] Canadian Institute for Health Information, Caring for Seniors with Alzheimer's Disease and Other Forms of Dementia, 2010.

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**Disclosure of Interest:** None Declared

## OC002

**Date:** Friday 2 May 2014

**Session:** Person Centered Care

### THE ROLE OF LEADERSHIP IN THE IMPLEMENTATION OF PERSON-CENTRED DEMENTIA CARE IN NURSING HOMES

Anne Marie Mork Rokstad<sup>1</sup>, Solfrid Vatne<sup>2</sup>, Knut Engedal<sup>1</sup>, Geir Selbæk<sup>1,3</sup>

<sup>1</sup>Ageing and Health, Norwegian Centre for Research, Education and Service Development, Oslo, <sup>2</sup>Molde University College, Molde, <sup>3</sup>Centre for Old age Psychiatry Research, Innlandet Hospital Trust, Ottestad, Norway

**Are you submitting a scientific or non scientific abstract?:** Scientific

**Objectives:** Leadership is important for the implementation of nursing practice. However, the empirical knowledge of positive leadership in processes enhancing the person-centred culture of care in nursing homes is limited. The aim of this study was to investigate the role of leadership in the implementation of person-centred care (PCC) in nursing homes using Dementia Care Mapping (DCM).

**Methods:** The study has a qualitative descriptive design. The DCM method was used in three nursing homes. Eighteen staff members and seven leaders participated in focus-group interviews centring on the role of leadership in facilitating the development process. A qualitative content analysis with a conventional approach was used to analyse the interviews.

**Results:** The different roles of leadership in the three nursing homes, characterised as 'highly professional', 'market-orientated' or 'traditional' based on the analysis of the context, seemed to influence to what extent the DCM process led to successful implementation of PCC. Professional supportive leadership through participation in practice care seemed to enhance person-centeredness in care practice in the 'highly professional' nursing home. In the 'traditional' nursing home with leaders being supportive on request from the staff and the 'marked orientated' nursing homes, where the leaders gave no direct support to the DCM process, awareness on PCC was raised. However, this raised awareness did not seem to result in more person-centeredness in the care practise.

**Conclusion:** This study gave useful information about the influence of leadership in the implementation of PCC in nursing homes. Leaders should be active role models, expound a clear vision and include and empower all staff in the professional development process.

**Disclosure of Interest:** None Declared





## OC003

Date: Friday 2 May 2014

Session: Person Centered Care

### THE EFFECT OF PERSON-CENTRED DEMENTIA CARE TO PREVENT AGITATION AND OTHER NEUROPSYCHIATRIC SYMPTOMS AND ENHANCE QUALITY OF LIFE IN NURSING-HOME PATIENTS: A 10 MONTHS RANDOMIZED CONTROLLED TRIAL

Anne Marie Mork Rokstad<sup>1,1\*</sup> Janne Røsvik<sup>1</sup> Øyvind Kirkevold<sup>2,3,4</sup> Geir Selbæk<sup>1,4</sup> Knut Engedal<sup>1</sup>

<sup>1</sup>Ageing and Health, Norwegian Centre for Research, Education and Service Development, Oslo, <sup>2</sup>Ageing and Health, Norwegian Centre for Research, Education and Service Development, Tønsberg, <sup>3</sup>Gjøvik University College, Gjøvik, <sup>4</sup>Centre for Old age Psychiatry Research, Innlandet Hospital Trust, Ottestad, Norway

**Are you submitting a scientific or non scientific abstract?:** Scientific

**Objectives:** This study aimed to examine if Dementia Care Mapping (DCM) or the VIPS practice model (VPM) were more effective than educating staff about dementia (control) in reducing agitation and other neuropsychiatric symptoms and to enhance quality of life in nursing-home (NH) patients.

**Methods:** A ten-month three-armed cluster-randomized controlled trial compared DCM and VPM with control. Of 624 NH patients with dementia from 14 NH, 446 completed follow-up. Primary outcome was change in score on the Brief Agitation Rating Scale (BARS). Secondary outcomes were change in score on the Neuropsychiatric Inventory Questionnaire (NPI-Q), the Cornell Scale for Depression in Dementia (CSDD), and the Quality of Life in late-stage Dementia scale (QUALID).

**Results:** Change in BARS score did not differ significantly between DCM and control or between VPM and control after 10 months. DCM vs. control, -2.0 95% confidence interval (-5.1; 1.1); VIPS vs. control: -1.1 (-3.8; 1.6). Significant reduction in symptoms were found for secondary outcomes, NPI-Q-10 sum-score: DCM vs. control, - 2.7 (-4.6; -0.7); VIPS vs. control, -2.4 (-4.1; -0.6); NPI-Q agitation: DCM vs. control, -0.9 (-1.7; -0.04); VIPS vs. control, -0.9 (-1.6; -0.1); NPI-Q psychosis: DCM vs. control, - 0.9 (-1.4; -0.3) ; VIPS vs. control, -0.6 (-1.1; -0.04);. QUALID score: DCM vs. control, -3.0 (-5.5; -0.6); and CSDD score: VIPS vs. control, -2.6 (-4.8; -0.4).

**Conclusion:** Even though the study failed to find a significant effect on the primary outcome, it adds to the growing but not conclusive evidence that PCC may reduce and prevent agitation and other NPS in nursing-home patients with dementia. The positive findings of the effect on the patient's QoL and depressive symptoms have not been shown in previous studies and need to be further investigated.

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<sup>1</sup> equally first authors

**Disclosure of Interest:** None Declared

## OC004

**Date:** Friday 2 May 2014

**Session:** Person Centered Care

### **CASE MANAGEMENT IN DOMESTIC CARE SETTINGS - A PERSON CENTERED CARE APPROACH FOR PEOPLE WITH DEMENTIA AND FAMILY CAREGIVER**

Liane Schirra-Weirich <sup>1,\*</sup>Henrik Wiegelmann <sup>1</sup>

<sup>1</sup>Social Services, Center for Participation Research, Catholic University of Applied Social Sciences, Aachen, Germany

**Are you submitting a scientific or non scientific abstract?:** Scientific

**Objectives:** There is evidence that primary family caregivers of people with dementia facing high levels of stress. Simultaneously they take a key role in a multilayered and complex care setting. It is not unusual that situations occur where professional support is needed to ensure that the person with dementia can stay at home. This is where the case management sets in to develop and coordinate an efficient person centered care arrangement for the dementia patient and their family caregivers.

The presentation critically examines case management in view of the primary family caregiver well-being, using data of the *"Dementia Network City Region Aachen"*. The applied approach presents a methodical inclusion of family caregivers in the help and support system for people with dementia. On basis of the study's findings, neuralgic points of a future oriented care system for people with dementia and family caregivers will be highlighted.

#### **Methods:**

1. Patient data and case-management documents were systematically collected for a period of one year.
2. Standardized interviews with family caregivers were conducted to identify situations of high stress.
3. Both data were combined in a longitudinal 'tandem-study' to elaborate case management effects on the subjective well-being of family caregivers.

**Results:** The collected data show, according the Burden Scale for Family Caregivers, high levels of stress for family caregivers. Moreover, results confirm the previous finding, that women are more strongly affected. Concerning the case management, a contradiction reveals: While the services have been rated predominantly positive, the measured levels of stress persist high.

Nevertheless, to consider family caregivers as pivotal actors within case management processes stabilizes the care situation.

**Conclusion:** A sustainable and sound domestic care arrangement is indispensable to ensure the individuality of people with dementia and their family caregivers. To sharpen the view for family caregivers opens the opportunity to assure a strong and solid domestic environment to live with the impairment of dementia and to reduce the risk of high stress. Therefore an adequate database, functioning as an early warning system, is crucial to individually adjust case management services. A major task of gerontological social work is to entrench the perspective of the family caregivers as a central element within an integrated care system for people with dementia.

**Disclosure of Interest:** None Declared



## OC005

**Date:** Fridy 2 May 2014

**Session:** Clinical Trials and Putting Scientific Knowledge into Practice

### **GOOD PRACTICE IN MANAGEMENT OF BEHAVIOURAL AND PSYCHOLOGICAL SYMPTOMS OF DEMENTIA; KNOWLEDGE IS ONLY FIRST STEP**

Henry Brodaty <sup>1,\*</sup>

<sup>1</sup>Dementia Collaborative Research Centre, UNIVERSITY OF NEW SOUTH WALES, Sydney, Australia

**Are you submitting a scientific or non scientific abstract?:** Scientific

**Objectives:** Behavioural and psychological symptoms of dementia (BPSD, also called neuropsychiatric symptoms or NPS) affect over 90% of people during the course of their dementia. BPSD are the most distressing symptoms of dementia for families and professional carers and are associated with faster rate of decline and, in many countries, earlier institutionalisation. This paper will review developments in drug and psychosocial treatment and the limitations of adoption of research knowledge into practice.

**Methods:** Review of key papers on management of BPSD.

**Results:** Drug treatments in people with dementia have modest efficacy for treatment of agitation, aggression and psychosis and disappointing results for treatment of depression as well as significant side effects. A double blinded randomised controlled trial of antipsychotic withdrawal resulted in better outcomes than continued antipsychotic treatment. Psychosocial treatments have been shown to reduce agitation and depression and improve quality of life without side effects notwithstanding challenges in their implementation. Strategies such as person centred care and humour therapy have demonstrated significant benefit. Despite this knowledge, use of psychotropics remains prevalent and adoption of psychosocial techniques limited.

**Conclusion:** Strategies for improving BPSD management practices are education of aged care workers, health care practitioners and families of people with dementia, better models for organising BPSD prevention and management, partnering with families and care workers, and incentives for quality care of people with dementia.

**Disclosure of Interest:** H. Brodaty Conflict with: Servier, Merck, TauTherapeutics, Lilly, Medivation, Janssen, Conflict with: Nutricia, Conflict with: Lilly, Merck, Nutricia

## OC006

**Date:** Friday 2 May 2014

**Session:** Person Centered Care

### **LIFE, LET'S LIVE IT! ACHIEVING A PERSON CENTRED CARE FRAMEWORK IN A SECURE RESIDENTIAL ENVIRONMENT FROM COMMISSIONING TO CAPACITY AND BEYOND.**

Peter Bewert <sup>1,\*</sup>

<sup>1</sup>The Salvation Army Aged Care Plus, Sydney, Australia

**Are you submitting a scientific or non scientific abstract?:** Non Scientific

**Objectives:** At The Salvation Army Aged Care Plus (TSAACP) we are inspired by the message of Christ - our mission is to serve all Australians in practical and tangible ways. Each of us has a heart for people; a deep and powerful need to care for others. This presentation will focus on our model for families admitting their loved ones into a newly commissioned residential service.

The Person Centred approach within our memory support units ensures that residents who require a secure environment as a result of significant cognitive impairment are cared for in a manner which is holistic, provides opportunity to stimulate the senses and evokes a calming atmosphere. Our model and framework is focussed on individualistic needs of residents and attitudes of staff operating within a family / community framework. Specifically the key success factors are

- Initial set-up, training and mentoring of staff is critical and should be self-sustaining, (i.e. positive role-modelling at the ground level, education and setting standards of care and expectations re staff behaviour which creates a positive culture of care)
- Continuity of staff encourages staff engagement. Staff feeling valued in their role is a key component to resident and representative satisfaction and quality of life.
- Staff attitude – staff demonstrate a high level of respect for residents resulting in tangible physical, emotional and spiritual outcomes for residents.
- A high awareness of individual residents' needs and resulting behavioural responses by staff towards residents increases the bond of trust and co-operation, whilst . meeting a deep emotional need for residents.
- The creation of a homely, emotionally and physically safe environment which is individualistic in nature.
- Involvement and inclusion of relatives in the day-to-day running and activities of the unit.
- High levels of activities and the opportunity for residents to engage in familiar every day activities via sensory areas

This presentation will elaborate on the model demonstrating how we have achieved engagement, positive culture and promotion of well-being in a secure dementia care environment.

**Disclosure of Interest:** None Declared



## OC007

**Date:** Friday 2 May 2014

**Session:** New and Future Treatments

### COGNITIVE INTERVENTION THROUGH SAIDO LEARNING: A TREATMENT FOR DEMENTIA

Sheryl L. Sereda<sup>1</sup> Deborah Hiller<sup>2</sup> Denise Gannon<sup>3</sup> Michelle Antonczak<sup>4</sup> Shinji Ito<sup>5</sup> Hiroshi Otake<sup>6</sup> Katsuki Nakamura<sup>7</sup> Masato Taira<sup>8</sup> Ryuta Kawashima<sup>9</sup> Stephanie Fallcreek<sup>10</sup>

<sup>1</sup>Advancement, <sup>2</sup>President, <sup>3</sup>Operations, <sup>4</sup>SAIDO Learning, Eliza Jennings, lakewood, United States, <sup>5</sup>Kuman Learning Therapy Center, Kumon Educational Japan, <sup>6</sup>Kumon Learning Therapy Center, Kumon Educational Japan, Tokyo, <sup>7</sup>PRI, Kyoto University, Kyoto, <sup>8</sup>Tokyo Medical and Dental University, Tokyo, <sup>9</sup>IDAC, Tohoku University, Sendai, Japan, <sup>10</sup>Fairhill Partners, Cleveland, United States

**Are you submitting a scientific or non scientific abstract?:** Scientific

**Objectives:** To examine beneficial effects of SAIDO Learning on older adults with cognitive impairment.

**Methods:** SAIDO Learning, a non-pharmaceutical intervention/treatment of older adults, 30-minutes, 5 times/week. The study included 23 residents in one community diagnosed with mild to moderate dementia, the intervention group; 24 residents from another community, the control group. Data of 19 & 20 subjects of intervention & control groups respectively, who completed outcome measures before & 6 months after intervention, were analyzed. Written informed consent was obtained for each. The study, approved by the Western Institutional Review Board, WIRB20110249-1123505. Residents of both communities received the same nursing care except for SAIDO Learning for the intervention group.

**Results:** After 6 months, intervention subjects had statistically significant improvement in cognitive function measured by MMSE, Mini-Mental State Examination & FAB, frontal assessment battery at bedside. MMSE scores of control subjects significantly decreased over the same period. The difference between the intervention & control groups was statistically significant. FAB scores of control subjects did not change, but the difference between the intervention & control groups was statistically significant. We observed the restoration of mental status and mood. After 6 months of SAIDO, intervention subjects demonstrated control of memories, remembered staff names and things from the past. They demonstrated self-motivation, a desire to help with activities leading to increased independence with ADLs. As caregivers learned to support residents' progress and look for successes, they set individual goals for improvement based on residents' abilities. Staff noted the correlation between improved pre-frontal cortex function & improved ADLs, empowering them to communicate observations in monthly team meetings.

**Conclusion:** Results indicate cognitive intervention through SAIDO Learning is effective & useful for dementia care.

**Disclosure of Interest:** None Declared

## OC008

**Date:** Friday 2 May 2014

**Session:** New and Future Treatments

### **BUPROPION USE IN DEPRESSION SYMPTOMS WITH OR WITHOUT APATHY IN DEMENTIA**

Daniel Dachesky<sup>1,\*</sup>

<sup>1</sup>Psychiatric Department, School of Medicine National University, Rosario; Argentina, Rosario, Argentina

**Are you submitting a scientific or non scientific abstract?:** Scientific

**Objectives:** Affective symptoms seen in Alzheimer's disease, involved a faster and more unfavorable evolution, and a considerable therapeutic problem. Within the same clinical manifestations we have to distinguish; by its importance in the evolution the presence of depression, apathy and/or depression with apathy. We evaluate the use of dopaminergic drugs recommended by neurobiological foundations in patients with Alzheimer's disease who suffer depression/apathy states or just apathy.

**Methods:** 50 patients included in this naturalistic and open study for 6 months over 65 years old, diagnosed with Alzheimer's disease, vascular dementia, or other forms of neurodegenerative dementia types except post traumatic forms and/or infectious and structured interview diagnosis with the Mini-International Neuropsychiatric interview (MINI). All had chronic or subacute symptoms, and a score equal to or greater than 21 on the Hamilton Depression Scale. Assessed at 30, 90 and 180 days with HMM-D, the Apathy Inventory, and Yesavage Geriatric Depression Scale. We used just bupropion dose of 150 mg, during the study period.

**Results:** Final scores of the HAM-D were 9.19 reduction of 58.34% from starting for patients who had symptoms of depression and apathy, and 11.9 for patients with just apathy 4.66 for final average for patients for Y-GDS for the mixed group (start point on 13.5) reduction of 65.48% and 5.9 for patients only with apathetic features with a difference of 56.29. Values for AI, from a 24.8; were 11.2 reduction of 54.83% for mixed patients, and 8.1 reduction of 67.33 %.

**Conclusion:** It's obviously clear that a communication such as this, that naturalistic perspective not intended to eliminate the technical and methodological limited rigor of this work but clearly expresses positive relationship from the viewpoint of therapeutic dopaminergic / noradrenergic drugs for symptomatological cores in dementias with marked specificity for response on components related apathy.

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**Disclosure of Interest:** None Declared





## OC009

**Date:** Friday 2 May 2014

**Session:** New and Future Treatments

### **IN VITRO STUDY TO ASSESS THE POTENTIAL OF SHORT CHAIN FATTY ACIDS (SCFA) AS THERAPEUTIC AGENTS FOR ALZHEIMER'S DISEASE (AD)**

WMADB M. A. D. B. Fernando <sup>1</sup>, Stephanie R. Smith <sup>1</sup>, Ian Martins <sup>1</sup>, Ralph Martins <sup>1</sup>

<sup>1</sup>Medical Sciences, Edith Cowan University, Joondalup, Australia

**Are you submitting a scientific or non scientific abstract?:** Scientific

**Objectives:** A diet rich in fibre has components which are possibly advantageous for improved cognitive performance. Such a diet is characterised by high consumption of vegetables, legumes, fruits, and cereals and unsaturated fatty acids; evidence suggests that diets rich in fibre reduce the associated risk factors of AD via formation of short chain fatty acids (SCFAs). SCFAs are 2-carbon (C2) to 5-carbon (C5) weak acids; mainly acetate (C2), propionate (C3), and butyrate (C4).

Our understanding of how fibre intake might influence biomarkers (tau/ A $\beta$ ) of Alzheimer's disease (AD) is limited. This project was aimed to address this significant knowledge gap by examining the capacity of SCFAs to modify the levels of A $\beta$  at cellular level.

**Methods:** Human hepatocellular liver carcinoma cells (HepG2 cells) were treated with SCFAs and A $\beta$ . Cells were treated with different concentrations of A $\beta$  and SCFA (Acetate, butyrate, propionate) for 48 hours. A significant decrease in A $\beta$  levels and A $\beta$  aggregation was observed by Western blot and ThT assay respectively, in cells treated with SCFAs compared to cells without SCFA treatment:

**Results:** A $\beta$  levels measured in cell lysate and medium were reduced by 60-70%. This reduction in A $\beta$  levels was most pronounced with butyrate treatment (10mM). Aggregation was reduced by 60-70% by Butyrate. Cellular morphology was also monitored by microscopy each day and cells appeared healthier after treatment with SCFA and amyloid beta for 48 hours. This observation was supported by the results of MTS cell viability assays.

**Conclusion:** The results of our in vitro experiments suggest that SCFAs have the potential to reduce A $\beta$  levels in cells. Further, inhibition of the aggregation of A $\beta$  indicates the potential of reduction of A $\beta$ -mediated toxicity under in vitro conditions. The next step is to confirm these results in an in vivo setting using an animal model of AD. Therefore, a small pilot study using a transgenic mouse model of AD (5XFAD) will be carried out

**Disclosure of Interest:** None Declared

## OC010

Date: Friday 2 May 2014

Session: New and Future Treatments

### A NON-TOXIC ISONIAZID-DERIVED HYDRAZONE EFFECTIVELY DISRUPTS COPPER AND ZINC INTERACTIONS WITH THE AMYLOID- PEPTIDE: IMPLICATIONS FOR AD TREATMENT

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Are you submitting a scientific or non scientific abstract?: Scientific

**Objectives:** Metal-protein attenuating compounds (MPACs) are an emerging class of therapeutic agents for the treatment of neurodegenerative disorders, leading to restoration of metal homeostasis and decreased oxidative stress, reversing or slowing disease progression. MPACs compete with the A $\beta$ -peptide for binding with redox-active metal ions, preventing A $\beta$  oligomerization. In this context, we aimed to evaluate certain biological effects of a novel Isoniazid-based MPAC.

**Methods:** <sup>1</sup>H, <sup>15</sup>N and <sup>1</sup>H x <sup>15</sup>N bidimensional NMR experiments involving the interaction between A $\beta$  and zinc or copper were carried out. *In silico* pharmacological analyses were conducted to evaluate theoretical pharmacological and pharmacokinetic compound characteristics. The toxicity of the compound was investigated by injecting male Wistar rats with 300 mg/kg of the compound, intramuscularly (IM) and intraperitoneally (IP). Rats were sacrificed after 72 h. Metallothionein (MT), reduced glutathione (GSH) and physiological metal levels in the brain were analyzed.

**Results:** The NMR experiments demonstrated that, although this compound does not interact directly with A $\beta$ , it competes effectively with this peptide for Zn<sup>2+</sup> and Cu<sup>2+</sup>. The *in silico* pharmacological analyses show that the Lipinski parameters are in accordance with ideal values and that the compound is able to pass the hematoencephalic barrier. Theoretical comparisons with over 3000 commercial drugs also showed this compound to be completely atoxic. No rats died during the experiment and no behavioral alterations were verified. Brain MT and GSH levels remained statistically the same in the control and the injected animals. A slight reduction in Zn, Cu and Fe levels was observed.

**Conclusion:** This compound inhibits the interaction of A $\beta$  with biometals by a mechanism that probably involves metal ion sequestering. It is not toxic in concentrations up to 300 mg/kg, as predicted by the *in silico* pharmacological analyses. IM and IP injections show the same results concerning the analyzed biochemical parameters. In sum, the results indicate that this hydrazone is an excellent candidate for further pharmaceutical trials.

**Disclosure of Interest:** None Declared



## OC011

**Date:** Friday 2 May 2014

**Session:** New and Future Treatments

### **PEOPLE WITH DEMENTIA AND ROBOTIC ASSISTANCE SYSTEMS – TWO ‘AGENTS’ ON THE MARGINS OF SOCIETY?**

Thomas Beer<sup>1,\*</sup> on behalf of EmoRobot and Prof. Dr. Helma Bleses, Sven Ziegler

<sup>1</sup>Nursing , University of applied Sciences, St. Gallen, Switzerland

**Are you submitting a scientific or non scientific abstract?:** Non Scientific

**Objectives:** Exemplified by the EmoRobot Project, this paper will discuss if social interaction between people with dementia and robotic assistance systems is visible and to what extent a social reality can be generated between these two agents on the margins of society. Caring for people with dementia has gained enormous importance in social and scientific discussions. Nevertheless, a complex marginalization of the dementia phenomenon is observable. So far, robotic systems have rarely received attention in nursing research concerning dementia care. Scientific discussion about robotic assistance systems is focussing preferably on service-robots, assuming routine activities beyond direct nursing care. Descriptions only incidentally mention that they can also have entertaining functions. The Project investigates robotic assistance systems as a supporting function for people with dementia in different disease states. It seeks to determine if and how robotic assistance systems that can also stimulate emotions are perceived by people with dementia. The project is designed as a *qualitative experiment* and recurs on multimethods ethnography. Data analysis will follow the principles of hermeneutic sociology of knowledge. An important point of reference for the Project is the concept of "...social periphery". It is addressed in two ways. Firstly, robotic assistance systems are not living beings in a biological sense, but technological agents, as they are called in technosociological contexts, and people can interact with them. Secondly, people with dementia, though in the centre of multiple discourses, find themselves at the edge of society. This is apparent in a changed way of communication and unusual patterns of interaction. The way people with dementia express themselves can be difficult to recognize as a form of communication. Even if their communicative competence remains, logic and points of reference are different from usual standards of social interaction. By means of reflections and first empirical results it will be shown how social interaction between people with dementia and robotic assistance systems can be made visible and which methodological approaches could be helpful. On the basis of current research it is necessary to reflect, to what extent the existing methodological repertoire permits to recognize and to make accessible social patterns of action in this highly special constellation.

**Disclosure of Interest:** None Declared

## OC012

**Date:** Friday 2 May 2014

**Session:** New and Future Treatments

### KETONES AS AN ALTERNATIVE FUEL FOR THE BRAIN IN ALZHEIMER'S DISEASE AND OTHER DISORDERS

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**Are you submitting a scientific or non scientific abstract?:** Scientific

**Objectives:** The low carbohydrate, high fat ketogenic diet, mimics starvation, elevates ketones, and has been used successfully to treat epilepsy for nearly a century. A key feature of Alzheimer's disease is insulin deficiency and insulin resistance, resulting in a progressive decrease in glucose uptake in the brain. Work by Stephen Cunnane and others using back-to-back brain FDG-PET and acetoacetate ketone-PET scans demonstrate areas with poor glucose uptake have normal ketone uptake in Alzheimer's patients, supporting the potential of therapeutic ketosis for Alzheimer's.

**Methods:** Besides the ketogenic diet, other methods of elevating ketones include consumption of medium chain triglycerides (MCT) as coconut oil or MCT oil and vigorous sustained exercise, which typically produce only low levels

**Results:** Small studies demonstrate cognitive improvement in a significant number of people consuming the MCT tricaprylic acid, with larger studies in progress. An abundance of anecdotal reports of improvement with MCTs and an AD model animal study demonstrating significant improvement in motor function with an MCT rich ketogenic diet led to a pilot study of coconut and MCT oil at the Byrd Alzheimer's Institute at University of South Florida. A pilot study of beta-hydroxybutyrate ketone ester in mild to moderate AD is in progress at Oxford, England.

**Conclusion:** The evidence to date suggests that therapeutic ketosis is a promising metabolic therapy for AD.

**Disclosure of Interest:** None Declared



## OC013

**Date:** Friday 2 May 2014

**Session:** Dementia Friendly Communities

### PUTTING PEOPLE WITH DEMENTIA AT THE HEART OF DEMENTIA FRIENDLY COMMUNITIES

Gaynor Smith <sup>1</sup>Jeremy Hughes <sup>1,\*</sup>

<sup>1</sup>Alzheimer's Society, London, United Kingdom

**Are you submitting a scientific or non scientific abstract?:** Non Scientific

**Objectives:** Towns, cities and villages across the England are now seeing what they need to do to become dementia friendly, recognising the need to act and change in order to better support people with dementia. In order for dementia-friendly communities to succeed, the views and opinions of people with dementia and their carers must be at the heart of any considerations. Our presentation will focus on:

The reasons for positive engagement at the beginning include:

- Ensure you are focusing on the right issues
- Gives work credibility
- Organisations will know how to improve their services
- A strong voice – driver for change
- A positive and empowering experience for people with dementia
- The ways in which people with dementia can help shape priorities locally
- People with dementia can help by raising awareness and telling you what is already working in the community to support them and what can be improved
- Ensuring that resources are prioritised to address issues that have the biggest impact on people's daily lives - local priorities will vary - communities are unique
- People with dementia can share their experiences with local staff to bring about the desired changes (hearing people's stories - a powerful lever for behaviour change)

Ways you can support involvement

- Involve people with dementia as early as possible
- Work with community organisations to involve a wide range of people
- Provide a range of involvement opportunities
- Provide the right support to enable people with more advanced dementia to be involved
- Examples positive examples of involvement

**Disclosure of Interest:** None Declared

## OC014

**Date:** Friday 2 May 2014

**Session:** Dementia Friendly Communities

### WORK TASK OF THE “PROXIDEM” SPECIAL DEMENTIA AGENT IN THE VIADEM COMMUNITIES

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**Are you submitting a scientific or non scientific abstract?:** Scientific

#### Objectives:

- To encourage the integration of the person with dementia within the community
- To create a dementia friendly surrounding for people with dementia
- To make known his/her function to each person concerned by dementia
- To listen to people and to provide updated information and help
- To develop a 36Dementia-agents (Proxidem) network, via the network ViADem

#### Methods:

- The 36Proxidem Agent is already an agent paid by the community as a social worker
- The community for which he/she works must sign a convention with La Ligue Alzheimer ASBL to prove its willingness and engagement in a long term union and action for dementia
- The 36Proxidem Agent will follow a three-day training session. Offered by La Ligue Alzheimer ASBL, the session will be dedicated to themes such as: the diseases medical aspects; the legal, ethical and administrative issues; the daily life of the disoriented person and his/her relatives; communication and psycho-social accompaniment of the person with dementia

**Results:** Being a ‘Proxidem Agent’ means searching information, observing and analyzing the environment so that people in each commune have the answers to their questions. Listening is an important part of the job but the ‘Proxidem Agent’ must also meet the persons to be able to give adapted responses to each situation. Finally, the ‘Proxidem Agent’ is here to support demanding people, while keeping at a maximum the autonomy and the possibility to live with dignity.

Those ‘Proxidem Agent’ are part of a larger scale objective which is founding Dementia Friendly Cities, a network of cities that hold and develop activities related to Alzheimer’s disease (training sessions ‘Circle of Care’; Alzheimer Cafés; home assistance to caregivers ;...) in consultation with La Ligue Alzheimer ASBL.

**Conclusion:** Since 2008, La Ligue Alzheimer ASBL creates and establishes this specific network everywhere in the French-speaking Community of Belgium. La Ligue wants as many communes as possible to be covered, so that a professional from a similar background (in terms of hometown) can guide people with dementia and their caregivers, and provide them with adapted information. La Ligue Alzheimer ASBL is moreover willing to optimize existing services.

By doing so, la Ligue Alzheimer ASBL takes a step further in its willingness to normalize the vision of the Alzheimer’s disease.

**Disclosure of Interest:** None Declared

*\*The presenting author of this abstract is now Kate Gordon*





## OC016

**Date:** Friday 2 May 2014

**Session:** Dementia Friendly Communities

### GENERAL KNOWLEDGE OF DEMENTIA-FRIENDLY CITY IN SLOVENIA – A PILOT STUDY

Zlata Felc<sup>1,\*</sup>

<sup>1</sup>Association of Western Styrian Region for the Help at Dementia 'Forget-me-not' Šentjur, Slovenia

**Are you submitting a scientific or non scientific abstract?:** Scientific

**Objectives:** In dementia-friendly cities people are aware of and understand more about dementia, people with dementia and their carers are encouraged to seek help and support and people with dementia feel included in their community so they are more independent and have more choice and control over their lives. Important mission at Slovenian Association of Western Styrian Region is the Help at Dementia »Forget-me-not« Šentjur is to encourage the integration of people with dementia within the dementia-friendly city. The objectives of this study were to investigate how much Slovenian community knows about dementia-friendly city.

**Methods:** Fifty seven adult Slovenian e-mail users participated in a survey using a questionnaire consisting of 4 demographic items and 8 dementia knowledge items (June 20, 2013 - October 28, 2013). Questionnaires were filled-out by 17 carers of people with dementia, and 40 others. Categorical data were compared by chi2 analysis, and P-value <0,05 was considered statistically significant.

**Results:** Carers of people with dementia were more knowledgeable and other adults were the least knowledgeable on the subject of dementia-friendly city. Differences in responses between carers of people with dementia and other adults are shown in order of significance: (a) In dementia-friendly city all people, especially in public organizations know about Alzheimer's dementia, understand people with Alzheimer's disease and respond with affection and reassurance« (64.7 % v. 22.5 %; chi2 7.439; P<0.01); and (b) In dementia-friendly city people with dementia have opportunity to meet friends and socialise and to take part in singing, walking, and education« (35.3 % v. 7.5 %; chi2 4.932; P<0.05).

**Conclusion:** Although small sample sizes, the results suggest that Slovenian adults are not knowledgeable enough about dementia-friendly city. Nobody of participants mentioned that more people are diagnosed earlier in the disease process, and are cognitively able to share their own experiences. Urgent action is required to encourage the governments to work with national associations for help at dementia towards the development and implementation of dementia-friendly cities.

**Disclosure of Interest:** None Declared

## OC017

**Date:** Friday 2 May 2014

**Session:** Dementia Friendly Communities

### **IMPLEMENTING CHANGE IN A SPECIAL CARE UNIT ENVIRONMENT - A PRACTICAL GUIDE TO TRANSFORMATION**

Gwendolyn De Geest<sup>1,\*</sup>

<sup>1</sup>Nursing Professor, Living Dementia Consulting, Victoria, Canada

**Are you submitting a scientific or non scientific abstract?:** Non Scientific

#### **Objectives:**

1. Introduce the Person-Centered Environment Model
2. Identify obstacles to embracing this model
3. Analyze the steps to achieving the Person-Centered Environment Model

#### **Methods:**

1. Power Point presentation
2. Facilitated lecture
3. PowerPoint hand-outs
4. Photographs of setting
5. Interactive discussion

**Results:** In this session learners will be introduced to a cultural transformation that has taken place in a Special Care Unit, housing 36 elders diagnosed with Alzheimer's disease and related dementias. The Model of Care will be outlined, enhancing both the lives of the person with dementia and their care partner. Key assumptions and Key recommendations for pursuing a person-centered model will be discussed, as well as how to promote Sustainability and Accountability of this Model of Care.

**Conclusion:** In dementia care, we are undergoing the task of cultural transformation. In order for a home to be a nice place to live, it must also be a nice place to work. Studies have shown that one of the best treatments for persons with dementia lies in the environment; it should be neither over stimulating nor understimulating. This session proposal will illustrate a Model of Care that modifies the environment for persons with dementia and also for the staff working there.

This Model of Care will illustrate that person-centered care is not something we do, but something we feel.

**Disclosure of Interest:** None Declared



## OC018

**Date:** Friday 2 May 2014

**Session:** Dementia Friendly Communities

### THE JOURNEY TO DEMENTIA - FRIENDLY FINANCIAL SERVICES

Karishma Chandaria<sup>1,\*</sup> Jeremy Hughes<sup>1</sup>

<sup>1</sup>Alzheimer's Society, London, United Kingdom

**Are you submitting a scientific or non scientific abstract?:** Non Scientific

#### Objectives: Creating dementia friendly financial services

Everyday people living with dementia tell us that one of the biggest challenges they face is dealing with banks, building societies and insurance companies. Access to financial services is a fundamental aspect of life that most of us take for granted but one that is fraught with difficulties for those with dementia. In 2011 the Society undertook ground breaking research to explore problems faced by people with dementia and carers in the UK, both in terms of money management. 'Short- Changed: Protecting people with dementia from financial abuse, some of the key recommendations that came out of the research included:

- Ensuring that banking systems are better equipped to support people with dementia and carers to manage money safely:
- The powers of the Mental Capacity Act should be consistently applied across all banks and financial institutions
- Banks must train staff to recognise signs of dementia so they can identify people who may need extra support
- The need to raise awareness about financial planning and general money management in people with the condition and carers

In March 2012, David Cameron announced his Challenge on dementia, pledging to help the UK become a world leader on dementia care and research. He launched three 'Champion groups', including one focused on increasing public understanding of dementia and making communities more dementia friendly, including organisations from across a variety of sectors, including financial services.

Three of the members of this group Lloyds Banking Nationwide and Aviva and Alzheimer's Society Ambassador, Trevor Jarvis, saw an opportunity to take forward the recommendations highlighted in 'Short- Changed, by developing a 'Dementia Friendly Financial Services charter', which is aimed at establishing what needs to be done by financial institutions to improve their service offer to people with dementia and their carers. The goal of the charter is to create consistency in the way financial service organisations treat customers with dementia by ensuring that organisations have measures in place to:

- Recognise the signs of dementia
- Understand the impact of dementia with regard to financial services
- Respond appropriately to customers with dementia

The development of the charter involved over 24 financial service organisations and was launched at an event on 30 October involving over 30 financial service organisations.

**Disclosure of Interest:** None Declared

## OC019

**Date:** Friday 2 May 2014

**Session:** Living With Dementia

### **LIVING BEYOND THE STIGMAS ASSOCIATED WITH THE VARIOUS FORMS OF DEMENTIA**

Richard Taylor<sup>1,\*</sup> and co founder Meeting of the Minds, founder of dementia networks

<sup>1</sup>I am currently unaffiliated, retired, Cypress, United States

**Are you submitting a scientific or non scientific abstract?:** Non Scientific

**Objectives:** Everyone talks about the stigmatization of persons living with the symptoms of the various forms of dementia. Exactly what is a stigma? Exactly what are the specific stigmas that are associated with the diagnosis of dementia, probably of this or that type?

How do they impact relationships, self esteem, communication, day to day living, the future/past/and present, and professionals' services? How can their influence be diminished in our hearts, minds, and daily lives? Exactly what must an individual do to minimize/eliminate the role stigmas play in her/his thinking, feelings, and day to day behavior? You will hear my own strategies plus some of the successful and unsuccessful strategies of the hundred of persons living with the symptoms of dementia I have spoken to and listened to over the past ten years. You will have the opportunity to learn from the experiences of many who have already "been there and done that": sometimes resulting in more fears about today and tomorrow, sometimes with fewer fears.

**Disclosure of Interest:** None Declared



## OC020

**Date:** Friday 2 May 2014

**Session:** Living With Dementia

### **NON-PHARMACOLOGICAL INTERVENTIONS: ONE PATIENTS JOURNEY**

Kate Swaffer<sup>1,\*</sup>

<sup>1</sup>University of South Australia, Adelaide, Australia

**Are you submitting a scientific or non scientific abstract?:** Non Scientific

**Objectives:** This presentation will discuss the change in attitude and practice of health care professionals towards the prescription of non-pharmacological interventions for dementia. At ADI2012 I presented on the non-pharmacological interventions I was using for the management of a diagnosis of younger onset dementia. At this time the global use of these types of interventions was unpopular due to the lack of clinical and evidence based research supporting them and my presentation received little professional credence. My own health care provider was also not interested in what I was doing, although was becoming confounded about how and why my 'output' was not aligned to my clinical picture. At ADI2013 in Taipei, during the final session titled 'Will there be a cure in 2025', both speakers, current highly recognised world researchers in the field of dementia clearly indicated there would not be. Then, the final speaker discussed non-pharmacological interventions for dementia, stating clearly that doctors were doing their patients a disservice if they were not offering them, and that they may not be a cure for dementia, but can help to significantly improve well-being and quality of life. Following authentic brain injury rehabilitation and a number of other non pharmacological interventions, my own neurologist now offers his dementia patients access and support for non pharmacological interventions, and my NeuroPhysiotherapist, also a senior lecturer, has added rehabilitation for dementia into his Masters of Physiotherapy course at Flinders University in South Australia. Finally, I will represent the non pharmacological interventions being used, and how they support living well with a diagnosis of dementia.

**Disclosure of Interest:** None Declared

## OC021

**Date:** Friday 2 May 2014

**Session:** Public Health Initiatives

### **GATEWAY TO RURAL INTERNATIONAL INITIATIVES IN DEMENTIA (GRIID): CONNECTING SERVICES INTERNATIONALLY**

Peter Birkett<sup>1</sup> David Edvardsson<sup>2</sup> Anthea Innes<sup>3</sup> Amit Dias<sup>4</sup> Debra Morgan<sup>5</sup>

<sup>1</sup>Hesse Rural Health, Winchelsea, <sup>2</sup>Clinical School of Nursing, Latrobe University, Melbourne, Australia, <sup>3</sup>University of Bournemouth, Bournemouth, United Kingdom, <sup>4</sup>Goa Medical College, Goa, India, <sup>5</sup>University of Saskatchewan, Saskatchewan, Canada

**Are you submitting a scientific or non scientific abstract?:** Non Scientific

**Objectives:** Rural life demands innovation. Without easy access to other services or professionals, rural people must find their own solutions to problems they encounter. Around the world, there are examples of innovative dementia care service initiatives in rural areas. However, these are often fragmented, neither shared nor known, but have potential for cross-contextual adoption, development and evaluation. Worldwide engagement, however, requires a worldwide platform. Whilst there is a growing body of research focussing on rural dementia care, there is a need for instant access to evidence and best practice so that practitioners, educators, service commissioners, and academics can build on the work of others in their specific country or regional context.

This presentation will outline the formation of an international special interest collaboration focussing on rural dementia service initiatives and report on its research findings from a worldwide survey disseminated through Alzheimer's Disease International to its 73 member countries. The findings highlight expressed demand and benefits of having a web based platform to connect rural dementia best practice initiatives and research.

Following the survey outcomes the Gateway for Rural International Initiatives in Dementia (GRIID) collaboration has created a web-based pathway to connect rural dementia initiatives across the world, enabling the sharing of ideas and define the importance of rurality in the care for people with dementia.

**Disclosure of Interest:** None Declared





## OC022

**Date:** Friday 2 May 2014

**Session:** Public Health Initiatives

### **ALZHEIMER DISEASE AS LEADING AND UNDERLYING CAUSE OF DEATH IN PUERTO RICO 2000-2008**

Ana-Luisa Davila<sup>1</sup>, Enid Rodríguez, Zaira Y. Rosario<sup>1</sup>

<sup>1</sup>Program of Demography, University of Puerto Rico, San Juan, Puerto Rico

**Are you submitting a scientific or non scientific abstract?:** Scientific

**Objectives:** The objective of this paper is to identify Alzheimer's disease as primary or underlying cause of death in Puerto Rico in the death certificate for the period of 2000-2008. The research also included the socio-demographic characteristics of deceased who had Alzheimer's disease as the primary or underlying cause of death in Puerto Rico during this same period.

**Methods:** All death certificates in Puerto Rico that reported Alzheimer's disease as primary or underlying cause of death in Puerto Rico during the 2000-2008 were included in this study. Two sources of information were used for analysis, the files of multiple causes of the National Center for health statistics (NCHS, in English), and the Mortality files of the Department of Health

**Results:** Between 2000 and 2008, 10,551 deaths were registered with Alzheimer's disease as major cause of death and 4,845 deaths as underlying cause of (National Center for health statistics, NCHS). Mortality of Alzheimer's disease as a major cause of death doubles mortality of Alzheimer's disease as underlying cause. Women adjusted mortality rates of both major and underlying cause of death were higher than men's. Of deceased that suffered from Alzheimer's in the 33.3 per cent of cases are registered with other disease as the leading cause of death.

**Conclusion:** Alzheimer's disease is under registered even if in 2008 even if the disease is the fourth leading cause of death in Puerto Rico. It is important to train physicians to distinguish Alzheimer's disease and dementia and to consider the disease also as an underlying cause if patients suffer from another major disease.

**Disclosure of Interest:** None Declared

## OC023

**Date:** Friday 2 May 2014

**Session:** Public Health Initiatives

### CARE FOR PEOPLE WITH DEMENTIA IN THE COMMUNITY – THE DEMNET-D-STUDY

Karin Wolf-Ostermann<sup>1,\*</sup>Johannes Gräske<sup>1</sup>Saskia Meyer<sup>1</sup>Bernhard Holle<sup>2</sup>Susanne Schäfer-Walkmann<sup>3</sup>Jochen R. Thyrian<sup>4</sup>

<sup>1</sup>ALICE SALOMON UNIVERSITY, Berlin, <sup>2</sup>German Center for Neurodegenerative Diseases (DZNE), Witten, <sup>3</sup>Baden-Wuerttemberg Cooperative State University, Stuttgart, <sup>4</sup>German Center for Neurodegenerative Diseases (DZNE), , Rostock/ Greifswald , Germany

**Are you submitting a scientific or non scientific abstract?:** Scientific

**Objectives:** Worldwide great efforts are directed to support PwD and their relatives in their own living arrangements since the number of people with dementia (PwD) is growing rapidly. In Germany, local associations of different stakeholders (community care services, medical doctors, therapists, hospital facilities, self-help organizations, local authorities, etc.) are engaged in providing multiprofessional care and support for PwD in the community. However, these dementia care networks (DCN) are not implemented systematically or nationwide and differ in many ways, i.e. regionally. Empirical findings of health outcomes of PwD supported by DCN are lacking yet.

In our study, we therefore survey health related outcomes of PwD supported by 13 DCN all over Germany in order to raise knowledge about useful structures of DCN and to prove effectiveness in terms of organizing better support for PwD and their relatives.

**Methods:** In a longitudinal study (2012-2015) health related outcomes of n=563 PwD are evaluated by standardized interviews. Besides socio-demographic and illness-related variables special interest is directed to quality of life (QoL-AD), depression (GDS) and social participation (SACA)

**Results:** The participating DCN are located all over Germany geographically covering more than 5 million residents in urban as well as rural areas. First results of the baseline survey show that more than half of the participants (56.7%) are female with a mean age of 79.7 years. Nearly all participants (88.6%) have a medical diagnosis of dementia and suffer a moderate depression (86.3%). Self-reported QoL for PwD is moderate and higher than proxy-rated QoL (mean: 33.4 vs. 28.6). Reported social participation of PwD is high (mean: 24.4). Detailed results of the baseline survey on outcomes of PwD will be presented at the conference.

**Conclusion:** Our results will give detailed information on community-dwelling PwD all over Germany and as well shed some light on the question how to improve care and social participation of PwD.

**Disclosure of Interest:** None Declared



## OC024

**Date:** Friday 2 May 2014

**Session:** Public Health Initiatives

### **THE CUBAN'S NATIONAL DEMENTIA STRATEGY: IMPLICATIONS FOR THE SCIENTIST COMMUNITY, PUBLIC HEALTH AND CUBAN SOCIETY.**

Juan D. J. Llibre Rodriguez <sup>1</sup>, Rodolfo Bosch <sup>2</sup>, Carmen Moreno <sup>1</sup>, Tania Zayas <sup>1</sup>, Milagros Guerra <sup>1</sup>

<sup>1</sup>Alzheimer's Centre, Medical University of Havana, <sup>2</sup>Alzheimer's Centre, Medical University, Havana, Cuba

**Are you submitting a scientific or non scientific abstract?:** Non Scientific

**Objectives:** Cuba is a developing country with a population which is currently undergoing rapid demographic ageing and epidemiological transition. Dementia is overwhelmingly and consistently the largest contributor to disability in elderly people and among health conditions, dementia is the major contributor to dependency and caregiver economic and psychological strain.

The prevalence of dementia in the older Cuban population is high between 6.4 y 10.2 %, it means 130 000 people suffers, which constitutes 1.1 % of the Cuban population, and the figure increases to 260 000 people in 2030. The overall age-standardized incidence rate is also high 21 per 1,000 persons over 65 years per year. This means 28,750 new cases of dementia per year in Cuba.

The Cuban's National Dementia Strategy has been developed under the auspices of The Older Age and Social care Department of Public Health Ministry and the Cuban Section of Alzheimer's Disease.

Their objectives focused on the following key topics:

- Promoting broad public awareness and education of Alzheimer's and combating stigma
- Developing dementia capable support services at all stages of the disease
- Earlier diagnosis and intervention
- Dementia training
- Assessing and improving the quality of health care, social care and long-term care support and services
- Caregiver support policies
- Improve physician practice
- Public health efforts to conduct surveillance and promote brain health

**Disclosure of Interest:** None Declared

## OC025

**Date:** Friday 2 May 2014

**Session:** Public Health Initiatives

### **PROMOTION OF BRAIN HEALTH THROUGH GRASSROOTS EFFORT – THIRD SECTOR INVOLVEMENT IN FINNISH NATIONAL MEMORY PROGRAMME.**

Kirsti Kuusterä <sup>1,\*</sup>

<sup>1</sup>The Alzheimer Society of Finland, Helsinki, Finland

**Are you submitting a scientific or non scientific abstract?:** Non Scientific

**Objectives:** The Finnish Ministry of Social Affairs and Health launched the Finnish National Memory Programme 2012-2020 in 2012. The programme aims for creating a “memory-friendly” Finland in partnership with public, private and third sector actors. The Alzheimer Society of Finland is responsible for coordinating and accomplishing the parts of the programme that are targeted to the NGOs. Thus until 2020 the local memory associations in Finland are inspired and supported to work towards the national objectives: promoting brain health and fostering more open attitudes, ensuring a good quality of life for people with dementia and their families by demanding and providing timely support, treatment, rehabilitation and services, and utilizing research and education.

In the Finnish National Memory Programme brain health is raised as one of the four main objectives. It is seen as a valuable investment in rapidly ageing society of Finland and a significant human asset. Taking care of memory and cognitive skills, a.k.a. promoting brain health, follows us through our lives as a part of general health promotion, enabling life-long learning and risk groups’ involvement in society, and reducing the work-related stress. The target for year 2020 is that brain health promotion reaches to all sectors of society and people are supported in their efforts to keep their brain healthy.

