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Symposia

S01.01

Technological support in dementia and late life depression

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Introduction: With the growing number of elderly persons in the future, the higher morbidity among older persons and the subsequent expected increase in demands for social and health care, technological support devices are indispensable. These technologies need not be used as 'replacement for human interaction and care' but as complementing care and support (Alzheimer's Society, 2014). The assistive technologies for older people can be applied in various domains, e.g. health and self-esteem, housing and living, mobility and transport, communication and governance, and work and leisure (Van Bronswijk, Bouma and Fozard 2002) and may have impact on e.g. safety, health and quality of life (Alzheimer's Society, 2014). Current evidence shows promising results on the effectiveness, although results are sometimes mixed and the quality of the study designs is low. More research is needed, also on the cost-effectiveness (Robinson et al., 2013, Bemelmans et al., 2012, Westphal, et al., 2010, Lauriks et al., 2007). In daily practice, the use of assistive technologies by older persons is low and reasons may be the lack of information about its usefulness among professionals as well as the target group (Robinson, 2013). For technologies to be useful for and adopted by older persons with mental health problems, it is important that they are developed together with stakeholders and end-users, personalized to the needs of these users and that long-term business models are available (Alzheimer's Society, 2014; Acola, 2014; Span et al., 2013, Meiland et al., 2012).

In this symposium we will discuss assistive technologies in some of the domains mentioned above (e.g. health, communication, living) for people with dementia or with severe mood disorders and older people with disabilities. We will focus on issues like user-participatory design processes in the design of assistive technologies, their usefulness, impact on health and independent living, and dissemination.

S01.02

eCare@home - Tablet-based ambient assistance for older adults with bipolar disorder or recurrent depressive episodes

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Objectives: Studies show that depression has an unfavorable prognosis in late life, with a higher risk of relapse and chronicity than in younger populations. Bipolar disorder, though less common, accounts for 8–10% of psychiatric admissions in late life. Although e-mental health applications may be beneficial for older patients with severe mental disorders, little is known about requirements for interventions that target the needs of this specific population. In the eCare@home project, we aim to improve self-management and relapse prevention, as well as facilitate contact with care through a user-friendly tablet-computer for older patients with recurrent mood disorders.

Methods: The eCare@home system builds on an existing platform (welltogether.eu) that was designed for older adults with somatic care needs. To tap the needs of mental health patients and their formal and informal caregivers, requirements were systematically assessed through an iterative participatory design approach. End-users were interviewed at several stages before and during the developmental phase. A feasibility trial in N = 50 patients will be carried out from June 2015 onward.

Results: The user assessments revealed a need for quite drastic changes to the existing platform that was targeted at managing somatic care needs. Both clinicians and patients express the importance of respect for the patient's autonomy and need for privacy and the validation of 'normal' mood swings.

We identified three main pillars for the eCare@home system:

- Health-tracking using simple Likert scale one-item questions to detect patterns in mood, activities and sleep;

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- Providing online support from formal and informal carers through instant messaging and video-conferencing;
- Providing (individualized) information on relapse prevention, disease-management and social activities.

Conclusion:

- In building a user-friendly e-health solution for severe mental disorders in late life, less is often more.
- E-health targeted at relapse prevention in mood disorders requires a comprehension of the sloping scale between normal fluctuations and relapse.

S01.03

Monitoring and analysis of sleep patterns of people with dementia

Maurice Mulvenna; Haiying Wang; Huiru Zheng
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Objective: The quantity and quality of sleep has a direct impact on the quality of life for people with dementia and their carers. Many research questions remain to be explored: (1) How to monitor and assess the quantity and quality of sleep objectively and ubiquitously? (2) How does sleep pattern change over the course of various disease types? (3) What variables should be used to assess sleep patterns? (4) What feedback format can be used in telecare service? And (5) What support can be provided to ameliorate sleep disturbances suffered by people with dementia?
Methods:

A. Sleep measurement variables: The main interest to telecare service is to monitoring shifts in sleep patterns and to flag the unusual patterns, so as to observe the changes of clients' health condition. In this study we examine three types of sleep information: quantity, quality, and rhythm.

B. Sleep events detection: The bed sensor and the PIR sensors are triggered by the events in seconds. Events such as turning over in bed could trigger the bed sensor and the bedroom PIR sensor. To remove this type of short time trigger and extract the in-bed and out-of-bed events, various rules were applied.

C. Visualization: Visual feedback is one of the key issues in telecare systems, as telecare staff and the clients' carers may be novice ICT users.

D. The system of sleep pattern detection and visualization

Results: A total of n = 8 individual participants with dementia completed the 3 month final evaluation phase of the project with fully deployed systems. The different sleep patterns observed between the clients are consistent with the clinical observation that most people with dementia suffer sleep disturbance, have more sleep episodes and lower sleep quality.
Conclusion: It is feasible to detect unusual sleep patterns and monitor the trend of the changes. This system could also be used to provide information for the prevention of the risks of other mental health issues that might be triggered by the sleep disorder.