The Finnish local memory associations have the long traditions of brain health promotion. The best ideas and innovations have now been collected, classified and presented in a tool kit. The entry to the online tool kit is limited to the local associations. The collected ideas range from group activities to lecture series and from school tours to preventive health care cooperation. The collection of ideas works as a valuable tool in itself. In addition, some of the ideas are developed towards national models that will be easily adopted by small and larger associations. The result will be a handful of established and comprehensively documented brain health promotion tools reaching children, working age population and the elderly.

**Disclosure of Interest:** None Declared



## OC026

**Date:** Friday 2 May 2014

**Session:** Public Health Initiatives

### **MASTERY OVER DEMENTIA: THE EFFECTIVENESS OF AN INTERNET INTERVENTION FOR FAMILY CAREGIVERS**

Am Pot<sup>1</sup>, Marco Blom<sup>2</sup>, Judith Bosman<sup>3</sup>, Pim Cuijpers<sup>3</sup>

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**Are you submitting a scientific or non scientific abstract?:** Scientific

**Objectives:** This Randomized Controlled Trial describes the effectiveness of 'Mastery over Dementia' (MoD), a guided self-help internet course for family caregivers of people with dementia (PWD).

**Methods:** All analyses have been conducted according to the intention to treat principle. Missing data on follow-up measurements have been imputed using regression imputation. To examine differences between the outcomes for experimental and comparison group, ANOVA's controlling for baseline differences have been conducted and estimates of effect sizes calculated.

**Results:** Regression analyses showed that caregivers in the experimental group showed significantly lower symptoms of depression and anxiety post intervention, after adjustment for baseline differences in the primary outcome scores and the functional status of the patients with dementia. The effect sizes were moderate for symptoms of anxiety and low for depressive symptoms.

**Conclusion:** The Internet course 'Mastery over Dementia' offers an effective treatment for family caregivers of people with dementia, reducing symptoms of depression and anxiety in the caregivers. The results of this study justify further development of Internet interventions for family caregivers of people with dementia and suggest that such interventions are promising for keeping support for family caregivers accessible and affordable, thus benefitting people with dementia as well. These findings are especially promising because future generations of family caregivers will be more familiar with the Internet.

**Disclosure of Interest:** None Declared

*\*The presenting author of this abstract is now Marco Blom*

## OC027

**Date:** Friday 2 May 2014

**Session:** Dementia Diagnosis and Early Recognition

### SCREENING FOR DEMENTIA - EVIDENCE ON COSTS AND BENEFITS

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**Are you submitting a scientific or non scientific abstract?:** Scientific

**Objectives:** This presentation reports on findings from a study, commissioned by Bupa International and conducted between September 2012 and April 2013, which examined the numbers that could be diagnosed and likely cost-effectiveness of a one-off screen for dementia for people aged 75 in England and Wales (UK).

**Methods:** The study uses decision analytic modelling to explore the numbers of people that could be diagnosed and some of the likely costs and benefits of a one-off screen for people aged 75 years in England and Wales. A rapid review of relevant effectiveness and cost-effectiveness evidence was undertaken using key health, social care and economics databases. Findings from this review informed the development of a simple static, two-armed decision model with estimates for the model drawn from systematic reviews, high quality studies and Government and administrative sources. A panel of experts also advised the study.

**Results:** Overall, we estimated that around 3760 people could be diagnosed as a direct result of a one-off screening programme for people aged 75. Of these, an estimated 2300 would otherwise never receive a diagnosis, with the remaining 1460 diagnosed earlier than they otherwise would be, thus avoiding diagnosis late or at a point of crisis. Estimated cost savings at a societal level, associated with the key recommended interventions for people with dementia and their carers in the UK (NICE, 2006), ranged from between £3 million and £23 million. However, the study was subject to a range of limitations based on lack of availability of good quality data and evidence and a range of potential costs and benefits that could not be included in the modelling.

**Conclusion:** The limitations of the study are discussed and proposals for further research required to make the cost-effectiveness case are considered.

**References:** NICE/ SCIE, 2006, updated 2011, *Supporting People with Dementia and Their Carers in Health and Social Care: NICE Clinical Guideline 42*, NICE.

**Disclosure of Interest:** None Declared





## OC028

**Date:** Friday 2 May 2014

**Session:** Dementia Diagnosis and Early Recognition

### THE GENERAL PRACTITIONER ASSESSMENT OF COGNITION (GPCOG): A SYSTEMATIC REVIEW

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<sup>1</sup>Medicine of the Elderly, St John's Hospital, Livingston, United Kingdom

**Are you submitting a scientific or non scientific abstract?:** Scientific

**Objectives:** Copyright restrictions of the mini-mental state examination (MMSE) have led clinicians to investigate alternative dementia screening tools. A recent review demonstrated a paucity of validation of cognitive tools in inpatients<sup>1</sup>. The GPCOG is a dementia screening tool, including direct cognitive testing and informant reporting<sup>2</sup>. The purpose of this systematic review was to appraise published literature on GPCOG, in particular assessing evidence of validation for inpatient dementia screening.

**Methods:** A Medline and Embase search was conducted using the terms "GPCOG" and "general practitioner assessment of cognition" yielding 20 papers. 12 were included: 5 original research articles and 7 reviews. Exclusion criteria included: study protocols (n=2); inaccessible review articles (n=3) and conference abstracts with insufficient data (n=3).

**Results:** The GPCOG has been validated in an Australian community setting demonstrating a sensitivity of 85% and specificity 86% with a mean time to completion of 4.5 ( $\pm 1.72$ ) minutes. It was faster to administer than the MMSE and performed (nonsignificantly) better <sup>2</sup>. Similar results were seen in Italian and Chinese community populations. In a French inpatient psychogeriatric hospital, specificity was lower (62%) but sensitivity was 96%<sup>3</sup>. No studies have been conducted on general inpatient populations.

**Conclusion:** The GPCOG is rapid and compares favourably to commonly used dementia screening tools. However, it has not been validated in a general inpatient population. Increased rates of delirium and mild cognitive impairment may reduce the specificity of inpatient dementia screening. The inclusion of structured informant review in the GPCOG may prove advantageous in this setting.

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**Disclosure of Interest:** None Declared

## OC029

**Date:** Friday 2 May 2014

**Session:** Dementia Diagnosis and Early Recognition

### **RACIAL AND SEX DIFFERENCES IN ASSOCIATIONS BETWEEN ACTIVITIES OF DAILY LIVING AND COGNITION AMONG COMMUNITY-DWELLING OLDER ADULTS**

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**Are you submitting a scientific or non scientific abstract?:** Scientific

**Objectives:** *Results of MMSE screening continue to be used in primary care in the US to identify early dementia and make inferences about a person's ability to function independently.* This analysis examined the association between function measured by activities of daily living<sup>1</sup>, basic (ADL) and instrumental (IADL), and cognition assessed by MMSE<sup>2</sup> among older African American (AA) and non-Hispanic White (nHW) community-dwelling men and women.

**Methods:** Cross-sectional study conducted in homes of a random sample of 974 AA and nHW Medicare beneficiaries age 65 and older participating in the UAB Study of Aging, excluding those with reported diagnoses of dementia or missing data. We measured function based on self-reported difficulty performing ADL and IADL, cognition using the MMSE, and multivariable, linear regression models to test the association of function and cognition by race and sex-specific groups after adjusting for covariates.

**Results:** MMSE scores were modestly correlated with ADL and IADL in all four race/sex-specific groups with Pearson r values ranging from -0.189 for nHW women to -0.429 for AA men. Correlations of MMSE with ADL or IADL difficulty in any race/sex-specific group were no longer significant after controlling for socio-demographic factors and comorbidity.

**Conclusion:** MMSE is significantly associated with functional difficulty among older AA and nHW men and women. However, these associations are no longer significant after adjusting for socio-demographic factors and comorbidity, suggesting these factors mediate the relationship between cognition and function. *Clinicians should avoid using MMSE as a surrogate measure for function and use appropriate, and ideally observable, measures of function in dementia assessments.*

**References:** 1) Lawton MP, Brody EM. Assessment of older people: self-maintaining and instrumental activities of daily living. *Gerontologist* 1969; 9(3):179-86. 2) Folstein MF, Folstein SE, McHugh PR. Mini-Mental State: a practical method for grading the cognitive state of patients for the clinician. *J Psychiatr Res* 1975;12:189-198.

**Disclosure of Interest:** None Declared



## OC030

**Date:** Friday 2 May 2014

**Session:** Dementia Diagnosis and Early Recognition

### WHO ATTENDS MEMORY SCREENING EVENTS? CHARACTERISTICS OF AFRICAN AMERICANS ATTENDING MEMORY SCREENING EVENTS.

Carey E. Gleason<sup>1,2</sup>, Dorothy F. Edwards<sup>3</sup>, Wade Gunn<sup>3</sup>, Rachel Ramos<sup>1</sup>, Susan Flowers-Benton<sup>4</sup>, Richard Chappell<sup>5</sup>, Gina Green-Harris<sup>1</sup>, Paul Izard<sup>3</sup>

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<sup>4</sup>Rehabilitation Psychology, <sup>5</sup>Biostatistics and Medical Informatics, University of Wisconsin, Madison, United States

**Are you submitting a scientific or non scientific abstract?:** Scientific

**Objectives:** With the goal of improving timely diagnosis of memory disorders in African Americans, we sought to clarify characteristics of African Americans attending memory screening events.

**Methods:** Questionnaires were derived from previously published scales assessing beliefs about memory disorders. 190 African Americans attending social events and 41 African Americans attending memory screenings were surveyed. Logistic regression compared willingness to be screened, willingness to take medication for memory loss, family support for screening, perception of benefit and harm of diagnosis, and experience with dementia, between those attending memory screenings and those at non-health events. Regressions were adjusted for age, education, and income.

**Results:** Individuals attending memory screening events were older, more likely to know someone with dementia, report family and friend support for participation in memory screenings, were more willing to take medication for memory loss, and perceive benefits with diagnosis compared to individuals interviewed at non-health events after adjustment for age, education, and income. The two groups perceived similar risks with a diagnosis.

Table: Odds ratios for attendance at a Memory Screening Event

	Odds Ratio (95% CI)
Age <sup>a</sup>	1.14 (1.08, 1.19)
Education <sup>a</sup>	1.10 (0.93, 1.30)
Income category <sup>a</sup>	1.33 (0.83, 2.12)
Willing to take medication <sup>b</sup>	1.79 (1.00, 3.19)
Family & friend support screening <sup>b</sup>	2.14 (1.07, 4.28)
Perceive benefits of diagnosis <sup>b</sup>	2.85 (1.30, 6.22)
Perceive harms with diagnosis <sup>b</sup>	0.78 (0.37, 1.61)
Know someone with dementia <sup>c</sup>	1.68 (1.03, 2.27)

<sup>a</sup>Obtained from a regression with Age, Education and Income category only

<sup>b</sup>Responses based on 4-point likert scale: 1 (Strongly disagree) to 4 (Strongly agree)

<sup>c</sup>Response options: yes or no

**Conclusion:** These data from a group of African Americans suggest that memory screening attendance could be motivated by social support for memory screening, perception of benefits associated with a diagnosis, an interest in pharmacological treatments for memory loss, and past experience with dementia.

**Disclosure of Interest:** None Declared

## OC031

**Date:** Friday 2 May 2014

**Session:** Dementia Diagnosis and Early Recognition

### **ARE THE WORD MEMORY TEST GENUINE MEMORY IMPAIRMENT PROFILES SPECIFIC TO ALZHEIMER DEMENTIA PROCESSES?**

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**Are you submitting a scientific or non scientific abstract?:** Non Scientific

**Objectives:** The Word Memory Test was developed to detect insufficient effort in neuropsychological assessments. As such it has been widely validated, and Mild Cognitive Impairment (MCI) and dementia samples have been included in its data base. Since seriously impaired patients can fail symptom or performance validity tests such measures must demonstrate a capacity to distinguish among such patients and those with an invalid response set. The Word Memory Test uses a simple mathematical formula to devise a Genuine Memory Impairment Profile (GMIP), which has demonstrated 90-95% specificity in cases diagnosed with dementia. Based on his clinical experience the first author has modified the GMIP (MGMIP) to more properly analyze the profiles of non demented patients deemed to be at higher risk of dementia.

The MGMIP and GMIP have consistently yielded a unique profile that appears to reflect selective vulnerability to semantic interference. Also, memory impaired patients graded according to CDR show similar but progressively more impaired MGMIP, from incipient (non demented) to moderate dementia. Since vulnerability to semantic interference has been specifically associated to AD, WMT results with memory impaired patients suggest that this test's GMIP and MGMIP may be highly specific to AD, a hypothesis that requires much further study.

**Disclosure of Interest:** None Declared



## OC032

**Date:** Friday 2 May 2014

**Session:** Dementia Diagnosis and Early Recognition

### **APOE 4 HAS MILD, NEGATIVE IMPACT ON THE COGNITION OF COGNITIVELY HEALTHY PUERTO RICAN YOUNG-OLDS**

José R. Carrión-Baralt<sup>1,\*</sup>Youssef Ahmad Pereira<sup>2</sup>Jeremy Silverman<sup>3</sup>

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**Are you submitting a scientific or non scientific abstract?:** Scientific

**Objectives:** This study sought to assess the impact of the APOE ε4 allele on the cognitive performance of a sample of Spanish-speaking cognitively healthy Puerto Ricans aged 60 or above.

**Methods:** The sample consisted of 141 subjects, who were offspring of Puerto Rican oldest-old. The evaluation of neuropsychological performance was based on the CERAD battery and variables were aggregated by principal component analysis (PCA). Comparison of neuropsychological performance between ε4 carriers and non-carriers was conducted using a multivariate analysis of variance.

**Results:** There were 39 ε4 carriers and 102 ε4 non-carriers. PCA resulted in a solution of six cognitive factors. APOE ε4 carriers performed significantly worse than non-carriers in the Episodic Memory, Processing Speed and Semantic Fluency factors. Non-carriers also showed better overall cognitive performance than carriers ( $p = .049$ ).

**Conclusion:** Our results suggest that, in this sample of cognitively healthy Spanish-speaking young-olds, being an ε4 carrier is associated with worse cognitive performance.

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**Disclosure of Interest:** None Declared

## OC033

**Date:** Friday 2 May 2014

**Session:** Support and Training for Family Carers

### **COPING STRATEGIES OF FAMILY CAREGIVERS OF PERSONS WITH ADVANCED ALZHEIMER'S DISEASE**

Enna D Santiago<sup>1,\*</sup> and Walden University Doctorate Dissertation Committee

<sup>1</sup>President of the Board of Directors, Asociacion de Alzheimer y Desordenes Relacionados de Puerto Rico, San Juan, Puerto Rico

**Are you submitting a scientific or non scientific abstract?:** Scientific

**Objectives:** This study explored the process used by family caregivers to develop coping strategies for caring for relatives with advanced Alzheimer's disease (AD) and to make recommendations for care. It has been documented that when family members provide care for persons with AD at home, they sustain negative health outcomes due to the strain and burden of caregiving as the disease progresses into later stages.

**Methods:** Grounded theory was used for this study. The concept of self-efficacy from Bandura's (2001) social cognitive theory was used as framework. That theory provided me the opportunity to identify an explanation for the difficulties encountered by family caregivers of persons with advanced AD during the provision of care. It helped to develop a modified theory, where verbal persuasion, emotional arousal, and vicarious experiences promoted the development of coping strategies and caregiving skills that helped caregivers to have successful performance.

**Results:** It was identified through interviews, that the lack of knowledge and skills to manage Alzheimer's disease symptoms, promoted caregivers' adverse health outcomes that affected their physical and mental health. Caregivers used vicarious experiences, verbal persuasion, and emotional arousal, as motivators to develop coping strategies for successful performance for care.

**Conclusion:** Caregivers learned from other caregivers' experiences. Family and friends encouraged caregivers to search for information about AD (persuasion), and filial and conjugal relations served as motivators to take care of family members. The study identified the importance of developing community-based educational and skills development programs, to address family caregivers' challenges at home and their needs for self-care.

**Disclosure of Interest:** None Declared





## OC035

**Date:** Friday 2 May 2014

**Session:** Support and Training for Family Carers

### HISPANIC CAREGIVERS SUPPORT PROGRAM- REACH OUT

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**Are you submitting a scientific or non scientific abstract?:** Non Scientific

**Objectives:** The REACH Out evidence-informed caregiver support program was designed to promote the health and well-being of adults caring for persons with dementia in the home and to help family caregivers of persons with dementia manage their stress and gain useful knowledge to better their caregiving role. The intervention consisted of Six (6) in-home sessions, approximately one (1) to one and a half (1 1/2) hours in length. Caregivers received educational information about dementia, self-care, safety and other relevant caregiver issues; action plans to address targeted problems such as care recipient behaviors, caregiver health, behavior and social support and taught caregivers how to enhance their emotional wellbeing.

Two hundred and twelve (**212**) Caregivers completed all components of the REACH-OUT intervention program. A six month period follow up intervention was completed with 90 participants. As result of this intervention the participant caregivers showed reduced sense of caregiver burden, diminished levels of perceived stress; Improved levels of perceived health: Diminished caregiver health symptoms; reduced levels of depression. This project opened the groundwork for further research with this intervention, and its dissemination will provide a field tested teaching intervention available for Hispanic Caregivers in other U.S. mainland jurisdictions as well. Participants and families were positively impacted by the interventions. The intervention proved to be needed to support caregivers. Significantly positive pre-post effects were found on measures of caregivers' health and well-being, namely: decreased burden, depression and frequency of behavior problems; increased perception of social support and enhanced caregiver/care manager satisfaction with the program. The intervention proved to be very effective to both, participants and staff. It further opened our eyes to the growing population suffering from Alzheimer Disease and related conditions needing this type of program intervention.

**Disclosure of Interest:** None Declared

## OC036

**Date:** Friday 2 May 2014

**Session:** Support and Training for Family Carers

### **EDUCATION FOR NON-PROFESSIONAL CAREGIVERS OF OLDER ADULTS RESIDING AT HOME IN MARACAIBO, VENEZUELA.**

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<sup>1</sup>Neurosciences, University of Zulia, Maracaibo, Venezuela, Bolivarian Republic Of, <sup>2</sup>Psychiatry, Neurology and G.H. Sergievsky Center, Columbia University, New York, United States

**Are you submitting a scientific or non scientific abstract?:** Scientific

**Objectives:** To develop and validate an educational experience that enhances the capacities of non-professional caregivers of older adults, with or without dementia, residing in their own homes. The strategy uses the strengths, knowledge, and life experiences of the caregivers as the basis for capacity building. The overall goal is to improve the quality of life of both the care-receivers and caregivers.

**Methods:** An expert team of health professionals facilitated 32 hours of group interactions, encouraging and guiding active participation by caregivers in peer-driven discussions. Each four-hour session involved 30 participants. The discussions covered both theoretical and practical issues, including such basic needs as hygiene, comfort, mobility, sleep, safety, nutrition, familial and social support, social interventions, and cognitive and physical stimulation. Management of difficult situations at home was specifically addressed. Two activities devoted to the well-being of the caregivers were also included.

**Results:** Five cohorts, comprising 213 caretakers, completed the program during 2009–13. Based on their experiences, the original facilitators published a practical guide for the care of the elderly at home in 2011, and revised the book in 2012. Motivated by the high demand for non-professional caregivers in Venezuela, and the success of the School for Caregivers, a program for professional facilitators was developed, which has trained thirteen people to date.

**Conclusion:** The School for Caregivers and subsequent training program, which evolved as outreach activities of the University of Zulia, have partially satisfied the need for high quality caregiving of elderly individuals residing at home in Maracaibo. The programs have also provided an opportunity to disseminate medical and scientific information, and to empower citizens in the care of the elderly.

**Disclosure of Interest:** G. Maestre Conflict with: NIH-NIA 5 R01 AG036469, M. Quintero Conflict with: Fundaconciencia



## OC037

**Date:** Friday 2 May 2014

**Session:** Support and Training for Family Carers

### **EVALUATION OF A FOTONOVELA TO REDUCE DEPRESSION AND STRESS IN LATINO DEMENTIA FAMILY CAREGIVERS**

Marian Tzuang <sup>1</sup>, Dolores Gallagher-Thompson <sup>2</sup>, Irene Valverde <sup>3</sup>, Paula Alvarez <sup>4</sup>, Johanna Rengifo <sup>4</sup>, Nancy Chen <sup>4</sup>, Tara Emrani <sup>4</sup>, Ladson Hinton <sup>5</sup>, Larry Thompson <sup>2</sup>

<sup>1</sup>Stanford Geriatric Education Center, <sup>2</sup>Dept. of Psychiatry & Behavioral Sciences, Stanford University, <sup>3</sup>Stanford Geriatric Education Center, Stanford, <sup>4</sup>Pacific Graduate School of Psychology, Palo Alto University, Palo Alto, <sup>5</sup>Dept. of Psychiatry & Behavioral Sciences, University of California, Davis, Sacramento, United States

**Are you submitting a scientific or non scientific abstract?:** Scientific

**Objectives:** The objectives of this study include the evaluation of the effectiveness of the FN in decreasing levels of stress and depressive symptoms for Latino dementia family caregivers, and test whether the FN that demonstrates the use of coping skills as well as modeling the concept of greater family support for the caregiver is an useful and effective medium that can improve the quality of life for caregivers.

**Methods:** 147 Latino caregivers were randomly assigned to the FN condition or the Usual Information Condition (UIC). UIC participants received a publicly available text pamphlet created by the Alzheimer's Association about caregiver stress and ways to manage it. Participants were encouraged to read the materials during the coming month and discuss the information with other family members. Research staff made monthly calls over the course of 6 months, at which times participants would be administered several scales about their mood and stress levels, how they were dealing with the problems that arise in caregiving, and about their use and helpfulness of the material.

**Results:** Caregivers in this study are representative of the current Latino dementia family caregivers living in the U.S., with the majority being adult daughters with an average of nine years of education. Majority of them are first generation immigrants from Mexico (71%), followed by U.S. born Latinos (23%) and Latinos born in other Latin American countries (7%). The FN produced significantly greater decrease in levels of depressive symptoms, was shared more with family and friends, and was considered more helpful when compared to UIC. Both FN and UIC participants reported having more positive reaction and less frustration over time with the memory and behavioral problems exhibited by their loved ones.

**Conclusion:** The results of this study demonstrated that a culturally and linguistically tailored *fotonovela* can serve as an effective educational tool in addressing the need for more education about caregiving and teaching effective coping skills to Latino dementia family caregivers. Clinicians may find the FN as a helpful tool as a starting point when working with Latino family caregivers.

**Disclosure of Interest:** None Declared

## OC038

**Date:** Friday 2 May 2014

**Session:** Support and Training for Family Carers

### YECCO TO SUPPORT FAMILIES AND PEOPLE WITH DEMENTIA

Janet Jadavji<sup>1,2,\*</sup>

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**Are you submitting a scientific or non scientific abstract?:** Non Scientific

**Objectives:** Support and Training for Informal and Professional Carers

**Janet JADAVJI**

*Yecco, United Kingdom*

Many families around the world struggle with caregiving for someone living with Alzheimer's disease or other dementias. They have problems in understanding the disease, where to get a proper diagnosis and how to manage the care after someone has been diagnosed. The fact that most health systems are fragmented makes this even more challenging.

To help these families and especially the main caregiver, Yecco was developed as a FREE online tool. Yecoo is an integrated communication and care management platform for families, carers and professionals, improving support and care of a person living with dementia. It uses a modern private social network platform, mobile apps and a tablet application. The creator is both a health care professional and carer herself of someone with Alzheimers.

Vital medical and financial information is stored securely and events tagged for purposes of assessment. Different access is granted to linked members for purposes of confidentiality. Forums provide global information to inform, share and educate families and researchers in trends on health problems. A user rated service and products directory brings vital information to both carers and professionals to help improve the quality and accessibility of care. A shop provides the ability to purchase items required for supporting people with memory and disability problems.

Yecco can be translated into different languages and can be adapted to suit a countries need. Professionals are able to export information and monitors can be linked to the app.

**Disclosure of Interest:** None Declared



## OC039

**Date:** Friday 2 May 2014

**Session:** Empowering and Empathising

### **DEFINING EMPOWERMENT: PEOPLE WITH DEMENTIA'S VOICE IN TERMINOLOGY USED TO DEFINE THEM**

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**Are you submitting a scientific or non scientific abstract?:** Scientific

**Objectives:** This study is a PhD project which seeks to collect the understandings of people with mild dementia in defining control, empowerment and meaningful connection to others in social settings. The central aim of the study is to investigate how people with mild dementia are living, coping and navigating social interactions in everyday life in the face of stigma and discrimination<sup>1,2</sup>.

**Methods:** This is a qualitative study using thematic analyses of 1) a secondary data analysis of the World Alzheimer's Report 2012: Overcoming the Stigma of Dementia<sup>3</sup> and 2) three focus groups with people with dementia<sup>4</sup> and two focus groups with carers. In addition, people with dementia are inclusively participating in the study design, for example, in whether or not carers would be included in the study and in what questions would be asked in subsequent focus groups of other people with dementia and carers.

**Results:** By May 2014, all data collection and most analyses will be complete. Preliminary results will be shared at the conference.

**Conclusion:** Anticipated outcomes include how people with dementia define control and empowerment and what society can learn to help people with dementia better manage their everyday interactions. A short-term outcome is to empower people with dementia to be included in some of the project design where this is rarely done in research. Another short-term outcome is for people with dementia to have a voice to share the results of the research through videotaped interviews.

**References:** 1. Goffman, E. (2009). *Stigma: Notes on the management of spoiled identity*. SimonandSchuster. com.  
2. Thornicroft, Graham. *Shunned: Discrimination Against People with Mental Illness*. Oxford: Oxford University Press, 2006. ISBN 978-0-19-857098-1.  
3. Batsch, N., Mittelman, M. World Alzheimer Report 2012: Overcoming the stigma of dementia. Alzheimer's Disease International, 2012.  
4. Wilkinson, Heather. *The perspectives of people with dementia: Research methods and motivations*. Jessica Kingsley Pub, 2002.

**Disclosure of Interest:** None Declared

## OC040

**Date:** Friday 2 May 2014

**Session:** Empowering and Empathising

### **TALES OF THE SEA: EMPOWERING PEOPLE WITH DEMENTIA THROUGH MARITIME ARCHAEOLOGY**

Clare Cutler<sup>1</sup>, Paola Palma<sup>2</sup>

<sup>1</sup>HSC, University of Bournemouth, Bournemouth, <sup>2</sup>Appield Sciences, BOURNEMOUTH UNIVERSITY DEMENTIA INSTITUTE, BOURNEMOUTH, United Kingdom

**Are you submitting a scientific or non scientific abstract?:** Scientific

**Objectives:** Maritime archaeology is a vital part of the UK's national heritage that people with dementia are often excluded from accessing. This presentation will report on a pilot study that aimed to empower this excluded group to access, engage and learn about the UK's maritime archaeological heritage.

**Methods:** The Tales of the Sea project has delivered a series of interactive, educational and stimulating maritime archaeological group sessions for people with dementia living within the community. The sessions mimicked processes which are followed by field archaeologists and have included activities such as interacting with artefacts, conducting an excavation, photographing artefacts and reconstructing finds back to their original state. Five venues were selected, each receiving three maritime archaeological sessions.

**Results:** Preliminary analysis has identified four emerging themes coming from the sessions; access to information; access to activities; access to learning; access to support. The opportunity for social interaction, the ability to reminisce, engagement in 'different' activities, support to learn and stimulation of an interest topic were all major findings from these sessions.

**Conclusion:** The Tales of the Sea project has identified how engagement in non-conventional topics such as maritime archaeology can promote feelings of empowerment and inclusivity. This project will provide inspiration for others to try and evaluate 'new' activities that are empowering, stimulating and educational for people with dementia.

**Disclosure of Interest:** None Declared





## OC041

**Date:** Friday 2 May 2014

**Session:** Empowering and Empathising

### **INTRODUCING THE ALZHEIMER'S AUSTRALIA DEMENTIA ADVISORY GROUP: EMPOWERING PEOPLE WITH DEMENTIA**

Kate Swaffer <sup>1,\*</sup>

<sup>1</sup>Alzheimer's Australia, Dementia Advisory Committee, Canberra, Australia

**Are you submitting a scientific or non scientific abstract?:** Non Scientific

**Objectives:** This presentation will introduce the Alzheimer's Australia Dementia Advisory Committee (AADAC) which held its inaugural meeting in Canberra during Dementia Awareness Week 2013. This committee is the first consumer committee in Australia to comprise entirely of people with dementia, and follows in the footsteps of the Scottish and European Dementia Working Groups. As Chair of this new Australian consumer group, I will initially discuss the challenges in implementing this initiative, and how we met them. This inspirational group is the third of its kind in the world, the first in Australia, the vision behind it being to empower people with dementia by giving them a voice. Alzheimer's Australia is committed to consumer involvement across all aspects of the organisation including policy, advocacy and research, and the creation of the Dementia Advisory Committee will strengthen consumer involvement and advocacy at all levels of the organisation. AADAC's strategy is to think globally and to act locally, and by re-empowering people living with dementia, this committee aims to make it possible for this previously marginalised group to contribute to shaping the matters that affect them. Jean Georges from Alzheimer's Europe reported in 2012 they know from the experience of these other two groups, run by people with dementia, for people with dementia, that the contact with others with dementia gives people with dementia greater self confidence in speaking out in public and in raising awareness. No longer will people with dementia be told by people without dementia, how they feel, or what is best for them, and whilst they still have a voice of their own, they now have a forum to self advocate. Self determination is a key priority; in our view there should be "nothing about us without us", a term that has been bantered globally since 1998, and yet "walking the talk" has not been fully realised. Finally I will discuss our current work, including what is happening in Australia regarding projects like Dementia Friendly Communities, and future goals.

**Disclosure of Interest:** None Declared

## OC042

**Date:** Friday 2 May 2014

**Session:** Empowering and Empathising

### **WILL OUR YOUNG TAKE CARE OF US WHEN WE GROW OLD? A QUALITATIVE STUDY OF YOUNG ADULTS WHOSE RELATIVES LOOK AFTER A PARENT WITH DEMENTIA.**

Claudia K. Lai<sup>1</sup> Grace P. Hou<sup>1</sup> Joe C. Yeung<sup>1</sup> Zoie C. Chung<sup>1</sup> Amy K. Sham<sup>1</sup>

<sup>1</sup>School of Nursing, The Hong Kong Polytechnic University, Hong Kong SAR, Hong Kong

**Are you submitting a scientific or non scientific abstract?:** Scientific

**Objectives:** The pool of family caregivers in many societies has decreased with the shrinking of the younger population. Moreover, there is concern over whether the younger generation is willing to take care of older family members. This qualitative study examined the perceptions that young adults have of family members, such as their parents, who cared for a relative with dementia, such as a grandparent.

**Methods:** An exploratory study using semi-structured interviews was developed after a review of the literature and pilot testing. Using purposive sampling, 24 young adults were recruited for interview. The participants had to have a close relative at home who was taking of an elderly family member with dementia. All interviews were audio-recorded and transcribed verbatim. A content analysis approach was used to analyze the data.

**Results:** Five themes were identified. The participants reported that caring for a relative with dementia was a time-consuming and exhausting task. Although not the primary caregiver, they also experienced varying degrees of stress and strain. Even though they had a somewhat negative perception of a caregiving career, they were willing to take on the responsibility of becoming a primary caregiver in the future if needed. They reported being more likely than their caregiver relative to seek assistance from formal health care providers in order to deliver a better quality of care when caring for a family member. Their experience of watching how a close family member looked after the patient with dementia at home had made them think about what they would become in the future. The thought that they might also become afflicted with dementia heightened their consciousness of their health. While they expected their future children to take care of them in old age, they also did not want to be a burden on their children.

**Conclusion:** The young adults of today will be the caregivers of tomorrow. They are willing to take up the challenges of caregiving despite seeing for themselves that it might not be an easy task. Health care providers need to understand the perspectives of the younger generation in order to help them take up their role of providing care to an elderly family member in the future.

**Disclosure of Interest:** None Declared



## OC043

**Date:** Friday 2 May 2014

**Session:** Empowering and Empathising

### INTERNET SUPPORT GROUPS FOR PEOPLE WITH DEMENTIA

Laura Bowley<sup>1</sup>, Richard Taylor<sup>2</sup>, John Sandblom<sup>3</sup>

<sup>1</sup>Mindset Memory Centre, Bowen Island, Canada, <sup>2</sup>Dementia Support Networks, Cypress, <sup>3</sup>Unaffiliated Person with Dementia, Des Moines, United States

**Are you submitting a scientific or non scientific abstract?:** Non Scientific

#### Objectives: ONLINE SUPPORT GROUPS FOR PEOPLE WITH DEMENTIA

Over 35 million people worldwide live with Alzheimer's disease or another form of dementia, and we sometimes forget that these statistics represent walking, talking, living, breathing human beings who, after receiving a diagnosis of dementia, are trying to make sense of their new reality and plan for the future, and are seeking information and connection, purpose and empowerment.

Where can these people with dementia—who may be isolated by geography and/or their diagnosis and accompanying stigmas—find kindred spirits, and enjoy each other's company, concerns, and support? Where can they be exposed to news and views that can directly improve the quality of their lives and the lives of those who support them? For many, online support groups are the answer.

Online support groups, whether through video conferencing or social media, provide information and connection, combat isolation, and inspire purpose and empowerment.

During this workshop, we will present a working model of how a few dedicated volunteers (some living with dementia, others supporting them) have formed online networks to inform and support all, in addition to webinars, an online worldwide Memory Café, and online support networks for advocates.

Specifically we will address:

- Why people with dementia want support groups.
- How technology is being used by people with dementia to provide and access support in an online environment.
- Alternative structures and methodologies currently used for online support groups for people with dementia, including the pros and cons of groups that include people with dementia only versus a combination of care partners and people with dementia.
- The benefits of online support groups as expressed by those who are involved in the groups, including how online support groups are a valid tool for combatting isolation.
- How to start an online support group.

The presentation will be based on:

- A review of support groups currently meeting via video conferencing and/or social media.
- Anecdotal evidence by online support group facilitators.
- Interview-based research with support group participants.

In addition to the presenters—most of whom are living with dementia—the workshop will include a worldwide sampling of those living with dementia via teleconferencing to participate in this presentation.

**Disclosure of Interest:** None Declared

## OC044

**Date:** Friday 2 May 2014

**Session:** Empowering and Empathising

### **WHOSE SHOES? – AN INNOVATIVE APPROACH TO ‘WALKING IN THE SHOES’ OF PEOPLE LIVING WITH DEMENTIA**

Gill Phillips<sup>1</sup>, Kate Swaffer<sup>2</sup> and Alzheimer's Australia's Dementia Advisory Committee - Kate is the Chair

<sup>1</sup>Founder, Nutshell Communications Ltd, Coventry, United Kingdom, <sup>2</sup>South Australia, Alzheimer's Australia's Dementia Advisory Committee, Adelaide, Australia

**Are you submitting a scientific or non scientific abstract?:** Non Scientific

**Objectives:** *Kate Swaffer has explored deeply how it feels to have dementia: “It boils down to a few constantly recurring feelings – confusion – frustration – humiliation – embarrassment – loneliness – isolation – anger or irritation – denial – a deep sadness – and worry, because people with dementia are constantly faced with an ever-changing playing field, never knowing what function is going to become impaired or lost tomorrow. I invite you to walk in my shoes.”*

This highly interactive workshop, suitable for 75 people, will focus on increasing well-being and awareness. Through challenging scenarios and a multi-perspective approach, we will explore the concerns and opportunities facing people living with dementia, informal carers and a wide variety of professionals. We will trigger crucial conversations to share best practice and innovations from across the world and help people explore their own thinking, attitudes and values in a non-threatening way.

*Whose Shoes?*, created by Gill Phillips, is a co-production tool meaning that people work together for positive change, fully involving people with dementia and families: a powerful way to work across boundaries and hierarchies and develop collaborative approaches. The content has been sourced from many voices, both professional and citizen-led, on sometimes contentious or difficult topics. Contributors include members of the European, Australian and Scottish groups of people living with dementia and family carers, who are extremely supportive of the *Whose Shoes* methodology, finding it ‘asset-based’, inclusive and empowering. The experiential nature benefits all attendees: professionals, researchers and care providers will develop and ‘own’ new insights with potential to powerfully change the culture and way of working in care settings, thus transforming the experience of service users.

**Kate Swaffer says:** *“The idiom ‘nothing about us, without us’ has been bantered around the world for over ten years and yet many organisations and service providers are still only talking the talk. People with dementia are still not being fully included. Whose Shoes? - Making It Real, with a co-produced dementia module, provides a wonderful person-centre, holistic approach to help people understand what we really mean by a dementia-friendly community. ... Walk in my shoes...”*

**Disclosure of Interest:** None Declared



## OC045

**Date:** Friday 2 May 2014

**Session:** Art, Music and Dementia

### **REAWAKENING THE MIND', ARTS INTERVENTIONS TO RE-ENERGISE FAMILIES EMBARKING ON THEIR JOURNEY WITH DEMENTIA**

Veronica Franklin Gould <sup>1,\*</sup>

<sup>1</sup>Arts 4 Dementia, London, United Kingdom

**Are you submitting a scientific or non scientific abstract?:** Non Scientific

**Objectives:** This paper presents the evaluation and developments arising from Arts 4 Dementia (A4D)'s re-energising programme at arts venues for people in the early stages of dementia and their carers. Awarded the London 2012 Inspire mark, A4D's London Arts Challenge comprised 17 weekly projects, three to ten weeks long – covering art, dance, south Asian dance, drama, media, music, photography and poetry - attended by 128 participants with dementia and 81 carers, over 14 months to March 2013. The research, which was carried out in association with Professor Paul Camic of Canterbury Christ Church University, assesses the efficacy of each art form on dementia type, in improving cognitive function and wellbeing for participants, and enabling them to access creative skills and interact in constructive endeavour. Quantitative and qualitative data demonstrates how dynamic artistic stimulation helps to override stressful symptoms, elevate mood and restore confidence, and ability to enjoy shared interests in the community. Responding to World Alzheimer reports and demand for earlier diagnosis, Reawakening the Mind advises how to bridge the provision gap from diagnosis. It complements the New York Museum of Modern Art's Meet Me: Making Art Available for People with Dementia, and furthermore presents the first multiple art form assessment and resource for early-stage dementia. The 119 workshops were challenging, but achievable and highly rewarding. There were 93 assessments of people with early dementia aged 66-91 years. Able to revive and learn new creative skills, they regained confidence, energy and were keener to socialise. 94% with dementia remained energised overnight and 60% for a week or more. The programme was underpinned by the early-stage focus A4D introduced to Dementia UK training, now delivered by Alzheimer's Society trainers to clarify for arts facilitators and volunteers the abilities, challenges and communication needs of people with early-stage dementia and their carers. This paper will be further informed by neurological explanations and wider UK and German practice discussed at the Arts 4 Dementia Best Practice Seminar 2013. As a result of Reawakening the Mind, A4D re-energising practice is carried out around the UK, in Scotland, Ireland, Belgium, Germany, Greece, Canada, Texas and India.

**Disclosure of Interest:** None Declared

*\*The presenting author of this abstract is Nori Graham*

## OC046

**Date:** Friday 2 May 2014

**Session:** Art, Music and Dementia

### **IS MUSIC THE BEST MEDICINE?: USING PRESCRIBED MUSIC TO ENHANCE QUALITY OF LIFE FOR PEOPLE WITH DEMENTIA AND THEIR CARER.**

Janice Caine<sup>1,\*</sup>

<sup>1</sup>North Aberdeenshire Services, Alzheimer Scotland, Aberdeenshire, United Kingdom

**Are you submitting a scientific or non scientific abstract?:** Scientific

**Objectives:** Music has long been shown to have significant benefits for people with dementia in reducing stressed and distressed behaviour, agitation and improving mood, particularly in the later stages of dementia. Studies have mainly been limited to institutional care settings and there is an evidence gap in the benefits in the use of music therapy within the home. This study looked at the impact of music as a therapeutic intervention for people with dementia living at home and the impact on the wellbeing of both the person and the family carer. MP3 players were used with preferred music via headphones. This research was undertaken through a Practitioner Research Programme led by The University of Edinburgh and The Institute for Research and Innovation in Social Services.

**Methods:** The research was participatory and qualitative in design, employing a Participative Action Research approach involving participants in all aspects of the design, including the development of a personalised feedback tool based on emotions. Discussion groups and semi structured interviews were audio taped and transcribed. Narratives were turned into vignettes to capture people's experiences.

**Results:** - 33 out of 35 participants said that listening to music had made them more relaxed and happier. In some cases the positive effect lasted for a few hours.

- All carers felt it was a positive experience and provided respite whilst the person was listening.
- Listening via a personal player and headphones reduced any distractions and appeared to concentrate the effect.
- Music proved to be an effective reminiscence therapy

**Conclusion:** With increasing numbers of people with dementia and their carers living at home this research highlights the use of music therapy as a positive intervention in improving quality of life. It provided an accessible, low cost intervention that does not require specialist personnel to deliver it.

**References:** Caine,J.M. (2013) Is Music the Best Medicine: Using Prescribed Music to Enhance Quality of Life for People with Dementia and their Carer. Available at [http://lx.iriss.org.uk/sites/default/files/resources/prop\\_report\\_-\\_janice\\_caine\\_-\\_alzheimer\\_scotland.pdf](http://lx.iriss.org.uk/sites/default/files/resources/prop_report_-_janice_caine_-_alzheimer_scotland.pdf)

**Disclosure of Interest:** None Declared





## OC047

**Date:** Friday 2 May 2014

**Session:** Art, Music and Dementia

### **NATIONAL ART COMPETITION AWARENESS PROJECT FOR CHILDREN**

Leila Hafarian<sup>1</sup>Mehrdad Khansari<sup>2</sup>Mahboobe Babai<sup>3</sup>Azam Mirhaj<sup>4</sup>Masomeh Salehi<sup>5</sup>Faraneh Farin<sup>6,\*</sup>

<sup>1</sup>Head Education & Research Director, <sup>2</sup>Deputy Chief Executive, <sup>3</sup>Director of Head Public Relations , <sup>4</sup>Head Public Awareness & Education, <sup>5</sup>Chief Executive Officer, <sup>6</sup>Overseas PR- coordinator, Iran Alzheimer Association , Tehran, Iran, Islamic Republic Of

**Are you submitting a scientific or non scientific abstract?:** Non Scientific

**Objectives:** Iran Alzheimer Association in collaboration with the Institute for the Intellectual Development of the Children and Young Adults held an art competition initiating a dialogue throughout the country in order for the young group to expose their feelings about their grandparents. IAA's choice of partnership was due to the established network of the institution comprising of 850 permanent, mobile stations in towns and villages. The awareness project is the result of the past 12 years of IAA's experience, observing the state of mental health of children who live in families caring for a person with dementia. The observations indicate that psychologically, the young endure many challenges. The stigma is an obstacle to tell their friends about the illness of their grandparents. They receive less attention from their parents who are carers. They lose their emotional ties with their grandparents and are confused at their present behaviour. The project's proposal was presented to the directors. It was reviewed and approved during several meetings. The poster for promotion was designed and was distributed through 33 provincial offices reaching 850 centers throughout the country. The instruction manual enabled the center's facilitators to guide the young groups to draw on three themes, communication with elderly, prevention and my forgetful grandparents. 800 artworks entered the competition of which 113 were selected and exhibited during the Children's week. The selected artists received a print of their artwork as a prize. Recognition letter was sent to all participants. The interpretation of the artworks by psychologist is the next step of this project. The success of this project in raising awareness about risk factors, stigma, emotions, prevention of psychological crisis, influencing children's behaviour towards the elderly, promoting friendly communication with other members of family hence resulting in better mental health persuaded us in IAA to share our experience with other countries

**Disclosure of Interest:** None Declared

## OC048

**Date:** Friday 2 May 2014

**Session:** Art, Music and Dementia

### **MUSIC AND CONTENTMENT – INCREASING CONTENTMENT AND WELLBEING FOR PERSONS WITH DEMENTIA**

Peter Bewert <sup>1,\*</sup>

<sup>1</sup>The Salvation Army Aged Care Plus, Sydney, Australia

**Are you submitting a scientific or non scientific abstract?:** Non Scientific

**Objectives:** This presentation describes a model which promotes engagement, interaction and increased wellbeing through the use of music therapy in residents located in secure residential care environments diagnosed with dementia. It is well known the effects of music in person with dementia are profound in enhancing their quality of life. Music has many forms and mediums; the focus of this project was the use of individual therapy and group therapy sessions in combination and the associated effects on engagement.

Creative music therapy, also known as Nordoff-Robbins music therapy, is the use of improvised live music to build a relationship between the care giver and resident where residents actively participate, interact and communicate directly through music. This specific therapy type was implemented with two of our secure dementia units in order to achieve an increased well-being and awareness. The therapy approach focuses on awakening an inborn musicality in every resident in order to develop his/her full potential as a human being.

The preliminary data which has been measured using validated assessment tools (The Scale of Music engagement in dementia (Howett and Lem) and The Cohen-Mansfield Agitation Inventory (CMAI)) have demonstrated the following outcomes:

- Conversational phrases can often be learnt through the use of familiar songs
- Improved quality of verbal communication skills
- Increased neuromuscular control and co-ordination
- Improved cognitive-perceptual skills
- Rehabilitation of morale and motivation.
- Reduction of anxiety and agitation

Case studies will illustrate the models success.

**Disclosure of Interest:** None Declared



## OC049

**Date:** Friday 2 May 2014

**Session:** Art, Music and Dementia

### FOSTERING PERSONHOOD THROUGH CREATIVE EXPRESSION

Kirsten Camartin <sup>1,\*</sup>

<sup>1</sup>Toronto Art Therapy Institute, Toronto, Canada

**Are you submitting a scientific or non scientific abstract?:** Non Scientific

**Objectives:** The aim of this major project was to highlight the combined use of art therapy and a creative storytelling approach called TimeSlips™ with persons with dementia, personal caregivers and professional caregivers in the dementia care field as a way to foster personhood and create a subversive dialogue about the types of life enriching activities that persons with dementia are capable of engaging in. The creative stories and artistic pieces developed by persons with dementia during individual art therapy sessions, as well as art pieces developed by personal and professional caregivers during a group art therapy session were then showcased in an art display at the Tom Thomson Art Gallery. This visual representation was used both as a productive and imaginative way to illuminate and prioritize marginalized voices and emphasize the interconnectivity between persons with and persons without dementia. Outcomes of the project are discussed including the ways in which arts can be used to foster the tenants of personhood and in debunking long held assumptions associated with who and what persons with dementia are capable of doing. Suggestions for future art therapy projects are also mentioned.

**Disclosure of Interest:** None Declared

## OC050

**Date:** Friday 2 May 2014

**Session:** Art, Music and Dementia

### ART, COGNITIVE RESERVE CAPACITY AND ALZHEIMER'S DISEASE

Luis Fornazzari<sup>1</sup> Daniel Attala<sup>2</sup> Corinne Fischer<sup>3</sup> Tom Schweizer<sup>4</sup> Edyta Dudzic<sup>5</sup> Joseph Barfett<sup>5</sup>

<sup>1</sup>Neurology, University of Toronto, <sup>2</sup>Neuroscience Lab, St Michael Hospital, <sup>3</sup>Neurology, <sup>4</sup>Neuroscience Lab, <sup>5</sup>Nuclear Medicine, St Michael's Hospital. University of Toronto, Toronto, Canada

**Are you submitting a scientific or non scientific abstract?:** Scientific

**Objectives:** AD/Mild Cognitive Impairment (AD/MCI) artists will show greater hippocampal atrophy and hypoperfusion than controls and will result in a larger radial width of the temporal horn ( rWTH) despite similar cognitive performances with controls.

**Methods:** MRI/Ct Scan from 14AD/MCI patients with artistic occupations and 13 AD/MCI matched controls from a retrospective Memory Clinic database. Functional neuroimaging (Spect Scan) were obtained in 8 artists and 7 control. The patients were matched on age, gender, years of education and disease severity based on cognitive scores.

**Results:** In a one tailed t-test, artist AD/MCI had significant larger rWTH than controls for right rWTH(  $p=0.034$ ) as well as average rWTH ( $p=0.029$ ) and largest rWTH ( $p=0.039$ ). Measurement for left rWTH were not significant ( $p=0.064$ ). In previous studies right rWTH is more sensitive than left rWTH in AD/MCI patients.

**Conclusion:** Artistic group showed larger rWTH than controls, revealing greater hippocampal atrophy, with similar cognitive impairment. Functional data also support these findings. We are suggesting that art may be an enhancer of BRC.

**References:** Schweizer et al. (2012) Bilingualism as a contributor to cognitive reserve: evidence from brain atrophy in Alzheimer's Disease. Cortex 48 991-996

Fornazzari et al (2006) Preservation of episodic musical Memory in a patient with Alzheimer disease. Neurology 66:610-611.

Fornazzari et al (2013) Preserved Drawing in a patient with Dementia. Canadian Journal of Neurological Sciences 44 736-737

**Disclosure of Interest:** None Declared



## OC051

**Date:** Friday 2 May 2014

**Session:** Topicos Selectos

### ASPECTOS LEGALES DE LA ENFERMEDAD DE ALZHEIMER: LAS DIRECTRICES AVANZADAS

Carlos Gil <sup>1,\*</sup>

<sup>1</sup>General Studies, University of Puerto Rico, San Juan, Puerto Rico

**Are you submitting a scientific or non scientific abstract?:** Non Scientific

**Objectives:** From a detailed analysis of the Mental Health Act of Puerto Rico, the author studies the figure of advance directives in two orders: First, the legal and public policy of the state relating to the protection of individual liberty. From this perspective, the author study the public policy on mental health in the dual role of personal autonomy at the interior of a legal frame for providing mental health services that regards itself as an “open system “. In the second part, the paper study the practical aspects involved in drafting of the advance directives as an attorney client relationship of psychosocial significance. In this second sense, it offers a model of professional approach to convert this legal instrument on a self-referential process of introspection and personal autonomy. In this regard, paper studied the therapeutic nature of the attorney client relationship throughout the process confessional provisions regarding medical treatment and health delegate selection.

**Disclosure of Interest:** None Declared

## OC052

Date: Friday 2 May 2014

Session: Topicos Selectos

### CALIDAD DE VIDA DE CUIDADORES INFORMALES EN UNA MUESTRA DE GERONTES DEPENDIENTES EN PUERTO RICO

Dra. Nilde Cordoliani<sup>1,\*</sup> and Estudiantes Practicantes de Investigaciones

<sup>1</sup>Graduate Studies - Behavioral Sciences (Clinical Psychology), Pontificia Universidad Catolica de Puerto Rico, Recinto de Ponce, Ponce, Puerto Rico

Are you submitting a scientific or non scientific abstract?: Scientific

**Objectives:** La presente investigación tuvo como propósito el determinar cómo se afecta la calidad de vida de los cuidadores informales de gerontes dependientes a partir de su percepción de la demanda y sobrecarga de su rol como cuidador y de los problemas que surgen por la atención prestada. A su vez tuvo la meta de adquirir mayor conocimiento acerca de las situaciones culturales, económicas y geográficas en las que se desarrolla el cuidado informal.

**Methods:** El diseño de esta investigación fue uno descriptivo transversal y constó de una muestra de 200 cuidadores informales de la región sur de Puerto Rico. Los mismos respondieron a una serie de reactivos relacionados con estrés, emociones, cuidado personal, carga de responsabilidad, toma de decisiones, satisfacción personal, concentración mental, rutina diaria, relaciones interpersonales, área espiritual, necesidad de ayuda profesional, salud física, economía y vacaciones medidos a través de la encuesta *Calidad de Vida para Cuidadores Informales*.

**Results:** Se evidenció que existen diferencias estadísticamente significativas entre las horas del día que dedican a cuidar al geronte y su percepción de la calidad de vida, [ $F(193) = 4.62, p = .044$ ] y con respecto a la variable de parentesco con el geronte dependiente cuidado y la percepción de la calidad de vida que tuviese, [ $F(192) = 7.87, p = .007$ ]. Porcentos significativos reflejaron afecciones fisiológicas, psicológicas, afectivos, sociales e interpersonales. De igual modo, desde la perspectiva espiritual 44% reportó que cuenta con un guía espiritual y 54% refirió tener una visión positiva de la vida.

**Conclusion:** Se concluye que para la muestra analizada las variables de la cantidad de horas invertidas en el rol de cuidador y el parentesco impactaba significativamente la percepción de la calidad de vida que tuviesen los cuidadores. Entre las aportaciones al reconocimiento de las necesidades de la familia y la vulnerabilidad del cuidador informal, así como de la importancia de concientizar acerca de la diversidad ante las múltiples situaciones culturales, económicas y geográficas en las que se desarrolla el cuidado informal de gerontes dependientes. A raíz de los resultados obtenidos se identifica la necesidad de un nuevo enfoque en los servicios sociales que incluya en la planificación al cuidador y que refuerce el auto-apoderamiento de estos para minimizar los efectos del rol de cuidador en su calidad de vida.

Disclosure of Interest: None Declared





## OC053

**Date:** Friday 2 May 2014

**Session:** Topicos Selectos

### LA ENFERMEDAD DE ALZHEIMER Y LA SEGURIDAD EN EL HOGAR

Enna D Santiago <sup>1,\*</sup>

<sup>1</sup>President of the Board of Directors, Asociacion de Alzheimer y Desordenes Relacionados de Puerto Rico, San Juan, Puerto Rico

**Are you submitting a scientific or non scientific abstract?:** Non Scientific

**Objectives:** Al proveer cuidados a una persona con la enfermedad de Alzheimer, no importa la condición física y mental en que se encuentre, hay ciertas reglas de seguridad que debemos seguir para evitar sufrir un accidente en el hogar. La falta de seguridad en el hogar, desconocimiento de las limitaciones de la persona que se cuida, falta de precaución al proveer cuidados, la acumulación del estrés y cansancio del cuidador y los problemas de comportamiento de la persona, comprometen la seguridad de ambos. Un ambiente de hogar seguro, la calidad del servicio brindado y el bienestar de la persona afectada están garantizados por las reglas de seguridad que se observan al brindar los cuidados que necesita. Este taller presentará los factores que promueven accidentes en el hogar y las razones por las cuales suceden los accidentes que afectan el cuidado y la calidad de los servicios que ofrecemos al paciente, así como la salud del cuidador. Se presentarán las condiciones de salud que afectan la capacidad funcional de la persona que padece la enfermedad y las estrategias de manejo que pueden utilizar familiares y cuidadores para evitar caídas y accidentes en el hogar.

**Disclosure of Interest:** None Declared

## OC054

Date: Friday 2 May 2014

Session: Topics Selectos

### PRIMER “PROGRAMA NACIONAL DE ALZHEIMER” DE LA REPÚBLICA ARGENTINA”

Noemi Medina <sup>1</sup>, Fernando Taragano <sup>2</sup> on behalf of PNAz

<sup>1</sup>Comisión Directiva, A.L.M.A. , <sup>2</sup>Comisión Directiva, ALMA , Ciudad de Buenos Aires, Argentina

Are you submitting a scientific or non scientific abstract?: Non Scientific

#### Objectives: Primer “Programa Nacional de Alzheimer” de la República Argentina”

**A.L.M.A.** Asociación Lucha contra el Mal de Alzheimer y alteraciones semejantes de Argentina.

A.L.M.A., en acción de Advocacy , presentó un Petitorio por un “Plan Nacional de Alzheimer y otras enfermedades causantes de demencia” (marzo 2013) en el **MINISTERIO DE DESARROLLO SOCIAL DE LA NACIÓN** . En agosto, las autoridades nacionales comunican a A.L.M.A. la creación del “PNAz, Programa Nacional de Alzheimer”. Incluido en el Programa del Ministerio Desarrollo Social/PNUD “Fortalecimiento de la integración de la política social en el territorio nacional”, el PNAz comenzó el 1° de septiembre bajo dirección del Dr. Fernando Taragano con equipo de profesionales, base de futuro Plan Nacional de Alzheimer. Dada la realidad poblacional de Argentina, se requiere la planificación de programas de larga duración, destinados a personas mayores con pérdida de su autonomía. Hasta la actualidad, no se conocen en el país cuáles son los factores que intervienen ni cuáles son las condiciones de vulnerabilidad que afectan el curso evolutivo. **OBJETIVOS** del PNAz : 1) Fortalecer e impulsar, en la población vulnerable, acciones públicas de promoción social y prevención socio-sanitaria, a través de los Centros Integradores Comunitarios existentes en todo el territorio nacional. 2) Abordar la promoción y prevención construyendo estrategias que puedan intervenir en las necesidades sociales y de salud que no son expresadas de manera inmediata. 3) Explorar cuáles son las acciones del fortalecimiento social y control de los factores de vulnerabilidad que podrían disminuir la prevalencia socio sanitaria de la enfermedad. En Argentina se estima que la cantidad de individuos de 60 y más años manifiesta una tendencia creciente, aproximadamente 5,7 millones de personas (Censo 2010), 14.2% de la población total, y la esperanza de vida para las personas que hoy tienen 60 años es de 17,8 años para varones y 22,5 años para mujeres, esto implica que el segmento seguirá creciendo. Conclusión: Lograr el control de los múltiples factores intervinientes mediante la acción social y sanitaria, permitirá disminuir y retrasar los casos de demencia y también reducir disparidades entre grupos vulnerables y geográficos.

Disclosure of Interest: None Declared



## OC055

**Date:** Friday 2 May 2014

**Session:** Topicos Selectos

### **DISCURSOS FRENTE A LA TOMA DE DECISIONES BIOÉTICAS RELACIONADAS CON LA DEMENCIA EN ESTUDIANTES Y PROFESIONALES DE LA SALUD**

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<sup>1</sup>Antropología y Sociología, <sup>2</sup>Ciencias Humanas, <sup>3</sup>Universidad del Zulia, Maracaibo, Venezuela, Bolivarian Republic Of

**Are you submitting a scientific or non scientific abstract?:** Scientific

**Objectives:** Explorar los aspectos culturales y sociales que forman las bases de la toma de decisiones bio-éticas relacionadas con la demencia por parte de estudiantes y profesionales en el área de la salud

**Methods:** Las herramientas de método inician con la recogida de un corpus discursivo compuesto por las aportaciones de estudiantes y profesionales del área de la salud y a partir de allí se realiza un acercamiento analítico a tales discursos partiendo de una ubicación inicial en la cual destacamos como punto de inicio los postulados de Teun Van Dijk (1989 : 142) en los cuales se expone la existencia de dos formas textuales principales como lo son la narración y la argumentación, así como la caracterización ofrecida por Charaudeau (1992). En este sentido no se busca descartar otras formas textuales como la descripción, la exposición y la instrucción, sin embargo a los efectos del presente análisis consideraremos como órdenes discursivos fundamentales la narración y la argumentación.

**Results:** El análisis de los comentarios que constituyen el corpus de este trabajo revelan los componentes culturales y específicamente axiológicos como constituyentes de las narrativas y argumentaciones presentes en los discursos que componen el corpus de este trabajo.

**Conclusion:** La exploración de los aspectos implícitos en los discursos elaborados por profesionales y estudiantes del área de salud está poderosamente imbuido de consideraciones que desbordan las comprensiones científicas y derivan hacia campos valorativos e incluso morales fuertemente impactados por la cultural y sociedad desde donde se percibe la problemática neuroética

**Disclosure of Interest:** None Declared

## OC057

**Date:** Friday 2 May 2014

**Session:** Topicos Selectos

### **RESULTADOS OBTENIDOS EN SESIONES DE ESTIMULACION COGNITIVA EN PACIENTES CON DETERIORO COGNITIVO LEVE, EN EL PERIODO DE SETIEMBRE 2012 A NOVIEMBRE 2013**

Norbel G. Roman<sup>1,\*</sup> Vanessa V. Vargas<sup>2</sup> Carolina C. Boza<sup>3</sup>

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**Are you submitting a scientific or non scientific abstract?:** Scientific

#### **Objectives: 1.6.1 Objetivo General**

##### Objetivo General

Determinar el impacto a nivel cognitivo de las Sesiones de Estimulación Cognitiva del Centro de Memoria de la CCSS en la población con DCL, en el periodo comprendido de setiembre 2012 a noviembre 2013.

##### Objetivos Específicos

- Evaluar el estado cognitivo de la población perteneciente al grupo de Centro de Memoria con DCL, en el periodo comprendido de setiembre 2012 a noviembre 2013.
- Investigar el impacto de las sesiones de estimulación cognitiva donde se aborde el DCL en pacientes del Centro de Memoria, en el periodo comprendido de setiembre 2012 a noviembre 2013.

**Methods:** La población evaluada en esta investigación está conformada por pacientes del Centro de Memoria de la CCSS, con evaluación neurológica y referencia del Servicio de Neurología. Se espera conocer lo pertinente de esta población mediante un taller psicopedagógico de 10 sesiones, donde los pacientes aprenderán algunas generalidades sobre el DCL y ejercicios donde se espera obtener un impacto inmediato en la consecución del objetivo general de esta investigación, un cambio positivo a nivel cognitivo.

**Results:** Luego del término de las 10 sesiones de estimulación cognitiva, algunos aspectos como la independencia en la realización de las compras mejoraron sustancialmente, lo que hace que a hora se sientan mucho más satisfechos con sus vidas.

**Conclusion:** En los resultados se notó también que ha mejorado el interés de los participantes por nuevas y diferentes actividades, salir, ir de compras, visitar a un amigo y no quedarse en casa solo viendo televisión o escuchando la radio, lo que resulta que se sientan menos aburridos, esto conllevó a que tengan mucho menos queja en lo que se refiere a los problemas de memoria.

**Disclosure of Interest:** None Declared



## OC058

**Date:** Friday 2 May 2014

**Session:** Topicos Selectos

### **CUIDAR EL CEREBRO DESDE LA PERSPECTIVA DEL AMOR**

Gladys Amaya de Maestre<sup>1</sup>, Ezequiel R. Maestre<sup>2</sup>, Gladys E. Maestre<sup>3</sup>

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**Are you submitting a scientific or non scientific abstract?:** Non Scientific

**Objectives:** Existe suficiente evidencia sobre diversas y variadas estrategias para cuidar la salud del cerebro. Algunas de esas estrategias tienen que ver con la prevención y control de las enfermedades cardiovasculares y otras con hábitos de vida relacionados con la alimentación, actividad física, sueño, entre otras. A su vez la vida matrimonial, aunque no es fácil, se relaciona con mayor sobrevivencia y en general mejor calidad de vida durante la vejez. Luego de 50 años de casados y superando diversas enfermedades cerebrovasculares, hemos aprendido que desde la perspectiva del amor, es posible proteger el cerebro y afrontar el reto de envejecer con optimismo. Algunas de las lecciones aprendidas son:

1- Al despertar en la mañana tienes a tu ser amado con problemas cuya vida depende de ti, tienes que mostrarle mundo lleno de amor y enseñarle un mundo para él olvidado y confuso, así empezamos orientándolo recordándole el día, el mes, año, la ciudad en que se encuentra. 2-Damos gracias a Dios por darnos la vida, otro día juntos. 3- Tenemos ángeles que son las hijas y los hijos que están pendientes, que preguntan por su salud que van de visita, el teléfono timbra y sus amigos de la oficina preguntan como sigue y cuando vuelve al trabajo. 4-Se siente importante y que por lo tanto debe hacer las terapias, visitar al médico, tomar los medicamentos y ser muy positivo. 5- Prepararlo para que no trabaje como antes de sufrir el ACV. Después de ser el patrón en su oficina y en la construcción pasa a ser visitant observador. 6-Reeducar al padre para que vaya cediendo las responsabilidades del trabajo al hijo. Reeducar al hijo para que lo reemplace en la oficina y en la obra y le de importancia a las observaciones de su padre. 7- Prohibido conducir, manejar su carro con chofer para recordar las reglas y evitar hacer daño a otras personas. 8- Recurrir a los talleres de estimulación, hacer ejercicio, socializar. Los hijos, nietos, mascotas son importantes en la estimulación cognitiva. 9-Las palabras amor, te quiero, te amo, mi amor a flote en el ambiente, le van dando sentido y mejor calidad de vida a todos. 10- El sentirse amado atrae sus recuerdos, lentamente y cuando menos menos piense un caudal de recuerdos, los más hermosos y nos dará sorpresas.

**Disclosure of Interest:** None Declared

## OC059

**Date:** Friday 2 May 2014

**Session:** Topicos Selectos

### TRABAJADO JUNTO PARA ESCUCHAR Y ENTENDER LAS VOCES LATINAS DE PERSONAS AFECTADAS POR EL ALZHEIMER

LILLIAM Valcarcel 1,\*

1OPAPA, San Juan, Puerto Rico

**Are you submitting a scientific or non scientific abstract?:** Non Scientific

**Objectives:** OPAPA es una organización sin fines de lucro, que fue creada desde abril de 2013 con el propósito de prestar servicios innovadores y directos a personas con Alzheimer y su familiar a cargo. Se creó para educar y desarrollar alternativas terapéuticas, no farmacológicas, tanto para la persona afectada como para los familiares y o cuidadores. Surge como respuesta al incremento de la enfermedad a nivel estadístico, siendo la quinta causa de muerte en Puerto Rico para el 2009 y la escasez de servicios para esta población. Es nuestro interés presentar un conversatorio de la experiencia de un grupo de cuatro personas en etapa moderada o en etapa leve, hablando de sus experiencias. Dos de los o las participantes son personas diagnosticadas y que reciben servicios en OPAPA y dos de ellas pueden ser del Centro Terapéutico del Municipio Autónomo de Guayabo y del Centro Gigante especializados en Alzheimer del municipio autónomo de Carolina. Se ha preparado una guía de preguntas para dirigir el conversatorio con los siguientes tópicos: Breve presentación de su autobiografía personal y alguna frase o pensamiento que le es positivo. Pueden hacer referencia a cosas de ellos que les guste hacer y con las cuales se identifican todavía. ¿Cómo se siente en referencia a saber que se le están olvidando las cosas? ¿Que valoran más de la atención de sus familias? ¿Qué recomendaciones tienen para el gobierno? ¿Cómo los médicos, trabajadores sociales, psicólogos u otros profesionales de la salud les pueden ayudar más. ¿Cómo podemos ayudarlos a entender mejor lo que les está pasando? ¿Que de los servicios que reciben les son de ayuda? Presentar alguna de la estrategia o los "tips" para evitar que se le olviden las cosas. La presentación se hará en el idioma español. OPAPA se encargará de contactar a los participantes del taller, que son de Puerto Rico. Se sugiere que otros participantes de Latinoamérica o con dominio del idioma español puedan dar sus testimonios también. Se comenzó conversaciones con la Dra. Daysi Acosta de República Dominicana y la Sra. Victoria Baldini de Argentina.

**Disclosure of Interest:** None Declared





## OC060

**Date:** Saturday 3 May 2014

**Session:** Disease Mechanisms and Biomarkers

### CATHEPSIN B ACTIVATED INFLAMMASOME IN THE PATHOGENESIS OF ALZHEIMER'S DISEASE

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**Are you submitting a scientific or non scientific abstract?:** Scientific

**Objectives:** Alzheimer's disease (AD) is a chronic neurodegenerative disease that affects over five million individuals in the United States alone and is the most common form of senile dementia, associated with memory loss and failure of executive function to the point of becoming highly dependent on expensive and intensive care. To date, the mechanisms associated with AD have eluded us. Inflammation plays a key role in the development and progression of AD. We hypothesized that release of cathepsin B from the lysosomal compartment modulating cell death mechanisms, inducing ROS production and activation of the inflammasome (NLRP3).

**Methods:** For the proposed studies we used a triple transgenic APP/PS-1/tau mouse model of AD. Mice were aged and examined for inflammation and exacerbation of cognitive dysfunction and AD pathology. To determine the impact of inflammation on the disease process, the AD mice were be crossed onto NRLP3, ASC and cathepsin B deficient mice and examined for cognitive function and AD pathology. Finally, the AD mice were treated with inhibitors to cathepsin B to determine the impact on cognitive function and AD pathology.

**Results:** We showed that AD is associated with lysosomal membrane permeability that releases cathepsin B in the cytoplasm which enhances the detrimental effects of AD and stimulates the inflammasome and Ab production and phosphorylation of tau and tau pathology. Our data showed that loss of cathepsin B or inhibition of cathepsin B activity leads to a reduction in apoptosis, ROS, inflammasome activation and protection from AD and associated pathology. Finally, we have shown that loss of NLRP3 results in a reduction in inflammasome activation and protection from AD pathology.

**Conclusion:** These data demonstrate the impact of inflammation on the pathogenesis of AD. In addition, the impact of cathepsin B on the development and progression of AD. Targeting cathepsin B may be a promising approach to the treatment of AD.

**Disclosure of Interest:** None Declared

## OC061

**Date:** Saturday 3 May 2014

**Session:** Disease Mechanisms and Biomarkers

### SIGNALING COMPLEXES IN NEURODEGENERATION

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**Are you submitting a scientific or non scientific abstract?:** Scientific

**Objectives:** The two A $\beta$  peptides, A $\beta$ 40 and A $\beta$ 42, are generated by the BACE1 and  $\gamma$ -secretases acting in concert. However, due to multiple substrates of these secretases as well as their low enzymatic specificity of aspartyl protease family, little progress has been achieved in clinical trials of secretase inhibitors/mediators. Our research focus on this recently uncovered molecular mechanism for regulating amyloidogenic APP processing by G-protein coupled receptor (GPCR) pathways.

**Methods:** We applied a serial of in vitro and in vivo models to find out the pathological role of these GPCRs and their mediators in AD as well as the rationale of applying specific chemicals interfering related protein complexes for preventing or treating AD.

**Results:** Opioid receptors are G protein coupled receptors, which modulate physiological functions, including nociception, mood control and responses to stress. Our results show that in AD model mice either knockdown or antagonizing of opioid receptor (DOR) ameliorates A $\beta$  pathology and A $\beta$ -dependent behavioral deficits. Blockage of DOR specifically reduces BACE1 and  $\gamma$ -secretase activities for production of A $\beta$  but not for processing of Notch, N-cadherin, or APLP. We found that DOR associates with BACE1 and  $\gamma$ -secretase, and the activated DOR facilitates co-endocytosis of the secretases.

$\beta$ -arrestins, the multifunctional adaptor proteins, mediate the desensitization and internalization of GPCRs after stimulation by ligand. We found that genetic ablation of  $\beta$ -arrestin1 in APP/PS1 transgenic AD mouse model significantly ameliorates AD-like memory deficits and A $\beta$  pathology. Our study revealed that  $\beta$ -arrestin1 is in the NCT/APH-1 pre-complex and facilitates the mature  $\gamma$ -secretase complex formation through its functional interaction with APH-1, an essential component of  $\gamma$ -secretase complex. Further, administration of the peptides that interferes the interaction of APH-1 with  $\beta$ -arrestin1 specifically reduces the A $\beta$  production.

### Conclusion:

1. GPCRs forms complexes with secretases and modulate their activities and may be novel potential therapeutic targets for AD;
2. Specific reduction of A $\beta$  pathology can be achieved by regulation of the  $\gamma$ -secretase assembly or endocytotic sorting
3. Using a feasible screening model based on newly defined mechanisms to looking for the effective nature products or TCM may provide effectively strategies to modulate AD pathogenesis with fewer side effects.

**Disclosure of Interest:** None Declared



## OC062

**Date:** Saturday 3 May 2014

**Session:** Disease Mechanisms and Biomarkers

### EPIGENETIC MECHANISMS LINKING DIABETES AND SYNAPTIC PLASTICITY

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**Are you submitting a scientific or non scientific abstract?:** Scientific

**Objectives:** Diabetes is one of the major risk factors for dementia. However, the molecular mechanism underlying the risk of diabetes to dementia is largely unknown. Recent studies revealed that epigenetic modifications may play a role in the pathogenesis of diabetes. We hypothesized that diabetes may cause epigenetic changes in the brain that may adversely affect synaptic function. We found significant elevation in the expression of histone deacetylases (HDACs) class IIa in the brains of diabetic subjects compared to control subjects, and these changes coincide with altered expression of synaptic proteins.

**Methods:** In a mouse model of diet-induced type II diabetes mellitus (T2DM), we found that, similar to humans, T2DM mice also showed increased expression of HDAC IIa in the brain and these alterations were associated with increased susceptibility to oligomeric A $\beta$ -induced synaptic impairments in the hippocampal formation and eventually led to synaptic dysfunction. Pharmacological inhibition of HDAC IIa was able to restore synaptic plasticity.

**Results:** Our study demonstrated that diabetes may induce epigenetic modifications affecting neuropathological mechanisms in the brain leading to increased susceptibility to insults associated with neurodegenerative or vascular impairments.

**Conclusion:** Our study provides for the first time an epigenetic explanation for the increased risk of diabetic patients to develop dementia.

**Disclosure of Interest:** None Declared

## OC063

**Date:** Saturday 3 May 2014

**Session:** Disease Mechanisms and Biomarkers

### PROGNOSTIC POLYPEPTIDE BLOOD PLASMA BIOMARKERS OF ALZHEIMER'S DISEASE PROGRESSION

Hongqian Yang <sup>1,\*</sup>Yaroslav Lyutvinskiy <sup>1</sup>Sanna-Kaisa Herukka <sup>2</sup>Hilkka Soininen <sup>3</sup>Dorothea Rutishauser <sup>1</sup>Roman Zubarev <sup>1</sup>

<sup>1</sup>MBB, Karolinska Institutet, Stockholm, Sweden, <sup>2</sup>Institute of Clinical Medicine / Neurology, <sup>3</sup>Faculty of Health Sciences, University of Eastern Finland, Kuopio, Finland

**Are you submitting a scientific or non scientific abstract?:** Scientific

**Objectives:** Patients with mild cognitive impairment (MCI) have varying risks of progression to Alzheimer's disease (AD). To test the utility of the relative abundances of blood plasma polypeptides for predicting the risk of AD progression.

**Methods:** 119 blood plasma samples of patients with MCI with different outcomes (stable MCI and progressive MCI) were analyzed by untargeted, label-free shotgun proteomics. Predictive biomarkers of progressive MCI were selected by multivariate analysis, followed by cross-validation of the predictive model.

**Results:** The best model demonstrated the accuracy of ca. 79% in predicting progressive MCI. Sex differences of the predictive biomarkers were also assessed. We have identified some sex-specific protein biomarkers, e.g. alpha-2-macroglobulin (A2M), which strongly correlates with female AD progression but not with males.

**Conclusion:** Significant sex bias in AD-specific biomarkers underscores the necessity of selecting sex-balanced cohort in AD biomarker studies, or using sex-specific models. Blood protein biomarkers are found to be promising for predicting AD progression in clinical settings.

**Disclosure of Interest:** None Declared



## OC064

**Date:** Saturday 3 May 2014

**Session:** Disease Mechanisms and Biomarkers

### **BLOOD PLASMA BIOMARKERS – WHAT DO THEY TELL US ABOUT ALZHEIMER'S DISEASE ORIGIN?**

Roman Zubarev<sup>1</sup>; Hongqian Yang<sup>1</sup>; Susanna Lundström<sup>1</sup>

<sup>1</sup>Medical biochemistry and biophysics, Karolinska Institutet, Stockholm, Sweden

**Are you submitting a scientific or non scientific abstract?:** Scientific

**Objectives:** To get insight into the mechanism of Alzheimer's disease by investigating the blood plasma biomarkers at the level of protein abundances, IgG glycosylation patterns, isoaspartate abundance and the level of oxidative stress.

**Methods:** 218 blood plasma samples of elderly patients with no signs of AD, MCI (both stable and progressive) and AD were analyzed by untargeted, label-free shotgun proteomics using electron transfer dissociation for isoaspartate detection and collisional dissociation for verification of sequence and modifications of tryptic peptides. Multivariate analysis was performed to differentiate groups between different patient groups.

**Results:** isoAsp level was found increased in all stages of dementia; oxidative stress (Lys oxidation in albumin) scales with AD progression; levels of protease inhibitors and fibril-forming proteins correlate with AD progression in MCI, while proteases and complement proteins correlate with stable MCI. Glycosylation pattern of IgGs changes with AD progression towards less specific and more pro-inflammatory.

**Conclusion:** The results obtained support the damaged protein hypothesis, in which the triggering event for amyloid aggregation and subsequent AD development is the accumulation of abnormal protein isoforms, primarily due to Asn deamidation and Asp isomerization (both resulting in isoAsp formation), as well as oxidative stress, combined with insufficient clearance due to protease inhibition, reduced isoAsp repair by methyltransferases, decrease activity of complement proteins and adverse change in IgG glycosylation pattern and specificity.

**References:** 1. Yang, H.; Lyutvinskiy, Y.; Soininen, H.; Zubarev, R. A. *Alzheimer's disease and mild cognitive impairment are associated with elevated levels of isoaspartyl residues in blood plasma proteins*, *J. Alzheimer's Disease*, **2011**, 27, 113-118.

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**Disclosure of Interest:** None Declared

## OC065

**Date:** Saturday 3 May 2014

**Session:** Disease Mechanisms and Biomarkers

### **INSULIN RESISTANCE AND CSF BIOMARKERS IN PUERTO RICANS WITH MCI AND EARLY ALZHEIMER'S DISEASE**

Vanessa Sepulveda Rivera <sup>1,\*</sup>

<sup>1</sup>Department of Medicine, University of Puerto Rico, San Juan, Puerto Rico

**Are you submitting a scientific or non scientific abstract?:** Scientific

**Objectives:** Insulin resistance (IR) plays a role in the pathophysiology of Alzheimer's Disease (AD). IR correlates with cognitive impairment and appears to be reciprocally associated with the processing of amyloid  $\beta$  ( $A\beta$ ), and hyperphosphorylated tau. The nature and strength of the link between IR and AD biomarkers is not clearly established. We propose to study the association between IR and CSF biomarkers in Puerto Ricans diagnosed with MCI and early AD to evaluate if IR is a risk factor for AD by alterations in the CSF biomarker levels of  $A\beta$ .

**Methods:** Twenty-five participants were evaluated. Using the National Institute on Aging and Alzheimer's Association criteria participants were characterized into MCI (n=13) and early AD (n=12). CSF biomarkers ( $A\beta$ , total and phospho-tau181) were determined using ELISA kits. IR was determined using the Homeostatic model assessment (HOMA). Associations between demographics, clinical characteristics, CSF markers, and IR were done using Spearman's rho correlation.

**Results:** A negative correlation was observed between increase FBS and lower MMSE score. Using a HOMA-IR 3.8 cut-off, the prevalence of IR was 36%. A trend for a correlation between increase waist circumference and increase HOMA-IR was observed. CSF biomarkers correlations show an increase  $A\beta$  with increase MOCA score, decreased  $A\beta$  levels with increase FBS, increase Total Tau/  $A\beta$  ratio with increase HOMA-IR. A trend for increase  $A\beta$  and decrease HOMA-IR.

**Conclusion:** An increase of IR was observed with a prevalence of 36%. Our findings suggest a correlation between IR, CSF biomarkers, and MCI/ early AD. Therefore, targets for early therapeutic intervention to decrease IR may aid in the development of MCI/early AD.

**References:** R25MD007607, 8U54MD007587-03

**Disclosure of Interest:** None Declared





## OC066

**Date:** Saturday 3 May 2014

**Session:** Crisis Interventions and End of Life Decisions

### **USING DISCRETE CHOICE EXPERIMENTS TO EXAMINE THE RISK FACTORS LEADING TO CRISIS FOR PEOPLE WITH DEMENTIA AND PREFERENCES FOR HOME TREATMENT INTERVENTIONS**

Sandeep Toot<sup>1</sup> Verity Watson<sup>2</sup> Mandy Ryan<sup>2</sup> Martin Orrell<sup>1</sup>

<sup>1</sup>Unit of Mental Health Sciences, University College London, London, <sup>2</sup>Health Economics Research Unit, University of Aberdeen, Aberdeen, United Kingdom

**Are you submitting a scientific or non scientific abstract?:** Scientific

**Objectives:** 1) To identify the relative importance of factors which contribute towards a crisis risking admission.  
2) To determine the relative importance of the identified attributes of the home treatment package, by examining the preferences of staff and family caregivers.

**Methods:** Two discrete choice experiments (DCE) were conducted using surveymonkey.com with family carers of people with dementia and healthcare professionals. In the first DCE participants were presented with crisis scenarios comprised of five attributes, namely, aggressive behaviour, physical health problems, risks/ hazards in the home, family carer workload and wandering behaviour (out of the home). A fractional factorial experimental design was used in this study with a total of 32 choice sets and participants were asked to state their binary choices about whether they thought that the presented crisis scenario could lead to a potential hospital admission. In the second DCE participants were presented with pairwise choices of different home treatment intervention packages comprised of four attributes, namely, technology and home adaptations, direct payments for home care (+ respite) and health and social care professional support and family carer support/ education/ training. A D-efficient fractional factorial experimental design was used in this study with a total of 40 pairwise choice sets and participants were asked to state their choices from a set of multiple choice options (Intervention A/ Intervention B/ Neither Intervention).

**Results:** A total of 501 participants completed the DCE, comprising 301 healthcare professionals and 200 family carers. For the DCE observing the participants' responses related to risk factors which lead to crisis risking hospital admissions, the data will be analysed using a random effects probit regression model to ascertain the probabilities of the respective five attributes leading to a possible hospital admission for people with dementia. For the second DCE, where we observed participants' choices of home treatment interventions, the data will be analysed using a conditional (fixed effects) logistic regression model to calculate willingness to accept compensation to forgo components/ attributes of the home treatment package intervention.

**Conclusion:** This innovative approach developed further the understanding of how carers assess and deal with crises in people with dementia

**Disclosure of Interest:** None Declared

## OC067

**Date:** Saturday 3 May 2014

**Session:** Crisis Interventions and End of Life Decision

### **HOSPITAL CARE AND DEMENTIA: KEY LESSONS FROM THE EVIDENCE AND NATIONAL PLANS**

Michael Splaine<sup>1,\*</sup> <sup>1</sup>Public Policy, ADI, London, United Kingdom

**Are you submitting a scientific or non scientific abstract?:** Non Scientific

**Objectives:** Many persons with Alzheimer's and other dementia suffer from other chronic diseases or experience medical conditions that require hospitalization. With low overall rates of detection and diagnosis, families may use hospital care as immediate assistance in a crisis. Individuals with Alzheimer's disease use a disproportionate amount of health care resources; for instance, in studies in developed countries it has been found that they are hospitalized 2-3 times as often as people the same age who do not have the disease.

Globally it is estimated that only about 20% of persons suffering with an irreversible dementia have a formal diagnosis or have that diagnosis noted in a medical records. Thus when hospital care is needed, there is a very good likelihood that their cognitive impairment may be missed or not taken account of in their care planning.

In the last 6 years, several countries have developed comprehensive national government Alzheimer's or dementia plans and the World Health Organization has published *Dementia: A Global Public Health Priority* (April 2011). In addition, many sub-national governments have also created dementia plans.

These plans have generally been built with wide expert and general public participation and cover a range of recommendations in research, care and public awareness for both the public and private sector, including hospital care. Dementia plan activities have been implemented by public and private sector and through public/private partnerships.

This talk will present several projects being implemented in hospital care and summarize select innovations for consideration of the audience.

**Disclosure of Interest:** None Declared



## OC068

**Date:** Saturday 3 May 2014

**Session:** Crisis Interventions and End of Life Decisions

### **CAUSES OF HOSPITAL ADMISSION FOR PEOPLE WITH DEMENTIA: A SYSTEMATIC REVIEW AND META-ANALYSIS**

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**Are you submitting a scientific or non scientific abstract?:** Scientific

**Objectives:** To conduct a systematic review and meta-analysis of the literature of the factors leading to hospital admission for people with dementia in comparison with (1) people without dementia acutely admitted and (2) people with dementia in the community.

**Methods:** A systematic review and meta analyses were conducted using the Oxford Centre for Evidence Based Medicine Guidelines to review the quality of the evidence found in the literature.

**Results:** Inpatients with dementia are at an increased risk of crisis owing to physical health related factors, including orthopaedic, respiratory, and urologic, than inpatients without dementia. We also reviewed data that compared people with dementia admitted with those who were not and found that behavioural problems, such as agitation and wandering, placed people with dementia at an increased risk of being admitted. Interestingly, we also found that changes in routine and environment and increased dependency problems in several activities of daily living were associated with a higher risk of hospitalisation for people with dementia.

**Conclusion:** Many older people's crisis teams tend to focus on prevention and reducing psychiatric admissions. This review highlights the need for recognition of the physical health risks in these patients and a low threshold for early treatment in the community. This review highlights the importance of integrated working between services for older people's mental health, primary care, social welfare, intermediate care, and hospital liaison.

**Disclosure of Interest:** None Declared

## OC069

**Date:** Saturday 3 May 2014

**Session:** Crisis Interventions and End of Life Decisions

### ALZHEIMER'S DISEASE LIVING WILL

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<sup>1</sup>Senior Living Consulting Group, Leesburg, United States

**Are you submitting a scientific or non scientific abstract?:** Non Scientific

**Objectives:** To provide society with a living will specific to Alzheimer's disease. The legal document is implemented in the end stages of Alzheimer's disease. The advance directive utilizes "The Global Deterioration Scale for Assessment of Primary Degenerative Dementia" as the basis for implementation. Two physicians must assess the person to be in either the 6th or 7th stage to activate the directive. Existing living wills / advance directives primarily focus on emergent type medical conditions. However, the Alzheimer's disease person often spends extended time in the end stages, usually outside the scope of existing living wills. As a result, a natural dying process is typically not supported. Too often, families, caregivers and physicians are left with no alternative but to prolong life, regardless of documented advance directives. This living will bases all decisions upon "Quality of Life versus Prolonging Life". The document encompasses statements relating to the disease as progressive, degenerative and terminal. The directive addresses subjects to include: treatments, medications, positive behavioral responses, coercion to eat, artificial intervention, therapies, exploitation of personal assets / government funds, natural dying process and palliative care. Reviewed and supported by geriatric physicians and elder law attorneys. Copyright permission by American Psychiatric Publishing Inc.

**Disclosure of Interest:** None Declared



## OC070

**Date:** Saturday 3 May 2014

**Session:** Crisis Interventions and End of Life Decisions

### VARIABLES ASSOCIATED WITH QUALITY OF LIFE AMONG NURSING HOME PATIENTS WITH DEMENTIA

Marit Mjorud<sup>1</sup> Marit Kirkevold<sup>2</sup> Janne Rosvik<sup>1</sup> Geir Selbæk<sup>1</sup> Knut Engedal<sup>1</sup>

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**Are you submitting a scientific or non scientific abstract?:** Scientific

**Objectives:** To study which variables are associated with quality of life as measured by Quality of life in late stage dementia (QUALID) scale in persons with dementia (pwd) living in nursing homes (NH).

**Methods:** The cross-sectional study included 661 pwd living in NH. We used the following scales: clinical dementia rating scale (CDR), physical self maintenance scale (PSMS), neuropsychiatric inventory questionnaire (NPI-Q), Quality of life in late stage dementia scale (QUALID). The Mann-Whitney U-test or the Kruskal-Wallis was used to test for differences between groups. Four linear regression analyses were conducted, using QUALID total score and the score of each of three QUALID subscales termed tension, sadness and wellbeing, identified in a previous principal component analysis, as dependent variables.

**Results:** The mean age for women was 86.9 (SD 7.7), for men 81.5 (SD 9.5), 71.4 % were women. The distribution of CDR scores was: CDR 1;22.5 %, CDR 2;33.6 % and CDR 3;43.9 %. Mean PSMS score 18.2 (SD 5.0). 43.1 % lived in a special care unit, 56.9 % lived in a regular unit.

According to the linear regression analysis that explained 44.5% of the variance the variables significantly associated to the total QUALID score were: NPI-affective score, ( $\beta=0.360$ , p value  $<0.001$ ), NPI-agitation score ( $\beta=0.268$ , p-value  $<0.001$ ), PSMS total score ( $\beta=0.181$ , p-value  $<0.001$ ), NPI-apathy ( $\beta=0.144$ , p-value  $<0.001$ ), NPI psychosis  $\beta=0.085$ , p-value 0.009) and CDR sum of boxes score ( $\beta=0.081$ , p-value 0.026).

The tension subscale was significantly associated with NPI- affective-, NPI- agitation- and NPI- psychosis subscales, and with use of antipsychotic and anxiolytic drugs and the PSMS total score. The sadness subscale was significantly associated with the NPI-affective-, NPI- agitation and NPI-apathy subscales and with general medical health.

The variables significantly associated with the wellbeing subscale were NPI-Q apathy, PSMS total score, CDR sum of boxes score and type of nursing home ward, where living in a regular unit meant worse qol.

**Conclusion:** Neuropsychiatric symptoms, apathy, dementia severity and impairment in activities of daily living are associated with reduced qol in nursing home patients with dementia. Wellbeing is higher in special care units for pwd.

**Disclosure of Interest:** None Declared

## OC071

**Date:** Saturday 3 May 2014

**Session:** Crisis Interventions and End of Life Decisions

### DYING WELL WITH DEMENTIA - CHALLENGES AND SOLUTIONS

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<sup>1</sup>Brighton and Sussex Medical School, University of Sussex, Brighton, United Kingdom

**Are you submitting a scientific or non scientific abstract?:** Scientific

**Objectives:** End-of-life-care is often poor in individuals with dementia. Advanced care planning (ACP) has the potential to improve end-of-life care in dementia. Commonly ACP is completed in the last six months of life, in dementia there may be problems with this as decision-making capacity and ability to communicate necessarily decrease as the disease progresses. Choosing the right time to discuss ACP with people with dementia may be challenging given the duration of the illness may be up to nine years.

**Methods:** We completed a two phase study to define good end-of-life care for people with dementia and identify how it can be delivered across care settings in the UK and to explore the acceptability of discussing ACP with people with memory problems and mild dementia shortly after diagnosis. First, in-depth interviews were conducted with 27 bereaved family carers and 23 care professionals recruited from the community, care homes, general hospitals and continuing care units. Second, In-depth interviews were conducted with 12 patients and eight carers who had participated in ACP discussions and six staff members from a memory clinic and a community mental health team who had either conducted or attended the discussions for training purposes.

**Results:** The data highlighted the challenge and imperative of 'dementia-proofing' end-of-life care for people with dementia. This requires using dementia expertise to meet physical care needs, going beyond task-focused care and prioritising planning and communication with families. Patients and carers found ACP a positive intervention that: helped them think about the future, enabled people with dementia to make their wishes known, and resulted in their feeling relieved and less worried about the future. The importance of sharing the ACP documentation between health service providers was highlighted.

**Conclusion:** The quality of end-of-life care exists on a continuum across care settings. Together, the data reveal key elements of good end-of-life care and that staff education, supervision and specialist input can enable its provision. The qualitative evaluation of ACP in early dementia has encouragingly positive results which support the wider application of the intervention in memory services and community mental health teams.

**Disclosure of Interest:** None Declared





## OC072

**Date:** Saturday 3 May 2014

**Session:** Non-Pharmacological Interventions

### **EFFECTS OF A MULTICOMPONENT EXERCISE PROGRAMME ON PHYSICAL AND COGNITIVE FUNCTIONS OF INSTITUTIONALISED PATIENTS WITH ALZHEIMER'S DISEASE**

Arnaldina Sampaio <sup>1</sup>, Elisa Marques <sup>1</sup>, Joana Carvalho <sup>1</sup>, Jorge Mota <sup>1</sup>

<sup>1</sup>CIAFEL, University of Porto, Porto, Portugal

**Are you submitting a scientific or non scientific abstract?:** Scientific

**Objectives:** The aim of this study was to investigate the effect of a multimodal exercise intervention on cognitive functions, anthropometric variables and physical fitness in patients with Alzheimer's Disease (AD).

**Methods:** The subjects consisted of 37 institutionalised older adults clinically diagnosed with AD, aged 84,05 ±5,58 years old with mild to moderate dementia, who were divided into two groups: the experimental group (EG, n= 19) and the control group (CG, n=18). The EG participated in a supervised multicomponent exercise programme (including aerobic exercises, muscular resistance and strength training, flexibility and postural exercises) 45/55 min/day, twice a week, for six months. Participants in the CG maintained their regular daily activities during the same period. Global cognitive function (MMSE), anthropometric variables (BMI and waist circumference) and physical fitness (Senior Fitness Test), were assessed beforehand (M1), after 3 months (M2) and after 6 months (M3) of exercise training.

**Results:** No significant group differences were found at the baseline of the physical fitness tests, anthropometrics variables or cognitive functions. A two-way (group and time) factorial ANOVA, with repeated measurements for one factor (time), revealed significant group and time interactions on cognitive functions, waist circumference, and chair stand, arm curl, 8-ft up-&-go, 2-min step, chair sit-&-reach and back scratch tests. Accordingly, a different response in each group was evident over time for those variables, supported by a significant decrease in waist circumference, an increase in physical fitness tests from M1 to M3, and a significant increase in MMSE from M1 to M2 in EG. Cognitive function and the performance in the arm curl test, chair sit-&-reach test significantly decreased over time (M1 vs M3) in the CG. No changes were observed for BMI in either group. No adverse effects of exercise occurred.

**Conclusion:** These results allowed us to verify that multicomponent exercise can be a significant element in the promotion and maintenance of health, allowing higher cognitive and fitness functions compared to inactive subjects. This study suggests that multicomponent exercise programmes may be an important non-pharmacological strategy to improve physical and cognitive functions in institutionalised AD patients.

**Disclosure of Interest:** None Declared

## OC073

Date: Saturday 3 May 2014

Session: Non-Pharmacological Interventions

### ACTIVE INDIVIDUAL MUSIC THERAPY AND SYMPTOMS OF DEPRESSION IN DEMENTIA

Mariette Broersen<sup>1,\*</sup>

<sup>1</sup>Amstelring Amsterdam, Amsterdam, Netherlands

**Are you submitting a scientific or non scientific abstract?:** Non Scientific

**Objectives:** Mood problems occur in the vast majority of people with dementia. These problems can be differentiated in apathy, depression and anxiety. The prevalence of diagnosed depression in a sample of people with dementia in the nursing home in The Netherlands is 19% (1). This is considerably higher than the prevalence of depression in the elderly without dementia, which is 2% (2). In the nursing home 30% of the nursing staff reports to feel powerless regularly in caring for people with dementia who are depressed (3). It is likely that the prevalence of depressive symptoms in people with dementia in the nursing home, without a diagnosed depression, lies above the rate of 19%.

Music therapy is a treatment in which musical means are used within a therapeutic relationship in order to achieve change, development, stabilization or acceptance in the emotional, behavioural, cognitive, social or physical area. It is a promising non-pharmacological intervention for depressive symptoms in dementia. In particular, the direct interaction in active music therapy seems to be crucial for the effect of music therapy (4). Methods, music therapeutic theoretical backgrounds, neurologic basis and perspectives are given for individual, active music therapy in the treatment of depressive symptoms in dementia. A case-description is given to illustrate methods and effects. Further, a repeated combination of measurement with the Cornell Scale for Depression in Dementia with an assessment of musical parameters (e.g. melody, rhythm, harmony, timbre) during the course of the music therapeutic process is proposed. This combination could generate specific music therapeutic knowledge on this topic.

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**Disclosure of Interest:** None Declared



## OC074

**Date: Saturday 3 May 2014**

**Session: Non-Pharmacological Interventions**

### **AFFECT REGULATION PSYCHOTHERAPY FOR PERSONS WITH DEMENTIA**

Mitchell R. Slutzky <sup>1,\*</sup>

<sup>1</sup>CHE Senior Psychological Services, Brooklyn, United States

**Are you submitting a scientific or non scientific abstract?:** Non Scientific

**Objectives:** Affect Regulation Therapy as a treatment for Persons with Early to Middle Stage Dementia. The field of affective neuroscience has yielded discoveries that are beginning to spawn clinical psychotherapeutic techniques that hold promise in the treatment of persons with dementia. One of these, Affect Regulation Therapy, appears effective as a clinical tool in the treatment of persons with early- to mid-stage dementia who continue to have relatively preserved implicit memory despite the loss of explicit recall. CHE Senior Psychological Services has been at the forefront of dementia care, applying this approach in a variety of long term care settings. We are in the process of designing outcome studies to measure the efficacy of our clinical interventions. Evidence will be presented that re-regulation of affect depends more on the functioning of the amygdala than on the functioning of the hippocampus, and thus changes can take place that are measurable even in the absence of explicit recall. Research also suggests that intensely dysregulated negative emotions and catastrophic emotional responses to traumatic events can put one at higher risk for the development of dementia, while recollection of previously traumatic memories within the context of a safe therapeutic relationship can improve functioning well after the onset of dementia. The presentation will also underscore the centrality of empathy and compassion -- from therapist and caregivers -- as enhancers of cognitive, emotional and behavioral functioning, while optimizing neuroendocrine and immune functions. Clinical vignettes will illustrate the principals and benefits of Affect Regulation Therapy in the treatment of persons with dementia.