S01.04

Technological support for dementia and ageing

Jeffrey Soar, *School of Management & Enterprise; Faculty of Business, Education, Law & Arts, University of Southern Queensland, Australia*

Objective: To evaluate Assistive Technologies (AT) in dementia and aged-care.
Methods: Two recent AT projects will be presented: a trial of AT in dementia and a national review of AT/Telehealth projects across Australia. In the Dementia Trial (Yuginovich & Soar 2014) a convenience sample of 39 clients of Alzheimer's Queensland participated out of 60 who were selected and invited. All participants were prescribed individual items of AT, based on an Occupational Therapist assessment of individual need and functional capacity, in order to assess the value as perceived client and their carers. The carers completed a survey before and after a trial of the AT, and participated in an interview and/or focus group after the trial. Alzheimer's Queensland Occupational Therapists were also interviewed to gain their feedback on the strengths, weaknesses and general applicability of the AT for this group. The national review was of AT/Telehealth projects that involved patients (ACOLA 2014). Thirty people participated in individual or small group interviews; these were AT/Telehealth project leaders and the purpose was to understand their experiences, outcomes and learnings from the projects. This was convenience sampling in that people known to have undertaken AT/Telehealth projects were invited to participate.
Results: The AT/Telehealth projects were found to have delivered results that were consistent with the literature in terms of user satisfaction and, where appropriate, clinical benefits such as better managed care leading to reduced hospital readmissions. The national review identified factors for success of AT as 1. A market focus. 2. Expert 'champions' 3. Long-term business models 4. Recognition of new interdisciplinary players, coordination, incentives and support.

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Conclusion: The literature supports the view that there are significant benefits available for patients, families, care providers and the community through the greater adoption of appropriate Assistive Technologies. As with the experiences in many parts of the world there have been many successful pilots (Soar et al 2015) but few that have continued into regular production use or work-practices of care organisations; that needs to be the focus of future research.

S02.01

Delirium: Pre-operative cognitive impairment as a risk factor for post-operative neuropsychiatric complications

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Objective: Post-operative delirium is a common neuropsychiatric complication after a major surgery among older adults and is associated with greater morbidity and mortality, longer length of hospital stay, and institutionalization. However, the question of how much cognitive impairment or which specific cognitive deficits are associated with post-operative delirium remains. Additionally, it is unclear whether or how pre-operative cognitive impairment may modify the risk of delirium associated with various pre-operative factors or influence outcomes after post-operative delirium.
Methods: Based on recent analysis of the Johns Hopkins Hip Fracture Clinical data and the preliminary data from the Neuropsychiatric Outcomes after Heart Surgery (NOAHS) Study, the presenter will discuss the impact of mild cognitive impairment and dementia on post-operative clinical outcomes including delirium, morbidity, and mortality.
Results: Pre-operative mild cognitive impairment is a strong risk factor for post-operative delirium. Types and magnitude of predisposing risk factors for post-operative delirium substantially differ based on pre-operative cognitive status. In particular, post-operative delirium appears to have larger impact on mortality among hip fracture repair patients with pre-operative dementia than those without.
Conclusion: Preoperative cognitive assessment is important for risk stratification for prevalent delirium and other post-operative complications after major surgery among older adults. Developing strategies to prevent post-operative delirium among patients with dementia is of great public health significance.

S02.02

Innovations in delirium assessment and early results of a nurse led multi-dimensional cluster randomized trial intervention for delirium superimposed on dementia

Donna M. Fick, *Penn State College of Nursing and College of Medicine, Department of Psychiatry, Pennsylvania, United States*

Objective: Despite the poor outcomes and high prevalence of delirium superimposed on dementia (DSD), little is known about the mechanisms, modifiable risk factors and interventions for delirium in hospitalized older adults with dementia. Delirium studies often exclude or underrepresent persons with dementia, even though the prevalence of DSD is high in both community (13–19%) and hospital (40–89%) populations. This paper will present findings from a multi-dimensional trial for early detection and management of DSD, focusing on results on use of behavioral and non-drug approaches and reduction of psychoactive medications.
Methods: This was a 5-year cluster-randomized, NIH funded trial of multi-dimensional strategies to improve Early Nurse Detection and management of Delirium superimposed on Dementia (END-DSD). The intervention consisted of four elements: 1) education; 2) computerized decision support embedded within the electronic health record; 3) a designated unit champion; and 4) weekly rounding with an advanced practice geriatric nurse. The Confusion Assessment Method (CAM) measured delirium daily. The BLESSED, clinical dementia rating and GDS measured dementia.
Results: The majority of the patients (N = 391) were female (71%), white (95%), and non-Hispanic (99%). Nearly 78% had a high school education, 36% were married and 55% widowed. The average age was 84 years (SD = 6.1) and the average length of stay was 6 days (SD = 3.3). The intervention group had significantly lower numbers of medications, number of PRN medications, and number of times medications were given PRN than the control. The number of Beers medications given was lower in the intervention. For the anticholinergic (ACH) risk score, the total score, total score for PRN medications, and number of medications with an ACH score of 3 were significantly lower in the intervention than in the control group. We will also present examples of person-centered care non-drug approaches.
Conclusions: This study demonstrates successful reduction of psychoactive medications and