**Disclosure of Interest:** None Declared

## OC075

**Date:** Saturday 3 May 2014

**Session:** Non-Pharmacological Interventions

### **ANALYSIS OF LEXIS IN SPONTANEOUS CONVERSATION WITH ALZHEIMER'S DISEASE PATIENTS**

Renne Alegria<sup>1</sup>, Cleide R. Prisco<sup>2</sup>, Cassio Bottino<sup>1</sup>, Maria I. Nogueira<sup>3</sup>

<sup>1</sup>PROTER-IPq/HC FMUSP, <sup>2</sup>Institute of Biomedical Science, <sup>3</sup>Center for Research in Neuroscience and Behavior,,  
UNIVERSITY OF SAO PAULO, Sao Paulo, Brazil

**Are you submitting a scientific or non scientific abstract?:** Scientific

**Objectives:** To show the lexical items and grammar categories the Alzheimer's patients have preserved and use in conversation.

**Methods:** The discourse of 23 mild and moderate patients were analyzed, they were ten men and thirteen women aged 78 to 82, and the controls were eight male and fifteen female, aged 65 and older. All patients were from PROTER- Old Age Program - ambulatory care of the Institute of Psychiatry, School of Medicine, the University of São Paulo. The patients had 4 to 26 years of education; their Mini Mental State Exam (MMSE) scores 13 to 30. Controls had 4 to 18 years of education. The discourses of patients and controls were recorded during 20 minutes and first analyzed by the computational tool Stalex, a mathematical-statistical-computer assisted program. Stalex was used to determine the frequency and value of the lexical items. The results of the frequencies of words were compared between control vs patients.

**Results:** The results of the frequency analysis from Stalex and the Kruskal-Wallis test showed that control used more frequently lexis than patients, but also that mild patients used more frequently lexis than moderate, p

**Conclusion:** When analyzing the lexicon of patients in order to enhance communication with patients and caregivers it is necessary to verify the real use of words and grammar classes in interaction until patients reach severe stage without much stress.

**Disclosure of Interest:** None Declared



## OC076

**Date:** Saturday 3 May 2014

**Session:** Non-Pharmacological Interventions

### **“I’M 75 AND WANT A DIVORCE!” EXPERIENCES OF COUPLEPSYCHOTHERAPY IN TREATMENT OF DEMENTIA**

Sanna Aavaluoma <sup>1,\*</sup>

<sup>1</sup>The Finnish Institute of Psychology, Helsinki, Finland

**Are you submitting a scientific or non scientific abstract?:** Scientific

**Objectives:** MCI and Memory Illnesses are severe neurological conditions, but their impact on interaction and relationships is underestimated. It is known that dementia affects the whole family but Psychotherapeutic support is rarely available to anyone in the family. Already the early symptoms confuse the couple and their relationship. Before the diagnosis is clear, the early symptoms may have caused many damages in marital relationship. For some couples the diagnosis is a relief and the relationship gets better again. For some couples there are too many disappointments and hurt feelings and the relationship seems to be over. As a psychotherapist you never know which one in the couple has had enough.

**Methods:** As a family psychotherapist and a couples psychotherapist I have met families and couples with MCI, Alzheimer’s and other dementias since 2000. I take the whole family as a patient – each of them needs to be seen and heard with their own feelings and questions. The psychotherapeutic work may take from one session to a process of many years.

**Results:** Early traumas seem to be a common factor to those who get the memory illness. The illness activates the wounds in the family history of both spouses. The Inner couple and the history of the couple relationship have a great effect on how the spouses can manage their new life with the illness. Psychotherapy helps the couple to listen, understand and respect each other. In couples psychotherapy both spouses can understand why they react the way they do. The therapeutic relationship also heals. Psychotherapy helps the couple to maintain their self-esteem and capability to closeness and separateness, hopefully without the need to separate by divorce. When caring system outside home is needed, the separation is inevitable. Psychotherapy can help the couple to accept this journey. Sometimes the illness crushes the relationship. Also in this situation both the spouses need help.

**Conclusion:** In this presentation I’ll share some vignettes from the psychotherapist’s practice and assure that people with MCI and dementia are capable to attend psychotherapy. I’ll also point some special challenges of psychotherapy for people with dementia.

**References:** Trainer of the professionals in dementia care in The Finnish Institute of Psychology  
Psychotherapist in Helsinki Alzheimer Association

**Disclosure of Interest:** None Declared

## OC077

**Date:** Saturday 3 May 2014

**Session:** Non-Pharmacological Interventions

### DEVELOPING AN IMPLEMENTATION PROGRAM FOR CASE CONFERENCES IN NURSING HOMES

Ines Buscher<sup>1,\*</sup>Sven Reuther<sup>1</sup>Daniela Holle<sup>1</sup>Martina Roes<sup>1</sup>Margareta Halek<sup>1</sup>

<sup>1</sup>German Center for Neurodegenerative Diseases (DZNE) , Witten , Germany

**Are you submitting a scientific or non scientific abstract?:** Scientific

**Objectives:** Case conference (CC) is a method to find person-centered interventions in dealing with persons with dementia and challenging behavior. The implementation into daily nursing practice is, however, often unplanned and fails [1, 2]. Therefore, an implementation program for supporting the implementation of case CC in nursing homes was developed within the FallDem project (CC for dementia and challenging behavior in nursing homes).

**Methods:** In addition to the results of a literature review on implementation interventions, nine experts were interviewed and one focus group was conducted. The interviews and the focus group were content analyzed [3] and merged using a side-by-side comparison [4].

**Results:** It is recommended that an implementation strategy should be distinguished into the phases: dissemination, implementation, and maintenances of change [5]. On each phase different implementation interventions, like trainings, feedbacks, and reminders should be included. The interviewed experts described three key elements: (1) learn the CC-process, (2) acquire skills and ability to moderate, and (3) create and reflect on experiences in conducting CC. Moreover, organizational-specific implementation plans are necessary. Based on these results, we developed a step-by-step implementation program of CC in nursing homes: (1) information of the project, (2) Education in dementia care and CC, (3) Training in conducting and implementing CC, and (4) Consultation sessions and reminders.

**Conclusion:** Qualitative research could be the basis for developing implementation programs for the implementation of a specific intervention in a specific organizational context. In a next step, the feasibility of the implementation program should be examined

**Disclosure of Interest:** None Declared

*\*The presenting author of this abstract is now Martina Roes*





## OC078

**Date:** Saturday 3 May 2014

**Session:** Education and Behaviour

### DEMENTIA - THE GUIDE TO ESTABLISHING A MEDICAL MODEL

Nancy Shadowens<sup>1,2,\*</sup>

<sup>1</sup>Member, Consultants in Dementia Therapy PLLC, Denton, <sup>2</sup>Member, Alzheimer's Association, Dallas, United States

**Are you submitting a scientific or non scientific abstract?:** Non Scientific

**Objectives:** The objective of this course is to explore identification, behavior management challenges and perspectives for the growing dementia population. There is a gap between what medical communities know about management of dementia, what universities choose to include in their curriculum on dementia, how medical personnel treats dementia, and appropriate, evidence-based management of dementia induced behaviors in our society. Thus, all medical personnel need to be updated on current information related to evidence-based areas of dementia best practice in order to create a dementia friendly environment and serve the needs of their patients. Through case studies, review of research, personal experiences, and question and answer sessions, participants will gain valuable insight and information to fill the gap, promote understanding, and appropriately treat the growing, yet underserved dementia population.

Learning Objectives:

As a result of attending this course you will be able to:

- 1) Integrate best practice hierarchy for management of dementia.
- 2) Determine the best practice model for standardized evaluation for dementia.
- 3) Identify the stage at which the patient with dementia is presenting for best practice understanding of specific spared vs. impaired characteristics of the patient.
- 4) Apply best practice evidence-based behavior management interventions and strategies with patients immediately.
- 5) Demonstrate knowledge of best practice referral sources for differential diagnosis of dementia.
- 6) Describe best practice identification of therapeutic intervention needs for patients with dementia.

This course is intended for physicians, psychiatrists, psychologists, social workers, educators, nurses, internists, gerontologists, physician assistants, nurse practitioners, caregivers, and others interested in the care of patients with dementia. This course will provide current information on the care of patients with dementia, including clinical evaluation, management strategies and innovative practice models.

Time is allocated for questions and discussion.

**Disclosure of Interest:** N. Shadowens Conflict with: Nancy Shadowens is co-owner of Consultants in Dementia Therapy (CDT), owner of the copyright to the books Dementia Therapy & Program Development, and Dementia Loving Care with a Therapeutic Benefit. The presentation is based on the content of these books. Nancy Shadowens receives royalties from the sale of these books.

## OC079

**Date: Saturday 3 May 2014**

**Session: Education and Behaviour**

### **BRIDGING THE GAP: EFFECTIVE CULTURALLY INCLUSIVE STRATEGIES TO IMPROVE PROVIDER- PATIENT RELATIONSHIPS AND SELF-ADVOCACY IN AFRICAN AMERICAN COMMUNITIES**

Gina Green-Harris<sup>1</sup>David Frazer<sup>2</sup>Mark A. Sager<sup>3</sup>Dorothy F. Edwards<sup>4</sup>

<sup>1</sup>Medicine, University of Wisconsin School of Medicine and Public Health, <sup>2</sup>Center for Urban and Population Health, University of Wisconsin- Madison, Milwaukee, <sup>3</sup>Wisconsin Alzheimer's Institute, University of Wisconsin- Madison, <sup>4</sup>Medicine/Geriatrics, University of Wisconsin Madison, Madison, United States

**Are you submitting a scientific or non scientific abstract?:** Non Scientific

**Objectives:** Medical advances and new technologies have significantly increased American life expectancy. In general, people today live longer, healthier lives. However, despite these well-documented advances, significant health disparities persist between different racial and ethnic populations and health parity remains elusive.

By 2030, the number of people living AD will increase by 50%, this rate will be even higher for African Americans. Despite significantly greater prevalence of AD and other dementias, African Americans are less likely to seek diagnosis and treatment for memory problems than white Americans. Major outreach and education programs have been developed to address this disparity. The Wisconsin Alzheimer's Institute's Milwaukee Program has developed the Minority Alzheimer's Project. This educational program uses culturally tailored messages about AD and approaches that emphasize the cultural values, needs and norms of African Americans to empower them to become self-advocates for better care. Over the past five years we have presented and evaluated more than 250 workshops, professional trainings, and community presentations on the national, state and local levels reaching more than 7500 physicians, other health providers and community residents. AD education and awareness alone are not enough to overcome the real and perceived cultural and structural barriers preventing families from seeking medical attention or formal diagnosis.

We will present our model of cultural inclusion: "An Integrated Approach to Cultural Change for Medical Professionals and Patients Leading to Improved Diagnoses of AD in Communities of Color" developed over five years of community engagement. This We culturally tailored outreach and education program moves beyond race and ethnicity to recognize cultural values, life experiences, education, training, background, economic status and social norms on the capacity to make health decisions This presentation will discuss the development, implementation and multi-level evaluation of this program.



## OC080

**Date:** Saturday 3 May 2014

**Session:** Education and Behaviour

### **BEHAVIOURS AND BELONGING - SHIFTING FOCUS - A GUIDE TO UNDERSTANDING UNPREDICTABLE DEMENTIA BEHAVIOUR**

Felicia White<sup>1,\*</sup> on behalf of AKEJillian McConnell<sup>1,2</sup> on behalf of AKE

<sup>1</sup>Knowledge Broker, Alzheimer Knowledge Exchange, <sup>2</sup>Knowledge Broker, Canadian Dementia Resource and Knowledge Exchange, Toronto, Canada

**Are you submitting a scientific or non scientific abstract?:** Non Scientific

**Objectives:** Older adults with cognitive impairments due to mental health challenges, addictions, dementia, or other neurological conditions can exhibit responsive behaviours that impact both the person and care partners. In 2010, the Ministry of Health and Long-Term Care (MOHLTC) funded the Behavioural Supports Ontario Project (BSO) to create a framework to improve personal and system-wide outcomes.

Over the last three years, the BSO project has lead to collaboration across sectors within the health care field and communities across Ontario, Canada's largest province. Knowledge Exchange was implemented in order to provide opportunities to create, share and apply best practices related to responsive behaviours. The Alzheimer Knowledge Exchange (AKE) supports the work of those developing best practices in BSO.

Through this work it became clear that resources were needed to enable family, friends and co-residents of persons exhibiting responsive behaviours specific to dementia. The Shifting Focus guide was created in collaboration with many partners across Ontario to meet this need and is to be used as a tool by the family members, friends and co-residents of those who live in a Long Term Care Home and are presenting responsive behaviours that create unease or distress. This can also be implemented by Long Term Care Homes during the orientation phase.

The goal of the guide is to assist care partners and fellow residents by providing:

- Increase patience and acceptance for those living with a dementia.
- Information about the brain and how dementia affects it and subsequent behavior
- Defining responsive behaviours and providing ways in which to recognize a resident's actions and their respective meaning.
- Strategies of how to respond to specific responsive behaviours
- Working with staff at the long term care home.

While all scenarios and subsequent strategies provided in the guide take place in the long term care home, much of the guide would easily translate and be useful to anyone caring for someone with dementia in a community / home environment.

This presentation will provide an overview of the collaborative creation process of the guide, field testing results and how it can be implemented to enable person centred care.

**Disclosure of Interest:** None Declared

## OC081

**Date:** Saturday 3 May 2014

**Session:** Education and Behaviour

### **THE HALT PROJECT: A MULTIDISCIPLINARY APPROACH TO REDUCING ANTIPSYCHOTIC USE IN RESIDENTIAL CARE**

Tiffany Jessop <sup>1</sup>, Henry Brodaty <sup>1</sup>

<sup>1</sup>Dementia Collaborative Research Centre, University of New South Wales, Sydney, Australia

**Are you submitting a scientific or non scientific abstract?:** Scientific

**Objectives:** Managing the Behavioural and Psychological Symptoms of Dementia (BPSD) is a great challenge, particularly in the residential care setting. Antipsychotic medications are commonly used to treat a number of these symptoms such as aggression and agitation however evidence suggests only modest efficacy and an increase in the risk of stroke, cognitive decline and death<sup>1</sup>. Recent Australian data examining the use of psychotropic medications in nursing homes suggest that around 30% of residents are using these medicines regularly and the majority are prescribed inappropriately<sup>2</sup>. This is a great concern considering the increased risk of stroke and death specifically as well as the risks of polypharmacy generally.

**Methods:** HALT is a single arm longitudinal study with the primary objective of reducing antipsychotic use in residential care, without consequent increases in substitute medication or problem behaviour. Approximately 200 residents will be recruited across the Eastern and South Western regions of Sydney, Australia. There are two equally important components to the study, the deprescribing intervention and the development of a tailored training and education package for healthcare teams involved in the care of residents. Staff at participating residential aged care facilities (RACFs) will attend training sessions about the risks of antipsychotic use in older people as well as person centred, non-pharmacological management of BPSD. In addition, residents' GPs and pharmacists will be engaged in academic detailing with the aim of impacting current prescribing practices.

**Results:** HALT will investigate the effect of deprescribing on behaviour, cognition, function, quality of life, general health and wellbeing over a period of 12 months. Medication audits and adverse event data including falls and hospitalisations will be recorded over the study period to assess the impact of both deprescribing and training.

**Conclusion:** HALT takes a multidisciplinary approach, with collaboration between consumers, RACFs, GPs, pharmacists and clinical specialists to achieve reductions in inappropriate antipsychotic use and associated adverse events.

**References:** 1. Ballard et al., 2009

2. Snowdon et al., 2011

**Disclosure of Interest:** None Declared



## OC082

**Date:** Saturday 3 May 2014

**Session:** Education and Behaviour

### **ALZHEIMER'S FROM THE INSIDE OUT, LIVING WITH DEMENTIA FOR TEN PLUS YEARS, WHAT I'VE LEARNED**

Richard Taylor<sup>1 1,\*</sup>

<sup>1</sup>I am currently unaffiliated, retired, Cypress, United States

**Are you submitting a scientific or non scientific abstract?:** Non Scientific

**Objectives:** Hello, the statement, if you know one person living with the symptoms of dementia, you know one person's worth of what it is like to live with dementia." Despite all the experts, books, publications and advice, living with dementia is by definition an immensely personal experience. Others cannot know, nor even come close to the deepest empathic appreciation of living with the symptoms unless they themselves are experience it first hand, and then their experience is limited by their own self perceptions. Experts seem to be able to agree only one one thing, they need more funds to "further investigate us."

More research is not the answer to understanding and repsonding empathetically to those living with the symptoms of dementia. Listening to the stories of their life experiences beats an research protocal, and statistical model. Yet unfortunately most folks living with dementia seem to feel like their voice is unheard. Their lives are unappreciated. They humanity is lost in the "stages of dementia."

How does this happen? Why? How can it be avoided. I don't have «the» answer, but I have a few suggestions. Come and share your own sugestions with each other, and consider mine.

**Disclosure of Interest:** None Declared

## OC083

**Date:** Saturday 3 May 2014

**Session:** Education and Behaviour

### **RESILIENCE, HOPE AND RECOVERY – A WELLNESS MODEL FOR MEN EXPERIENCING CHALLENGING BEHAVIOURS.**

Peter Bewert<sup>1,\*</sup> The Salvation Army Aged Care Plus, Sydney, Australia

**Are you submitting a scientific or non scientific abstract?:** Non Scientific

**Objectives:** This presentation will outline how a person-centred, relationship-based, model of care has empowered residents and staff in a residential care setting for men with severe and persistent challenging behaviours. The majority of the population have a mental illness, dementia, history of incarceration/institutionalisation, substance abuse, and previous failed residential placement's. The resident population has limited familial relationships - as a result the importance of a homelike environment and strong staff relationships are vital in the management of behaviours and to empower the men and enhance their lived experience.

Challenging behaviours in residential care are an increasing phenomenon in Australia, changing the face of care delivery. The challenge of providing care and accommodation for this very specific demographic of men is immense - implications/repercussions for behaviours impact care and workforce, as well as the person themselves. Our model has resulted in increased resident satisfaction, engagement with staff as the new family substitute and a reduction in extreme behavioural exacerbations.

Experience has shown the best relationships are reciprocal – thus, the Centre philosophy is based on a collaborative and respectful relationship between the residents and care giver. The principles that underpin this philosophy celebrate the achievements that have made the centre so successful in the past whilst moving towards the accomplishment of best practice in aged care. It has made the centre a responsive, unique and dynamic home with a focus on relationships and connection to others.

The philosophy will be described, which -

- clearly defines values of the staff and residents;
- achieves a balance between dependence, interdependence and independence;
- focuses on capabilities, not deficits;
- fosters a shared understanding about what is important in the resident's day-to-day life, their current situation and the future they desire;

Case studies will be used to illustrate the success of the model.

**Disclosure of Interest:** None Declared





## OC085

**Date:** Saturday 3 May 2014

**Session:** Prevention and Risk Factors

### **SOCIOECONOMIC AND OCCUPATIONAL RISK FACTORS FOR ALZHEIMERS DISEASE IN SWEDEN: A NATIONWIDE EPIDEMIOLOGICAL STUDY**

Xinjun Li<sup>1,\*</sup>

<sup>1</sup>Center for Primary Health Care Research, Lund University, Malmö, Sweden

**Are you submitting a scientific or non scientific abstract?:** Scientific

**Objectives:** Our aims were to investigate possible associations between hospitalisation for Alzheimers disease and socioeconomic 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

## OC086

**Date:** Saturday 3 May 2014

**Session:** Prevention and Risk Factors

### **PAIN AS A RISK FACTOR FOR ALZHEIMER'S DEMENTIA**

Mizraim Esquilin<sup>1,\*</sup>

<sup>1</sup>Medicine, UPR School of Medicine, San Juan, Puerto Rico

**Are you submitting a scientific or non scientific abstract?:** Non Scientific

**Objectives:** This presentation proposes a probable model for the prevention of Alzheimer's dementia (AD). It has been accepted that Alzheimer's disease patients have in common having dealt with various types of pain as part of their historical background; thus, previous to AD development. Painful experiences have been related to decreased serotonin, neuronal deterioration and depressive syndromes.

It has also been found that microglia synthesize the abnormal Prion P protein that deposits during painful experiences. Cellular Prion protein mediates impairment of synaptic plasticity by amyloid B oligomers. Prion proteins form the oligomers AB and they accumulate in the hippocampus. PRP is required to inhibit hippocampal long-term potentiation. Thus, the interaction between ABeta and PRP provides a novel area for Alzheimer's disease treatment.

This model has been developed based on the outstanding research data about Prion-P, related to somatic pain as well as emotional pain, and its relationship with both, Alzheimer's disease development and NMDA receptors.

**Disclosure of Interest:** None Declared



## OC087

**Date:** Saturday 3 May 2014

**Session:** Prevention and Risk Factors

### THE MULTIPLE RESERVE HYPOTHESIS AND THE SALUTOGENESIS OF AGING

Robert Friedland <sup>1,\*</sup>

<sup>1</sup>Department of Neurology, University of Louisville, Louisville, United States

**Are you submitting a scientific or non scientific abstract?:** Non Scientific

**Objectives:** The medical view of aging is dominated by the process of pathogenesis, the origination and development of disease. An additional perspective is promoted by the concept of salutogenesis, the production and maintenance of health. The goals of successful aging involve not only survival and the avoidance of disease, but also the maintenance of the highest level of functional capacity. And functional capacity is linked to resistance to disease as well as quality of life. Avoidance of disease is not the same as the presence of health. Resistance to development of dementia has been linked to cognitive reserve (plasticity), which accounts for the discrepancy between a person's level of brain pathology and cognitive performance (Baltes et al, 1992). Extensive work from Stern et al (Barulli, Stern 2013) and others have demonstrated the influence of cerebral reserve capacity on functional status with brain disease such as Alzheimer's (AD) and others. Emphasis on cognitive reserve may lessen focus on many other aspects of premorbid health which are also important in aging. The multiple reserve hypothesis adds components of physical, psychological, and social reserve to cognitive reserve to more fully account for the interaction between premorbid status and the development and expression of disease. These four components of the multiple reserves influence the expression of the disease itself (e.g., social isolation enhances the effects of AD; polypharmacy impairs cognition), as well as influence the disease process itself (diabetes enhances AD pathology; social isolation decreases cerebral blood flow and metabolism). The role of the multiple reserves in influencing AD processes in the brain is crucial, because of the slow progression of disease processes over decades and the usual late onset. It is important for health professionals to work to enhance salutogenesis through each of the multiple reserves through all stages of life in order to enhance resistance to brain disease with aging.

**Disclosure of Interest:** None Declared

## OC088

**Date:** Saturday 3 May 2014

**Session:** Prevention and Risk Factors

### **DEMENTIA IN TWO COUNTRIES OF CENTRAL AFRICA: PREVALENCE AND ASSOCIATED FACTORS IN THE EPIDEMCA STUDY.**

Maëlénn Guerchet <sup>1,\*</sup>Pascal Mbelesso <sup>2</sup>Bebene Ndamba-Bandzouzi <sup>3</sup>Sophie Pilleron <sup>1</sup>Jean-Pierre Clement <sup>1</sup>Jean-Francois Dartigues <sup>4</sup>Pierre-Marie Preux <sup>1</sup> and The EPIDEMCA group

<sup>1</sup>Inserm UMR 1094 Tropical Neuroepidemiology, Limoges, France, <sup>2</sup>Neurology, Hopital de l'Amitié, Bangui, Central African Republic, <sup>3</sup>Dpt of Neurology, Brazzaville University Hospital, Brazzaville, Congo, <sup>4</sup>Inserm U897, Bordeaux, France

**Are you submitting a scientific or non scientific abstract?:** Scientific

**Objectives:** Despite an increase in the number of studies on dementia in low and middle income countries during the last years, very few concerned Sub-Saharan Africa compared to Asia or Latin America continents. The EPIDEMCA study aims to estimate the prevalence of dementia in two Central African countries, and to assess the associations between dementia and potential risk factors.

**Methods:** A multicenter population-based study was carried out in Central African Republic (CAR) and Republic of Congo between 2011 and 2012 including both urban and rural sites in each country. Participants aged  $\geq 65$  years old were interviewed using the Community Screening Interview for Dementia (CSI-D), the GMS-AGECAT and the CERAD's 10 word list. Elderly with low performance to the CSI-D ( $< 24.5/30$ ) were then clinically assessed by neurologists and underwent further psychometrical tests. DSM-IV and NINCDS-ADRDA criteria were required for dementia and Alzheimer's disease diagnoses respectively; the 10/66 dementia diagnosis was also determined. Sociodemographic, and environmental factors including vascular, nutritional, biological, psychosocial and lifestyle factors were collected in each setting in order to investigate factors associated with dementia. ApoE genotyping was realized on blood samples.

**Results:** Overall, 2,002 elderly were interviewed in both countries, including 473 in Nola (rural CAR), 500 in Bangui (urban CAR), 529 in Gamboma (rural Congo) and 500 in Brazzaville (urban Congo). Preliminary results showed a crude DSM-IV dementia prevalence at 8.46% (CI95%[6.11-11.33]) in Nola, 6.40% (CI95%[4.42-8.91]) in Bangui, 5.67% (CI95%[3.85-8.00]) in Gamboma and 6.60% (CI95%[4.58-9.04]) in Brazzaville. Those prevalences were not different between the sites ( $p=0.41$ ) and any rural/urban pattern was observed.

The latest results from the study, including standardized prevalences and associated factors, will be presented at the conference.

**Conclusion:** This first comparison of rural/urban dementia prevalences and associated factors in Africa will add to the available figures from Sub-Saharan Africa and low-income countries.

Funding: grant ANR-09-MNPS-009-01 from the french National Research Agency

**Disclosure of Interest:** None Declared



## OC089

**Date:** Saturday 3 May 2014

**Session:** Prevention and Risk Factors

### **PREVALENCE INCIDENCE AND RISK FACTORS OF DEMENTIA IN OLDER ADULTS IN CUBA.**

Juan J. Llibre Rodriguez<sup>1,\*</sup> Juan C. Llibre Guerra<sup>2</sup> Adolfo Valhuerdi<sup>3</sup> Milagros Guerra Hernandez<sup>4</sup> Cleusa Ferri<sup>5</sup> Martin Prince<sup>6</sup> and 10/66 Dementia Research Group

<sup>1</sup>Alzheimer's Centre, Medical University of Havana, <sup>2</sup>Neurology, National Institute of Neurology, Havana, <sup>3</sup>Clinicas, Matanzas Medical University, Matanzas, <sup>4</sup>Alzheimer's Centre, Medical University of Havana, La Habana, Cuba, <sup>5</sup>Psychiatry, Sao Paulo University, Sao Paulo, Brazil, <sup>6</sup>Health Population and Research Services, Institute of Psychiatry, London, United Kingdom

**Are you submitting a scientific or non scientific abstract?:** Scientific

**Objectives:** Cuba with a population of almost 12 million people will become the country in Latin America with the highest proportion of older adults by the year 2020. The objective is to describe the prevalence, incidence, and the effects of reported ethnicity, admixture and apolipoprotein E genotype on prevalence and incidence of dementia.

**Methods:** We undertook a one phase survey of all over 65 year old residents of seven catchment areas in Cuba (n=2944) during 2003 to 2007. Dementia diagnosis was established according to DSM-IV and 10/66 criteria. APOE genotype was determined in 2520 participants, and genetic admixture in 235 dementia cases and 349 controls. An incidence wave was conducted 4.5 years after cohort inception.

**Results:** The prevalence of DSM-IV dementia was 6.4% and 10.8% according to the 10/66. The dementia incidence rate was 20.5 per 1000/year (95% CI, 17.6-23.5). The prevalence of dementia was more than double in APOE carriers compared to that in non-carriers (adjusted PR=2.58, 95%CI 2.06-3.22). Age at onset was younger for APOE e4 carriers. African admixture was linearly related to number of APOE e4 alleles, but was not associated with the prevalence of dementia.

**Conclusion:** The prevalence and incidence of dementia in the older Cuban population studied is high, and the rate increases with age. These findings underscore the need to improve our understanding of risk factors associated with dementia in specific populations, as well as the need for public health programs for both patients and caregivers in a population that is currently undergoing rapid demographic ageing and epidemiological transition.

**Disclosure of Interest:** None Declared

## OC090

**Date:** Saturday 3 May 2014

**Session:** Prevention and Risk Factors

### **NUTRITION AND DIET IN CUBAN ELDERLY WITH ALZHEIMER'S DISEASE OR MILD COGNITIVE IMPAIRMENT.**

Yeneisy Lanyau Domínguez <sup>1,\*</sup>, Juan J. Llibre <sup>2</sup>, Consuelo Macías <sup>1</sup>, Beatriz Basabe Tuero <sup>1</sup>, Héctor Hernández <sup>1</sup>, María Eugenia Quintero <sup>1</sup>

<sup>1</sup>Biochemistry and Physiology, Nutrition Institute, <sup>2</sup>Dementia, DEmentia CEntre, La Habana, Cuba

**Are you submitting a scientific or non scientific abstract?:** Non Scientific

**Objectives:** Background: Dementia is a public health problem with non reproducible association to nutritional deficiencies. Objectives: To assess this association in Cuban elderly. Methods: Cross sectional study in 428 subjects older than 65 years; 47 with Alzheimer's disease (AD), 131 with Mild Cognitive Impairment (MCI) and 250 healthy subjects from Havana city. Dementia was diagnosed using the 10/66 Dementia and DSM-IV criteria and MCI with the Hughes Clinical Dementia Rating. Hemoglobin, hematocrit, MCV, total cholesterol, HDL-C, LDL-C, triglycerides, thiamine, folic acid, cyanocobalamin and vitamin C were measured by standardized methods. Diet was evaluated using a weekly food-frequency questionnaire. ANOVA, Pearson's Chi square and prevalence ratios were used for data analysis. Results: AD patients showed lower haemoglobin, hematocrit, MCV, total cholesterol, LDL-C, thiamine and vitamin C levels than healthy individuals (p

**Disclosure of Interest:** None Declared





## OC091

**Date:** Saturday 3 May 2014

**Session:** Quality of Life

### **PRESCRIBED DISENGAGEMENT, MODELS OF CARE AND QOL**

Kate Swaffer<sup>1,\*</sup>

<sup>1</sup>University of South Australia, Adelaide, Australia

**Are you submitting a scientific or non scientific abstract?:** Non Scientific

**Objectives:** This presentation outlines what prescribed disengagement is, and how it negatively impacts quality of life for people with dementia. It then describes two models of care, one experience supporting continuing engagement, including employment for people with younger onset dementia; the medical model of Prescribed Disengagement versus the disAbility model of Continuing Engagement used in universities. Following a diagnosis of younger onset dementia, I was advised to give up work, give up tertiary studies, and go home to live for the time I had left. I termed this Prescribed Disengagement, which was at odds with what I considered a meaningful living. The medical model of care prescribed disengaging from my pre-diagnosis life, which supports and exacerbates social inequality, stigma, isolation and discrimination. If I had been advised to use the disability model of care beyond my university campus, I would have been able to remain in paid employment, and if the symptoms of dementia were seen as disabilities, my employer would have been legally obliged to support continuing employment. I will also briefly discuss a volunteering project in Adelaide South Australia which supports the disability model of care. Treating the symptoms of dementia as disabilities rather than managing them in ways that restrict are vital to well-being, quality of life and motivation. The significant and positive social and financial impact on the person with dementia, their families, and society of being able to stay meaningfully engaged, as well as choosing to remain employed, and its impact on a person's quality of life, is the final topic of this presentation.

**Disclosure of Interest:** None Declared

## OC093

**Date:** Saturday 3 May 2014

**Session:** Quality of Life

### **BRINGING QUALITY DEMENTIA CARE TO LIFE – THE IMPORTANCE OF VISUAL SYMBOLS AND HANDS-ON TOOLS TO TRAIN AND ENGAGE STAFF CARE PARTNERS**

Hollie Fowler<sup>1,\*</sup>

<sup>1</sup>Bset Friends, Sacramento,

**Are you submitting a scientific or non scientific abstract?:** Non Scientific

**Objectives:** A typical dementia program has training materials or a curriculum, a life story form or forms, tip sheets for behavior, and a closet full of activity supplies. When Prestige Care revamped its dementia program, Expressions, we were determined to find a more engaging method to give staff care partners the tools they need to better understand and adopt the company's new program. Thus Prestige created a series of visual tools and representations (posters, kits, creatively designed boxes to hold specific supplies) and products (branded, company created games, art programs and supplies) that would bring our program philosophy to life. Our belief was that these visual and tactile products would help staff better understand and adopt the new program. For example, instead of policies and procedures surrounding life story work, Prestige developed some highly designed and easy to use forms that would be appealing to families and staff. We then created wall murals with photographs, trivia and other visual representations of famous individuals (Marilyn Monroe or a famous local sports hero) with 100 Facts about them for staff and families to see. This visual representation inspires and teaches our staff about life story work more than a memo or procedure. Prestige also sends out branded games and activities as a way of encouraging our team to keep things fresh and lively, while at the same time allowing our corporate team to assure that games are adult in nature, respectful, cognitively interesting and supportive of creative arts. For example, we would never send out "Crayons" since they are too child-like but instead would send out a more sophisticated collage kit. Once the supplies and materials are sent out, every dementia program starts using the activity in the same month so we can evaluate the activity, discuss it on a conference call, foster some friendly competition and support any community that is struggling with the new engagement. Other team building and engagement activities include friendly competitions between buildings, for example a collage making contest. The result of these activities is that our staff are adopting and understanding the benefits of the new dementia program. Visual products and tools ultimately serve as ongoing reminders about quality dementia care and allow staff to better understand and adopt new ideas.

**Disclosure of Interest:** None Declared



## OC094

**Date: Saturday 3 May 2014**

**Session: Quality of Life**

### **WHERE'S MY PANCAKE? INTERDISCIPLINARY CARING FOR PERSONS WITH DEMENTIA**

Gwendolyn De Geest<sup>1,\*</sup>

<sup>1</sup>Nursing Professor, Living Dementia Consulting, Victoria, Canada

**Are you submitting a scientific or non scientific abstract?:** Non Scientific

**Objectives:** In this session learners will be introduced to a cultural transformation that has taken place in a Special Care Unit, housing 36 elders diagnosed with Alzheimer's disease and related dementias. The Interdisciplinary Model of Care will be outlined, enhancing both the life of the person with dementia and their care partner. This model identifies strategies whereby members of the health team work together, creatively problem solving to maintain a quality of life for the person with dementia. Person centred care will be introduced.

In dementia care today, we are undergoing the task of cultural transformation. In order for a home to be a nice place to live, it must also be a nice place to work. This session proposal will illustrate an Interdisciplinary Model of Care that modifies the environment for persons with dementia, creating a sense of empowerment and also maintaining choices. This Model of Care will illustrate that person-centered care is not something we do, but something we feel.

**Disclosure of Interest:** None Declared

## OC095

**Date:** Saturday 3 May 2014

**Session:** Quality of Life

### **USING LAUGHTER EXERCISES WITH ALZHEIMERS' PATIENTS AND THEIR FAMILIES**

Susan Parker<sup>1,\*</sup>

<sup>1</sup>Funny Bone Yoga Association, Laugh and Refocus Psychotherapy, Seattle, United States

**Are you submitting a scientific or non scientific abstract?:** Non Scientific

**Objectives:** Laughter is being used around the world as a means of bringing people together for exercise and to reduce stress. While laughter does not take all stress away for good, it does help people to cope with their stress. It also has physical benefits such as reducing Cortisol levels and releasing a cocktail of happiness hormones: serotonin and endorphin. It helps many release fear and depression and to fall asleep faster. When one is laughing, the muscles of the stomach, chest, and the diaphragm contract and relax. These movements massage the internal organs and are beneficial to their functioning. More than eighty muscles of the human body get relaxed during a full belly laugh. Laughter does not need humor. It does not need cognition. Thus it benefits those who can no longer understand humor. There is a component of laughter, actually the act of people laughing together which unites even strangers. I wanted to see if it would help people with Alzheimer's or Dementia living in memory care communities, connect with their families and caregivers in a fun, light hearted and playful way. To do this I modified standard laughter exercises to fit within groups of people in varying stages of Alzheimer's disease or Dementia. I taught the exercises to them, their professional caregivers and to their participating family members and then brought them together for each laughter session.

**Disclosure of Interest:** None Declared



## OC096

**Date:** Saturday 3 May 2014

**Session:** Quality of Life

### **LIFE STORY WORK FOR PERSONS WITH DEMENTIA - A NEW LOOK AT A KEY COMPONENT OF EXCELLENT CARE**

David Troxel<sup>1</sup>, Virginia Bell<sup>2</sup><sup>1</sup>Best Friends, Sacramento, <sup>2</sup>BEST FRIENDS, Lexington, United States

**Are you submitting a scientific or non scientific abstract?:** Non Scientific

**Objectives:** In-home workers, adult day centers and residential programs caring for persons with dementia have learned that life story work is a key element of quality dementia care. For example a well-regarded 2006 US Alzheimer's Association consensus report, *Campaign for Quality Residential Dementia Care* notes that:

"Staff can determine how best to serve each resident by knowing as much as possible about each resident's life story, preferences and abilities. Good dementia care involves using information about a resident to develop "person-centered" strategies, which are designed to ensure that services are tailored to each individual's circumstances."

[Page 5]

In practice this can be very simple. If a person with dementia living in residential care is having a sad day or is agitated, recalling her favorite recipe for chocolate cake and her time spent in Paris, France as a student may help her feel more connected and calm. Knowing her personal preferences allows staff to create more personalized activities (cooking classes or French lessons) or even broaden the caregiving network (matching her with a volunteer who also loves to cook or who want to learn French). Knowing this information also allows for reminiscence and celebrating long-term memory.

Despite the awareness of this important principle, the authors will discuss how staff in professional care settings still struggle to obtain and use life story information. Life story information is late in getting to the staff, hard to access, not updated and not reinforced.

This presentation will describe how to reinvest in life-story work and how life-story work is used in an adult day center in Lexington, Kentucky to:

- Greet the person and improve recognition
- Introduce the person to others
- Support reminiscence
- Improve communication through clues and cues
- Design appropriate activities
- Pointing out past accomplishments
- Help prevent behavior that is challenging
- Incorporating past rituals into care
- Broaden the caregiving network, including volunteerism.

The presentation will conclude with additional tools for life story work based up on the presenter's Best Friends philosophy of dementia ([www.bestfriendsapproach.com](http://www.bestfriendsapproach.com)) including life story forms, bullet cards (short summary cards), and ideas for short-term campaigns to draw attention to life story work.

**Disclosure of Interest:** None Declared

## OC097

**Date:** Saturday 3 May 2014

**Session:** Community Awareness Efforts in Dementia

### DEMENTIA ENABLING ENVIRONMENTS

Jason Burton <sup>1,\*</sup>

<sup>1</sup>Education, Research and Consultancy, Alzheimer's Australia WA, Perth, Australia

**Are you submitting a scientific or non scientific abstract?:** Non Scientific

**Objectives:** The Dementia Enabling Environment Project (DEEP) is an Australian research to practice translation project focussing on dementia design. The initial two year project brought together dementia environmental design experts from across Australia to develop a series of initiatives designed to translate 10 evidence based principles of enabling dementia design into practice. The project included the development of workshops and materials to support families to adapt the home environment, development of audit tools and library lending resources, involvement in standards agencies to incorporate dementia design into the Australian Standards system, the development of a comprehensive virtual dementia design information centre ([www.enablingenvironments.com.au](http://www.enablingenvironments.com.au)) and the use of multi media to inform families, design and health professionals on enabling design principles. Led by dementia design experts Jason Burton (Alzheimer's Australia WA) and Professor Richard Fleming (University of Wollongong) the project has delivered extensive and sustainable initiatives in the area of enabling environments for people living with dementia.

**Disclosure of Interest:** None Declared





## OC098

**Date:** Saturday 3 May 2014

**Session:** Community Awareness Efforts in Dementia

### **DEMENTIA: IMPACT OF AN INTERVENTION IN A RURAL COMMUNITY IN PERU**

Sara Gallardo <sup>1,\*</sup> Janet Altamirano <sup>1</sup> Maria Sanchez <sup>1</sup> Jose Luis Torres <sup>1</sup> Elizabeth Avalos <sup>1</sup> Mariella Guerra <sup>1</sup>

<sup>1</sup>INVESTIGACION, Instituto de la Memoria Depresion y Enfermedades de Riesgo - IMEDER-, Lima, Peru

**Are you submitting a scientific or non scientific abstract?:** Non Scientific

#### **Objectives:**

- Raise awareness and improve knowledge of dementia
- Propitiate development of communitarian programs to improve attention of the older person with dementia

Intervention was made in Quilmana, rural community located close to the capital of Perú, with one primary medical attention centre and one recreational centre for a small number of elderly insured. 19% of the population are elderly in poverty and illiterate conditions. This study is designed in two stages.

Stage 1:

1. Team training (medical doctors, psychologists, nurses): concepts and instruments
2. Development of assessment and educational booklets and instruments' adaptation (MMSE, Yesavage, Neuropsi, ZARIT, DemQoL, AQoL)
3. Situational analysis: Area recognition; Evaluation of existence of specific services or programs for people with dementia; Evaluation on dementia knowledge of the general population (n=375); Screening for cognitive impairment and depression in older adults
4. Intervention: Communitarian meetings, fairs, talks, training sessions and home visits which aimed to train, sensitize and orientate all population; community leaders and health workers; Periodic informative and coordinative meetings with local authorities and community older adults leaders; Family sensitization and orientation for relatives of people with dementia;

#### **RESULTS**

There are no communitarian or health programs for the older adult with dementia; 66% of total population and 90% of community authorities and health workers does not know what dementia or Alzheimer is. 47% evaluated older adults have cognitive impairment and 51% depression. There are no trained carers for people with dementia.

Through the intervention community assistance to educational talks increased in 70%. Health workers asked for education and training in dementia related subjects. The town hall has officially opened a specific centre for the elderly population which is to include a mental health facility program to help families of people with dementia.

#### **CONCLUSIONS**

A dementia awareness model of intervention in a rural Peruvian community has been developed and is proving its efficacy which could help develop same models to work in other rural communities.

**Disclosure of Interest:** None Declared

## OC099

**Date:** Saturday 3 May 2014

**Session:** Community Awareness Efforts in Dementia

### **COGNITIVE SCREENING IN AUSTRALIAN ABORIGINAL AND TORRES STRAIT ISLANDER COMMUNITIES: A PROGRAM TO RAISE COMMUNITY WELL BEING AND BUILD THE CAPACITY OF ABORIGINAL HEALTH WORKERS IN URBAN AND REGIONAL COMMUNITIES.**

John Price<sup>1,2,\*</sup>

<sup>1</sup>learning and development, Alzheimers Australia victoria, hawthorn, <sup>2</sup>Aged Care, National Ageing Research Institute, Parkville, Australia

**Are you submitting a scientific or non scientific abstract?:** Non Scientific

**Objectives: Abstract:** The prevalence of dementia in Aboriginal and Torres Strait Islander communities in Australia is significantly higher than in the broader Australian community; a study in the remote Kimberley region of Western Australia, (LoGiudice et al 2006) found the rate to be 4 to 5 times greater; a study in urban communities in NSW, The Koorie Growing Old well study (Broe et al 2013 ongoing) found the rate to be 2 to 3 times greater. The diverse nature of Aboriginal and Torres Strait Islander communities reinforces the need that cognitive screening tools and the capacity of the health workers to administer them are underpinned by both the knowledge and skills to meet these diverse needs. Following Phase one of a two phase study project, which, as part of the Victorian collaborative study between the Victorian Aboriginal communities, the National Ageing Research Institute and Alzheimer's Australia Victoria to modify and validate the original Kimberley Indigenous Cognitive Assessment (KICA) tool in urban and regional settings; it was identified that there was a priority need to develop a collaborative, flexible and robust training module that would have national applicability and cover a broad range of tools. To ensure that both the social and emotional wellbeing of the communities and the clinical integrity of the screening tools are maintained a collaborative partnership has been developed and nurtured to ensure the ongoing communication between all key stakeholders in the project. Culturally safe content and language as well robust and up to date clinical content was paramount if the outcomes of social and emotional wellbeing and early identification and diagnosis of dementia were to be achieved. The development of the module, pilot project and evaluation will form an integral part of the planned partnership study which will encompass the validation of the modified KICA tool, early diagnosis of dementia, evaluation of Chronic Diseases in Aboriginal communities and evaluation of the Aboriginal Health Services to meet the needs of the communities.

**Disclosure of Interest:** None Declared



## OC101

**Date:** Saturday 3 May 2014

**Session:** Community Awareness Efforts in Dementia

### **ESTABLISHING THE CANADIAN CONSORTIUM FOR NEURODEGENERATION AND AGING: TAKING RESEARCH TO THE COMMUNITY**

Howard Chertkow <sup>1,\*</sup> <sup>1</sup>Neurology, McGill University, Montreal, Canada

**Are you submitting a scientific or non scientific abstract?:** Non Scientific

**Objectives:** As a response to the growing crisis of dementia, Canada's CIHR (Canadian Institutes of Health Research) has organized an initiative to establish a **Canadian Consortium for Neurodegeneration and Aging (CCNA)**, being launched in April, 2014, which will be the major vehicle to support and strengthen Canadian research on AD and neurodegenerative diseases. It is intended to foster innovative and collaborative research across Canada. In response to this call, the Canadian dementia research community came together under the initiative of Dr. Howard Chertkow to propose a unique structure to catalyse dementia research across Canada. The CCNA application includes 44 principal applicants (of which 9 are junior researchers), and 285 other members of the dementia research community grouped into 20 project teams, with shared access to 8 research platforms. Virtually every dementia researcher in Canada is part of this submission. The research supported will be 1) basic science teams leading to new prevention strategies and therapies, 2) new treatments for all forms of neurodegenerative diseases including frontotemporal dementia, vascular dementia, Lewy Body dementia, as well as Alzheimer Disease, and 3) teams to improve quality of life of individuals with dementia. Partners such as the Alzheimer Society of Canada will have direct input annually into policy and research directions, and a well-developed KT program will ensure that new discoveries are quickly taken into the policy arena as well as being made available to the public and other physicians and health professionals. The CCNA will focus on "real life" mixed dementias, novel therapies, and innovative approaches to care.

**Disclosure of Interest:** H. Chertkow Conflict with: Bristol Myers Squibb

## OC102

**Date:** Saturday 3 May 2014

**Session:** Community Awareness Efforts in Dementia

### EVIDENCE BASED BRAIN HEALTHY NUTRITION

Nancy B. Emerson Lombardo<sup>1,2,\*</sup>

<sup>1</sup>Neurology, Boston University School of Medicine, <sup>2</sup>Brain Health and Wellness Center, Acton, United States

**Are you submitting a scientific or non scientific abstract?:** Scientific

**Objectives:** The Nutritional Supplement Combination Therapy (NSCT) is a poly-nutrient intervention drawn from evidence-based whole foods program designed to attenuate oxidative stress, inflammation, insulin resistance, improve mitochondrial function, and lipid balance, thereby slowing cognitive decline. Similar therapy reversed mitochondrial dysfunction in important brain regions of AD-transgenic mice.

This Phase I open label clinical trial aimed to evaluate whether the NSCT regimen of 19 pills is feasible, safe and tolerable for cognitively normal older adults.

#### **Methods: Methods: Phase I open label clinical trial**

**Inclusion Criteria included:** 1) cognitively normal 2) with scores of MMSE 28-30 and normal CDR, 3) aged 50-90, 4) a sixth-grade education or better, 5) Residing in the community **Intervention:** Participants took NSCT pills\* for 6 months after 2 months titration to full dosage of 19 pills (See Table 1).

Supplements included Vitamin D, fish oils yielding 1.7 g DHA/EPA and multi-plant-based supplements, concentrated fruit/vegetable powder & a concentrated blend of spices & herbs with anti-inflammatory actions for a total of 19 pills

**Results: Attrition Rates.** Of those who consented to participate (n=21, 13 females), 76.2% completed the 8-month protocol. Five participants withdrew: 1 with intolerable side effects and 4 for competing health conditions.

**Compliance rates** were high (82%). **Self-reported AEs** significantly decreased ( $p = .013$ ) relative to baseline.

**Biomarkers:** Only two biomarkers significantly changed from baseline values.

**Conclusion:** A regimen of 19 nutritional daily supplements is feasible, safe, and tolerable for cognitively healthy older adults as demonstrated by the uniformly high compliance and low attrition rates of this study.

Until additional and more sensitive assays are performed on remaining blood and urine specimens, it is unclear whether the NSCT regimen has any significant clinical implications. A much larger trial is necessary to better answer questions, particularly if this or similar combination of supplements may be beneficial for reducing risk of Alzheimer's disease.

**References:** Wolf AB, Emerson Lombardo N, Valla J. et al. Broad-based nutritional supplementation in 3xTG mice corrects mitochondrial function and indicates sex-specificity in response to Alzheimer's intervention. *Journal of Alzheimer's Disease*. 2012;32(1):217-32.

**Disclosure of Interest:** None Declared



## OC103

**Date:** Saturday 3 May 2014

**Session:** Voices of People with Dementia and Their Families

### **GETTING TO THE HEART OF THE MATTER: A PERSONAL JOURNEY TOWARDS MAKING CARERS' VOICES HEARD**

Jeanette Maitland <sup>1,\*</sup>

<sup>1</sup>National Dementia Carers Action Network, Alzheimer Scotland, Aberdeen, United Kingdom

**Are you submitting a scientific or non scientific abstract?:** Non Scientific

**Objectives:** What does person-centred care really mean in practice? How do we ensure that the voices of carers and people with dementia are listened to throughout this journey? In this paper, Jeanette Maitland, a carer for her late husband Ken, outlines the journey she went through from a system that seemed to have lost sight of the needs of individuals with dementia, to working in partnership with the local authority to build a structure whereby carers and people with dementia can make their voices heard.

Ken passed away in 2012. During the last twelve months of his life he required a high level of personal care, with paid care staff visiting four times a day to provide practical support. During this time 106 individual carers visited Ken and Jeanette's home. The constant change of different care staff visiting the home led to a high degree of confusion and distress for Ken, impacting directly on the well-being of both Ken and Jeanette.

Following Ken's death, Jeanette has worked tirelessly to bring this issue to the fore and to ensure that people with dementia and their carers do not experience the same battles she faced. In this presentation Jeanette will describe the progress that has been made in recent months at both a local and a national level to make change happen. In particular she will focus on her work with Aberdeen City Council to create a forum whereby health and social care providers, people with dementia and their carers will take part as equal stakeholders to determine key issues on dementia care and support in the area. She will share the lessons she has learnt from this journey and her vision for a future whereby people with dementia and their families are placed at the centre of their care.

**Disclosure of Interest:** None Declared

## OC104

**Date:** Saturday 3 May 2014

**Session:** Voices of People with Dementia and Their Families

### **(DON'T) MENTION DEMENTIA: CHALLENGING PUBLIC PERCEPTIONS THROUGH ART**

Clare Cutler<sup>1</sup>\*Anthea Innes<sup>1</sup>Sarah Hambidge<sup>1</sup>Derek Eland<sup>1</sup>

<sup>1</sup>HSC, BOURNEMOUTH UNIVERSITY DEMENTIA INSTITUTE, BOURNEMOUTH, United Kingdom

**Are you submitting a scientific or non scientific abstract?:** Non Scientific

**Objectives:** Public perceptions of dementia are often on negative impressions and stigmatizing views about what dementia is and what living with dementia might be like. This innovative arts project uses a unique engagement process to collect honest and raw accounts of these impressions and views. The aims of the project are to contribute to a fundamental change in public perceptions about dementia as well as give voice to those with dementia.

This public engagement project collected both the views of the general public and those living with dementia using a 'diary room' technique. People with dementia and members of the general public were asked to provide a handwritten story of their experiences and views on a postcard. Stakeholders support was key to the success of project, either at the national level through the Alzheimer's Society and Age UK as well as stakeholders at a local level.

600 of handwritten stories from people with dementia and members of the public were collected during the engagement phase. As well as collecting written stories revealing peoples' honest views of dementia, we took digital images of the people who wrote their stories to demonstrate that it is often impossible to know who has dementia by their appearance. This presentation will report on this innovative engagement process as a way to give a voice to people with dementia and their families and a way to challenge and change negative perceptions of dementia.

**Disclosure of Interest:** None Declared





## OC105

**Date:** Saturday 3 May 2014

**Session:** Voices of People with Dementia and Their Families

### **MAPPING THE DEMENTIA JOURNEY: GAINING NEW INSIGHTS BY COMBINING QUALITATIVE RESEARCH, ARTS INFUSED INQUIRY AND FACE-TO-FACE KNOWLEDGE EXCHANGE**

Gale Carey<sup>1</sup> Philip Caffery<sup>1</sup> David Harvey<sup>2</sup>

<sup>1</sup>Alzheimer Society of Ontario, Toronto, Canada, <sup>2</sup>Public Policy and Program Initiatives, Alzheimer Society of Ontario, Toronto, Canada

**Are you submitting a scientific or non scientific abstract?:** Non Scientific

**Objectives:** This session will describe an initiative being led by the Alzheimer Society of Ontario to “map the dementia journey” in plain language from the perspectives of persons with dementia, care-partners and health-care providers in Ontario. The project aims to capture the experiential elements of the dementia journey and align these with critical points in the care pathway. The work is being carried out in two parts: (1) Qualitative research led by an academic team with expertise in health sciences and arts integrated studies will be conducted at three sites across Ontario. (2) Following a preliminary data analysis, including an artistic rendering of the focus group results, a face-to-face stakeholders’ workshop will be held to discuss and align the different dementia journey maps. The workshop will consist of multiple stakeholders, including researchers, clinicians, policy makers, and persons with lived experience. The knowledge acquired through this initiative will have the potential to be translated into information resources and interactive web-based tools to support the dementia community. An improved understanding of the dementia journey will also inform Alzheimer Society program evaluation, contribute to service design, and support awareness and advocacy campaigns focusing on stigma and health system planning.

This work is being supported by Eli Lilly Canada.

**Disclosure of Interest:** G. Carey Conflict with: employee, Alzheimer Society of Ontario, P. Caffery Conflict with: employee, Alzheimer Society of Ontario, D. Harvey Conflict with: employee, Alzheimer Society of Ontario

## OC106

**Date:** Saturday 3 May 2014

**Session:** Voices of People with Dementia and Their Families

### **RESPONDING TO THE CHARGE “YOU DON’T HAVE DEMENTIA, YOU ARE NOT ACTING THE WAY I THINK PEOPLE WITH DEMENTIA SHOULD ACT”**

Richard Taylor<sup>1,1,\*</sup> and co founder of meeting of the minds, founder of dementia networks

<sup>1</sup>I am currently unaffiliated, retired, Cypress, United States

**Are you submitting a scientific or non scientific abstract?:** Non Scientific

**Objectives:** Hello, Living with the symptoms of dementia is a challenging task in and of itself, but those who live with the symptoms in the early stages and/or the symptoms have appeared relatively early in life the additional challenge is dealing with folks who don't believe we actually have dementia of this or that type and tell us so directly to our faces. Why do others subject us to this incorrect insight of theirs? What do they hope to accomplish? What are some strategies to respond to these comments?

I have spoken with hundreds of folks living with dementia, many many of whom have shared this type of experience. What works and doesn't work? Whose needs are being met when such inquiries are being made? Come share your own own experiences, and hear the collected response from many many others, myself included.

these are more than awkward moments uin conversation. They reveal much about the person asking the question, and stir up many feelings and stigmas in both parties. The stigms of dementia bubble to the level of conversation in many strage ways, and this is one of them.

**Disclosure of Interest:** None Declared



## OC107

**Date:** Saturday 3 May 2014

**Session:** Voices of People with Dementia and Their Families

### THE RIPPLE EFFECT - IMPACT OF BEING AN ADVOCATE

Lisa Loiselle<sup>1,\*</sup>

<sup>1</sup>Murray Alzheimer Research and Education Program, University of Waterloo, Waterloo, Canada

**Are you submitting a scientific or non scientific abstract?:** Scientific

**Objectives:** The purpose of this project was to create a visual and textual representation -- a photo journal -- of the lived experience of dementia with a special focus on relationships, through photography and individual interviews. The hope is that these images and insights will help others better understand the experience of memory loss from the perspectives of those affected by it. It is also our hope, that in doing so we can begin to break down the stigma associated with memory loss and highlight the continued abilities, desires and talents of persons with memory loss.

**Methods:** This project visually documents a period of time in the life of a family that have been affected by dementia. In partnership with Toronto-based photographer, Diego quattrociochi, a photo journal of the family was created over a period of three years. Using Photo Elicitation Interviews (PEI), or inserting a photograph into a research interview, MAREP engaged in discussions with the families about the pictures that had been taken. By asking such things as, 'Tell me about this photograph'; we capture intimate dimensions of their lived experiences.

**Results:** As a compassionate and insightful person living with dementia, Carl Wilson of New Hamburg, Ontario, has dedicated much of his time to raising awareness for dementia. This photographic presentation titled "The Ripple Effect of Advocacy" captures Carl's way of "Paying it Forward" in being pro-active while maintaining an optimistic perspective and empowering other persons with dementia.

**Conclusion:** It is important for those living with dementia to have opportunity to speak up and speak out; to raise their voices and help fight the stigma and misunderstanding associated with dementia. "When one person follows a dream, tries something new or takes a daring leap, everyone nearby feels that energy, and before too long they are making their own daring leaps and inspiring yet another circle". Christine Mason Miller

**Disclosure of Interest:** None Declared

## OC108

**Date:** Saturday 3 May 2014

**Session:** Voices of People with Dementia and Their Families

### HOW DO PEOPLE WITH DEMENTIA FEEL ABOUT PARTICIPATING IN CLINICAL TRIALS

Nicole Batsch <sup>1,2,\*</sup>

<sup>1</sup>Institute of Gerontology, King's College London, <sup>2</sup>Consultant, Alzheimer's Disease International, London, United Kingdom

**Are you submitting a scientific or non scientific abstract?:** Non Scientific

**Objectives:** There is increasing need for people with dementia to participate in clinical trials. However, a disconnect exists with recruitment and appropriate support once the individual is enrolled. This presentation will include people with dementia who have participated in clinical trials and discuss openly their experiences and concerns to participation. The primary aim of the presentation is to encourage scientists to be inclusive of people with dementia in the study design and take into consideration their needs before, during and after clinical trial participation.

[at this time, this presentation is in conceptual phase...I have a person with dementia in mind who may be able to co-present, but she's from Australia. If we can identify people with dementia coming to the conference, then there may be some we can invite to participate in this presentation, if willing. If this topic is of interest, let's discuss in more detail]

**Disclosure of Interest:** None Declared



## OC109

**Date:** Sunday 4 May 2014

**Session:** Animal Models and the Dementia Spectrum

### **THE ROLE OF HUCB DERIVED LIN-VE STEM CELLS IN AMYLOID- PEPTIDE INDUCED MOUSE MODEL OF MEMORY LOSS**

Akshay Anand <sup>1,\*</sup>

<sup>1</sup>neurology, Post Graduate Institute of Medical education and research, Chandigarh, India

**Are you submitting a scientific or non scientific abstract?:** Scientific

**Objectives:** The objective of the study was to evaluate the effect of lineage negative human umbilical cord blood derived stem cells in rescue of memory loss in animal model of AD

**Methods:** We used digital stereotaxis, immunohistochemistry, real time PCR and behavioral assays such as rotarod and morris water maze in order to evaluate the learning and memory in experimental and control Swiss Albino mice. Lineage negative stem cells were purified by MACS and labelled by CFDA dye in order to trace the stem cell recruitment, incorporation and differentiation and FACS analysis to characterise these cells before transplantation.

**Results:** There was dose dependent rescue of memory loss caused by transplantation of lineage negative hUCB cells. There was increase in BDNF expression subsequent to transplantation of Lineage negative human UCB cells as well as decline in apoptosis analysed by TUNEL assay. The immunolocalisation of Abeta reduced with transplantation of these cells.

**Conclusion:** Lineage negative UCB cells possess the necessary neurotrophic effect in extending the survival of hippocampal neurons which may contribute in rescue of memory loss. The immunolocalisation of Abeta reduced with transplantation.

**References:** Not being provided

**Disclosure of Interest:** None Declared

## OC110

**Date:** Sunday 4 May 2014

**Session:** Animal Models and the Dementia Spectrum

### EFFECT OF A NEUROPROTECTIVE COMPOUND IN TAU P301L MUTANT MICE

Sabah Ansar<sup>1,\*</sup>

<sup>1</sup>KingSaud University, Riyadh, Saudi Arabia

**Are you submitting a scientific or non scientific abstract?:** Scientific

**Objectives:** Most drug discovery efforts for Alzheimer's disease (AD) focus on preventing or clearing oligomers and aggregates of amyloid peptides (A $\beta$ ), though some efforts now target Tau neurofibrillary pathology. A $\beta$  peptides lead to hyper-phosphorylation of Tau, disruption of the cytoskeletal network, and formation of dystrophic neurites. We previously reported that a small compound designated 'A2' was very potent in protecting primary neurons against the toxic peptides. A2 is derived from a compound reported to have microtubule (MT)-stabilizing properties; however, our earlier studies indicated that A2 acts somewhat differently from paclitaxel, the classic MT-stabilizing drug. Although the molecular mechanisms underlying the neuroprotective activity are not yet clear, our objective is to assess potential *in vivo* activity in a mouse model of neurofibrillary pathology.

**Methods:** Given the evidence supporting food restriction in reducing oxidative stress in aging brain, mutant Tau (P301L) mice were maintained on mild food-restriction. Mice were also treated chronically with A2 or vehicle, and the brains and spinal cords recovered for biochemical and immunohistochemical analyses of abnormal Tau.

**Results:** Given the evidence supporting food restriction in reducing oxidative stress in aging brain, mutant Tau (P301L) mice were maintained on mild food-restriction. Mice were also treated chronically with A2 or vehicle, and the brains and spinal cords recovered for biochemical and immunohistochemical analyses of abnormal Tau.

**Conclusion:** The results suggest that this small, brain permeable compound may provide a lead structure for development of new therapeutic approaches to neurofibrillary pathology.

**Disclosure of Interest:** None Declared





## OC111

Date: Sunday 4 May 2014

Session: Animal Models and the Dementia Spectrum

### TIME TO DIAGNOSIS OF PATIENTS WITH DIFFERENT TYPES OF DEMENTIA: PRELIMINARY FINDINGS FROM CLINICAL PATHWAY FOR ALZHEIMER'S DISEASE IN CHINA (CPAD) STUDY

Mei Zhao<sup>1,2,\*</sup>, Huali Wang<sup>1,2</sup>, Xiaozhen Lv<sup>2,3</sup>, Xin Yu<sup>1,2</sup> and Clinical Pathway for Alzheimer's Disease in China (CPAD) Study Group

<sup>1</sup>Dementia Care & Research Center, PEKING UNIVERSITY INSTITUTE OF MENTAL HEALTH, <sup>2</sup>Key Laboratory for Mental Health (Peking University), Ministry of Health, <sup>3</sup>Clinical Research Division, PEKING UNIVERSITY INSTITUTE OF MENTAL HEALTH, Beijing, China

Are you submitting a scientific or non scientific abstract?: Scientific

**Objectives:** To compare the time to diagnosis among patients with different types of dementia, and to explore the potential reasons and factors associated with time to diagnosis.

**Methods:** 594 patients with dementia participating the 2-month longitudinal registry study (CPAD Study, NCT01779310) reported the time of estimated onset of dementia (TESO) and the first medical visit (TFMV), that were used to calculate time to diagnosis.  $\chi^2$  tests and Kruskal-Wallis tests were used to compare the difference in demographic characteristics and time to diagnosis. Univariate analysis of general lineal model was used to examine the potential factors associated with time to diagnosis.

**Results:** Among all participants, 64.8% (n=385) were diagnosed with Alzheimer's disease (AD), 45.2% (n=90) with vascular dementia (VaD), 4.7% (n=28) with frontotemporal dementia (FTD), and 15.3% (n=91) with other types of dementia. There were no significant differences in gender, residency area, living condition and family history of dementia among four diagnostic groups (all  $P > 0.05$ ). However, more patients with VaD had comorbid physical conditions ( $\chi^2 = 33.81$ ,  $p < 0.00$ ). More patients with FTD were young onset ( $\chi^2 = 10.65$ ,  $p = 0.01$ ). By diagnostic groups, the median time to diagnosis was longest in FTD group (2.25 years, range 0.42~5.58 years), followed with AD (2.00 years, range 0.08~12.19 years) and other types of dementia groups (1.30 years, range 0.09~15.06 years), and shortest in VaD group (0.85 years, range 0.08~12.08 years). The young-onset group tended to be delayed greater than late-onset group [median=1.84 (0.08~15.06) vs. 1.75 years (0.08~12.00)]. Concerning reasons for delay in medical visit, majority of informants (75.5%) considered cognitive problems were not too serious and did not need medical treatment. However, 14.9% of informants did not know the resources of service. Patients with positive family history were brought for diagnosis earlier than those without ( $p = 0.004$ ). Patients suspected of VaD were referred for diagnosis earlier relative to AD ( $p < 0.001$ ) or FTD ( $p = 0.018$ ).

**Conclusion:** The findings suggested prominent delay in seeking medical diagnosis of dementia. Young-onset frontotemporal dementia was most underrecognized. Misconception of cognitive problems was the primary reason for prolonging the time to diagnosis.

**Disclosure of Interest:** M. Zhao: None Declared, H. Wang Conflict with: Novartis China, X. Lv: None Declared, X. Yu: None Declared

*\*The presenting author of this abstract is now Huali Wang*

## OC112

Date: Sunday 4 May 2014

Session: Animal Models and the Dementia Spectrum

### A PRELIMINARY STUDY OF 6 EVALUATION INSTRUMENTS IN PERSONS WITH SUBJECTIVE COGNITIVE IMPAIRMENT (SCI)

Francoise Guillo-Benarous<sup>1,\*</sup> Aninditha Vengassery<sup>1</sup> Carol Torossian<sup>1</sup> Santosh Ghimire<sup>1</sup> Jinfeng Xu<sup>2</sup> Barry Reisberg<sup>1</sup>

<sup>1</sup>Psychiatry, <sup>2</sup>Environmental Medicine and Population Health (Biostatistic), New York University School of Medicine, New York, United States

Are you submitting a scientific or non scientific abstract?: Scientific

**Objectives:** The objectives are to: (1) better define the cognitive and behavioral, pre-mild cognitive impairment (MCI) syndrome of eventual AD, and (2) to identify the comparative utility of assessment instruments in describing pre-MCI AD.

**Methods:** We conducted a study to assess the nature of subjective cognitive and behavioral symptoms in healthy subjects presenting for evaluations at the NYU Alzheimer's Disease Center. Subjects with SCI, stage 2 on the Global Deterioration Scale, (N = 34), were evaluated on 6 instruments to describe the nature and magnitude of changes in perceived cognitive and behavioral symptoms. The instruments were: (1) the self rated Visual Analog Scale (VAS), a single item assessment of cognitive functioning using a 10 point visual analog metric (Guillo Benarous, 2013); and (2) the Brief Questionnaire Regarding Severity of Memory & Emotional Problems (BQRS-M&E), (Reisberg, 2013). Randomly alternating subjects (n = 16) were also evaluated on retrospective, time related scales: (1) the Saykin, ADNI Self Report Index (Saykin, version 12-29-12), and (2) the Sahlgrenska Academy Self-reported Cognitive Impairment Questionnaire (SASCI-Q), part 2 (Eckerström, et al., *Int Psychogeriatr*, 2012). Subjects in the second random sequence (n = 18), were evaluated on the Saykin scale modified for severity (Saykin-mod-sev), (Saykin, Reisberg modification, 2013), and an Emotional Severity Scale (ESS), (Guillo Benarous, 2013). The 34 subjects (11 ♂ and 23 ♀) had a mean age of  $72.4 \pm 9.25$  years (range 53 to 87 years). The mean education level was  $16.44 \pm 2.37$  years (range 12 to 20 years). The instruments were compared with respect to age, gender, education effects and scale inter-relationships.

**Results:** No relationships were found between gender or education and scores on any of the measures. Significant ( $p < 0.05$ ) relationships were found between age and scores on the BQRS-M&E, the Saykin-mod-sev and the ESS.

**Conclusion:** Age is a strong risk factor for SCI, MCI, and AD. This factor is captured by severity and emotional self-rated scales in SCI persons. Scales based on retrospective temporal comparators did not show significant relationships to age. Further comparative and longitudinal studies will better define the advantages of diverse approaches to SCI assessment as prognostic markers of future decline.

**Disclosure of Interest:** F. Guillo-Benarous Conflict with: New York University Langone Medical Center, Conflict with: Clinical Researcher Development Fund of the New York University School of Medicine, Conflict with: I am the developer of some of the measures described in this abstract., A. Vengassery: None Declared, C. Torossian Conflict with: New York University Langone Medical Center, S. Ghimire: None Declared, J. Xu Conflict with: New York University School of Medicine, B. Reisberg Conflict with: New York University School of Medicine, Conflict with: US National Institute on Aging, National Institutes of Health, The Stringer Foundation, The Louis J Kay and June E Kay Foundation, The Hagedorn Fund, The Fisher Center for Alzheimer's Research Foundation, , Conflict with: I am the developer of some of the measures described in this abstract.



## OC115

**Date:** Sunday 4 May 2014

**Session:** Dementia Care and Technology

### **VIRTUAL REALITY - A QUESTION OF INTENT**

Stefanie Becker<sup>1</sup>\*Regula Blaser<sup>1</sup>Daniela Wittwer<sup>1</sup>Jeanne Berset<sup>1</sup>

<sup>1</sup>Institute on Ageing, University of Applied Sciences Berne, Bern, Switzerland

**Are you submitting a scientific or non-scientific abstract?:** Scientific

**Objectives:** Evaluation of the effects of a virtual train journey and other technologies on the quality of life of people with dementia

**Methods:** Mixed (quantitative and qualitative) methods in a longitudinal design with three measurements. Three different samples are included (nursing home personal, people with dementia and their relatives) and three different units of a specialized nursing home for people with dementia.

**Results:** Results show that the seriously reflected use of those virtual technologies in the living environment of nursing homes for people with dementia can help to promote their self-initiated activities, assist them in their feelings of autonomy and maintain their quality of life.

The involvement of the relatives in decision making concerning those technologies came up as a very important factor for acceptance.

**Conclusion:** Entertainment technologies should not be evaluated without considering the specific context and the nursing philosophy they are used in. The impact on quality of life for nursing home residents differs dependent on the intentions and care setting the technology is used.

**References:** Becker, S.; Kaspar, R. & Kruse, A. (2010): H.I.L.DE.: Heidelberger Instrument zur Erfassung der Lebensqualität demenzkranker Menschen. (Heidelberg Instrument for the assessment of quality of life in dementia). Bern: Huber Verlag.

Engstrom, M.; Lindqvist, R.; Ljunggren, B. & Carlsson, M. (2010): Staff members perceptions of a ICT support package in dementia care during the process of implementation. Journal of Nursing Management. Vol. 17(7), Nov 2009, pp. 781-789.

**Disclosure of Interest:** None Declared

## OC116

**Date:** Sunday 4 May 2014

**Session:** Dementia Care and Technology

### THE POTENTIAL OF COMPUTER GAME TECHNOLOGY IN DEMENTIA CARE

Clare Cutler<sup>1</sup>, Anthea Innes<sup>1</sup>

<sup>1</sup>HSC, BOURNEMOUTH UNIVERSITY DEMENTIA INSTITUTE, BOURNEMOUTH, United Kingdom

**Are you submitting a scientific or non scientific abstract?:** Non Scientific

**Objectives:** There is little research exploring the experiences of people with dementia and their engagement with technologies such as the Nintendo Wii, Nintendo DS and the Apple iPad. Use of such equipment in dementia care practices can promote social engagement, mental stimulation, and physical activity. This presentation will report on a pilot project that encouraged people with dementia to play computer games in a 'Technology Club' which aimed to encourage engagement in social and leisure activities through the use of the above technologies.

The observed results of the Technology Club were that it provided opportunities for social interaction, stimulation and access to learning. In addition to carers and care staff observing enhanced communication, motivation, alertness and heightened wellbeing. Engagement with this technology empowered people with dementia

Technology can aid people with dementia in developing and acquiring new skills and knowledge. Games and apps such as bowling, balance games and Google Earth are exciting ways to encourage people with dementia to exercise, challenge their physical abilities and to have fun. A larger research study is planned to test the initial findings on a larger scale.

**Disclosure of Interest:** None Declared



## OC117

**Date:** Sunday 4 May 2014

**Session:** Dementia Care and Technology

### **MODEM: COMPREHENSIVE MODELLING OF COSTS & OUTCOMES OF INTERVENTIONS WITH DEMENTIA**

Josie E. Dixon<sup>1,\*</sup> Martin Knapp<sup>1</sup> Adelina Comas-Herrera<sup>1</sup> Sube Banerjee<sup>2</sup> Carol Jagger<sup>3</sup> Emily Grundy<sup>4</sup> Anne Bowling<sup>5</sup> Dave McDaid<sup>1</sup> Derek King<sup>1</sup>

<sup>1</sup>Personal Social Services Research unit, London School of Economics, London, <sup>2</sup>Centre for Dementia Studies, Brighton and Sussex Medical School, University of Sussex, Brighton, <sup>3</sup>Institute for Ageing and Health, University of Newcastle, Newcastle, <sup>4</sup>London School of Economics, London, <sup>5</sup>University of Southampton, Southampton, United Kingdom

**Are you submitting a scientific or non scientific abstract?:** Non Scientific

**Objectives:** A major new 4-year long study (2014- 2018) is being undertaken in the UK involving a large-scale and comprehensive modelling of costs and outcomes of interventions for dementia.

Funded by the Economic and Social Research Council (ESRC), it is being carried out by a joint team of academics from the London School of Economics (LSE), Newcastle University, Sussex University and Southampton University.

Using data gathered through literature reviews, data from previous/ongoing trials and observational studies, primary data from a new cohort, qualitative interviews and focus groups, the team will develop a suite of linked quantitative models - both micro- and macro-simulation - to project future numbers of people with dementia, unpaid and formal care and associated expenditure, and to estimate typical life-time costs of dementia, under varying assumptions about risk factors, patterns of care and support, and preferences.

This presentation describes the different stages and methodologies of the study, discusses what findings will be available and when and describes plans for a publicly available legacy model, which will allow service commissioners, providers, advocacy groups, individuals and families to access the findings and outputs of the project, and to make their own projections of expected, needs for care and support, outcomes and costs.

**Disclosure of Interest:** None Declared

## OC118

**Date:** Sunday 4 May 2014

**Session:** Dementia Care and Technology

### **A STUDY ON CARING MODEL ADOPTED IN THE COMMUNITY WITH EMPOWERED DEMENTIA PATIENTS - A CASE STUDY OF THE PLANNING AND DESIGN OF DEMENTIA DAY CARE CENTER IN PENGHU, TAIWAN**

Po Tsung Chen <sup>1</sup>, Ting-Hsuan Tsao <sup>2</sup>, Win-Ting Wang <sup>2</sup>, Cheng-Jen Hung <sup>3</sup> <sup>1</sup>Institute of Gerontology, NATIONAL CHENG KUNG UNIVERSITY, <sup>2</sup>P.T. CHEN ARCHITECT & ASSOCIATES, Tainan City, <sup>3</sup>PenShon Construction Ltd., PengHu, Taiwan

**Are you submitting a scientific or non scientific abstract?:** Scientific

**Objectives:** It is worthwhile to explore how to empower patients with dementia so that they can be taken care in the community. In this way, non-profit organizations are able to integrate the caring on patients with dementia into community lives with a view to bringing patients back to their original community and establishing their own lives.

**Methods:** This research probes into how to apply "empowerment" on caring patients with dementia in the community. Three principles are concluded which non-profit organizations should follow when they are promoting community cares for patients with dementia. This study will utilize the three principles, observation and interview so that real cases can be verified. Furthermore, with these three principles, the planning and design of the day care center can probe into the benefit to the dementia patients after its completion.

**Results:** The result shows that when the concept of empowerment are applied to the planning and design of day care center and the assistance in dementia patients, there should be some benefits as follows: (a) enhancing the patient's self-learning and adapting; (b) improving the patient's daily healthy life; (c) connecting all services and cares the patient needs; (d) arranging the patient to join the community; (e) constructing the interaction and social network; (f) improving and strengthening family functions; (g) creating a culture of community cares.

**Conclusion:** In conclusion, it is possible to enable patients with dementia live by their own will as long as a plan of community caring can be promoted by empowering patients. Moreover, the interaction and combination between the patient's family and the community can be thus enhanced to support patient's life in the community. In this way, cares from non-profit organizations are able to last longer to help patients with dementia construct their own lives in the community.

**Disclosure of Interest:** None Declared





## OC119

**Date:** Sunday 4 May 2014

**Session:** Dementia Care and Technology

### THE EFFECTIVENESS OF AROMA-ACUPRESSURE IN IMPROVING THE PROBLEM BEHAVIORS OF DEMENTIA

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**Are you submitting a scientific or non scientific abstract?:** Scientific

**Objectives:** Problem behaviour is found in nearly half of all patients who have dementia. The presence of these behaviours increases the likelihood of injury, weakness and lack of sleep and contributes to caregiver frustration and fatigue. This study wants to investigate the efficacy of aroma-acupressure in decreasing agitated behaviours associated with dementia.

**Methods:** Participants were recruited from 6 nursing facilities caring specifically for patients with dementia. 276 of the 193 subjects (69.9%) completed the study, while 21 were discharged or hospitalized and another 62 were refused. All the subjects were randomized assigned to three groups, two experimental groups (aroma-acupressure and aromatherapy) received four-week treatment program. At first, baseline data were collected in the beginning. Individual treatment sessions began at the first week of the study and lasted 15 minutes, once a day, five days a week for four weeks. Another control group undergoing a four-week protocol consisting of companionship and conversation at the same time.

**Results:** Comparison between the control and experimental phases indicated significant differences between the three groups on all outcome measures (Cohen–Mansfield Agitation Inventory, Cornell Scale for Depression in Dementia Chinese version, Passivity in Dementia Scale) with better results found during the aroma-acupressure and aromatherapy phase.

**Conclusion:** Aroma-acupressure and aromatherapy treatment are recommended as an efficacious and non-intrusive method for decreasing the agitation behaviours in patients with dementia.

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**Disclosure of Interest:** None Declared

## OC120

**Date:** Sunday 4 May 2014

**Session:** Support and Training for Family and Professional Carers

### UNDERSTANDING AMBIGUOUS LOSS, GRIEF AND DEMENTIA

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**Are you submitting a scientific or non scientific abstract?:** Non Scientific

**Objectives:** Family members of people with dementia often experience a continuous and profound sense of loss and subsequent grief as they live through the progression of the disease. "Dementia creates ambiguous loss. The duality of your loved one's being absent and present at the same time is confusing, and finding meaning (or making sense of your situation) becomes immensely challenging. Without meaning, it's hard to cope". (P.Boss, 2011)

Unfortunately, there is a dearth of educational resources and support groups on ambiguous loss and grief related to dementia.

The Alzheimer Society of Canada (ASC) conducted thorough research reviews and Pan-Canadian interviews with health-care providers, individuals with dementia and caregivers who have benefited from grief and loss interventions.

Then, ASC developed 2 practical evidence-based resources to identify, acknowledge and normalize the feelings of loss and grief experienced by caregivers of people with dementia – from diagnosis to end-of-life and after caregiving. The first resource targets health-care providers and the second is designed for people with dementia, families and support network.

Furthermore, the Alzheimer Society of Toronto runs 5-week psycho-education support groups for family caregivers. Their goal is to address grief, validate the experience of ambiguous loss and equip them with practical strategies to help them support people with dementia from the initial onset of symptoms and diagnosis to end-of-life and life after caregiving.

Finally, ASC is developing a third resource focusing on the grief and loss experienced by health-care providers supporting people with dementia.

**Disclosure of Interest:** None Declared



## OC121

**Date:** Sunday 4 May 2014

**Session:** Support and Training for Family and Professional Carers

### RE-THINKING COMMUNITY DEMENTIA CARE: BUILDING CAPACITY AND PARTNERSHIPS

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**Are you submitting a scientific or non scientific abstract?:** Scientific

**Objectives:** The purpose of this grounded theory study was to critically examine interactions amongst those involved in dementia care to persons with Alzheimer's disease, and the processes that condition inequitable distribution of and access to community dementia care services.

**Methods:** Guided by theoretical sampling, six 'clusters' of participants were interviewed multiple times over the course of 18 months: a person with early-stage Alzheimer's disease, his/her family caregiver(s), and his/her formal caregivers. Field note data were analyzed along with the 52 interview transcripts according to the tenets of Charmaz's critical constructivist grounded theory.

**Results:** Study findings revealed that 'navigating' community dementia services is less about accessing community agencies, but rather, it occurs between and among three integral processes or realms: Contemplating Action, Managing Care, and Relating to Others. Accessing and using community dementia services by persons with dementia and their familial and formal caregivers require both the ability to navigate and partner together within these three realms; one is incomplete without the other. Moreover, study findings showed that the negotiation of formal-familial care relationships is critical to successful navigation. The concentration of activity in each realm varied among and within families and professional providers, often as a result of negotiated power relations among people with dementia and their caregivers.

**Conclusion:** Study findings help us to recognize the importance of building community dementia care capacity and partnerships across all 3 realms. For instance, we need to consider the extent to which information on its own can leave families wanting – many families need an advocate who will provide support and encouragement to sort through and act upon the information provided. Therefore, strategies for partnering within and between family and formal care as well as between and among the three processes of navigation need to be developed and refined. Finally, we need to address those contextual factors that constrain or even set up to fail families with less resources, which calls attention to the importance of advocating for equitable distribution of resources in community dementia care.

**Disclosure of Interest:** None Declared

## OC122

**Date:** Sunday 4 May 2014

**Session:** Support and Training for Family and Professional Carers

### **PERSON CENTERED VIEW IN DEMENTIA CARE - THE ROLE OF THE CARE GIVERS' ATTITUDE ON INTERACTION**

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**Are you submitting a scientific or non scientific abstract?:** Scientific

**Objectives:** Evaluation of the impact of care givers' attitudes towards dementia on their interaction with people with dementia

**Methods:** The Dementia Attitudes Scale (O'Connor & McFadden, 2010) was used to assess care givers attitudes on different care units for people with dementia in long-term care institutions. Care givers with positive or negative attitudes were observed in interaction with residents with dementia in defined everyday activities. The observations were video-recorded and analysed with an interactional sequencing method.

**Results:** Comparative results show that the quality of interaction of the care givers differs significantly dependent on their according attitude towards dementia. Negative attitudes provoke less adequate interactional behavior which in consequence lead to dementia specific reactions on the side of the nursing home resident. The same resident in an interaction with a care professional with a positive attitude towards dementia showed less dementia specific behavior in the same everyday situation.

**Conclusion:** Professional training and continued education programs mustn't only focus on the transfer of expert knowledge but also on the requirement on experience-based knowledge which can be effective in developing a more positive attitude toward dementia.

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**Disclosure of Interest:** None Declared



## OC123

**Date: Sunday 4 May 2014**

**Session: Support and Training for Family and Professional Carers**

### **RISK V BENEFIT - WHICH HAS THE GREATER IMPACT FOR RESIDENTS LIVING WITH DEMENTIA**

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**Are you submitting a scientific or non scientific abstract?:** Non Scientific

#### **Objectives**

Following the publication of a paper several years ago, Caroline has continued to carry out work in this area and has subsequently developed a Risk v Benefit analysis for the Care Homes to utilise to help staff to determine whether preventing a risk from occurring is more likely to cause distress and therefore create a further risk.

The tool has been developed to help staff to sit down with the resident (if they are able) and/or the resident's relative to determine whether by preventing the activity taking place, they are creating a risk of psychological ill-being which ultimately may be a bigger risk (due to distress and frustration) than facilitating the activity in a risk managed way.

The Risk V Benefit analysis will not give a definitive answer but helps to guide staff to determine which has the higher impact, enabling both staff and the resident/relative to formulate a care plan around a best interest decision.

Having just presented this in Cape Town, a community health worker advised that it would also be useful for helping to reach a decision for people living with dementia within their own homes also.

**Disclosure of Interest:** None Declared

## OC124

**Date:** Sunday 4 May 2014

**Session:** Support and Training for Family and Professional Carers

### **QUALITY OF CARE AND ITS IMPACT ON RESIDENTS NEUROPSYCHIATRIC SYMPTOMS - RESULTS FROM THE WGQUAL STUDY**

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**Are you submitting a scientific or non scientific abstract?:** Scientific

**Objectives:** Shared-housing arrangements (SHA) are a specific German kind of small-scale living facilities for elderly care-dependent persons with dementia which are served by community care services and being an alternative to traditional residential facilities. SHA are considered to be beneficial to people with dementia in terms of neuropsychiatric symptoms. We investigate if a guided quality development process in SHA can reduce the prevalence of neuropsychiatric symptoms in people with dementia.

**Methods:** In a longitudinal prospective study, residents of SHA in Berlin/Germany were surveyed for one year: at baseline and follow-up after 12 months. In total, 104 residents in 34 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 (e.g. training for nurses regarding neuropsychiatric symptoms). Face- to-face interviews with residents and nursing staff were used to assess neuropsychiatric symptoms (NPI) and challenging behaviour (CMAI). Additionally, data regarding socio-demographic data, severity of dementia (GDS) and cognitive abilities (MMSE) were assessed.

**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  $\geq 6$ ). No statistically significant differences between intervention and control group could be established for NPI (15.2 vs. 13.5 points) and CMAI at baseline, except for physical-non aggressive behaviour which is more prevalent in the control group (38.2% vs. 62.2%;  $p = 0,046$ ). After one year the NPI total score decreased by about 3 points in both groups. However, the decline could not be explained with the initial intervention (ANCOVA  $p > 0.05$ ). The prevalence of residents' challenging behaviour was nearly unchanged over time.

**Conclusion:** Although, various descriptive improvements could be established, there is no evidence the intervention is a more effective strategy than usual care in terms of reducing neuropsychiatric symptoms and challenging behaviour in SHA. However, the study provides several insights as to whether the quality of care in SHA can be improved by an external quality development.

**Disclosure of Interest:** None Declared





## OC125

**Date:** Sunday 4 May 2014

**Session:** Support and Training for Family and Professional Carers

### **EVALUATION OF EFFECTS OF 'DEMENTIA FIRST AID' TRAINING ON KNOWLEDGE, ATTITUDE AND SENSE OF COMPETENCE OF FAMILY CARERS OF PEOPLE WITH DEMENTIA IN HERTFORDSHIRE, UK: FINDINGS OF A FEASIBILITY STUDY**

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**Are you submitting a scientific or non scientific abstract?:** Scientific

**Objectives:** Most people with dementia receive most of their care from their families, but carers do not receive any training. In Hertfordshire, we have developed an information-based, stress reducing and crisis preventive 12-hour Dementia First Aid modular course for family carers. The aim of this study is to investigate the impact of Dementia First Aid training on knowledge about, attitude towards and sense of competence of caring people with dementia.

**Methods:** As part of a larger study, this feasibility study would be done on 15 carers (10% of study sample) in December 2013. Respondents would be participants of a 12-hour training workshop for the primary family carers of people with dementia in Hertfordshire by trained health care professionals. Participants would complete the pre-test and post-test research designed for the study. The questionnaire assesses participant's ability to recognise common symptoms and types of dementia, knowledge about drug and non-drug treatments, public misconceptions about people with dementia, and sense of competence in caring. Video interviews of willing participating will also be presented.

**Results:** The total score of the questionnaire would be compared between pre- and post-test to see the difference. The degree of difference would be reported and discussed. A few video interviews of the carers would also presented.

**Conclusion:** Implications of the Dementia First Aid training course.

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**Disclosure of Interest:** None Declared

## OC126

**Date:** Sunday 4 May 2014

**Session:** Clinical Trials and Putting Scientific Knowledge into Practice

### IMPLEMENTATION AND DISSEMINATION RESEARCH IN GERMANY- THE MISSING GAP IN DEMENTIA CARE

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**Are you submitting a scientific or non scientific abstract?:** Scientific

**Objectives:** From the perspective of implementation and dissemination research it can be determined that a) only a fraction of research results for people with dementia is translated into care practice; b) the implementation of care interventions is not carried out systematically; c) the systematic, structured, and sustainable implementation and dissemination as well as the continuous evaluation of implementation and dissemination effects are usually omitted, and d) research that focuses implementation processes is usually not funded (Roes et al. 2013a; Roes et al. 2013b).

**Methods:** To develop a research strategy the working group 'ImDi' used the Mintzberg-Bridge-Strategy and analyzed its seven perspectives (Mintzberg 1993, 1995; Unger et al. 2000)

**Results:** There are many known barriers, which influence and delay the implementation of evidence based/evidence informed innovations in practice. The analysis lead to the identification of three gaps: (1) between research and politic, (2) between politic and practice, and (3) between practice and research.

**Conclusion:** Whereas internationally there is already a pool of relevant knowledge available, in Germany implementation and dissemination research is still a very young branch of science. Therefore, the research group "Implementation and Dissemination Research" (ImDi) is not only engaged in the generation of its concepts but also in the transferability of this knowledge into the German health care system.

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**Disclosure of Interest:** None Declared



## OC127

**Date:** Sunday 4 May 2014

**Session:** Clinical Trials and Putting Scientific Knowledge into Practice

### KNOWLEDGE MANAGEMENT IN DEMENTIA CARE NETWORKS IN GERMANY

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**Are you submitting a scientific or non scientific abstract?:** Scientific

**Objectives:** In Germany, a growing number of health care services supporting people with dementia in the community are organized in “dementia care networks”. Knowledge management describes an essential part knowledge-based communication processes in organizations. Effective communication strategies are likely to contribute towards the “success” of a dementia care network. However, there is a lack of studies on knowledge management in such networks. Therefore, this study aims at evaluating strategies of knowledge management in dementia care networks across Germany as part of the DemNet-D study.

**Methods:** Qualitative data were collected during semi-structured one-on-one interviews with coordinators of 13 dementia care networks. Semi-structured group interviews with different key persons of these networks followed. Data regarding network specific knowledge management structures and processes, and potential barriers and facilitators to these processes, were collected. Interviews were audiotaped and transcribed; structured content analysis of the data was conducted. Coding of the transcripts was carried out using MAXQDA 11 qualitative data analysis software.

**Results:** First results show that dementia care networks are very heterogeneous with regard to knowledge management. While some operate with a certain degree of standardization and formal knowledge management structures, others are largely based on informal structures. In all dementia care networks, general practitioners (GPs) are considered as gatekeepers regarding the contact between a network and the people affected by dementia. However, only 4 of the 13 networks have a special communication strategy to improve the contact with GPs and to ensure their involvement with the network.

**Conclusion:** The degree of standardization of dementia care network management processes varies. GPs have an important gatekeeper function in dementia care networks; however, there is still a need for communication strategies reflecting this role in most networks. Knowledge management processes can assist, e.g., in developing communication strategies aiming at involving GPs more effectively and continuously with a network. In the context of this study, this translates into findings that have the potential to support dementia care networks in Germany to optimize their communication and cooperation structures.

**Disclosure of Interest:** None Declared

## OC128

**Date:** Sunday 4 May 2014

**Session:** Clinical Trials and Putting Scientific Knowledge into Practice

### **DEVELOPING A DATA SET TO IMPROVE RECRUITMENT TO CLINICAL STUDIES OF DEMENTIA**

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**Are you submitting a scientific or non scientific abstract?:** Non Scientific

#### **Abstract: Objectives**

Methodological and disciplinary diversity of dementia research and the complexity of the pathways in which it is delivered lead to significant difficulties and costs in recruiting people to clinical studies using traditional note screening methods. As part of the development of a national system to improve recruitment to dementia studies in England, the National Institute for Health Research (NIHR) Dementias and Neurodegenerative Diseases Research Network (DeNDRoN) has created a data set to be used to increase the speed and reduce the cost of identifying people for dementia studies. The criteria for the data set were for it to (a) be sufficiently detailed to allow a volunteer to be matched to only studies for which they meet high level inclusion/exclusion criteria; (b) be sufficiently detailed to allow researchers to conduct protocol optimisation and feasibility assessments; (c) contain information which is likely to be known by the volunteer; (d) not deter volunteers from registering; and (e) be maintainable over time. Potential data items were identified through the following routes: (1) an analysis of the inclusion and exclusion criteria for 241 dementia studies on the English NIHR portfolio database; (2) a survey pharmaceutical companies to identify their data requirements for protocol optimisation and feasibility assessment; (3) a review of the datasets used by 15 existing local dementia registers in England. This yielded 176 potential data items. A Delphi exercise was subsequently conducted involving 42 researchers. The result of the Delphi exercise was consensus on a data set of 51 items including information relating to personal demographics (11 items); diagnosis and cognitive function (5); health service provider (7); general health (4); care and support (19); and preferences (5). The acceptability of the data items and viability of collecting them from the public was subsequently assessed via a survey carried out with the Alzheimer's Society and Alzheimer's Research UK. All 51 items were found to be within the acceptability and viability tolerances set. Pilot work already undertaken using a similar dataset suggests potential cost savings of up to 70% using a consent-for-approach register to identify patients compared to traditional note screening. A wider evaluation using the agreed data set is now being set up in one of Europe's largest Academic Health Science Partnerships.

**Disclosure of Interest:** None Declared



## OC129

**Date:** Sunday 4 May 2014

**Session:** Clinical Trials and Putting Scientific Knowledge Into Practice

### **A LONGITUDINAL CASE STUDY OF AN ATYPICAL EARLY-ONSET POSTERIOR CORTICAL DEMENTIA WITH HYPEROSTOSIS FRONTALIS**

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**Are you submitting a scientific or non scientific abstract?:** Non Scientific

**Objectives:** The patient is a 54-year-old professional presenting with 11 years of increasingly atypical mood and behavior symptoms. His rapid cycling Bipolar Disorder, diagnosed at age 35, had developed into a difficult-to-treat persistent abnormal state alternating between mixed-manic and mixed-depressive symptoms, with occasional abnormal auditory perceptions and ideas of reference. Medical history reflected obesity, insulin-requiring diabetes mellitus type II, essential hypertension, hypercholesterolemia, and obstructive sleep apnea.

The patient experienced gradual visual spatial problems resulting in problems with orientation while driving to familiar places. In addition, he reported problems learning new procedures at work involving record keeping routines and he required several brief medical leaves due to depression related anxiety and concentration difficulties.

FDG-PET showed diffuse bilateral (slightly L > R) parietal hypometabolism correlating with bilateral parietal lobar cortical atrophy seen on MRI examination. Another discovery was conspicuous bilateral hyperostosis frontalis interna (HFI). Comparison against similar studies from a headache evaluation 8 years earlier showed the same results at their initial stages. Other significant findings included: Apolipoprotein E epsilon 3/4 genotype; late-onset Alzheimer's disease (AD) diagnosis in his father and paternal grandfather; a 58-year-old sister now evaluated for dementia with amnesia as her initial symptom.

Neuropsychological Testing was performed as these cognitive complaints became more evident and persistent even during near-euthymic states. His MMSE and MOCA were 22/30 and 14/30, respectively. The most prominent deficits affected visual spatial processing and executive functions (attention, initiation/perseveration, planning, organization, motor programming, & cognitive flexibility), with mildly decreased functioning associated with learning & memory, verbal fluency, naming & comprehension. His functioning level deteriorated during the year following this evaluation. But he reacted positively to retirement and to the introduction of acetylcholinesterase inhibitor & memantine treatment. His latest MOCA test improved to 23/30. Persistent deficits included clock number placement, cube copying, and word recall (1/5), involving visuospatial and memory abilities.

We will discuss these observations.

**Disclosure of Interest:** None Declared

## OC130

**Date:** Sunday 4 May 2014

**Session:** Clinical Trials and Putting Scientific Knowledge into Practice

### ROLE OF IMAGING IN ALZHEIMER DISEASE CLINICAL TRIALS

Kohkan Shamsi, MD, PhD, Co-Founder and Principal RadMD, New York, USA

#### **Abstract:**

Magnetic resonance imaging (MRI) and positron emission tomography (PET) are now extensively utilized in Alzheimer disease (AD) clinical trials for patient eligibility, efficacy assessment, and safety evaluations.

**Assessment of patient eligibility in AD trials:** Many neurological diseases that could either have similar presentation as AD or could be confounding factors in the assessment of drug therapy have to be excluded to evaluate therapeutic effects of drugs. These include vascular dementia, multiple sclerosis, vascular pathology, neoplasms etc. Inclusion of wrong patients could have serious ethical and legal issues and these patients could be excluded from the final analysis.

**Evaluation of Amyloid Related Imaging Abnormalities (ARIA):** Initially these abnormalities were observed in monoclonal antibody against amyloid- $\beta$  trials. ARIA include vasogenic edema, micro and macro hemorrhages and superficial siderosis. FDA has mandated that patients must frequently be followed by MRI in all AD trials and if ARIA is observed, the patient should be discontinued and should be followed by MRI more frequently till the finding is resolved or stabilized. These MRIs must be evaluated in a standardized fashion with very quick turnaround time. We will present our experience in conducting MRI evaluations for ARIA and suggest best practices to conduct ARIA evaluations

**Efficacy evaluation:** MRI is utilized to evaluate total brain volume and/or hippocampal volume. FDG PET has been used to measure metabolic activity of brain. Recently Amyloid imaging agent has been approved and are being utilized for drug evaluations.

#### **Take Home Messages:**

1. Imaging in AD trials must be prospectively planned including standardizing imaging methodologies across the sites, establishing a uniform site evaluation. Quality of imaging is critical to ensure that patients are not excluded due to uninterpretable data and optimum data is acquired to evaluate safety and efficacy.
2. Site and independent reader training and testing is critical and should be transparently conducted and documented.
3. Knowledge of FDA guidance for ARIA is essential for designing the imaging protocols and assessment criteria.

Impact of frequent imaging on patient management (recruitment and retention) and additional burden on patients should be prospectively considered as this can impact sample size and statistical evaluation.





## OC131

**Date:** Sunday 4 May 2014

**Session:** Clinical Trials and Putting Scientific Knowledge into Practice

### **TIME PERCEPTION (TP) CHANGES IN ALZHEIMER'S DISEASE (AD): IMPLICATIONS FOR CARE**

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**Are you submitting a scientific or non scientific abstract?:** Scientific

**Objectives:** To develop and test a tool for recording changes in TP over time.

To observe and compare how TP changes over time in different types of dementia, and whether differences are distinct enough to assist with early detection? To consider ongoing communication/care implications of TP changes.

**Methods:** Comparing TP changes from long-term case studies of people with AD, VaD, and other dementias

**Results:** Initial results of pilot work indicate: that there are differing patterns of TP change, noting when the phase of 'self-correction of TP mistakes' stops, seems to be a more distinctive feature in AD than Vas. D 'lucid moments' (of temporarily improved TP and their frequency/patterns) can be recorded, there seems to be a link between sensory perceptual changes and severity of TP changes

**Conclusion:** Further testing and refinement are needed to determine: how changes in TP relate to changes in other abilities, whether difficulties with the perception/recall of "smaller increments/units of time" are possible to document, whether this is a useful non-invasive parameter for earlier and/or differential detection of dementing illness.

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**Disclosure of Interest:** None Declared

## OC132

**Date:** Sunday 4 May 2014

**Session:** Policy and Campaigning

### **“I AM NOT A WITCH” – STIGMATIZATION OF PEOPLE WITH DEMENTIA IN GHANA**

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**Are you submitting a scientific or non scientific abstract?:** Scientific

**Objectives:** Everywhere in the world the population of the elderly is increasing and the prevalence of dementia is rising. Especially in Ghana the proportion of aged people grows faster than in many developed countries and fastest throughout Africa. But as in many developing countries awareness about ageing and dementia diseases seems to be missing and often ends up in stigmatization of people with dementia. Therefore this study has the aim to identify awareness-challenges about the process of ageing and the dementia disease in the context of witchcraft in Ghana.

**Methods:** We conducted a systematic literature search as well as an explorative study about health care challenges related to demographic changes in Ghana. The study applied quantitative and qualitative research interviewing six experts and distributing 175 questionnaires to Ghanaian nursing students. The transcribed interviews were examined using manifest and latent content analyses. Data analysis of the questionnaires was performed using descriptive methods.

**Results:** The results revealed that people in Ghana grow increasingly older. A lacking ageing policy, missing adequate insurance or assistance facilities for the elderly are one big issue. Moreover, knowledge concerning the ageing process and age related diseases like dementia is hardly present. Accordingly as a consequence elder Ghanaians are effected by stigmatization in a way that people still neglect them due to problems associated with ageing and relate signs and symptoms of dementia to witchcraft. Therefore, people with dementia are often excluded from the society and have to live in witch-camps or are beaten and even killed.

**Conclusion:** The Ghanaian public as well as the Ghanaian health care system are not prepared for the rapid ageing population and the increase of age-related diseases like dementia. Improved education and raising public awareness about the ageing process and dementia diseases are utmost important to initialize adequate age-specific and age-appropriated care structures for the elderly with and without dementia. Raised awareness that dementia is a frequent illness in older age is badly needed to break the superstition related with the disease. Ghana has to put these issues on national agendas and further research is mandatory.

**Disclosure of Interest:** None Declared



## OC133

**Date:** Sunday 4 May 2014

**Session:** Policy and Campaigning

### **MORE STRATEGIC ALLIANCES FOR AWARENESS AND ADVOCACY**

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**Are you submitting a scientific or non scientific abstract?:** Non Scientific

**Objectives:** Alzheimer Disease International has been campaigning and advocating for dementia to become a public health priority for some years now according to its strategic plans. To facilitate the advocacy at the international level, ADI obtained official relationship with the WHO and consultative status with the UN/ECOSOC. Furthermore ADI entered into some strategic alliances with some international non-governmental organizations (NCD Alliance, Help Age International). Even though ADI has a member organization in almost half of the 196 WHO member states, and all 79 ADI member organizations campaign and advocate for dementia to become a public health priority in their respective countries, only 10 governments until now have a National Dementia Plan. No resolution has yet been adopted at the WHO and/or the UN level to prioritize dementia in public health and social development. Strategic alliances of ADI with more non-governmental and civil society organizations at the national and international level might increase the demand on national governments to make dementia a national health priority. The Caribbean Dementia Awareness and Advocacy Alliance established in Philipsburg, Sint Maarten in August 2012 might serve as an example of a strategic alliance between Lions International, Rotary International, Indian Merchant Association and ADI in the English speaking Caribbean. The objective is to cooperate in dementia awareness and advocacy campaigns in the English speaking Caribbean, also where ADI does not have a member organization. In 2013 the Rotary Club and the Lions Club of Sint Maarten developed a dementia awareness toolkit, which has been presented in the district conventions of Rotary District 7020 and Lions District 60B. Local service clubs were encouraged to use the toolkit as a way to raise the awareness about dementia. Further development of strategic alliances with organizations in civil society of population categories most affected by dementia such as of seniors, women and workers, might multiply the advocacy efforts to make dementia globally and nationally a public health and a social development priority.

**Disclosure of Interest:** None Declared

## OC134

**Date:** Sunday 4 May 2014

**Session:** Policy and Campaigning

### THE NATIONAL ALLIANCE FOR PEOPLE WITH DEMENTIA

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**Are you submitting a scientific or non scientific abstract?:** Non Scientific

**Objectives:** On World Alzheimer's Day 2012 the German ministers for health and senior citizens initiated the National Alliance for People with Dementia. This is part of the strategy of the "Demographic strategy" of the German government.

Participants of the National Alliance are different stakeholders from medical organisations, insurances, welfare organisations, care organisations and so on. The German Alzheimer Association was asked to cooperate as a co-chair besides the two ministries. The working group was set up for one and a half year to define activities in four fields of action. These are information and research, public awareness, support of people with dementia and their caregivers and improvement of the care system for people with dementia.

To get people with dementia involved in the working process of the alliance the German Alzheimer Association has organised a participation process with members of the groups for people with early onset dementia.

**Disclosure of Interest:** None Declared

*\*The presenting author of this abstract is now Heike von Lützu-Hohlbein*



## OC135

**Date:** Sunday 4 May 2014

**Session:** Policy and Campaigning

### **COLLABORATION IN ORDER TO GIVE MORE INFORMATION ABOUT ALZHEIMER'S DISEASE**

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**Are you submitting a scientific or non scientific abstract?:** Scientific

**Objectives:** Ø Collaboration with other associations or external people to upgrade La Ligue Nationale Alzheimer LIGA LINALs visibility, and by doing this, guaranty the information to a greater scale of people, patients, caregivers, family member, or each person feeling concerned by the disease or dementia.

Ø To create a collaborators network to give Alzheimers disease and other dementia more credits

Ø It is an occasion for extern collaborators to show their interest in community service activities, environmental stewardship, promoting diversity, giving back to the communities.

**Methods:** The method is to collaborate with external people. Collaboration can take several forms. Three different kinds of collaboration came out just for the ACD 2013; Michael Hagedorn made pictures for the event, and La Ligue Alzheimer ASBL made big posters of it to illustrate the event.

Another form of collaboration is the one that took place in the art therapy session with the McDermott Will & Emery Lawyer's firm. Out of the activity presented by La Ligue Alzheimer ASBL, the firm made postcard which will be sold later on. The benefits will serve the Alzheimer's disease cause.

Finally, Publicis, a publicity agency, and La Ligue Alzheimer ASBL teamed up before the event to showcase a full-page publicity in two famous newspapers to make the Alzheimer Café Day 2013 an unavoidable event.

**Results:** The collaborations lead to an upgraded visibility for both LINAL and associations. But also for the patients, the families and the professionals, and all of those concerned by the Alzheimer's disease.

On September 21 2013, lawyers, publicists and photographers teamed up with the Belgian National Alzheimer League and organized and facilitated art workshops for Alzheimer patients during the Alzheimer Café Day in Brussels. Out of the many beautiful works of art that were created by people with dementia, the lawyers and staff selected four paintings as designs for greetings cards. These greetings cards are going to be sold by La Ligue Alzheimer ASBL, and the funds collected will serve the cause of the association.

**Conclusion:** The collaboration leads to two successful exits. For the patient, there is valorization in his action. For the associations, there is a gain in their visibility, and they can show their interest in human matters. The collaboration has benefits for both associations and patients and collaborators.

**Disclosure of Interest:** None Declared

*\*The presenting author of this abstract is now Michael Splaine*

## OC136

**Date:** Sunday 4 May 2014

**Session:** Policy and Campaigning

### PERCEIVED COGNITIVE IMPAIRMENT IN PUERTO RICO 2012

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<sup>1</sup>Puerto Rico Department of Health, San Juan, Puerto Rico

**Are you submitting a scientific or non scientific abstract?:** Non Scientific

**Objectives:** Objectives: The Puerto Rico Department of Health added five questions about Perceived Cognitive Impairment (PCI) in the 2012 Behavioral Risk Factor Surveillance System (BRFSS) Survey. The purpose was to estimate the prevalence of self-reported increased confusion or memory loss, associated needed assistance, therapy or medications, and if a diagnosis of dementia was given or not. These questions were adapted from the BRFSS Optional Perceived Cognitive Impairment Module.

**Methods:** BRFSS is an annual state-based telephone survey of randomly selected non- institutionalized US adults aged  $\geq 18$  years regarding health practices and risk behaviors linked to chronic diseases, injuries, and preventable infectious diseases. PCI was described by age group, sex, and employment status and education level, among other variables. Raking weighting was used to adjust for the probability of selection and to reflect the total adult population. IBM SPSS Statistics v19.0 was used to analyze data.

**Results:** The prevalence of PCI in non-institutionalized adults aged  $\geq 18$  years in Puerto Rico in 2012 was 9.8%. Of these, 56.3% were women. The prevalence increased to 13.6% for non-institutionalized adults aged  $\geq 60$  years old. As a result of confusion or memory loss, more assistance was needed in household activities (17.5%), personal care (15.8%), safety (13.2%), and transportation (11.6%); whereas 25.2% did not need assistance in any area. Treatments such as therapy or medications for confusion or memory loss were received by 49.3% of respondents with PCI. Dementia was diagnosed by a healthcare professional in 33.0% of adults with PCI, of these, 67.0% were diagnosed with Alzheimer's disease.

**Conclusion:** Confusion and memory problems are warning signs of cognitive decline. This is the first time PCI population based prevalence was estimated in Puerto Rico. BRFSS data indicates that 67% of respondents with PCI have not been diagnosed. An early and accurate diagnosis of dementia is important for initiating treatment, initiating financial planning, developing advance directives, enrolling in clinical trials, and anticipating care needs. Three of every four adults with PCI needed assistance in daily living activities. The results of this analysis provide essential information needed in the process of planning quality services for the population affected by PCI.

**Disclosure of Interest:** None Declared





## OC137

**Date:** Sunday 4 May 2014

**Session:** Policy and Campaigning

### **REACHING LATINO CARE PARTNERS IN CALIFORNIA - A BEST FRIENDS EDUCATION CAMPAIGN**

David Troxel<sup>1</sup>, Virginia Bell<sup>2</sup>, Lilia Mendoza<sup>3</sup>

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**Are you submitting a scientific or non scientific abstract?:** Non Scientific

**Objectives:** Reaching out to Latino Care Partners in California – Lessons Learned and Recommendations

Lilia Mendoza, Ph.D., David Troxel, MPH, Virginia Bell, MSW

In 2011 Dr. Lilia Mendoza translated the well-known book on dementia care, *The Best Friends Approach to Alzheimer's Care* (Bell & Troxel, Health Professions Press, 1996) into Spanish from its original English translation. This model of care embraces contemporary best practices, and encourages care partners to practice and learn empathy, learn the dos and don'ts of communication, write down and use the life-story of the person with dementia, and engage in meaningful activity. The authors argue that what helps a person with dementia feel safe, secure and valued is a care partner who treats the person as a "best friend." Friendship encourages engagement and helps the person with dementia feel safe, secure and valued.

This presentation (offered in Spanish and/or English) will describe the results of an eleven city, two-week tour throughout California that reached over 1,400 family and professional care partners. The format was that the group first met as a whole, and then split into an English speaking group (led by David Troxel) and then a Spanish speaking group (Lilia Mendoza).

The presentation will:

Define and discuss the Best Friends approach to dementia care.

Discuss and share logistics, recommending that groups consider a one or two week educational "road show" format for dementia education in general.

Discuss how funds were raised and partnerships created, notably with the California network of Caregiver Resource Centers.

Discuss how the English speaking groups and Spanish speaking groups differed and how we learned to adapt our presentations to meet the needs of each audience

And offer recommendations for working with Spanish speaking communities based upon the presenter's experiences in California, Mexico and Latin America.

**Disclosure of Interest:** None Declared

## P001

### Topic: Person Centered Care

#### THE VIPS PRACTICE MODEL FOR DEMENTIA CARE

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**Are you submitting a scientific or non scientific abstract?:** Non Scientific

**Objectives:** Based on Tom Kitwood's theory summed up in Dawn Brooker's VIPS framework, the VIPS practice model is a staff training intervention for person centered care, which can be used in both nursing homes and in-home nursing. The VIPS framework consists of four elements; V – that all human beings have the same Value, I – the care should be Individualized, P – taking the Perspective of the person with dementia, S – the psycho-Social environment in which the person with dementia lives. Each element has 6 indicators giving concrete descriptions of the content of the elements. The four elements in the VIPS framework are used in a weekly meeting structured to help staff reach consensus on how to meet a challenging patient-nurse situation. The discussion in the meeting has particular focus on the perspective of the person with dementia. The VIPS practice model has set roles to ensure that all staff is involved in the decision making process and implementation of person centered care. As a representative of the majority of staff, an auxiliary nurse holds the leading role as leader of the consensus meeting supported by the head nurse. The primary nurse is the spokesperson for the person with dementia, presenting the situation from the perspective of the person with dementia. The registered nurse responsible for the professional development in the institution has the role as an internal coach, and trains new members of staff. The VIPS practice model for dementia care has been tested in a large RCT in Norwegian nursing homes, and is found to reduce depression, psychosis and agitation. The model has also been tried out in two municipalities in in-home nursing, and clinical workers reported it was very useful in this setting as well. We are conducting a two day international course in English in Oslo, Norway in October 2014, welcoming RNs, psychologists and others who are interested in being resource persons for implementation of the VIPS practice model in their country. The VIPS practice model will be presented, you will be trained in conducting the model's introduction course and receive a starting-kit with educational dvds and manuals in English or Portuguese.

**Disclosure of Interest:** None Declared



## P002

### Topic: Person Centered Care

#### FACTORS TO MAKE THE VIPS PRACTICE MODEL MORE EFFECTIVE IN THE TREATMENT OF NEUROPSYCHIATRIC SYMPTOMS IN NURSING-HOME RESIDENTS WITH DEMENTIA

Janne Røsvik<sup>1,2</sup>, Øyvind Kirkevold<sup>1</sup>, Knut Engedal<sup>1</sup>

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**Are you submitting a scientific or non scientific abstract?:** Scientific

**Objectives:** The VPM uses indicators of the main elements in person-centred care (the VIPS-framework) in a structured meeting in the nursing-home unit to analyse a challenging resident-staff situation. A recent RCT indicated that the VIPS model was significantly better than traditional care in reducing depression and neuropsychiatric symptoms in persons with dementia, but a substantial proportion of the total variance of the effects was related to conditions in the particular unit (ward). We have explored which factors explain the variance in the effect of the VPM.

**Methods:** The VPM sub-set of data from the RCT was explored using multilevel linear regression. A total of 138 residents with dementia in 13 units in 4 nursing-homes were analysed with a mean number of 10.7 residents (min. 3, max. 21) in each unit.

The dependent variables were change in scores on the Neuropsychiatric Inventory Questionnaire (NPI-Q) and the Cornell Scale for Depression in Dementia (CSDD). We used a multilevel model to calculate the intra class coefficient (ICC), which is the proportion of the total variance of the outcome that is attributable to a contextual variable, for instance the unit.

**Results:** The ICC was higher for the unit level (13.3% for CSDD and 21.5% for NPI-Q) than for the institutional level (2.9% for CSDD and 7.8% for NPI-Q) and was explained mainly by unit size (32.9% for CSDD and 28.2% for NPI-Q). Regarding ICC for the CSDD explained by the unit, which was 13.3%, the model explained 51.3%, which is 6.6% ( $0.13 \times 0.51$ ) of the total variance of the CSDD.

Of the remaining 86.7% variance of the CSDD (among the residents) 15.8% can be explained by the model, which is 13.9% ( $0.16 \times 0.87$ ) of the total variance of the CSDD.

Regarding ICC for the NPI-Q explained by the unit, which was 21.5%, the model explained 45%, which is 9.9% ( $0.22 \times 0.45$ ) of the total variance of the NPI-Q.

Regarding the remaining 78.5% variance of the NPI-Q (among the residents), 11.9% can be explained by the model, which is 9.5% ( $0.12 \times 0.79$ ) of the total variance of the NPI-Q.

In total the model explained  $6.6 + 13.9 = 20.5\%$  of the variance for CSDD and  $9.9 + 9.5 = 19.4\%$  of the variance for NPI-Q.

**Conclusion:** Difference in effect between the units explained most of the variance in effect. Unit size was the only variable that had a statistically significant influence on the difference in effect between the units. The effect of the VPM was best in the small units.

**Disclosure of Interest:** None Declared

## P003

### Topic: New and Future Treatments

#### **CURCUMIN LOADED SOLID LIPID NANOPARTICLES PREVENTS OVARECTOMY-INDUCED MEMORY IMPAIRMENT IN WISTAR RATS**

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**Are you submitting a scientific or non scientific abstract?:** Scientific

**Objectives:** A large body of evidence suggesting that decline in ovarian function with menopause is associated with neuronal dysfunction. Condition leads to estrogen deficiency results rise in oxidative stress and inflammatory cytokines. Curcumin (diferulomethane), is a low molecular weight phytochemical, with potent antioxidant and anti-inflammatory activities. Effectiveness of curcumin has been established in a wide variety of human diseases including neurodegenerative disorders, but it is yet to be approved as a therapeutic agent due to its compromised bioavailability (BA).

**Methods:** We prepared solid lipid nanoparticles of curcumin (CMN-SLNs) with enhanced BA and investigated its therapeutic role in ovariectomy-induced memory impairment in female wistar rats. Ovariectomized animals demonstrated severe memory loss as indicated by increased transfer latency in Morris water maze. These behavioral disruptions were coupled with increased lipid peroxidation and lower levels of GSH and Superoxide dismutase (SOD) in whole brain homogenates of ovariectomized rats.

**Results:** Effectiveness of SLNs to deliver curcumin to the brain was shown by a significantly better alleviation of the oxidative stress parameters (SLNs caused an increase in GSH and SOD levels with a significant decline in LPO levels) in brain of ovariectomized as compared with free curcumin solution (CMN-S). Similar improvements (almost 3 times) were demonstrated during behavioral studies revealing the importance of formulating the drug in the novel drug carrier system i.e. SLNs.

**Conclusion:** Thus the present study highlights the potential of CMN-SLNs for treatment of menopause- induced memory disorder.

**Disclosure of Interest:** None Declared



## P004

### Topic: New and Future Treatments

#### NEUROPROTECTION OF A-BETA TREATED HIPPOCAMPAL NEURONS DURING HYPERBARIC TREATMENT WITH KETONE SUPPLEMENTATION

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**Are you submitting a scientific or non scientific abstract?:** Scientific

**Objectives:** Those genetically predisposed to Alzheimer's disease (AD) and with increased brain b-amyloid (Ab) levels have increased risk of developing cognitive impairment after exposure to hyperoxia and evidence suggests that hyperoxia-induced synaptic dysfunction may enhance the progression of AD pathology. This suggests that elderly may be selectively vulnerable to the pathological consequences of hyperbaric oxygen preconditioning (HBO-PC). Ketone bodies are neuroprotective and serve as alternative fuel for the brain, so we tested a ketone ester supplement to prevent excessive ROS production in response to HBO-PC in Ab treated neuronal cultures. We hypothesize that cultured hippocampal neurons treated with Ab are selectively vulnerable to oxidative stress and that damaging ROS production in response to HBO-PC can be reversed by supplemental ketones.

**Methods:** Primary rat hippocampal neurons were grown for 4 days and treated with Ab42 prior to four 60 minute episodes (1 exposure/day) of hyperbaric normoxia (95% O<sub>2</sub>) or normobaric normoxia. Experiments were performed in duplicate, repeated 3 times. Fluorescence imaging of DHE was used to measure the production of superoxide anion to determine the cellular response to severe HBO (4 ATA O<sub>2</sub>) and to ketone ester supplement.

**Results:** In untreated cells 20.5% and 36.2% reduction of ROS production was observed in control and HBO-PC groups, respectively, in response to ketone supplementation. In Ab42 treated cells 23% and 16.5% reduction of ROS production was detected in control and HBO-PC groups, respectively, in response to ketone supplementation.

**Conclusion:** The effect of aging on O<sub>2</sub>-dependent redox regulation has significant clinical implications for understanding neuronal sensitivity and vulnerability to oxidative stress in the elderly. However, the regulatory mechanisms at a molecular and cellular level remain poorly understood. These results show that ketone supplementation might provide a promising direction to the development of new strategies for therapeutic intervention.

**References:** Arendash GW et al. 2009. Oxygen treatment triggers cognitive impairment in Alzheimer's transgenic mice, *Clinical Neuroscience and Neuropathology*, 20 (12):1087-1092

**Disclosure of Interest:** None Declared

## P006

### Topic: New and Future Treatments

#### SYNTHESIS OF A NEW 1,2,4-OXADIAZOLE AND EVALUATION OF ITS ABILITY TO INHIBIT $\beta$ -PEPTIDE AGGREGATION

Claudia Marino<sup>1</sup> Maria R. Mangione<sup>1</sup> Silvia Vilasi<sup>1</sup> Donatella Bulone<sup>1</sup> Antonio Palumbo Piccionello<sup>1,2</sup> Silvestre Buscemi<sup>1</sup>  
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#### Are you submitting a scientific or non scientific abstract?: Scientific

**Objectives:** Uncontrolled aggregation of amyloid beta peptide is the main cause of Alzheimer's disease [1, 2]. Therapeutic approaches of intervention in amyloid diseases include the use of small molecules [3, 4] able to stabilize the soluble Abeta conformation, or to redirect the amyloidogenic pathway towards non-toxic and non-fibrillar states. As recently reported, 1,2,4-oxadiazole derivatives are potential pharmacophores with high-binding affinity for Abeta aggregates [5]. In this frame, we synthesized a new derivative (3-(4'-trifluoromethylphenyl)-5-(4'-methoxyphenyl)-1,2,4-oxadiazole) and investigated its capacity to interfere with Ab aggregation.

**Methods:** Different experimental techniques (LS, CD, AFM, and SAXS) were used

**Results:** Fluorometric measurements revealed that the new oxadiazole derivative when irradiated is capable of interacting with proteinaceous materials. In particular, the interaction with monomeric Abeta peptide is responsible for readdressing the aggregation pathway toward the formation of amorphous aggregates

**Conclusion:** Our results show that Abeta peptide fibrillation can be inhibited by 3-(4'-trifluoromethylphenyl)-5-(4'-methoxyphenyl)-1,2,4-oxadiazole. We hypothesize that this molecule with two electron-rich aromatic moieties under radiation forms a reactive intermediate that sticks on the Abeta peptide by interfering with its fibrillation process. This finding should be the starting point to build new innovative therapies against Alzheimer's disease

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[5] M. Ono et al. Development of novel beta-amyloid probes based on 3,5-diphenyl-1,2,4-oxadiazole. Mol. Bioor. Med. Chem. 16 (2008): 6867–6872.

**Disclosure of Interest:** None Declared





## P007

### Topic: Dementia Diagnosis and Early Recognition

#### SPONTANEOUS SPEECH BASED WEB SCREENING TEST FOR MCI

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**Are you submitting a scientific or non scientific abstract?:** Scientific

**Objectives:** Even today there is a great diagnostic uncertainty in the prodromal stages of Alzheimer's disease (AD). Our recent effort has focused on the very earliest detectable indicators of cognitive decline in mild cognitive impairment (MCI). Since language impairment has been demonstrated even in the mild stage of AD, the aim of the present study was to develop a sensitive neuropsychological screening method based on a memory task triggered by spontaneous speech which is suitable for recognition the MCI via internet based interactive computerized test and software.

**Methods:** Twenty-five healthy controls and 25 MCI patients participated in the study. Following the presentation of a specially designed 1 minute animated film, the subjects were asked to tell about the events seen on the film and their speech was digitally recorded and analysed by a software. The same task was repeated after watching another film with 1 minute latency. Among the phonological parameters, articulation rate, speech tempo and the hesitation ratio were measured. The semantic analysis was performed by the number of keywords.

**Results:** The phonological and semantic analysis of the spontaneous speech did not show any difference in the articulation rate and speech tempo between the examined groups. Hesitation ratio was significantly higher in the MCI group ( $p < 0.001$ ). The number of key words also significantly differed between MCI versus healthy individuals ( $p < 0.001$ ). The differences of these parameters were more pronounced with the second paradigm with the delayed recall-spontaneous speech task.

**Conclusion:** The higher hesitation ratio of MCI group might reflect increased recall time, while using less key words could be the indicator of vocabulary and memory loss. It is likely that the phonological and semantic analysis of spontaneous speech in our design could be a valuable prototype of a new, sensitive web based tool for screening MCI in the community.

**Acknowledgments:** The study was supported by OTKA (83667), TÁMOP-4.2.2.A-11/1/KONV-2012-0073 and Janos Bolyai Research Scholarship for IH.

**Disclosure of Interest:** None Declared

## P008

### Topic: Dementia Diagnosis and Early Recognition

#### A LONGITUDINAL STUDY OF VISUAL TRACKING IN ALZHEIMER'S DISEASE

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**Are you submitting a scientific or non scientific abstract?:** Scientific

**Objectives:** We report the findings of a longitudinal study of saccadic eye movements in patients with Alzheimer's disease (AD). The aim of the study was distinguished between the parameters of saccadic eye movement that are stable across 18 months and those that declined or showed some recovery.

**Methods:** Eleven AD patient, and 25 age-matched controls were assessed in prosaccade and antisaccade task (AST) at six monthly intervals over 18 months.

**Results:** The results revealed 3 distinct patterns over time. The number of correctly directed primary saccade and corrected error saccades in the AST was significantly reduced in AD with little change in the degree of impairment in comparison to the controls over the duration of the study. However, for AD participants the reaction time of saccades in the AST was significantly slowed by the final session in comparison to baseline. However, there was clear evidence of some recovery of behavioural functions in AD for reaction times for prosaccades and the number of omission trials in the AST.

**Conclusion:** The findings revealed that the pattern of oculomotor function in AD does not follow a single trajectory. Whilst some aspects of eye-tracking deteriorates over time, there are phases of compensatory adaptations and recovery in other parts of the neural network that is responsible for the control of saccadic eye movements.

**Disclosure of Interest:** None Declared



## P009

### Topic: Dementia Diagnosis and Early Recognition

#### CROATIAN TRANSLATION OF THE TAU-ASSESS DEMENTIA ASSESSMENT TOOL APPLICATION FOR SMARTPHONE

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**Are you submitting a scientific or non scientific abstract?:** Non Scientific

**Objectives:** The timely recognition of dementia, as well as monitoring the clinical progression of dementia symptoms is very important. This is the first time an “instrument rating” tool has been translated into the Croatian language. It will be used in an application for smartphone. The app provides a sensitive, reliable, secure and easy to administer dementia assessment that can be used by a wide range of medical and other healthcare staff and will be especially suitable for home-based assessments. By using this app, continuous monitoring of clinical and cognitive function of gerontopsychiatric patients will be available through a combination of expert judgment and assessment scales based on the short form of the CAMDEX (Cambridge Examination for Mental Disorders of the Elderly). Results of a one year follow-up study, which compared the sensitivity and specificity of the short and full forms of the CAMDEX, provided on 73 subjects meeting DSM-III-R criteria for dementia and 61 matched controls, showed that the short form appears to maintain most of the psychometric properties of the full version. In addition to the standard CAMDEX scores (organicity, cognition and depression) which provide simple sums of items, the app-based assessment also provides cognitive (Tcog) and non-cognitive (Tdem) scores based on an item information content algorithm which cannot be calculated by simple summation of items. Until now, monitoring and evaluation of dementia patients was only possible by frequent outpatient examinations. Due to distance and the small number of psychiatrists who practice gerontopsychiatry in Croatia, intensive clinical assessment was problematic logistically and burdensome for patient and the carers. The introduction of a powerful assessment tool of this kind will facilitate diagnosis of suspected dementia, as well as monitoring of patients. The application of this instrument will give us a better insight into the functioning of the patient and will greatly improve the current more intensive assessment model. In this way it will be easier to estimate and monitor the effects of administered drugs, especially antidementia drugs.

**Disclosure of Interest:** None Declared

## P010

### Topic: Dementia Diagnosis and Early Recognition

#### EARLY MENTAL TEST: A NEW MCI SCREENING TOOL FOR GPs

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**Are you submitting a scientific or non scientific abstract?:** Scientific

**Objectives:** Mild cognitive impairment (MCI) due to Alzheimer's disease (AD) identifies those symptomatic but non-demented individuals whose primary underlying pathophysiology of AD. The first step of the diagnosis of MCI cases due to AD is its recognition by physicians, especially GPs. The aim of this study was to develop a screening method named Early Mental Test (EMT) which is relatively quick and easy to perform during a GP's visit, and yield informative results to decide on further clinical identification.

**Methods:** The cognitive evaluation of the screened individuals (56 healthy control subjects and 24 clinically diagnosed MCI patients) was carried out using the EMT, the AD assessment Scale-cognitive Subscale (ADAS-Cog) and the Mini Mental State Exam (MMSE). Chi-square test, Mann-Whitney U test and Roc analysis were used in the statistical analysis.

**Results:** According to the ROC analysis, the EMT is sensitive to the cognitive impairment of the MCI group compared to the control group (cut off=64, sensitivity=87.5%, specificity=58.9%).

**Conclusion:** Since EMT is capable for the measurement of the impairment in episodic memory, semantic verbal fluency and visuospatial skills, and attentional control, it might be a suitable screening tool of MCI cases for GPs. Our results indicate that EMT has high sensitivity. Hopefully, the lower value of specificity might be improved by increasing the number of involved MCI patients.

**Acknowledgments:** The study was supported by OTKA (83667) and TÁMOP-4.2.2.A-11/1/KONV-2012-0073.

**Disclosure of Interest:** None Declared



## P012

### Topic: Public Health Initiatives

#### THE FIRST POPULATION-BASED SURVEY OF DEMENTIA PREVALENCE IN THE ENGLISH-SPEAKING CARIBBEAN USING THE INTERNATIONAL STANDARD 10/66 INSTRUMENT.

Harold B. Schiff M.D.

**Abstract:** The prevalence of dementia in Dominica is unknown and the health care system is functional but financially stressed. The number of studies identified in each Global Burden of Disease (GBD) world region and the number of older participants studied are reported. Only 4 studies have been identified for the Caribbean. The ADI 10/66 research group did its dementia prevalence study in two Latin-Caribbean countries. No dementia prevalence studies have been done or published to date in the English-speaking Caribbean Community. Older people in low and middle income countries are at especially high risk of cardiovascular disease, stroke and diabetes, as well as Alzheimer's and other dementias. Many older people in developing countries who suffer from hypertension and diabetes also experience co-morbidities such as heart disease and vascular dementia. Research concerning the risk factors for dementia has concluded that the risk factors for dementia are the same as the risk factors of the four main non-communicable diseases (NCD's).

The purpose of the survey is to gain a baseline understanding of the prevalence of dementia among the elderly in Dominica and to identify those who have dementia or are most at risk. The ultimate goal is to use the data collected in this survey to assist in setting up an appropriate system of field workers to provide support for those with dementia and their caregivers.

We have put together a nation-wide population-based survey of dementia and with the support of both the Ministry of Health of Dominica and Ross University Medical School. We intend to identify and document the prevalence of dementia on the island and set up a nationwide system to identify and provide diagnostic and support services for patients with dementia and their families. We will also collect data on the other NCD's thus contributing to the knowledge base across all age groups in the country. NCD data on Dominica is available to age 64 years and in this study the target population is the 65-year and older population. This is the first study in the English speaking Caribbean to use the 10/66 protocol along with the Montreal Cognitive Assessment (MoCA) and so a comparison of the outcome of the cognitive section of the 10/66 instrument with that of the MoCA for sensitivity and convenience in this population group will contribute to the conduct of similar surveys and assessment of dementia in other English speaking Caribbean nations. The survey should also have direct correlative relevance to data already collected in the Spanish-speaking Caribbean by the 10/66 group. Contact has already been made with groups in St. Maarten (American University of the Caribbean) and Jamaica (University of the West Indies) and it is hoped to form a regional research group for the English-speaking Caribbean building on other initiatives to address dementia across the region.

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## P013

### Topic: Support and Training for Informal and Professional Carers

#### THE FIRST ALZHEIMER CAFE, TO START IN ROMANIA

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**Are you submitting a scientific or non scientific abstract?:** Non Scientific

**Objectives:** This contribution describes the background organization pertaining to the first introduction of the Alzheimer Café (AC) in Romania. A group of business people and Romanians, together with the Romanian Alzheimer Society (RSA) arranged for the first demonstration of an AC in Bucharest, Romania, on 11 May 2012.

An AC is a new type of post-diagnostic group support that takes the form of a monthly gathering for the purpose of education about dementia, support and social contacts. It is for people with all types of dementia and is the first type of support that brings together people with dementia, their family carers, professionals and volunteers to speak openly about dementia. The AC model was developed in the Netherlands in the late 90s by Dr. B Miesen.

This first demonstration of an AC in Romania was presented by Gemma Jones from the UK and Willem van der Eerden from the Netherlands. It is hoped that the AC (Alzheimer Cafe) will become a permanent form of post-diagnostic dementia-care support in Romania, and spread to other cities, in conjunction with the development of other dementia-care interventions.

Dementia-care services are not provided by the state, so various efforts have been initiated to develop them independently. In 1994 RSA was admitted as a full member in the Alzheimer's disease International organization and started amongst other activities an annual national conference; for the period 2012-2014 the National Alzheimer Alliance is started, which is mainly focused on the recognition of dementia as a public health problem in Romania, and on the developing of a national program for dementia.

The authors plan working together with the RSA and others to continue to provide a series of dementia Master Classes to support the development of ACs and to the development of specialist dementia care homes and Day Care Centres. It is the hope that the Alzheimer Cafe will become a permanent form of post-diagnostic dementia-care support in Romania, and spread to other cities and will be empowering people with dementia and families. This endeavor lends itself to international research on the effectiveness of Alzheimer Cafes stimulating and sustaining as well as the effectiveness of the new types of international NGO and business cooperation being developed to achieve these ends.

**Disclosure of Interest:** None Declared

## P014

### Topic: Support and Training for Informal and Professional Carers

#### EFFECT OF AROMA THERAPY USING ROSE WATER IN BATH OF THE ELDERLY WITH DEMENTIA: MENTAL EFFECT ON CARE GIVERS

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**Are you submitting a scientific or non scientific abstract?:** Scientific

**Objectives:** The purpose of our study was to investigate the effectiveness of rose aroma in reducing the mental stress of care givers through the use of rose water in baths for the elderly with dementia.

**Methods:** Our 11 subjects were care giving staff members, having an average of 5 years experience in the care of the elderly with dementia. In all instances, saliva amylase levels of the care givers were measured both before entering and after leaving the bathing area. The care givers helped to bathe the same elderly, either with or without using rose water. And, a self-administered questionnaire was completed regarding each care giver's interest in aroma use and cognition on bathing care with aroma. Mann-Whitney's U test was conducted to evaluate the statistical significance of saliva amylase levels before and after engaging in bathing care, and with and without the use of rose water in the bath. Informed consent was obtained from the care givers and families of the elderly.

**Results:** No significant difference was found in the saliva amylase levels as between with or without the rose water bath care ( $p = 0.22$ ). The subject care givers' answers on the questionnaire on their interest in aroma use were 8 "Yes" responses and 3 "No" responses. To the question whether "the care giver could provide the care with more peaceful mind when using bath with rose water compared with usual bath?", 5 subjects answered "relatively think so", 2 subjects answered "relatively do not think so", and 4 subjects answered "not sure". And, to the question whether "you as a care giver would be more agreeable to providing the bathing care when using a bath with rose water compared with a usual bath?", 5 subjects answered "relatively think so", 1 subject answered "relatively do not think so", and 5 subjects answered "not sure".

**Conclusion:** We were unable to verify any reduction of mental stress in care givers based on the saliva amylase levels in bathing care of the elderly with dementia using a bath with rose water compared with a usual bath. However, there is the suggestion of the possibility that the use of rose water in providing bathing care generates a relaxed feeling in some of the subject care givers.

**Disclosure of Interest:** None Declared



## P015

### Topic: Support and Training for Informal and Professional Carers

#### PSYCHOEDUCATIONAL INTERVENTION FOR CAREGIVERS OF PATIENTS WITH DEMENTIA: A LITERATURE REVIEW.

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**Are you submitting a scientific or non scientific abstract?:** Non Scientific

**Objectives:** Some studies suggest that taking care of the elderly with dementia can be more stressful than caring for elderly physically fragile, because of specific problems of dementia patients, such as changing behavioral, mental disorientation and progressive environmental dependence in performing everyday tasks. In the home environment, family caregivers are faced with multiple tasks that become more complex throughout the process of disease. The primary caregiver of a patient with dementia should be considered not only as an ally in providing care but also targeted care. Many studies point to the fact that the risk of exhaustion of the caregiver decreases if health professionals intervene with caregivers responding to the information needs and reporting on resources available.

:To determine the models of psychoeducational intervention with informal caregivers of patients with dementia of Alzheimer's are used and what are their effects.

The literature review was done in electronics databases through Pubmed, Lilacs and SciELO. Using the following key words: caregivers, alzheimer, psychoeducational. We included articles in the period 2008-2013, in English and Portuguese language.

We found 13 articles and were selected 9 related articles that report the effect of psychoeducational intervention for caregivers of patients with Alzheimer disease. These studies show results in improving the well-being of caregivers and quality of life. Being the description of psychoeducational approach very diverse in each study.

Although several studies point to positive results and significant intervention in relation to these caregivers psychoeducational note is still much diverse in terms of structure, content and duration of interventions for the evidence that may be more consistent.

**Disclosure of Interest:** None Declared

## P017

**Topic: Art, Music and Dementia**

### **A LOT OF THINGS WORK BETTER WITH MUSIC - MUSIC THERAPY AND DEMENTIA**

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**Are you submitting a scientific or non scientific abstract?:** Non Scientific

**Objectives:** During recent years, music therapy has become an important part of the psycho-social services provided for people with dementia connecting to the encounters. Often serving as a different kind of language, music assists both in establishing contact with other people, and with one's own emotions and body. Music has the ability to build a bridge to a person's past and cultural origin and to promote a sense of belonging and a lasting feeling of security. Frequently, previously undiscovered resources can be promoted through the use of music. For example, many people with dementia can easily reproduce lyrics of songs they used to be familiar with from beginning to end. Memories connected to these songs are recalled and can thus be communicated. Through this process of reminiscence, a new kind of communication is elicited, which is both verbal and nonverbal and shaped through the use of musical instruments. Music mirrors personal identity, which in turn finds a counterpart in musical expression. Therefore, music is one of the strongest tools in preserving a sense of identity in people with dementia.

Simone Willig is holding a diploma in music therapy (University of Applied Sciences) and has musically accompanied people with dementia for 13 years. She has authored the book "...Mit Musik geht vieles besser – der Königsweg in der Pflege von Menschen mit Demenz". In her paper music's effects on body and soul are explained and music therapy is introduced in the encounter of people with dementia. A large number of practical examples are provided, and listeners are invited to participate and to discover music for themselves.

**Disclosure of Interest:** None Declared



## P018

### Topic: Art, Music and Dementia

#### ALWAYS IN TUNE: THE UNFORGETTABLE MEMORY FOR MUSIC IN ALZHEIMER'S DISEASE.

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**Are you submitting a scientific or non scientific abstract?:** Scientific

**Objectives:** To investigate if amateur musical training and leisure playing can protect Alzheimer's disease (AD) patients from impairment of their episodic memory for music, compared with predicted cognitive impairment

**Methods:** Two amateur piano players with 10 and 6 years of studying music respectively, and with a probable diagnosis of AD were investigated after providing consent. They were visited in their homes for seven days to conduct memory tests and as well as episodic memory testing for music. The logic memory section from the Wechsler Test was conducted at 1 and 15 minutes. Similarly the patients were first shown the piece "A Winter Scene" and asked to sight read the first 8 bars and then play with both hands from memory at 1 and 15 minutes.

**Results:** Their performances on the logical memory were very poor at onset and never improved. However their abilities to sight read the music from the first day were intact. In the first few days, both patients experienced some difficulties with the delayed recall of the music, particularly in the patient with less year of musical training. However, gradually improved. On the 7<sup>th</sup> day, they were able to correctly perform the initial 4 bars with the right hand, the less experienced patient, and with both hands the more experienced one.

**Conclusion:** This study on amateur piano players suggests that the artistic and other cognitive abilities are differentially impacted by AD. Exposure to music training and performance at an amateur level can preserve memory involved in musical expression, and these maybe more resistant to the effect of the disease.

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**Disclosure of Interest:** None Declared

## P019

### Topic: Sumisión de Resumen en Español

#### UNIDAD CLINICA Y DE INVESTIGACION DE LA MEMORIA: ESTRATEGIAS DE TRABAJO MULTIDISCIPLINARIO

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**Are you submitting a scientific or non scientific abstract?:** Non Scientific

**Objectives:** Los profesionales de salud no solo debemos estar actualizados en los procedimientos y tratamientos necesarios, sino que debemos desarrollar las destrezas para articular un trabajo en equipo, multidisciplinario y centrado en el bienestar del paciente, sobre todo aquel en situación socioeconómica vulnerable.

En nuestra Unidad Clínica y de Investigación de la Memoria contamos con la Atención Primaria a los pacientes que acuden en edades comprendidas entre 60 y 90 años de edad, teniendo como objetivo primordial la orientación al mismo y al familiar con respecto a los Servicios Médicos que allí prestamos, basados en el trabajo coordinado de diversas especialidades, lo cual nos permite poseer un diagnóstico certero y por ende un tratamiento enfocado en las necesidades de cada paciente, tanto a nivel médico-psiquiátrico, como a nivel nutricional, evitando complicaciones, buscando siempre mejorar la calidad de vida del mismo, incluyendo su entorno familiar, todo ello gracias a una excelente orientación, donde se visualiza la mejor coordinación de la sucesiva consulta (Geriatría, Psiquiatría, Psicología y Nutrición).

Nuestros informes epidemiológicos durante el mes de Diciembre 2012 hasta el mes de Septiembre del presente año, se han diagnosticado 401 patologías asociadas, siendo el motivo de consulta alteración de la memoria reciente, entre las que se destacan la enfermedad de Alzheimer (62 casos), demencia vascular (61 casos), deterioro cognitivo (110 casos), Parkinson (20 casos), trastorno vascular (53 casos), depresión (69 casos) y ansiedad (21 casos) presentándose con mayor incidencia el deterioro cognitivo en adultos y/o adultos mayores. Por su parte, además de los casos clínicos ya mencionados contamos con la atención de enfermedades del sistema circulatorio, en donde se ha registrado un total de 3328 pacientes atendidos, donde se siguieron en consulta.

Así mismo apoyamos el desarrollo del Estudio Maracaibo de Envejecimiento, dando atención médica totalmente gratuita a los adultos mayores de la Parroquia Santa Lucía de Maracaibo. Trabajamos interrelacionados con la Escuela de Cuidadores y los Talleres de estimulación Psico-Social y Física para Personas con Problemas de Memoria.

**Disclosure of Interest:** None Declared





## P020

### Topic: Sumisión de Resumen en Español

#### DESAFIANDO LOS OLVIDOS: TALLERES DE ESTIMULACION DE LA MEMORIA

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**Are you submitting a scientific or non scientific abstract?:** Non Scientific

**Objectives:** Los Talleres de Estimulación Psicosocial y Física para el Adulto Mayor con Problemas de Memoria, fueron creados en el año 2000 por la Fundación Conciencia (FundaConciencia) con el apoyo del Laboratorio de Neurociencias de la Universidad del Zulia. Los Talleres tienen como meta fundamental estimular de manera general la participación de los pacientes en actividades que le permitan activar su funcionamiento físico y mental; compartir con un grupo de personas en situación similar y establecer relaciones cooperativas con sus familiares. La realización de actividades como manualidades, ejercicios físicos y aplicación de técnicas de relajación le exigen al paciente en fase intermedia o avanzada de la enfermedad de Alzheimer realizar un esfuerzo que conlleva a la estimulación de su funcionamiento y le permite desarrollar destrezas que tal vez anteriormente no poseía.

Los participantes asisten con sus cuidadores. Inicialmente, se les coloca música instrumental durante 15 min. Aproximadamente, a manera de lograr que el paciente se relaje y tome conciencia de su entorno. Posteriormente se les explica a los pacientes y a sus cuidadores la actividad que se desarrollara durante la sección. Se lleva a cabo la actividad del día bien sea pintura, costura o baile y finalmente se cierra la sección con una merienda para los pacientes y sus cuidadores. Durante la sección de trabajo y la merienda se busca la integración y mejorar la comunicación entre las relaciones cuidador-pacientes. Los talleres han sido diseñados de manera sencilla, con la finalidad de que los cuidadores puedan repetir este tipo de actividades en sus hogares. De esta forma los pacientes siguen activos el resto de la semana en sus hogares.

La edad promedio de los participantes es 70.5 años de edad, la mayoría mujeres (91.4%) y 54.2% son profesionales que proceden de distintos puntos de la ciudad de Maracaibo. La edad promedio de los cuidadores es 51.4, con un rango amplio de edad, de 22 a 71 años de edad. 47.4% solo alcanzó a culminar el bachillerato y el 81.5 son mujeres.

La experiencia de los Talleres se recopiló en el libro "Desafiando los Olvidos" que contiene 130 ejercicios cognitivos distribuidos en 60 sesiones de trabajo.

**Disclosure of Interest:** None Declared

## P022

### Topic: Driving and Dementia

#### EFFECT OF MEMANTINE ON THE PROGRESSION OF DRIVING IMPAIRMENT IN PATIENTS WITH MILD ALZHEIMER'S DISEASE

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#### Are you submitting a scientific or non scientific abstract?: Scientific

**Objectives:** To determine whether treatment with memantine delays the progression of driving impairment in patients with mild Alzheimer's disease (AD). AD diminishes skills necessary for safe driving—selective attention, executive functioning, orientation and visuospatial abilities. For many AD patients, driving cessation is a major, life-changing event that negatively impacts them and their caregivers. Pre-clinical studies suggest that memantine may have neuroprotective properties. Prolonging safe driving in persons with AD can help maintain quality of life for patients and reduce caregiver burden.

**Methods:** A sample of sixty otherwise healthy men and women  $\geq 60$  years with mild (Mini-Mental State Examination—MMSE  $\geq 23$ ) Alzheimer's disease were screened. 43 subjects met eligibility criteria and were randomized at a 1:1 ratio in a double-blind, 12 month trial of memantine 20mg/day versus placebo. Acetylcholinesterase inhibitors were permitted if the dose was stable 3 months prior to baseline. Driving ability was measured by a standardized on-road driving test (DriveABLE). Cognitive performance was measured on a battery of driving-related neuropsychological assessments including measures of executive functioning, visuospatial ability, attention and orientation. The primary outcome measure was the number of subjects in each group able to pass the DriveABLE test at month 12 (endpoint). The secondary outcome measures were the change from baseline to endpoint on the cognitive assessments. Cognitive assessments included ADAS-Cog, Trail Making Tests A & B, FULD Object –Memory Evaluation, Rey-Osterrieth Complex Figure Test, Useful Field of Vision, and the Motor Free Visual Perception Test - Visual Closure Subtest. Outcome measures were acquired at baseline, 6 and 12 months.

**Results:** Preliminary analysis showed efficacy for memantine delaying progression of driving impairment. At 12 months 100% of the treatment group either stayed the same or improved their driving ability, while only 75% of the placebo group did the same or better ( $p=.04$ ).

**Conclusion:** In this analysis, addition of memantine to the drug regimen appears to have efficacy in delaying driving impairment in subjects with mild AD. Based on these preliminary findings, further investigation into the possible role of memantine in delaying driving impairment in patients with mild AD is warranted.

**Disclosure of Interest:** None Declared



## P023

### Topic: Policy and Campaigning

#### FACTORS THAT MAKE IT DIFFICULT FOR RESIDENTS SUFFERING FROM DEMENTIA TO LIVE IN GROUP HOMES

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**Are you submitting a scientific or non scientific abstract?:** Scientific

**Objectives:** The number of group homes for elderly people with dementia has been rapidly increasing since the introduction of public long-term care insurance in Japan. The rate of the group homes residences in April 2013 is 4.77% per people certified for long-term care need. Because of this growth, it is essential to evaluate whether group homes serve as an adequate place of care for current elderly residents with dementia. The purpose of this study is to investigate perceived inadequacy (mismatch) rates and their factors.

**Methods:** The present study included 1,466 elderly individuals with dementia at group homes in September 2011. The managing director of group homes provided information on the residents' health care and personal care needs. They assessed the residents' inadequacy. Our questionnaire collected information on age, gender, ADLs, level of cognitive impairment, current disease treatment, medical procedures, previous place of residence, and reasons for admission to the current facility. To determine the associated with perceived inadequacy, a multinomial logistic regression analysis was performed, using the number of mismatch as the dependent variable.

The study was approved by the Institutional Review Board of the Institute for Health Economics and Policy in Japan.

**Results:** The results show that 20.9% of residents in group homes were assessed as inadequate residents. A breakdown of 20.9% is 8.9% (Special nursing home: facilities for permanent residence), 3.5% (Care medical facility: facilities for heavy medical care) and 3.1% (home). A multiple logistic regression analysis demonstrated a significantly lower ADLs (OR 0.921) and availability of appropriate facilities (one of the reasons for admission) (OR 0.346).

**Conclusion:** Though the Japanese government promotes terminal care in group homes, the poor ADLs is related to the mismatch rate. In order to reduce the negative effects of relocation, the government should continue to improve terminal care support at group homes.

The results demonstrate that the shortage of appropriate facilities at the admission stage influences the inadequacy of group homes for people with dementia. To reduce the mismatch at the admission stage, municipalities and prefectures should work together more to evaluate not only group homes but also other care facilities which fit the needs of people with dementia.

**Disclosure of Interest:** None Declared

## P024

Topic: Other

### HOUSEHOLD COST OF DEMENTIA - AN EXPLORATORY STUDY AN ESTIMATION OF COSTS FOR THE CARE OF DEMENTIA TO FAMILIES IN AN URBAN SETTING

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**Are you submitting a scientific or non scientific abstract?:** Non Scientific

**Objectives:** OBJECTIVE: The aim of this study was to estimate the household costs to care for People with Dementia (PwD) in an urban setting.

**METHODS:** 113 PwD and caregivers dyad attending the Geriatric clinic of NIMHANS, Bangalore on outpatient basis were included in a consecutive manner. The PwD were included irrespective of dementia type and severity. Proportionate samples were drawn to adequately represent the lower, middle and upper socio economic classes. The elements of Resource Utilization in Dementia (RUD) questionnaire was modified to suit the Indian context and was administered to the primary caregivers of the PwD to obtain costs incurred over a 3month period prior to the date of interview. Direct, Indirect and Total costs were estimated.

**RESULTS:** The median annual total, direct and indirect care costs per PwD were approximately 69,000INR, 29,000INR and 45,000INR respectively. 99.1% of the financial assistance for the treatment of dementia was contributed by the family members. Proportion of time spent on Basic Activities of Daily Living (BADL) and Instrumental Activities of Daily Living (IADL) was 42% and 31% respectively. The total mean duration of time spent for assisting ADL of PwD was 4.9±2.7 hours/day of which 1.3±0.9, 1.54±1.2, and 2.0±1.7 hours/day was spent on IADL, BADL and hours of supervision respectively.

**CONCLUSIONS:** Dementia has economic burden that is substantial and major brunt of the burden is borne by the family at the household level. A comprehensive management of dementia at the policy level is required so that the household burden is reduced.

**Disclosure of Interest:** None Declared



## P026

Topic: Other

### CHANGES IN SOCIAL AWARENESS REGARDING COGNITIVE IMPAIRMENT, IN THE LAST 20 YEARS. INFLUENCE OF MEDIA.

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**Are you submitting a scientific or non scientific abstract?:** Scientific

**Objectives:** In the absence of effective treatments for dementia, early consultation is still the main tool available for neurologists. To achieve this goal, it is necessary a broad dissemination of cognitive problems information in general population. Our aim was to study variations in patients' cognitive level, coming for their first appointment regarding cognitive complaints along the last 20 years. Also were studied its association with the amount of news appeared on this topic in newspapers.

**Methods:** We analyzed the medical records of patients that attended for their first consultation regarding cognitive complaints between 1993 and 2012 in our hospital. Clinical diagnosis of dementia, mild cognitive impairment or normality was defined according to actual criteria. Clinical Dementia Rating scale (CDR) and Mini Mental State Examination (MMSE) values were recorded too. We also quantified the amount of Alzheimer related news appeared in local newspapers Clarín and La Nación, by using their website search devices.

**Results:** There was a significant and sustained increase in the proportion of patients without clinical diagnosis of dementia since 2001 (p

**Conclusion:** There is an increase in social awareness about cognitive disorders since the past decade, as evidenced by the influx of a greater proportion of patients with mild cognitive impairment or healthy, which could be explained by the amount of Alzheimer information appeared in newspapers media.

**Disclosure of Interest:** None Declared

## P027

Topic: Other

### SPIRITUALITY AND COGNITIVE FUNCTION

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**Are you submitting a scientific or non scientific abstract?:** Non Scientific

**Objectives:** For many years, the relationship between spirituality and health has motivated profound analysis. Quantitative research studies have been published in peer reviewed journals, revealing interesting results. Immune function, endocrine functions, morbidity and mortality have also been related with physical, mental and spiritual well-being. Positive traits related to improved cognitive function are: forgiveness, altruism, kindness/compassion and a good sense of humor.

One of the most important theories that explain the positive relationship between cognitive function and spirituality is related to cortisol levels. They tend to be elevated in relation to chronic anxiety and persistent stress. High cortisol levels deteriorate neurons, producing neuronal death by apoptosis. The way cortisol levels are related with cognitive function will be explained.

This presentation provides a concise but comprehensive review of research on religion/spirituality and cognitive function. It also proposes a palliative model for both Alzheimer's Disease patients and their care providers, that has been developed based on validated data about high levels of Cortisol on Alzheimer's Dementia patients and neurophysiological research on spirituality techniques. Its main goal is based on improvement of quality of life for both Alzheimer's patients and their care providers.

**Disclosure of Interest:** None Declared





## P028

Topic: Other

### CHILDREN WHO LIVE WITH SENIORS WITH COGNITIVE DISORDERS: EVALUATION OF ATTITUDES TOWARD AGING

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**Are you submitting a scientific or non scientific abstract?:** Scientific

**Objectives:** Evaluate and compare attitudes towards aging of children living with elderly individuals with and without cognitive disorders.

**Methods:** Cross-sectional, descriptive and quantitative study. There were interviewed 54 children between 7-10 years old, 25 who lived with seniors with cognitive changes (group 1) and 29 who lived with seniors without cognitive changes (group 2). Children answered The Scale for Children's Attitudes Toward Aging and a sociodemographic questionnaire. Elderlies who lived with them, answered the Mini Mental Examination State to classify the children into two groups.

**Results:** On an interval of one to three points, with lower values indicating more positives attitudes, the mean scores obtained were 1.66 (group 1) and 1.52 (group 2). The comparison between groups showed that cognition and social relationships domains presented significant rates ( $p < 0,05$ ), showing that children who lives with elderly with cognitive disorders have more negative attitudes in these domains.

**Conclusion:** The domiciliary context should be considered for health professionals when planning actions directed to improve attitudes toward aging. Investments in education of the specific population of children who live with elderly with cognitive changes should be planned.

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**Disclosure of Interest:** None Declared

## P029

Topic: Other

### POST-STROKE DEMENTIA: THERAPEUTIC POTENTIAL OF PHOSPHOLIPIDS

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**Are you submitting a scientific or non scientific abstract?:** Scientific

**Objectives:** Currently, there is no doubt that a stroke may play an important role in the implementation of clinical Alzheimer's disease, leading to a more rapid increase in the characteristic for this disease defect.

**Objective:** evaluate efficacy of liposome-forte in complex therapy of cognitive and motor impairment in patients with post-stroke dementia.

**Methods:** 44 patients (30 men and 14 women) aged 51 to 84 years with post-stroke dementia were examined. The total score on the scale Khachinski was 12 (> 7). In determining cognitive deterioration degree Mini Mental State Examination (MMSE) and Barrow Neurological Institute Screening-test (BNIS) were applied; in determining motor functions - the scale of the Committee for Medical Research (MRCS), index Motrisayti (Motricity Index) were applied; life quality was assessed by Rivermead Questionnaire (READLQ). Additionally to their basic therapies patients were given liposome-forte 2.0 intramuscularly for 20 days. The control group consisted of 15 patients with ischemic stroke, the consequences of a similar age who were treated under the protocol.

**Results:** the comparative analysis' results showed that liposome-forte's supplementary administration significantly improved cognitive function. The MMSE scale guides improvement from 19,0±1,3 to 23,3±1,3 points were noticed. The BNIS-test has indicated increase of average total score up to 38 whereas the original was 29 (p < 0.01). Positive results in the dynamics of motor impairment confirmed the Motrisayti index and the scale MRCS (from 2,8-2,9 to 3,5-3,65). According to Rivermead Extended Daily Life Activities Questionnaire all patients marked improvements in their life qualities: the average outcome has risen to 13 points (from 12 to 25).

**Conclusion:** the dynamics of research's data evidences positive impact of liposome-forte supplementary administration to basic therapy upon cognitive and motor function in patients with post-stroke dementia. This therapy's application allowed to achieve overall increase in patients' motor and daily activities that certainly enhanced their life qualities.

**Disclosure of Interest:** None Declared



## P032

### Topic: Pre-Clinical and Prodromal Stages of Dementia Disorders

#### THE EFFICACY OF COGNITIVE TRAINING FOR PERSON WITH MILD COGNITIVE IMPAIRMENT: A LITERATURE REVIEW

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**Are you submitting a scientific or non scientific abstract?:** Scientific

**Objectives:** The study aims to investigate the efficacy of cognitive training for person with mild cognitive impairment in cognitive and daily function.

**Methods:** The method to carry out this study was using database, as Pubmed, Cochrane, and Google Scholar. Research of cognitive training, including individual, group, and computer-based sessions, were reviewed in this study.

**Results:** After screening the studies with inclusion and exclusion criteria, there were twelve studies in individual or group sessions and five studies in computer-based program. No matter in which training type, the result showed the positive effect of cognitive training, as enhanced performance in psychological measurements in most studies.

**Conclusion:** It seems that the cognitive training provided a beneficial way to maintain or improve cognitive function in person with mild cognitive impairment. However, some limitations such as small sample size, unclear treatment intensity and duration, and lack of sensitive outcome measure still need to be further investigated. Thus, more studies are needed to declare the effect of cognitive training.

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**Disclosure of Interest:** None Declared

## P033

### Topic: Voices of People with Dementia and Their Families

#### RESPONDING TO THE OBSERVATION/CHARGE "YOU DON'T HAVE DEMENTIA"

Richard Taylor<sup>1,\*</sup> and co-founder The Meeting of the Minds, founder of Dementia Networks, founder of Stand Up, Speak Out<sup>1</sup> psychology, I am currently unaffiliated, as I am retired, Cypress, United States

**Are you submitting a scientific or non scientific abstract?:** Non Scientific

**Objectives:** Hello, virtually everyone who is in the early stages of the various forms of dementia and is exhibiting the early symptoms of dementia has experienced someone(s) doubting their diagnosis. "You don't have dementia!" they tell us with a quizzical look on their faces. Why would some think this, and why would they say it to our faces? What is an appropriate/effective response to such an observation? Why? What effect can this observation have upon our self esteem? Daily living? Relationships?

What are some appropriate responses?

Based upon my own life experiences and those of the hundreds of other kindred spirits living with the diagnosis and disabling symptoms of their form of dementia I will explore reactions and responses to this feeling/expressed thought of others upon us. Is their observation more revealing of themselves than it is of us? Why are they telling us this in the first place?

How can respond without them feeling embarrassed? Unsatisfied? How can we respond with ourselves feeling self confident?

**Disclosure of Interest:** None Declared



## P035

### Topic: Voices of People with Dementia and Their Families

#### ACUTE DELIRIUM OF DEMENTIA ALONG WITH PNEUMONIA

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**Are you submitting a scientific or non scientific abstract?:** Non Scientific

#### Objectives: Case Report

An 88-year-old male patient with a history of dementia of the Alzheimer type accompanied with depression, received clinic treatment regularly with daily paroxetine and estazolam and could keep his social function well and pleasant emotion. One night, he was found by his family that he began to have disturbance of consciousness, mood lability, perceptual disturbance and persecutory delusion toward his family, therefore he was sent to our emergency department.

Nothing abnormal was found in the physical examination and laboratory tests. Because of his persistent agitation, the patient received midazolam IM for sedation. Based on his history of senile dementia and various clinical signs, he was diagnosed as having dementia with psychotic feature, and received further treatments in the psychiatric ward.

The next afternoon, he suffered from high fever unexpectedly. The laboratory findings showed leukocytosis and serum CRP elevation. CXR showed infiltration, RLL. After consultation with a pulmonologist, He was diagnosed as having pneumonia, and referred to receive intravenous saline infusion, cephamecylin, and ambroxol for treating pulmonary infection. Following a seven-day stay at the medical ward, he his mental status was stabilized and his fever subsided. The laboratory findings of leukocytosis and elevated CRP were returned to normal ranges, then he was discharged in a stable condition.

**Discussion:** This case was misdiagnosed on our emergency department, but fever reminded us possibilities of comorbidities. Although delirium occurs in a wide variety of clinical settings, difficulties in discerning patients' histories and giving differential diagnoses can cause problems for physicians. The diagnosis of delirium is clinical and no laboratory tests can diagnose it. Episodes can be prevented by identifying high risk of hospitalized people, e.g. elder, cancer, stroke, Alcohol, dehydration, electrolyte imbalance, infection, medication, pain and fracture. Close observation for the early signs is recommended because patients are often confused and unable to provide information.

For treatment, the first choice is ensuring the patient has adequate oxygenation, hydration, nutrition, and normal levels of metabolites, and finding the underlying causes. Some people think haloperidol is the most commonly used drugs, but others advocated that management of mental stress is also very important.

**Disclosure of Interest:** None Declared

## P036

### Topic: Voices of People with Dementia and Their Families

#### THE TELEPHONE HELP LINE AS A RESOURCE TO GUIDE CARERS OF PEOPLE WITH DEMENTIA.

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**Are you submitting a scientific or non scientific abstract?:** Non Scientific

**Objectives:** Since the creation of the Nueva Esparta Chapter of the Alzheimer's Foundation of Venezuela in the year 2006, the telephone help line became the spine on assistance to families and caregivers. This free service is the sole responsibility of a formed caregiver to provide it and it has remained so over the years.

Initially the information necessary to perform the contact was provided through the outreach in local and national radio stations. Subsequently broadcast was expanded through the creation of the website, and Facebook of the Chapter. To date 250 families living in different states of Venezuela, have been attended, and the information received and provided is considered confidential.

Statistics show that 68% sought advice and general management of the patient, and information about the resources available in the State, support networks, and services of the Foundation. 13% said to need a day care center or a site for institutionalization. 14% asked for a caregiver. 1.6% names of specialists and 2.6% requested various information. As a relevant data, is that calls are received at any time of the day, 24/7, and 98% of these are carried out by a woman.

After the initial telephone contact is made and the family accepts it, a face-to-face session is suggested. The emphasis is to promote comprehensive strategies that helps to identify, intervene, and prevent negative consequences for the environment of the patient.

It can be concluded that this type of attention is pertinent and relevant and has been highly efficient in our country since the dynamics of the service has been successfully adapted to our idiosyncrasy.

Consultations help families to transit through the different stages of dementia and make it possible to access the resources to strengthen its performance and mechanisms to relieve the pain of the caregivers.

The search for an efficient support service, adapted to the needs of each case has promoted the strengthening of this social network.

Currently it is necessary to keep it, and even to diversify it, enabling the use of new distance and on line resources, such as face-book or the Web pages.

Keywords: dementia, carers, social networks

**Disclosure of Interest:** None Declared





## P037

### Topic: Voices of People with Dementia and Their Families

#### QUALITY OF LIFE, COPING STRATEGIES AND SELF-EFFICACY IN ALZHEIMER'S DISEASE CAREGIVERS

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**Are you submitting a scientific or non scientific abstract?:** Scientific

**Objectives:** This study aims to understand the relationships established between Quality of Life, Coping Strategies and Self-Efficacy, comparing these variables to the Socio-demographic variables *Informal Caregiver (family)*, *Formal Caregivers - Technicians* and *Formal Caregiver - Not Technicians* of Alzheimer's disease patients.

**Methods:** This is a correlational and comparative study between informal caregivers (n = 150), formal caregivers - technicians (n = 150) and formal caregivers - non-technicians (n = 150) who answered the Brief COPE Inventory, the SF-36 health survey and the Self-Efficacy Scale for Caregivers of People with Dementia.

**Results:** Results show that formal caregivers have higher levels of quality of life than informal caregivers, that there are significant differences in the use of coping strategies between the three groups in study and that some coping strategies and self-efficacy perceptions are predictors of quality of life.

**Conclusion:** With this presentation, we intend to establish training intervention strategies that can provide caregivers with skills for more appropriate adaptability to Alzheimer's disease and to the role of caring in order to a greater quality of life. For Informal caregivers the interventions should focus on the use of strategies as positive coping, emotional coping and self-distraction. Interventions designed for formal caregivers should focus on strategies based on emotional coping and humor. It is also important to carry out specific information campaigns aimed at increasing awareness of self-efficacy in terms of dealing with symptoms, with support services and with medication, in order to increase perceived self-efficacy. It will also be presented the correlations found between the different variables for each of the study groups (family, technicians and no technicians).

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**Disclosure of Interest:** None Declared

## P038

### Topic: Voice of People with Dementia and Their Families

#### NEEDS FOR THE EARLY-ONSET DEMENTIA PATIENTS AND THEIR FAMILY IN JAPAN: CASE STUDIES

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**Are you submitting a scientific or non scientific abstract?:** Scientific

**Objectives:** To clarify the needs of early-onset dementia patients and their families, we support and service is expected.

**Methods:** Type: Qualitative descriptive research method

Subjects: three family members that care at home early onset dementia

Data collection: We have carried out each once interviewed individually in a quiet environment that is subject specified. Interview content created a transcribed by recording with the permission to subject.

Analysis: We demonstrated support subject desires to extract the meaning from transcribed.

Ethical considerations: We have pledged that do not suffer disadvantages in subject that the analysis patients and their families are not to be identified.

**Results:** They want a place where they can choose to talk about the trouble with each other who have a similar experience early-onset dementia.

They want a place where you can work because there is hope that patients want to continue to have work as a connection with society.

They want you to enlightenment, such as lectures and media for the general public are in contact without prejudice for early-onset dementia.

They want a place where they can choose to talk about familiar because there is a limit to only family you want to get more information about the variety of services from diagnosis.

They want to be able to receiving pension early to accelerate the determination of fault in the case of early-onset dementia in order to guarantee economic.

Therefore, they were hoping to continue to live in the future along with the patient, they were hoping that the patient will regain confidence.

**Conclusion:** Early-onset dementia patients has increased rapidly in recent years. The patient and family has puzzled symptoms and anxiety economic, and scared to social prejudice, anxiety about the future. Qualitative study revealed some requests them. Among them, they wanted to want a place that early onset dementia patients and their families gather together. So, gathering voluntary by the family with patients was born. Family gathered comrades with the patient, and hopes to spend a gentle time. They hope that more staff to participate as a volunteer (students and researchers, the welfare service officials and so on) even taking into account the safety. For family of early-onset dementia is a very busy and balance care and work and housework, held a few months each, but it is evaluated that there is a significance also in the sense to rethink the care of the patient.

**Disclosure of Interest:** None Declared



## P039

### Topic: Voices of People with Dementia and Their Families

#### **‘NOTHING ABOUT US, WITHOUT US, IS FOR US’: THE NATIONAL DEMENTIA CARERS ACTION NETWORK AND THE SCOTTISH DEMENTIA STRATEGY – PUTTING CO-PRODUCTION INTO ACTION**

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**Are you submitting a scientific or non scientific abstract?:** Non Scientific

**Objectives:** “Nothing about us, without us, is for us” is often quoted as being key to developing any new health and social care policy or practice. But what does it mean to carers of people with dementia? And how do we actually do it?

Alzheimer Scotland’s National Dementia Carers Action Network (NDCAN) is a national campaigning and awareness raising group whose members all have experience of caring for someone with dementia. The group formed in November 2011 and in a short space of time has become involved in a wide range of activities, including representing carers of people with dementia on national and local forums and steering groups, being involved in developing training for health and social care professionals and campaigning at a national level.

In light of the Scottish Government’s Commission on the Future Delivery of Public Services (Christie: 2011) and the increasing emphasis on co-production and adopting an assets-based approach to working with communities, this paper focuses on NDCAN’s work alongside Scottish Government and other key stakeholders in developing, implementing and monitoring Scotland’s 2013-16 National Dementia Strategy. The presentation will describe the experiences of NDCAN members and the key lessons for any professionals looking to put this approach into action.

**Disclosure of Interest:** None Declared

## P040

### Topic: Imaging and Biomarkers

#### ALTERED GRAY MATTER STRUCTURAL COVARIANCE NETWORKS IN ALZHEIMER'S DISEASE

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**Are you submitting a scientific or non scientific abstract?:** Scientific

**Objectives:** The network degeneration hypothesis suggests that Alzheimer's disease (AD) targets large-scale brain networks. It is thought that amyloid beta (A $\beta$ ) aggregates in specific regions first, and then spreads to new regions. However, it is still unclear how AD affects the gray matter (GM) structural covariance organization in networks such as the episodic memory network (EMN), the default-mode network (DMN) and the salience network (SN).

The present magnetic resonance imaging study aims to compare the organization of GM structural covariance networks (SCNs) between healthy controls (HC) and AD patients.

**Methods:** Data was obtained from the ADNI database. 109 HC (mean age=74.2 $\pm$ 6.3, F/M=59/50) with normal cerebrospinal fluid A $\beta$  levels and 109 AD patients (74.3 $\pm$ 7.8, 59/50) with abnormal A $\beta$  levels were included. We used voxel-based morphometry on brain scans to compare the organization of GM structural covariance networks (SCNs) in the EMN, DMN and SN. This approach relies on the assumption that functionally correlated brain regions show correlated GM volumes as a result of mutually trophic influences or common experience-related plasticity.

**Results:** The right (R) EMN was less extended in AD patients, with a significant decrease in the structural association between the R entorhinal cortex (seed of the network) and the R supplementary motor area, the R superior frontal gyrus and the R calcarine sulcus. The DMN was less extended in AD patients, with a significant decrease in the structural association between the L posterior cingulate cortex and the L inferior orbital frontal gyrus. No significant difference was observed in the structural association of the SN between the two groups.

**Conclusion:** Our results indicate that AD patients present restricted GM SCNs in comparison to HC. The observed changes suggest a vulnerability between regions of the EMN, DMN and SN in AD, thus providing support to the network degeneration hypothesis. Furthermore, we observed that this effect is mainly observed in the EMN. Early disruptions in structural association between heteromodal association cortices and the entorhinal cortex could contribute to an isolation of the hippocampal formation, giving rise to the clinical hallmark of AD, progressive memory impairment.

**Disclosure of Interest:** None Declared



## P041

### Topic: Imaging and Biomarkers

#### A CRITICAL ROLE FOR MOLECULAR CHAPERONES IN ALZHEIMER'S DISEASE

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**Are you submitting a scientific or non scientific abstract?:** Scientific

**Objectives:** Chaperones are one of the best examples of multifunctional proteins and their production against neurodegeneration may result from one or more of their activities in cells, perhaps in addition to their ability to inhibit fibril formation directly. Our objective was to explore if an excess of chaperone capacity in the cell can shift the equilibrium between amorphous and fibrillar aggregates and if the cells proteolytic machinery can more efficiently turn over the toxic proteins. The aeria investigated may help explain chaperone suppression of neurotoxicity.

**Methods:** Expression pattern analysis of Hsp90/70 was determined by using Western Blot and immunohistochemistry on postmortem cortical tissues from Alzheimer's disease cases and aged matched controls.

**Results:** The results showed that AD samples contained significantly higher levels of the Hsp90/70 and this elevation was associated with the disease pathology. No cross reaction was observed between antibody used for Hsp90/70 (H9010/N27, respectively) to monoclonal antibody TG3. TG3 stains neuritic plaques and neurofibrillary tangles but does not react with tau from normal human biopsy tissue; therefore exhibiting its high degree of specificity for AD pathology.

**Conclusion:** Protein misfolding is believed to be the primary cause of Alzheimer's disease. Clearly, the effects of chaperones in multiple cellular pathways will have to be deciphered in order to understand which of these effects are primary and which are secondary in protection against neurodegeneration.

**Disclosure of Interest:** None Declared

## P042

### Topic: Imaging and Biomarkers

#### BLOOD BIOMARKERS FOR ALZHEIMER'S DISEASE: EVALUATION OF ADAM10 GENE EXPRESSION

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**Are you submitting a scientific or non scientific abstract?:** Scientific

**Objectives:** The aim of this study was to verify the ADAM10 gene expression (mRNA) in elderly patients with AD dementia and to compare with elderly subjects without cognitive impairment.

**Methods:** Biological samples of AD patients (n = 27) and normal controls (n = 20) were collected and analyzed. The blood of AD patients was studied by RT-qPCR techniques, using standardized primers for ADAM10 and to endogenous controls for  $\beta$ -actin and GAPDH. Gene expression was assessed by relative quantification, using the formula  $2^{-\Delta\Delta Ct}$ . Statistical tests of comparison (Mann-Whitney U-test) were performed.

**Results:** ADAM10 gene expression is reduced in AD patients as compared to controls ( $p < 0.05$ ). This reduction is observed in either patients with CDR2 or CDR3 as compared to normal controls (CDR0) ( $p = 0.05$  and  $p = 0.01$ , respectively). There is a tendency for decreased expression of ADAM10 within the AD CDRs.

**Conclusion:** The ADAM10 gene expression is reduced in AD patients. The results may contribute to the development of tools for a more accurate diagnosis of AD, such as a diagnostic kit for measuring blood levels of ADAM10 in healthy and AD people.

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**Disclosure of Interest:** None Declared





## P043

### Topic: Imaging and Biomarkers

#### A PLASMA PROTEIN-BASED ALGORITHM FOR THE DETECTION OF ALZHEIMER'S DISEASE: AUSTRALIAN IMAGING BIOMARKERS AND LIFESTYLE STUDY OF AGING

Veer Bala Gupta <sup>1</sup>, Steve Pedrini <sup>1</sup>, Eugene Hone <sup>1</sup>, Sid O'Bryant <sup>2</sup>, James Doecke <sup>3</sup>, Christopher Rowe <sup>4</sup>, David Ames <sup>4</sup>, Kathryn Ellis <sup>4</sup>, Colin Masters <sup>4</sup>, Ralph Martins <sup>1</sup> and Australian Imaging Biomarkers and Lifestyle Flagship Study of Ageing

<sup>1</sup>EDITH COWAN UNIVERSITY, Perth, Australia, <sup>2</sup>Texas Tech University Health Sciences Center, Texas, United States, <sup>3</sup>CSIRO, Brisbane, <sup>4</sup>University of Melbourne, Melbourne, Australia

**Are you submitting a scientific or non scientific abstract?:** Scientific

**Objectives:** The aim is to identify biomarkers in blood, whose measurable levels can be used to differentiate between healthy and AD individuals, predict conversion to MCI (Mild cognitively impaired) and AD. Validation of these candidate proteins in the well-characterised longitudinal Australian Imaging Biomarkers and Lifestyle (AIBL) Study of Ageing cohort will allow us to identify biomarkers which demonstrate sensitivity and specificity to AD for potential use in an early diagnostic clinical test.

**Methods:** Using mesoscale discovery platform (MSD), we have studied various protein biomarker panels belonging to various biochemical pathways such as endocrine, vascular injury, inflammatory, coagulation, oxidative stress, apoptotic and lipoprotein pathways. The plasma samples utilised are from baseline, eighteen months and thirty-six months follow up from healthy controls, MCI and AD participants of AIBL cohort.

**Results:** Our results have shown protein biomarkers belonging to different peripheral biochemical pathways, have the ability to be able to predict the disease during its early stages and differentiate between healthy and AD. We have validated the concept that AD pathology is not just restricted to the brain but multiple peripheral pathways are also affected, contributing to the disease pathogenesis collectively.

Biomarkers	Baseline (p-val)	18 months (p-val)	36 months (p-val)
Thrombopoietin	0.006	0.0065	0.006
Interleukin18	0.006	0.006	0.006
Fatty acid binding protein 3	6.50E-03	6.50E-03	6.50E-03
Pancreatic Polypeptide Y	0.006	0.006	0.006
Chemokine I 309	0.006	0.006	0.006

The above table has the biomarkers listed from one of the biomarker panels showing p-values from ANOVA analysis at different time points.

**Conclusion:** AD is a multifaceted disease with a complex etiology, and may require a diverse biomarker panel to accurately diagnose the disease in early stage.

**Disclosure of Interest:** None Declared

## P044

### Topic: Imaging and Biomarkers

#### INSPIRING HOPE IN PERSONS WITH DUAL DIAGNOSIS OF COGNITIVE IMPAIRMENT AND MENTAL HEALTH – A MULTI-DISCIPLINARY APPROACH TO EMPOWERING WELLNESS THROUGH BEHAVIOUR SUPPORT PLANNING.

Peter Bewert<sup>1,\*</sup>

<sup>1</sup>The Salvation Army Aged Care Plus, Sydney, Australia

**Are you submitting a scientific or non scientific abstract?:** Non Scientific

**Objectives:** This presentation describes development of a person-centred behaviour support plan (BSP) targeted at older people who have a diagnosis of mental illness **and** cognitive impairment or dementia with severe, persistently challenging behaviours.

Challenging behaviours in residential care are increasing. Whilst usually associated exclusively with dementia, older people with long term mental illness present with behaviours not associated with cognitive decline. The challenge of providing care to persons with a dual diagnosis is immense, as implications/repercussions of behaviours impact care and workforce – as well as the person themselves. There is often a multifaceted approach to behaviour management depending on the presentation of the behaviour and root cause of this – Dementia / Cognitive Impairment or Mental Health.

The Salvation Army Aged Care Plus (TSAACP) has a number of Centres with a multi-faceted approach to the management of residents who have cognitive impairment as a result of dementia and a mental health diagnosis. Generally, staff reported decreased confidence in existing processes for de-escalation of behavioural presentations and residents were unaware of the implications on the broader community at Centres. This has been challenging to manage and a multidisciplinary approach has been adapted depending on the resident demographic at each of these specialist Centres.

Developed in consultation with residents, the BSP describes the behaviour of concern; agreed strategy for resolution and outcome should the behaviour continue. Developed as a staged process, it clearly shows de-escalation strategies, with the aim of returning to optimal function. The model demonstrates –

- Increased awareness in relation to resolution of regressive behaviour;
- Increased staff confidence in de-escalating behaviour;
- Increased resident control, self-worth and self-confidence through participation in negotiating outcomes in BSP development.
- Maintenance of people with severely disturbed behaviours in the community;
- Decreased admissions to hospital.

**Disclosure of Interest:** None Declared



## P045

### Topic: Crisis Intervention and Acute Care in Dementia

#### RISK FACTORS LEADING TO NURSING HOME PLACEMENT FOR PEOPLE WITH DEMENTIA: A SYSTEMATIC REVIEW AND META-ANALYSIS

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<sup>1</sup>Unit of Mental Health Sciences, University College London, <sup>2</sup>North East London NHS Foundation Trust, London, United Kingdom, <sup>3</sup>Research & Development Department, North East London NHS Foundation Trust, London, United Kingdom

**Are you submitting a scientific or non scientific abstract?:** Scientific

**Objectives:** To conduct a systematic review and meta-analysis of the literature of the factors leading to nursing home placement for people with dementia.

**Methods:** A systematic review and meta analyses were conducted using the Newcastle – Ottawa Scale (NOS) for assessing the quality of non randomised studies in meta analyses.

**Results:** People with dementia are at an increased risk of being placed in a nursing home owing to behavioural and psychological symptoms of dementia, cognition, and increased dependency in activities of daily living. Carer burden and carer's own mental health were also contributing factors in the decision to institutionalise people with dementia into nursing homes. Interestingly, we did not find that physical health related factors increased the risk of a person with dementia being placed in a nursing home.

**Conclusion:** Older people's crisis teams tend to focus on prevention and reducing psychiatric admissions but this review clearly highlights that the needs of family carers should not be overlooked. This review highlights the need for recognition of the family carers' mental health risks and support services with education and training for family carers should be available from the early stages of their relatives' diagnosis. This review highlights the importance of working collaboratively with family carers and addressing their needs as well as their relatives needs in order to delay or prevent nursing home placement.

**Disclosure of Interest:** None Declared

## P047

### Topic: Non-Pharmacological Interventions

#### DEMENTIA - A CAREGIVERS GUIDE TO PROVIDING DAILY LOVING CARE WITH A THERAPEUTIC BENEFIT

Nancy Shadowens<sup>1,2,\*</sup> and Consultants in Dementia Therapy PLLC

<sup>1</sup>member, Consultants in Dementia Therapy PLLC, Denton, <sup>2</sup>member, Alzheimer's Association, Dallas, United States

**Are you submitting a scientific or non scientific abstract?:** Non Scientific

**Objectives:** As anyone who has cared for a loved one with dementia can attest, each day brings new demands as the caregiver copes with diminishing levels of capabilities and sometimes dramatic changes in behavior. Caregivers frequently experience a cycle of frustration, anger and then guilt. The dementia induced behaviors, including anxiety, confusion, rummaging, apathy, repetitive questioning, paranoia, aggression, dysphagia, memory loss, declining mobility and more - can become overwhelming, resulting in caregiver burnout with added strains on marriage and finances.

Compounding the caregiver's challenge is that dementia behaviors do not fit into a nice neat package. People with dementia are varied in their behavior and there is no single strategy for coping that will be successful.

The most basic and fundamental piece to the puzzle of dementia management is to know and understand the stage at which the person is presenting. When a caregiver understands the characteristics of each stage of dementia, they have the opportunity to change previously held opinions of their loved one's capabilities (example: 'he's just being stubborn'), learn the truth about spared vs. impaired abilities, move toward decreased frustration, anger and guilt, reduced stress and a healthier, loving relationship. This knowledge is the window of opportunity for the first step - acceptance.

The next step is to face the challenge head-on, in a way that protects sanity and well-being. There is not a one-size-fits-all approach that is successful because behavior patterns of people with dementia are diverse. Watson will provide information about four evidence-based interventions and associated strategies and how to use them in conjunction with one another. Multiple strategies provide a broader reach and more options for care.

This presentation will discuss types of dementia, stages of dementia from the Global Deterioration Scale for Assessment of Primary Degenerative Dementia (Reisberg, 1982), and strategies derived from non-pharmacological evidence-based interventions including Validation, reminisce, sensory and Montessori-based Programming for Dementia®, that have proven effective and helpful.

The goal of this presentation is to help caregivers find strength in understanding the dementia journey, and empowerment in the knowledge that there are non-pharmacological ways to manage this disease.

**Disclosure of Interest:** N. Shadowens Conflict with: Ms. Shadowens is co-owner of Consultants in Dementia Therapy PLLC (CDT). CDT owns the copyright to Dementia: Loving Care with a Therapeutic Benefit. This presentation is based on the content of this book. Ms. Shadowens receives royalties from the sale of this book



## P048

### Topic: Non-Pharmacological Interventions

#### BRAIN FOOD: BRINGING AN EVIDENCE-BASED NUTRITION PROGRAM TO ASSISTED LIVING AND ADULT DAY HEALTH

Nancy B. Emerson Lombardo<sup>1,2,\*</sup>

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**Are you submitting a scientific or non scientific abstract?:** Non Scientific

**Objectives:** Using available evidence, we designed whole foods Memory Preservation Nutrition® program (MPN) featuring synergistic contributions of more plant foods, especially spices and vegetables, omega-3's, and fewer toxic foods e.g. excess sugar, nitrates, excess animal foods.

##### MPN Six Strategies

1. Increase amount & variety of anti-oxidants: *Spices, green leafy vegetables, nuts & seeds, whole grains, berries, fruits*
2. Increase Omega-3s: *Fish, fish oil, canola oil, olive oil, flax seed; decrease omega 6s-no corn oil,*
3. Reduce Inflammation: *Fish, fish oil/omega-3's, berries, green tea, spices,*
4. Reduce Insulin Resistance: *Reduce sugar, refined grains and starches, avoid nitrates, eat complex carbs & whole grains, fish, nuts, seeds, beans & lentils, spices, vegetables,*
5. Reduce LDL cholesterol and saturated fats: *Avoid trans fats and nitrates,*
6. Assure adequate B, D & 8-part E vitamins

Eat more plant foods and fewer animal foods.

We've implemented the MPN in several U.S. Assisted Living communities, and recently, in Adult Day Health for persons with AD, MCI, stroke, and other dementias.

This is a multi-faceted clinical intervention which includes training and educational sessions with all facility staff, with residents, families and referral sources. Periodic assessments and continuous improvements are made with respect to menus, recipes, pantry contents, dining experience and customer service, as well as brain healthy delicious foods that people enjoy eating.

The practical success of the Memory Preservation Nutrition program is well established; brain health and preserving memory is a powerful motivator to try new foods and eat healthier for seniors in assisted living and adult day health, including those with Alzheimer's and other dementias.

This model nutritional program has been proven to be feasible and accepted by older adults, and as a bonus, serves as an effective employee wellness program.

Staff and referring providers appear eager to learn about better nutrition for themselves. Brain healthy food tasting events appear to be good teaching models for both residents and staff.

In addition, the marketing success of this brain and body healthy nutrition program is outstanding. Achieved increased visibility and positive reputation of innovative senior living care, by using nutrition as part of the treatment plan.

**Disclosure of Interest:** None Declared

## P049

### Topic: Non-Pharmacological Interventions

#### METALINGUISTIC SKILLS STIMULATION PROGRAM IN THEORY OF MIND (TOM) FOR PEOPLE WITH EARLY STAGE OF DEMENTIA

Beatriz Valles-González<sup>1,\*</sup>

<sup>1</sup>educacion especial, UPEL-IPC, Caracas, Venezuela, Bolivarian Republic Of

**Are you submitting a scientific or non scientific abstract?:** Scientific

**Objectives:** The objective of this research was that of designing, applying and assessing a Metalinguistic Skills Stimulation Program in Theory of Mind (ToM) for people with early stage of dementia, within two patients with dementia. The aim of this program was to improve the abilities necessary to maintain effective linguistic exchange.

**Methods:** The methodology used was that of single cases and quasi-experimental type, with a comparative analysis of qualitative and quantitative basis. With previous informed consent, four patients diagnosed with mild dementia were selected through the Folstein MMSE (1975). Two of them were treated with the program (Experimental Group or EG), and the two other patients received no treatment (Control Group or CG). Two normal subjects without dementia were also chosen (Normal group or NG). All the participants aged between 61 to 71 years. The EG were treated with the program individually twice per week in 35 minutes sessions between March and July 2013. All the selected participants were evaluated using the MetAphAs test. Subsequently, the implementation of the program began. Once the sessions were concluded, a second assessment was carried out with the test MetAphAs, to compare the evolution of all the participants, as well as analyzing the results obtained.

**Results:** The results obtained during the test and retest for each group of subjects, were compared. At the end of the treatment, there were statistically significant differences when comparing the EG with the CG (Wilcoxon test  $z = -4,398$ ;  $p = 0,000$ ), as well as when comparing the CG with the NG (Wilcoxon test  $z = -5,123$ ;  $p = 0,000$ ) but not when comparing the EG and the NG (Wilcoxon test  $z = -1,897$ ;  $p = 0,058$ ), observing a clear effect of the treatment. A characteristic performance profile in ToM was observed associated with the etiology of the dementia.

**Conclusion:** The implementation of the program was successful. It is necessary to carry out studies with numerous samples in order to obtain more conclusive results. The qualitative and quantitative results encourage future research.

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**Disclosure of Interest:** None Declared





## P050

### Topic: Non-Pharmacological Interventions

#### OCCUPATIONAL THERAPY AND ALZHEIMER'S DISEASE: A LITERATURE REVIEW.

Patricia C. Buchain<sup>1</sup>, Diego Celestino<sup>1</sup>, Patricia Cotting<sup>1</sup>, Alexandra Martini<sup>1</sup>

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**Are you submitting a scientific or non scientific abstract?:** Non Scientific

**Objectives:** Until the year 2020 Brazilian population might reaches approximately 15 million elderlies, about 15% of the Brazil's total population. Alzheimer's disease represents the most common cause of dementia in elderlies, affecting at least 5% of sixty years old people and about 20% of those over eighty years old. The dementia's impact over functionality and quality of life is largely known and non-pharmacological treatments, like occupational therapy, are in the basis of Alzheimer's approaches.

It is important that more structured programs and based evidence practices can be indentified in Occupational Therapy.

We researched PubMed, Lilacs, Cochrane and Scielo databases, using the following keywords: Dementia, Intervention Studies, Occupational Therapy, screening the period from 2000 until 2013. We found 79 articles in indexed periodics. 13 articles were in our inclusion criteria and were selected from those 79. Due to this small number of articles in indexed periodics, we decided to include 13 texts, from Occupational Therapy Books and non-indexed periodics. Of these publications, 12 were approaches that focused on of behavioral symptoms reduction and the interface with caregivers and community ( Gittlin et al, 2005, 2008, 2009; Vilaça et al 2005; Wood, 2005, Callahan et al. 2012, Ferrero-Arias et al. 2011; Graff, 2007; Chee, 2007, Cicconetti P, 2000, Steultjens, 2004, Nobili, 2004), 08 horticultural therapy (Söderback et al, 2004; Fukushima et al, 2005; Yazukawa, 2002; Minei et al., 2008; Yazukawa, 2002, 2003, 2009; Neuberger, 2008), 02 Recreational Activities (Farina et al. 2006, 2009), 4 articles were relataded to cognitive estimation (Farina et al, 2002; Kim, 2012; Yuill N, 2011, Robert, 2010).

**Disclosure of Interest:** None Declared

## P051

### Topic: Non-Pharmacological Interventions

#### COGNITIVE FUNCTIONAL APPROACH FOR PATIENTS WITH ALZHEIMER'S DISEASE.

Tatiana Matsushita<sup>1</sup> on behalf of first author JOSE EVANIO DI SILVA<sup>1</sup> Patricia Cotting<sup>1</sup> Alexandra Martini<sup>1</sup> Patricia C. Buchain<sup>1,\*</sup>

<sup>1</sup>Occupational Therapy, Institute of Psychiatry from the University of São Paulo Medical School (IPQ - HCFMUSP), São Paulo, Brazil

**Are you submitting a scientific or non scientific abstract?:** Non Scientific

**Objectives:** Cognitive functional approach for patients with Alzheimer's disease.

Matsushita, Tatiana; Di Silva, José Evanio; Martini, Alexandra; Cotting, Patrícia; Buchain, Patricia

This work aims to report the experience of a group intervention for patients with Alzheimer's disease in early stages, that occurs at the Department of Occupational Therapy at the Institute of Psychiatry at University of São Paulo, by the students of the post graduation program in Functional Cognitive Rehabilitation for the Elderly.

Interventions in cognitive functional rehabilitation aim to enable the patient with Alzheimer's disease a program that requires the investment of several cognitive functions, enabling the maintenance of their status as functional independence in performing activities of daily living. Interventions based on cognitive rehabilitation seek changes to improve the function of the individual in important areas to the routine, benefiting their quality of life (Gomez, 2012). Therapeutic planning sessions provides training for specific cognitive functions to the performance of the proposed goals. The cognitive training is the method that use various types of exercises, which aim to improve the deficits or compensation of a particular cognitive function.

The interventions consist of eleven weekly meetings, lasting 60 minutes and are divided into: temporal orientation training, cognitive training, activities for generalization. For training of cognitive function can be used activities to stimulate the process of problem solving, exercising cognitive skills of reasoning, attention, concentration and language.

Follows the report of a session to illustrate:

Were proposed two exercises formulated according to the group's goals. The participants were involved in a game in which they had to guess the rule that allowed or prevented from putting objects on a trip. The second exercise was to listen to a song and transcribe as many words as they could hear and later identified to confer with the lyrics. These exercises aimed to increase the ability to maintain attention during the activity performed, stimulate thinking for problem solving, verbal fluency and memory. The participation of all patients was meaningful.

**Disclosure of Interest:** None Declared



## P052

### Topic: Non-Pharmacological Interventions

#### COMPARING DATA FROM A COMPUTER BASED INTERVENTION PROGRAM FOR PATIENTS WITH ALZHEIMER'S DISEASE

**Agisilaos Chaldogieridis<sup>1</sup>, Thrasyvoulos Tsiatsos<sup>1</sup>, Moses Gialaouzidis<sup>2</sup>, Magdalini Tsolaki<sup>2,3</sup>**

**<sup>1</sup> Department of Informatics, Aristotle University of Thessaloniki, Thessaloniki, Greece**

Nowadays, dealing with Alzheimer's Disease (AD) includes a combination of pharmaceutical and non-pharmaceutical treatment. But, current drugs do not, and potential future drugs might not, improve quality of life. Evidence suggests psychosocial interventions, like educational and arts programs, do in fact have such a benefit. Supportive and enriching information technology may be more important than biotechnology (Whitehouse, 2013). So non-pharmaceutical treatment including physical and mental exercising as well seem to perform better. There are many forms of mental exercising from simple crosswords puzzles to sophisticated video games that exercise different cognitive skills. Main object of this report is to present the results of a computer-based intervention program for people with AD that take place in two Day Care Centers of Greek Association of Alzheimer's Disease and Related Disorders (GAADR) in Thessaloniki, Greece. There is a significant amount of data that include patients, who have taken part in interventions programs for two years. These patients have been tested before and after each intervention program (pre-test and post-test). Our work is to compare these data to examine how the program performs and which cognitive skills seem to have better improvement. GAADR offers a variety of services for patients and their caregivers including cognitive therapies for memory, attention and language enhancement. Besides traditional forms of therapies, such as cognitive tasks and exercises, cognitive music- therapy there are also computerized cognitive exercises for attention and language practice through PCs.

The main intervention program consists of exercises that focus on memory and attention enhancement, each patient works on his own PC and deals with several exercises which are specifically designed for memory, logic, verbal, numeric and visual-space training that improve the patient's corresponding cognitive functions. These exercises demand an important amount of attention, processing speed and memory effort and the difficulty is escalating as the patient improves his cognitive status. This is a two times per week program.

In addition to that, there is also a training program that allows patients to exercise and familiarize with computers and technology. This program includes educational exercises for learning how to operate a PC and the acquisition of basic skills such as working on Windows based platforms, using Office's suite applications (MS Word, Excel), surfing on the internet and using e-mail services. This program usually happens also two times per week. The main target is to familiarize with a PC, for people with no previous experience and to learn new skills using the current technology.

More specifically, the program includes a variety of exercises for cognitive training which are divided in the following categories:

1. Visual-spatial
2. Speech
3. Numerical
4. Reasonable
5. Memory

Each exercise has five levels of difficulty, according to each patient's mental status, so they are suitable for both low-level and high-level patients and additionally, they do not require any previous knowledge of computers or technological education. Furthermore, the program takes place in a room with eight PCs, so that every patient sits on his own, and all of them have a touchscreen, a feature that lets patients to use the computer just by touching in specific spots on the screen.

Every patient has a record in GAARDR's database, which uses the OpenClinica's format configured especially for the needs of GAARDR. The database holds records about patient's personal information, demographic characteristics, medical and psychological tests and other important information. We have gathered data from more than 40 patients who attended a specific computer-based intervention program which was designed according to each patient's mental status. These patients started in 2011 and still continue to participate in non-pharmaceutical intervention programs. Thus, our data are for a period of nearly two years. Patients were tested before participating in the program, through a Neuropsychological test in order to estimate their mental and cognitive status. It is important to mention that this Neuropsychological test runs every year for each patient and it is an index for their mental progress.

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## P053

### Topic: Education and Training of Medical Professionals

#### OUTCOMES OF A WEBINAR SERIES ON DEMENTIA EVALUATION AND MANAGEMENT AMONG DIVERSE OLDER ADULTS FOR HEALTH CARE PROFESSIONALS

Marian Tzuang <sup>1</sup>, Dolores Gallagher-Thompson <sup>1</sup>, Annecy Majoros <sup>1</sup>, Kala Mehta <sup>1</sup>

<sup>1</sup>Stanford Geriatric Education Center, Stanford, United States

**Are you submitting a scientific or non scientific abstract?:** Non Scientific

**Objectives:** Stanford Geriatric Education Center (SGEC) offered a series of 15 webinars titled “State of the Science: Dementia Evaluation and Management among Diverse Older Adults and their Families” from January through June 2013. Stellar speakers from various fields such as neurology, psychiatry, psychology and family medicine covered a range of topics including the new recommendations of the DSM-V diagnostic criteria for dementia; assessment of dementia using biomarkers; evidence-based interventions for persons with dementia (PWD) and their caregivers; recognizing and differentiating depression, delirium and dementia; use of interpreters with PWD; ethical issues in dementia care; pain control and medications in PWD; emergency preparedness for PWD; and end of life care for PWD. Each webinar was 1 to 1.5 hour long.

Using this new technology, webinars, the SGEC was able to extend the ‘reach’ of this training to more new and diverse audiences. A total of 517 participants joined one or more of the webinars. They were from 24 US states and represented 31 health related disciplines and 12 race/ethnic groups. Of 470 participants who responded, 23% indicated that they work in Medically Underserved Communities, meaning areas that have too few primary care providers, high infant mortality, high poverty and/or high elderly population. Post webinar survey results show that over 90% of participants reported increase in their knowledge and skills in the training topic, and that it improved their level of confidence to work with ethnic elders and their families. In addition, an average of 85% of participants in each webinar indicated that they can either apply the information or skills learned in their work setting or, intention to implement or advocate at least one patient/service improvement. In conclusion, we believe that this webinar series is successful, cost-effective, and encouraging as we plan to develop and expand its use as a tool for education in future years.

**Disclosure of Interest:** None Declared

## P055

### Topic: Education and Training of Medical Professionals

#### CERTIFICATE INTEGRAL ATTENTION CARE FOR PERSONS WITH COGNITIVE IMPAIRMENT

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**Are you submitting a scientific or non scientific abstract?:** Scientific

**Objectives:** In 2011 the Nueva Esparta State in Venezuela did not have enough specialists in different health fields, capable of facing the comprehensive care of the person with dementia. One of the main difficulties is the lack of specialized health teams affronting the increase in life expectancy and the ageing of the population. For this reason the central objective of the course was to train professionals able to respond to population and specifically that which presents cognitive impairment from an interdisciplinary perspective.

**Methods:** We designed the: Certificate *“Integral Attention care for persons with cognitive Impairment”*. This teaching activity was developed through a strategic alliance between Universidad Pedagógica Experimental Libertador-Instituto Pedagógico de Caracas, Fundación Gran Mariscal de Ayacucho, FUNDAYACUCHO and the Alzheimer's Foundation Chapter Nueva Esparta, and allowed to admit a total of 33 professionals in health areas: doctors, social workers, nutritionists, nurses, language therapists, physiotherapists, teachers, and occupational therapists. It was necessary to design six modules of units which addressed different areas of study, select teaching strategies that would make possible the development of a model of interdisciplinary care and take advantage of new technologies as a way to enable the remote participation. A total of 12 training meetings were developed in this way.

**Results:** A total of 33 professionals were admitted, and 28 students successfully culminated, i.e an 84%. 80% assessed as positive the contents and strategies employed. Generated community projects made it possible to attend a number of 1.460 people, equivalent to an impact on approximately 7.300 subjects in return.

**Conclusion:** Training programs should further be developed in a society where life expectancy increases every day and older adult population demand programs including prevention and early detection of cognitive impairment.

**Disclosure of Interest:** None Declared





## P056

### Topic: Behaviour & Psychological Symptoms of Dementia

#### ADIOGENES SYNDROME: THE ETHICAL DIMENSIONS

Brooke Hurley<sup>1,\*</sup>

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**Are you submitting a scientific or non scientific abstract?:** Non Scientific

**Objectives:** Diogenes Syndrome: The Ethical Dimensions

Brooke Hurley BA, MSW, RSW

Diogenes Syndrome is a disorder that is characterized by extreme self neglect, domestic squalor, social withdrawal, lack of concern about living conditions and hoarding. It is thought to affect 1 in every 2000 persons over the age of 60 living in the community. Ethics are called in to question as the affected individual usually refuses assistance or treatment and health professionals tend to force care on this population. Individuals with this syndrome are very resistant to receiving assistance and are often content to continue living in abysmal conditions. Developing a therapeutic rapport with the individual can be challenging, but of paramount importance. Without trusted support and guidance, there is unlikely to be any change achieved. The challenge exists of creating a delicate balance between respecting an individual's autonomy and ensuring personal safety. Using a harm reduction model approach to care is often effective with this population and it allows a high level of autonomy to be maintained. The individual's cognitive ability is often questioned as seemingly poor decisions are made to live in squalor conditions that differ in accordance with our social norms. With no medical involvement there is rarely a formal diagnosis of a dementia, however, dementia is suspected in many cases. Research and personal experience has shown that seniors with this syndrome have a 2 times greater risk of death upon admission to long term care than do other community dwelling seniors. There is value in liaising with community partners to support the individual to continue to live in the community. Much of the presentation is based on the presenter's clinical practice while working for the Gatekeepers Program in Hamilton, Ontario.

**Disclosure of Interest:** None Declared

P057

Topic: Behaviour & Psychological Symptoms of Dementia

**NON-PHARMACHOLOGIC MANAGEMENT OF BEHAVIOR AND PSYCHOLOGICAL SYMPTOMS IN DEMENTIA:  
ESSENTIAL TOOLS FOR EFFECTIVE CARETAKERS AND HEALTHCARE PROVIDERS**

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**Are you submitting a scientific or non scientific abstract?:** Non Scientific

**Objectives:** The quality of life of dementia patients and their caretakers is directly related to the presence of behavior and psychological symptoms. Behavioral interventions are always indicated in these cases. Often times, they are the only available treatment strategy. Effective caretakers embody attributes and skills that permit them to remain patient, non-judgmental, optimistic, creative, inquisitive, and flexible in the face of these challenges. Their first task at hand is to understand the problem by analyzing the antecedent, the symptom or behavior, the consequences, and the response to any initial intervention. By enhancing their problems-solving skills, caretakers can successfully classify the cause(s) of the symptom among the following categories: 1. Diminished cognitive abilities; 2. Inappropriate environmental stimuli; 3. Primary psychiatric symptom; 4. Consequence of another medical problem; and 5. Caretaker-related factor. In doing so, potential solutions begin to emerge. Commonly useful interventions include identifying unmet needs, promoting independence and control, simplifying tasks & instructions, appropriate memory & reality orientation, environmental modifications, ensuring safety, consistent routines, recreation & relaxing sensory stimulation (i.e. doll, pet, music, white noise, art), distraction, humor, validation & therapeutic lies, reminiscence, companionship, and caregiver-centered interventions. Variations of many of these can be adapted to each specific situation. Many tested examples will be described in the context of managing anxiety & fear reactions, catastrophic reactions, apathy, confabulations, non-compliance & anger reactions, risk of abuse, wandering, and inappropriate sexual behaviors.

**Disclosure of Interest:** None Declared



## P058

### Topic: Behaviour & Psychological Symptoms of Dementia

#### FREQUENCIES OF BEHAVIORAL AND PSYCHOLOGICAL SYMPTOMS OF DEMENTIA (BPSD) AND COUNTERMEASURES

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**Are you submitting a scientific or non scientific abstract?:** Scientific

**Objectives:** We investigated the frequencies of BPSD in Japanese dementia people, and assessed whether primary care physicians are capable of dealing with them.

**Methods:** A questionnaire survey was conducted, targeting physicians working at six clinics and actively providing home visiting medicine in Japan. The physicians were asked the following about 652 dementia patients whom they examine and treat: (1) Type and severity of disease, (2) presence or absence of BPSD, (3) detail of BPSD, (4) actions taken to deal with BPSD, and (5) antipsychotic drugs used.

**Results:** 1. The disease type and severity were as follows: Alzheimer dementia (severe: 240 people, moderate: 128 people, and mild: 54 people); cerebrovascular dementia 96 people; lewy body dementia, 46 people; frontotemporal dementia, 10 people; and others, 78 people.

2. BPSD was seen in 35% of the subjects investigated.

3. BPSD symptoms often took the form of irascibility, shouting in a loud voice, delusions and hallucinations. Apathy, depression and other symptoms were also seen. Other symptoms of BPSD observed included delirium, anxiety, irritability, restlessness, roaming about, improper behaviors, and sexually deviant acts. Violent BPSD requiring hospitalization occurred in only one people.

4. Administration of drugs was the most frequently used measure to deal with BPSD. In particular, antipsychotic drugs were administered 10% of all subjects.

5. As to the types of antipsychotic drugs, risperidone, quetiapine, perospirone and others were often used.

**Conclusion:** Dementia is a disease which primary care physicians can examine and treat in the community while collaborating with psychiatrists and other specialist physicians.

**Disclosure of Interest:** None Declared

## P059

### Topic: Behaviour & Psychological Symptoms of Dementia

#### THE CORRELATIONS BETWEEN CAREGIVER'S BURDEN, THE BEHAVIORAL AND PSYCHOLOGICAL SYMPTOMS OF DEMENTIA (BPSD), AND CAREGIVER'S HEALTH'S CONDITION

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#### Are you submitting a scientific or non-scientific abstract?: Scientific

**Objectives:** This study investigated the relationship between the caregiver burden, the severity of BPSD, and the general health condition of the caregiver

**Methods:** Ninety one patients with cognitive impairment and their caregivers were included in this study. Chinese Caregiver Burden Inventory (CBI) for burden, and General Health Questionnaire 12(GHQ12) for general health condition were used to assess every caregiver. 91 patients were assessed with Neuropsychiatric Inventory (NPI) for BPSD. The correlation coefficient of CBI, GHQ12, and NPI were calculated to evaluate the possible association of caregiver burden with the each domain of BPSD and the general health condition of caregivers.

**Results:** There was a significant correlation between the CBI and GHQ12 ( $r=-0.71$ ,  $P<0.001$ ), between CBI and NPI ( $r=0.397$ ,  $p<0.001$ ), between CBI and hallucination ( $r=0.296$ ,  $p=0.004$ ), between CCBI and agitation ( $r=0.343$ ,  $p=0.001$ ), between CBI and depression ( $r=0.323$ ,  $p=0.002$ ), between CBI and apathy ( $r=0.257$ ,  $p=0.014$ ), and between CBI and night time behavior problem ( $r=0.207$ ,  $p=0.049$ ).

**Conclusion:** The findings of the study supports the assumption that the caregiver's burden is affected by the general health condition of the caregiver and the severity of BPSD, especially in domains of hallucination, agitation, depression, apathy and night time behavior problems.

**References:** 1. Richardson TJ, Lee SJ, Berg-Weger M, Grossberg GT. Caregiver health: health of caregivers of Alzheimer's and other dementia patients. *Curr Psychiatry Rep.* 2013 Jul;15(7):367.  
2. Dahlrup B, Nordell E, Steen Carlsson K, Elmståhl S. Health Economic Analysis on a Psychosocial Intervention for Family Caregivers of Persons with Dementia. *Dement Geriatr Cogn Disord.* 2013 Oct 24;37(3-4):181-195.

**Disclosure of Interest:** None Declared



## P060

### Topic: Quality of Life

#### DEMENTIA IN INDIA: CAREGIVERS' KNOWLEDGE AND COPING.

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**Are you submitting a scientific or non scientific abstract?:** Scientific

**Objectives:** Persons with Dementia (PwD) in India are largely cared at home by their family members. Several studies have reported negative consequences on family caregiving. Not much is known on how knowledge about the illness and its management impact caregiving. Therefore the present study aims to understand the same systematically among Indian caregivers.

**Methods:** 180 caregivers of persons with dementia were assessed for knowledge about the illness, their coping mechanisms and quality of life, using the following tools, Knowledge About Dementia Interview (KADI) and Coping Check List and WHO QOL (BREF Version), at the Geriatric Clinic and Services, NIMHANS, after confirming the diagnosis with treating clinician. Appropriate statistical measures were used for analysis.

**Results:** Caregivers with better knowledge about the illness (diagnosis; etiology; symptomatology; course and prognosis; management of patient and themselves) had better coping mechanisms. These carers used: more problems focused and emotional focused approaches; also had better acceptance of the illness. Caregivers using religious beliefs/ faith and denial/blame as a coping mechanism had poorer knowledge about the etiology, symptomatology and course and prognosis of the illness. Better knowledge about the illness translated to better physical and psychological well-being among the caregiver.

**Conclusion:** Our findings suggests that a health care professional while diagnosing the illness, should educate the families about the illness and the management of the person with dementia and themselves, so the carers have better care giving outcomes and also experience better quality of life.

**Disclosure of Interest:** None Declared

## P061

### Topic: Quality of Life

#### PRINCIPAL COMPONENT ANALYSIS OF THE NORWEGIAN VERSION OF THE QUALITY OF LIFE IN LATE STAGE DEMENTIA (QUALID) SCALE

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**Are you submitting a scientific or non scientific abstract?:** Scientific

**Objectives:** To investigate which components the Quality of life in late stage dementia (QUALID) scale holds when used among nursing home patients with dementia, and to investigate how the item scores of the QUALID scale varies across severity of dementia.

**Methods:** The study included 661 nursing home patients with dementia. The QUALID and the Clinical dementia rating scale (CDR) were applied by trained research nurses. A principal component analysis (PCA) with varimax rotation and Kaiser Normalization was applied to test the factor structure. Non parametric analyses were applied to examine differences of QUALID item scores across CDR groups.

**Results:** The mean age was 85.3 (s.d 8.6) years, 71.4% were women. 22.5 % had a CDR score of 1, 33.6% a CDR score of 2 and 43.9% a CDR score of 3. The mean QUALID total score was 21.5 (s.d. 7.1). Cronbach's  $\alpha$  of QUALID was 0.74, Bartlett's test of sphericity was  $p < 0.001$  and the Kaiser-Meyer-Olkin measure was 0.77. The score on eight items on the QUALID significantly worsened by severity of dementia: smiles, physically uncomfortable, verbalization suggests discomfort, irritable and aggressive, enjoys eating, enjoys touching, enjoys social interaction, appears calm and comfortable, whereas that was not the case for three items: cries, appears sad and facial expression of discomfort. The PCA analysis resulted in three components accounting for 53 % of the variance: "tension" (facial expression of discomfort, appears physically uncomfortable, verbalization suggests discomfort, being irritable and aggressive, appears calm, Cronbach's  $\alpha$  0.69), "well-being" (smile, enjoys eating, enjoys touching / being touched, enjoys social interaction, Cronbach's  $\alpha$  coefficient 0.62) and "sadness" (appears sad, cries, facial expression of discomfort, Cronbach's  $\alpha$  coefficient 0.65). Based on these components we created three subscales. The mean score on the subscales "tension" and "well being" increased (worse qol) significantly with severity of dementia, but not for "sadness".

**Conclusion:** Three components of qol as measured by the QUALID scale were identified. Qol decreased with increasing severity of dementia.

**Disclosure of Interest:** None Declared





## P063

### Topic: Quality of Life

#### COGNITION AND QUALITY OF LIFE OF ELDERLY IN LITERACY PROGRAMS

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**Are you submitting a scientific or non scientific abstract?:** Scientific

**Objectives:** Identify correlations between variables cognition, quality of life (QOL) and period of participation of elderly of Youth and Adults literacy program (EJA) in São Carlos-SP.

**Methods:** This descriptive and quantitative research was approved by the Research Ethics Committee at São Carlos Federal University. The sample was composed of elderly who were in the process of literacy in EJA, in 2012. The instruments used were Mini-Mental State Examination (MMSE); WHOQOL-BREF and WHOQOL-OLD, and a socio-demographic instrument.

**Results:** We interviewed 23 elderly, mostly female (91.3%), in the early ages of old age - 60-69 years (69.6%), widowed (47.8%). The number of years of study in EJA did not show significant correlation with cognition scores obtained by the MMSE. The scores on the MMSE showed moderate and directly proportional correlation with total scores of QOL domain Autonomy ( $\rho = 0.654$ ,  $p = 0.001$ ). In terms of trend ( $p \leq 0.150$ ), the cognition showed moderate and directly proportional correlation with total scores of Physical QOL domains ( $\rho = 0.383$ ,  $p = 0.072$ ); Environment ( $\rho = 0.387$ ,  $p = 0.068$ ); Activities Past, present and Future ( $\rho = 0.375$ ,  $p = 0.078$ ), and Social Participation ( $\rho = 0.370$ ,  $p = 0.083$ ).

**Conclusion:** Some domains of QOL may be influenced by cognition. Acknowledgment/financing: FAPESP e ProEX – UFSCar.

**Disclosure of Interest:** None Declared

**P064**

**Topic: Quality of Life**

# **CONTINUOUS TREATMENT OF PSYCHIATRIC PATIENT - SUCCESS FOR LONGER REMISION**

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**Are you submitting a scientific or non scientific abstract?:** Non Scientific

**Objectives:** Purpose: To show that the lengthy and time taking the therapy in psychiatric patient in geriatrics conditions leads to a long phase of remision. Show case: patient buildings due to lethargy, indifference to the environment and to themselves, refusing to take foot and disturbed sleep. This patient is came in our mental hospital because of worsening prestojuala psichiatric condition: lethargy, suspicions, hearing voices, insomnia, neglect of personal hygiene.

Many years on many occasions treated in hospital with mental stages and remision and actuels, especially living alone and no one to take account and whether receiving regular therapy. Methods: Surveillance, call-behavior cognitive therapy, family-therapy, social clubs, pharmaco thera. The patient was treated primarily by a multidisciplinary team of psychiatrist, psychologist, social worker and internist. During the ten years under the influence of antidepressants and therapy neuroleptic the patient does not appear on the new attack shizoafektive disorder. Under the regular supervision of a team of nurses and doctors who closely observed every psychological change and regular treatment of therapy the patient was ten years of proper psychological Plan. With frequent calls by the psychologist and participation in therapeutic sessions of social clubs, active participation of its part of the department with helping low-skilled staff, affective are well kept. Pisycians health was monitored by a team of internal and in our institution spent more than ten years. Conclusion: Regular intake of therapy in patients with psychiatric disorders and lead to more lasting quality remisions

**Disclosure of Interest:** None Declared



## P065

### Topic: Quality of Life

#### INSPIRING HOPE – A JOINT APPROACH TO SPIRITUAL CONTENTMENT IN DEMENTIA.

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**Are you submitting a scientific or non scientific abstract?:** Non Scientific

**Objectives:** This presentation describes a model which promotes spiritual equilibrium whilst maintaining optimum function in older people with cognitive impairment / dementia. It will describe the importance of –

- Collaborative, respectful relationships;
- A balance between dependence, independence and interdependence;
- A multi-disciplinary approach between chaplaincy, care and clinical staff;
- Fostering shared understanding about what is important in the residents day-to-day life, current situation and the desired future.

A review of existing literature and current practice showed a gap for the target group in the area of promoting spiritual contentment. The model –

- **Design** was prompted by a realisation that all people experience spirituality differently.
- **Focus** is a negotiation between staff and the individual resident to meet spiritual needs whilst maintaining function within acceptable social parameters.
- was **informed** by the development of a spiritual care-planning process designed to promote personhood.

With the resident as the focus, the auspice organisation has ensured positive outcomes which improve spiritual contentment. These include –

- Maintenance of people with severely disturbed behaviours in the community.
- Increased resident control, self-worth and self-confidence through participation in negotiation in the development of the plan.
- Increased resilience through the provision of spiritual contentment.
- Improved quality of life through meeting the spiritual needs in a tangible, practical and age appropriate manner despite the level of cognition.

Case studies will illustrate the models success.

**Disclosure of Interest:** None Declared

## P066

### Topic: Dementia Care and Technology

#### WHAT ARE THE NEEDS OF CARERS OF PEOPLE WITH DEMENTIA IN ITS EARLY STAGES?

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**Are you submitting a scientific or non scientific abstract?:** Scientific

**Objectives:** Approximately 1 in 4 people in Japan (31.86 million) are aged 65 years and over in 2013. The number of people aged 65 and over with dementia was estimated to have reached 4.62 million by 2012, accounting for approximately 15% of the total elderly population, according to a Ministry of Health, Labour and Welfare survey. Previous studies have suggested that the carers of people with dementia have increased levels of emotional stress when dealing with various situations, particularly after the diagnosis of dementia is disclosed. This study aimed to explore the experiences and needs of these carers and identify additional services and support to enable them to more effectively care for people with dementia, particularly in its early stages.

**Methods:** We employed a qualitative research method and conducted semi-structured interviews with family carers who care for people with dementia aged 65 years and more living in the community. We asked 4 family carers aged 40 to 79 years regarding their experiences around the time of dementia diagnosis and about the support they themselves needed in the early stages of dementia. We explored both the existing care support and the needed support.

**Results:** One-half of the carers were women, and the ages of all the carers ranged from 48 to 77 years. The people with dementia were diagnosed with Alzheimer's disease and vascular dementia (75% and 25%, respectively). In addition to the existing care support, the carers indicated that they needed additional services and support, including "24-hour emergency service for people with dementia", "24-hour helpline", "respite care", "services that look after people with dementia, particularly during wandering", "short-term care services", and "support for daily activities such as transportation and bathing".

**Conclusion:** The carers of people with dementia need more appropriate services and support in order to continue caring for these people with dementia in the community, particularly in the early stages of dementia.

**References:** Callahan C.M. et al. (2006). Effectiveness of collaborative care for older adults with Alzheimer disease in primary care. *JAMA*.

**Disclosure of Interest:** None Declared



## P069

### Topic: Dementia Care and Technology

#### USING TECHNOLOGY TO SUPPORT PEOPLE WITH DEMENTIA IN THEIR EVERYDAY LIFE AND RETAIN THEIR INDEPENDENCE

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<sup>1</sup>SDWG, Alzheimer Scotland, Glasgow, United Kingdom

**Are you submitting a scientific or non scientific abstract?:** Non Scientific

**Objectives:** Dementia Care is heading more and more towards the use of technology to tackle a variety of issues. The advancement of technology, especially Information Technology, can improve the quality of life for people with dementia and enable them to remain informed and independent for longer and put in place their own strategies for self- management.

The use of Pcs, I pads and smart phones is becoming increasingly popular within Scottish Dementia Working Group and members are finding that the use of electronic calendars, online diaries, apps and email can assist them with everyday living such as attending appointments, travel arrangements and social events, helping them to stay involved in promoting the work of the group.

Scottish Dementia Working Group members are keen to strengthen or learn IT skills, in particular using email. As the Communications and Development Officer, I have worked with two group members to develop tailor made training on using email for rolling out with other interested group members. We will do this over the next 6 months and evaluate the successes and limitations of this approach, focussing on whether learning these new skills enhances their lives and promotes social inclusion.

The presentation will cover the outcomes of the 6 month study evaluating successes and limitations.

**Disclosure of Interest:** None Declared

## P070

### Topic: Putting Scientific Knowledge into Practice

#### THE RELATIONSHIPS AMONG SELF EFFICACY, SOCIAL SUPPORT AND CARE BURDEN FOR CAREGIVERS OF ELDERLY WITH ALZHEIMER'S DISEASE

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<sup>1</sup>Nursing, Fu Jen Catholic University, New Taipei City/新北市, Taiwan

**Are you submitting a scientific or non scientific abstract?:** Scientific

**Objectives:** caregivers of elderly with Alzheimer's disease.

**Methods:** The cross-sectional descriptive research design will be applied. Through convenient sampling, 120 caregivers of elderly with Alzheimer's disease will be recruited from the Psychiatric Outpatient Department and Ward in one of Medical Center at northern Taiwan. The Caring Self Efficacy Scale, Functional Social Support Scale, Neuropsychiatric Inventory Caregiver Distress Scale (NPI-D), and demographic data will be the research measurements. T-test, one way ANOVA and Multiple Regression Analysis will be used to analyze data.

**Results:** Not finish yet. The research need collects 120 caregivers of elderly with Alzheimer's disease and plan to finish it before 2014/01/31.

**Conclusion:** The results of this study will be imperative to improve the clinical nursing care for caregivers of elderly with Alzheimer's disease. At the meantime, this study will be essential referent to examine the burden of caregivers of elderly with Alzheimer's disease for nursing practitioners, teachers, and administrators.

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**Disclosure of Interest:** None Declared





## P071

### Topic: Cross Cultural Issues and Dementia

#### ACCESS TO DEMENTIA SERVICES IN A MINORITY SITUATION: THE CASE OF FRANCOPHONES IN ONTARIO, CANADA

Linda Garcia<sup>1 2,\*</sup> Marie-Hélène Chomienne<sup>1 3</sup> Marie-Andrée Cadieux<sup>1 2</sup> Elina Farmanova<sup>1</sup> Lynn McCleary<sup>4</sup> Frank Molnar<sup>1 2</sup>  
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<sup>5</sup>The Ottawa Hospital, <sup>6</sup>Bruyere Continuing Care, Ottawa, Canada

**Are you submitting a scientific or non scientific abstract?:** Scientific

**Objectives:** The objectives are to 1) better understand the trajectory prior to a diagnosis of dementia in Francophones in the Ottawa region, 2) identify the differences in the access of services in comparison to individuals receiving their services in English, 3) develop research projects elsewhere in the English regions of Ontario and Canada, 4) propose intervention strategies for an equitable service in the identification and diagnostic phase of dementia.

**Methods: Study scheme** Mixed methods – retrospective study of charts of people with dementia, between 2007 and 2012, and interviews with informal caregivers to identify the facilitators and obstacles to access to services.

**Frame of study** Specialized clinics and family physician offices in Ottawa, Canada. **Participants** Convenience sample – 100 Francophones and 100 Anglophones and their informal caregivers. **Measures** 1) waiting time between the referral date to the clinic and the date when a diagnosis of dementia is received, 2) description of the trajectory from the identification of the first symptoms, 3) facilitating factors and/or obstacles during the trajectory.

**Results:** A total of 52 of 113 eligible participants accepted to participate in the study (27 Francophones and 25 Anglophones). The results suggest that Francophones in a minority situation wait from 3 to 6 months longer to consult a specialist. They also tend to express themselves in English when speaking with a family physician that their primary language is not French in order for the shared information to be well interpreted. Caregivers are the key facilitating factors for unilingual patients.

**Conclusion:** The discussion will focus on the health care needs of communities in minority situations with regards to a diagnosis of dementia and the planning of health services for this population.

**Disclosure of Interest:** None Declared

## P072

### Topic: Cross Cultural Issues and Dementia

#### **CAN WHAT YOU DON'T KNOW HURT YOU? A STUDY OF MISCONCEPTIONS, KNOWLEDGE GAPS AND COMMONLY HELD BELIEFS ABOUT DEMENTIA WITHIN ABORIGINAL AND TORRES STRAIT ISLANDER COMMUNITIES IN FAR NORTH QUEENSLAND, AUSTRALIA**

Sarah Russell<sup>1</sup> Edward Strivens<sup>1,2</sup> Gavin Miller<sup>2</sup> Sharon Bonython-Ericson<sup>2</sup>

<sup>1</sup>School of Medicine and Dentistry, James Cook University, <sup>2</sup>Queensland Health, Cairns, Australia

#### **Are you submitting a scientific or non scientific abstract?:** Scientific

**Objectives:** Aboriginal and Torres Strait Islanders have lower life expectancy and worse health outcomes than the general Australian population and an increased risk of dementia within these communities has recently been found (Smith et al., 2008). Although studies have shown that dementia is not widely understood within urban Aboriginal communities (Garvey et al. 2011), knowledge in remote communities and in the Torres Strait, where health inequalities are greatest, has not been investigated. As knowledge of symptoms has been linked to willingness to seek treatment and early diagnosis is crucial for optimal treatment of dementia, the aim of this study was to investigate understanding of Alzheimer's disease and dementia amongst remote Aboriginal and Torres Strait Islander communities and to clarify variables that influence dementia literacy.

**Methods:** A total of 462 adult Aboriginal and Torres Strait Islanders completed the *Alzheimer's Disease Knowledge Survey for Indigenous Australians* whilst attending three cultural festivals in Far North Queensland. Responses were analyzed to evaluate overall knowledge of Alzheimer's disease and dementia as well as identify commonly held beliefs, misconceptions and knowledge gaps.

**Results:** Consistent with previous research, dementia knowledge was low (mean score = 5.23 (SD 2.9), range 0-13 out of 20) and did not differ significantly between Aboriginal and Torres Strait Islanders. Although there was a commonly held belief that memory loss was a central feature of Alzheimer's disease, there were shared misconceptions about the cause, prevalence and treatment of dementia and how dementia is diagnosed.

**Conclusion:** Results highlighted the importance of developing culturally appropriate interventions to improve dementia literacy amongst Aboriginal and Torres Strait Islanders given the increased risk of dementia within these communities.

**References:** Garvey, G. et al. Making sense of dementia: understanding amongst Indigenous Australians. *International Journal of Geriatric Psychiatry*. 2011. 26. 649-656

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**Disclosure of Interest:** None Declared



## P074

### Topic: Dementia Prevention and Risk Factors

#### THE ANALYSIS OF THE RISK OF CARDIOEMBOLISM IN THE ELDERLY IN GROUP HOME

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**Are you submitting a scientific or non scientific abstract?:** Scientific

**Objectives:** The plasma EPA concentration in ischemic stroke patients especially in cardioembolism are significantly lower than those in age-matched control patients (Ikeya 2013). Atrial fibrillation increases the risk of cardioembolism. The purpose of the present study is to examine the polyunsaturated fatty acids in blood and incidences of supraventricular arrhythmias of the elderly in Group Home (GH) with reference to the risk of cardioembolism.

**Methods:** To analyze the polyunsaturated fatty acids in blood and incidences of supraventricular arrhythmias between the 29 elderly in GH and 29 age-matched control subjects, we compared the blood sample data and quantitated the incidences of supraventricular arrhythmias. The analyzed blood sample data are EPA, arachidonic acid (AA), docosahexaenoic acid and triglyceride, LDL-cholesterol, HDL-cholesterol and HbA1c. We used a non-parametric test and analyzed the factors with significant differences through a multiple logistic regression analysis.

**Results:** The multiple logistic regression analysis revealed that lower EPA and HbA1c and higher AA were specific in the elderly in Group Home. The incidences of supraventricular tachycardia or atrial fibrillation were not significantly different between the two groups.

**Conclusion:** This cross-sectional study of the elderly in GH showed significant lower plasma EPA concentration and higher AA and no significant difference in the incidences of supraventricular arrhythmias. This study and the prospective studies might lead to EPA replacement therapy for the elderly in GH.

**References:** Y Ikeya et al: Nutrition 29:127-131, 2013

**Disclosure of Interest:** None Declared

## P075

### Topic: Dementia Prevention and Risk Factors

#### COGNITIVE ACTIVITY AND THE GOAL OF CHECKMATING DEMENTIA

Robert Friedland<sup>1,\*</sup>

<sup>1</sup>Department of Neurology, University of Louisville, Louisville, United States

**Are you submitting a scientific or non scientific abstract?:** Non Scientific

**Objectives:** Cognitive activity including learning, judgment, decision making, language, visual –spatial functions, abstraction and memory are the work of the brain; just as pumping is the work of the heart. Many studies have shown that cognitive activity enhances cerebral blood flow, glucose metabolism, resistance to endogenous excitotoxic neurotransmitters, production of growth factors, and growth of new neurons. Furthermore, higher levels of cognitive activity throughout life (in childhood, mid and later years) have been associated with lower risk of cognitive decline with aging. We propose that the ancient game of chess and similar cognitively stimulating activities are beneficial to people of all ages because of enhancements to cerebral cognitive activity. Components of chess undoubtedly include abstraction, memory, spatial reasoning, judgment and constructional praxis, as well as other skills. Also, engagement in cognitive activities with others enhances opportunities for physical activity and social involvement. We propose to develop a Foundation “Checkmating Dementia” to research the effects of chess on the brain and to promote the game of chess as a way to decrease the risk of age-related dementing disorders.

**Disclosure of Interest:** None Declared



## P076

### Topic: Genetics of Dementia and Inflammatory Pathways

#### EXPRESSION OF GLUTAMINYLCYCLASE AND THYROTROPIN-RELEASING HORMONE IN BRAIN AREAS WITH ABETA-PATHOLOGY IN APP TRANSGENIC TG2576-MICE

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**Are you submitting a scientific or non scientific abstract?:** Scientific

**Objectives:** Recently, A $\beta$  peptide variants with an N-terminal truncation and pyroglutamate (pGlu) modification have been identified and shown to be highly prone to aggregation and neurotoxic. The pathogenic pGlu modification of A $\beta$  is catalyzed by glutaminyl cyclase (QC) and pharmacological inhibition of QC ameliorates A $\beta$  deposition, accompanying gliosis and improves memory in APP transgenic mouse models for Alzheimer's disease (AD) (1).

QC expression has been mainly reported in the hypothalamus, where thyrotropin-releasing hormone (TRH) is one of its physiological substrates. We recently demonstrated distinct QC expression by hippocampal neurons in mouse brain.

In addition to the hormonal role a novel neuroprotective function of the QC-substrate TRH against excitotoxicity and A $\beta$  neurotoxicity has been reported in the hippocampus and in experiments with neuronal cell lines (2, 3).

**Methods:** Immunohistochemistry was performed using specific antibodies against QC, TRH and TRH-receptor 1 (TRHR1). For quantification of QC-, TRH-, and TRHR1-mRNA in cortex, hippocampus and ventral brain of tg2576 and their wt-littermates qRT-PCR was used.

**Results:** Using double immunofluorescence labelling we detected neuronal co-expression of QC and TRH in the hippocampus of young adult wild type mice.

The qRT-PCR experiments revealed a significant increase in the expression of QC- and TRHR1-mRNA in the cortex of tg2576-mice, whereas in the ventral brain a significant decrease in the expression of QC- TRH and TRHR1-mRNA was observed.

Interestingly, in tg2576-mice we observed QC-, TRH- and TRH-R1-immunoreactivity in activated astrocytes enclosing A $\beta$  deposits.

**Conclusion:** The co-localization of QC and TRH in hippocampal neurons provides an explanation for the significant QC expression in one of the most affected brain regions in AD.

With respect to neuroprotection, it is conceivable that QC and its substrate TRH are differently regulated in brain areas with strong (cortex and hippocampus) and with low (ventral brain) A $\beta$ -pathology.

The astroglial expression of QC, TRH and TRHR1 in tg2576-mice revealed a different cellular expression in wild type mice and transgenic mice with A $\beta$ -pathology.

**References:** 1) Schilling S et al, Nature Medicine, 2008, 14, 1106–1111

2) Veronesi MC et al, Brain Research, 2007, 1128, 79–85

3) Jaworska-Feil J et al, Neuropeptides, 2010, 44, 495-508

**Disclosure of Interest:** None Declared

## P077

### Topic: How Animal Models Help Human Studies

#### MOUSE STRAIN-SPECIFIC EXPRESSION OF GLUTAMINYL CYCLASES QC AND ISOQC

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**Are you submitting a scientific or non scientific abstract?:** Scientific

**Objectives:** Glutaminyl cyclases catalyze the formation of N-terminal pyroglutamate (pGlu) from glutamine or glutamate precursors. This post-translational modification stabilizes peptide hormones, neuropeptides and chemokines. Since biochemical studies suggest an overlapping substrate specificity of QCs, their physiological specificity may arise from brain region and cell type-specific expression of QC and from their subcellular localization. Moreover, the formation of pathogenic pGlu-Aβ peptides in transgenic mouse models may depend on the expression levels of QC.

**Methods:** Immunohistochemistry employing QC- and isoQC-specific antibodies and enzymatic activity assays were used to reveal expression of both enzymes in defined brain regions of nine different mouse strains.

**Results:** QC enzymatic activity was highest in brain stem, followed by cortex and hippocampus. Immunohistochemical stainings revealed that the enzymatic activity of QCs in cortex mostly arises from isoQC. In different mouse strains, highest QC/isoQC enzymatic activities were detected in C3H and 129/sv mice and very low QC activities in CD1, SJL and C57/Bl6 mice. Quantification of QC and isoQC immunoreactive neurons demonstrated a higher proportion of isoQC neurons in Edinger-Westphal nucleus and in Substantia nigra and a slightly higher density of QC neurons in locus coeruleus of most mouse strains investigated.

**Conclusion:** These results underline the importance of appropriate mouse strain selection for studies aimed at investigating QC/isoQC physiological functions and for QC inhibition studies. Additionally, the differential expression levels of QC in defined brain regions suggest brain region-specific functions of QCs. Moreover, the pathogenic profiles in mouse strains with pGlu-Aβ pathology may depend on the expression level of QC.

**Disclosure of Interest:** None Declared





## P078

### Topic: Nutrition and Eating Behaviours

#### HYPERPHAGIC BEHAVIOURS IN COMMUNITY-DWELLING PATIENTS WITH DEMENTIA: A CROSS-SECTIONAL STUDY

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**Are you submitting a scientific or non scientific abstract?:** Scientific

**Objectives:** To survey the prevalence of hyperphagic behaviours, and examine the relationship of the hyperphagic behaviours and other characteristics in patients with dementia.

**Methods:** A cross-sectional and correlational research design was used. The participants were recruited from psychiatric, neurological and memory clinics, home care departments in teaching hospital, and day care centres in central Taiwan. The data, involving demographic characteristics, and the scores for the Mini-mental status exam, Barthel index, and the subscale for hyperphagic behaviours, were collected from 83 patients with dementia and their families from January to May 2013.

**Results:** The prevalence of hyperphagic behaviours in community-dwelling patients with dementia was 43.4%. The misidentification symptoms of patients with dementia ( $r = -0.24$ ,  $p = 0.029$ ) and caregiver gender ( $r = 0.31$ ,  $p = 0.004$ ) were significantly predictors of hyperphagic behaviours, explaining 16.2% of the variance ( $R^2 = 0.162$ ,  $F = 6.078$ ,  $p = 0.016$ ).

**Conclusion:** Patients with dementia with misidentification symptoms and are cared by female caregivers may have a higher frequency of hyperphagic behaviours. Therefore, we recommend that case managers or home care nurses should remind female caregivers of paying special attention to patients' usual eating conditions if patients with dementia have misidentification symptoms. In addition, female caregivers also need to be educated to recognise the symptoms of hyperphagic behaviours. Thus, the hyperphagic behaviours of patients with dementia may be identified earlier and be properly treated.

**Disclosure of Interest:** None Declared

## P079

Topic: Other Dementias

### CONCERNS OF PUERTO RICANS 65 YEARS AND OLDER: ADI 1066

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**Are you submitting a scientific or non scientific abstract?:** Scientific

**Objectives:** The objective of this study is to identify changes in concerns of the participants between the first and the second phase of the study and to analyze these changes according to different socio-demographic characteristics as sex, age, type of housing and cognitive status.

**Methods:** Our research is based on a convenient sample of one of the municipalities of the island with a high proportion of elderly residents, 65 years and older. In both phases the data was obtained from an interview face-to-face held at the household of the participants.

**Results:** The average age of the interviewees is 75.9 years. 63.9 per cent are women. In the second phase, information was obtained from 51.6 per cent of the first phase respondents. 13.9 per cent died between phases. 69.1 per cent of respondents in the first phase expressed some kind of concern. The most important worries had to do with health and family problems. In the second phase, the proportion of people who could not answer was higher than in the first wave.

**Conclusion:** We conclude that health issues are the most significant preoccupations for these elderly people living in the community. The increased proportion of participants who were not able to answer most of the questions of the second phase may be a sign of cognitive impairment.

**Disclosure of Interest:** None Declared



## P080

### Topic: Younger Onset Dementia

#### THOUGHTS AND FEELINGS ABOUT THE CURRENT STATE OF RESEARCH FROM THE INSIDE OUT

Richard Taylor<sup>11,\*</sup>

<sup>1</sup>I am currently unaffiliated, retired, Cypress, United States

**Are you submitting a scientific or non scientific abstract?:** Scientific

**Objectives:** Participants will learn and better understand how their research is perceived by the subjects who lives they seek to improve through their research.

Participants will learn and better understand the impact their research models impact the subjects of their research.

Participants will learn and better understand the role they play in creating “hope” in the minds and hearts of many many folks living with the symptoms of dementia and their care partners.

Participants will participate in the opening of a dialogue between themselves and those they serve and will learn and understand a model to continue the process of this working in their own laboratories.

**Methods:** Speak more than 500 times to approximately 25,000 care partners, 20,000 persons living with the symptoms of dementia and 35,000 professionals/physicians/researchers working in the field of dementia.

Listen to a random self selection of approximately 30,000 of this sampling share their understanding, concerns, and beliefs about the impact of research on their lives and the lives of those around them.

Apply my own abilities to empathize with them and draw a few limited conclusions about their reactions.

**Results:** No tables appropriate for this presentation

**Conclusion:** Please attend and find out. They share your reactions and test your own conclusions with interactions from your own staff, funders, subjects and their carepartners.

**Disclosure of Interest:** None Declared

## W01

**Date: Friday 2 May 2014**

**Session: ADI Workshop**

### **MESSAGING ABOUT DEMENTIA RISK AND PREVENTION: IT'S COMPLICATED BUT NECESSARY**

Mike Splaine, Marc Wortmann

The World Alzheimer Report will be looking at prevention and risk reduction and especially at modifiable risk factors for Alzheimer's disease and dementia. This is a topic that often gets a lot of attention and the expectations from both the media and the public are challenging. Many people hope to prevent dementia by doing one simple thing, but the science often shows it is not that simple.

In this session we want to discuss with the principle researcher, prof. Martin Prince, as well as our policy expert Mike Splaine, how to deal with these expectations and what messages can be delivered to different audiences. You will also learn more about non-modifiable and modifiable risk factors for dementia and Alzheimer's disease.



## W02

**Date: Friday 2 May 2014**

**Session: ADI Workshop**

### **USING MAINSTREAM MOVIES FOR AWARENESS AND EDUCATION**

Cathy Greenblat, Mary Mittelman, Soo Borson, Richard Taylor, John Gagnon

#### **Abstract:**

Mainstream films offer millions of people around the world an “introduction” to someone with dementia. Some of these depictions are relatively accurate, while others present information that may lead viewers to erroneous conclusions and exacerbate stigmatic beliefs and behaviors towards people with dementia. How can we, experts in dementia advocacy, research and care, use movies to increase awareness and understanding of what people with dementia are really like? Our multidisciplinary working team will review four mainstream films, discussing the good and bad lessons they present. Workshop participants will work together with us to define ways they can influence filmmakers to consult experts to assure accurate representation of dementia. We will also discuss ways to review such films and make the reviews widely known to the viewing public, using print and social media. We will explore ways to use film to present a more positive view of what can be done to effectively understand, interact with and assist those living with dementia and their family members in order to create a more dementia friendly world.

## W03

**Date: Saturday 3 May 2014**

**Session: ADI Workshop**

### **INDEP – A 10/66 DEMENTIA RESEARCH GROUP STUDY OF CARE DEPENDENCE AMONG OLDER PEOPLE**

Martin Prince, Peter Lloyd-Sherlock, Ana Luisa Sosa, Mariella Guerra, Richard Uwakwe, Zhaorui liu, Yueqin Huang

#### **Background**

This mixed methods project is nested within baseline and incidence phases of the 10/66 Dementia Research Group population-based studies in Mexico, Peru, China and Nigeria. The objective is to study whether, and if so how, the onset of care-dependence in an older household member leads to household impoverishment and vulnerability. Dementia has previously been established to be the chronic condition that contributes most to disability and needs for care among older people in low and middle income countries. Currently, the needs of older people are not prioritised within mainstream human and economic development agendas.

#### **Methods**

In the INDEP study, households with an older person who has developed needs for care (incident care households) are compared with those with older residents with long-standing needs for care (chronic dependence) and no needs for care (control households). Detailed household interviews were used to assess consumption, income and assets, including changes that might be attributable to the onset or intensification of care-dependence. Detailed case studies of selected households elucidate the pathways involved. An additional focus is intra-household effects and wider social dynamics, including factors influencing the distribution of the care burden inside and outside the household, decision-making about allocation of care, and the influence of the external policy environment.

#### **Results**

In this workshop, we will present preliminary findings from this recently completed project, testing the central hypothesis, that the onset of care dependence in an older adult constitutes an 'economic shock' impacting on the whole extended family multigenerational household.





## W04

**Date: Sunday 4 May 2014**

**Session: ADI Workshop**

### **TWINNING: WORKING TOGETHER FOR A GLOBAL SOLUTION**

Marc Wortmann

Twinning is a formal, two-way partnership between two Alzheimer associations that is characterised by mutual cooperation and responsibility for the achievement of agreed goals. Working together provides benefits to both organisations.

Established national Alzheimer associations have knowledge, experience and resources. These can be shared with the developing associations to enable them to reach a level of provision and performance that directly benefits people with dementia.

Over the years, a number of successful partnerships have been developed and these examples of good practices will provide you with an overview of the results: what went well, what were the challenges and what were the ultimate achievements?

Staff and Board members of Alzheimer associations will find this session especially beneficial as they will be able to learn from three partnerships: Pakistan and West Australia, India and United Kingdom and the most recent example, Indonesia and Netherlands.

## SATELLITE SYMPOSIUM

**Date:** Sunday 4 May 2014

**Session:** Satellite Symposium

### **RISK FACTORS FOR DEMENTIA IN LOW AND MIDDLE INCOME COUNTRIES – INITIAL FINDINGS FROM THE 10/66 DEMENTIA RESEARCH GROUP STUDIES IN LATIN AMERICA AND CHINA**

Ana Luisa Sosa, Matthew Prina, Maelen Guerchet, Cleusa Ferri, Ivonne Jimenez, Aquiles Salas, Juan Llibre Rodriguez, Daisy Acosta, Yueqin Huang, Zhaorui Liu, Martin Prince

Very few dementia cohort studies have been conducted in low and middle income countries, and the generalisability of risk factors identified in studies from high income countries is unknown. In the 10/66 Dementia Research Group population-based studies in Latin America, India and China prevalence was higher than previously suspected, when using the group's cross-culturally validated 10/66 dementia diagnosis. There is an urgent need to identify modifiable risk factors to inform prevention strategies

#### **Method**

Population-based cohort studies in urban sites in Cuba, Dominican Republic and Venezuela, and rural and urban sites in Peru, Mexico and China, with ascertainment of incident 10/66 and DSM-IV dementia three to five years after cohort inception.

#### **Results**

12,887 participants were interviewed at baseline, 11,718 free of dementia. 8,137 (69.4%) were re-interviewed, contributing 34,718 person years of follow-up. Incidence rates for 10/66 dementia varied between 18.2-30.4/ 1000 person-years, 1.4 to 2.7 times higher than those for DSM-IV dementia (9.9-15.7/ 1000 person-years). Informant reports suggested a high incidence of dementia prior to death; overall rates might be 4-19% higher if this were included. 10/66 dementia incidence was independently associated with older age, female gender, and low education, but not with occupational attainment. Literacy seemed protective even after controlling for these covariates. In this workshop, 10/66 Dementia Research group investigators will present results of recently completed analyses addressing the independent association of a) cardiovascular risk factors, b) anaemia and c) mild cognitive impairment on the incidence of dementia.

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