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increased uptake of non-drug approaches in hospitalized older adults with delirium superimposed on dementia. Person-centered care is an important goal in designing interventions, but lacks a strong evidence base. Increased understanding of this approach may lead to better quality of care and improved management of delirium in persons with dementia.

SO2.03

Preventive effects of ramelteon on delirium in patients with mild cognitive impairment or dementia

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Objective: We have reported that ramelteon, a melatonin agonist, is effective for the prevention of delirium (Hatta et al., 2014). As dementia is a risk factor for delirium, we examined whether ramelteon is effective for the prevention of delirium in patients with mild cognitive impairment or dementia.
Methods: This was a subanalysis of patients enrolled in the previously described a multi-center, rater-blinded, randomized placebo-controlled clinical trial in intensive care units and regular acute wards in four university hospitals and one general hospital. Eligible patients were 65–89 years old, newly admitted due to emergency, and able to take medicine orally. Patients were excluded from the study if they had an expected stay or life expectancy less than 48 h. Sixty-seven patients were randomly assigned using the sealed envelope method to receive ramelteon (8 mg/day; n = 33) and placebo (n = 34) every night for 7 days. The numbers of patients showing the Clinical Dementia Rating (CDR) ≥ 0.5 at baseline were 16 in the ramelteon group and 13 in the placebo group. Main Outcome Measure was incidence of delirium as determined by the DSM-IV-TR.
Results: There was no difference in the rates of patients showing the CDR ≥ 0.5 between the groups (48% vs. 38%, $P = .46$). Ramelteon was associated with lower risk of delirium among patients with CDR ≥ 0.5 (the ramelteon group, 6% vs. the placebo group, 62%, $P = .003$), with a relative risk of 0.15 (95% confidence interval (CI), 0.02–0.96), but not among patients with CDR = 0 (0% vs. 14%, $P = .24$).
Conclusion: Ramelteon administered nightly to elderly patients with mild cognitive impairment or dementia admitted for acute care may provide protection against delirium.

SO2.04

Delirium and dementia neuropathology: Population perspectives

Daniel Davis, *University College London, United Kingdom*

Though delirium is now established as a strong predictor of cognitive decline in older adults (Davis 2012; Fong 2009; Gross 2012), whether it accounts for additional, inter-related or unexplained pathological injury contributing to dementia has not been examined. It is possible that when dementia follows delirium it has a different pathological profile compared to dementia that develops without delirium. Therefore, understanding how delirium affects the evolution of dementia, in the context of a particular burden of pathology, may offer new insights into independent mechanisms explaining cognitive decline after delirium.

This talk will present new data examining a key hypothesis: that faster cognitive decline associated with delirium would act independently of the cognitive decline associated with classical dementia pathology. Accordingly, we investigated the extent to which delirium and classical dementia pathology contributed to associated cognitive decline in three unselected population-based cohort studies with neuropathology autopsy data (n = 987).

We show that people with both delirium and higher levels of classical dementia pathology demonstrate the greatest cognitive decline. Delirium, in the presence of dementia-related neuropathology, was associated with cognitive decline beyond that expected for delirium or the neuropathology itself. This means that delirium may be independently associated with pathological processes driving cognitive decline which are different from classical dementia pathology. These findings suggest new possibilities regarding the pathological correlates of cognitive impairment, positioning delirium and/or its precipitants as a critically inter-related mechanism. Showing this in three unselected samples further attests to the broad significance of these findings and their applicability to the wider population.

SO3.01

BPSD Shared Interest Forum Symposium

How to implement interventions to reduce BPSD in long term care homes

Increased attention of BPSD during the last decades has led to several research initiatives worldwide

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on pharmacological and non-pharmacological interventions and programs aimed to reduce BPSD and inappropriate psychotropic drug prescription. The current challenge is to go beyond the research phase and implement successful interventions and care programs in different countries with different organization of care for people with dementia. In sharing barriers and facilitators of implementation of effective interventions, both researchers and clinical professionals could address and discuss key elements for the implementation of successful programs to reduce BPSD on a larger scale.

Helen C. Kales (United States): The DICE Approach and the WeCareAdvisor: Tools to Assess and Manage BPSD

Sandra Zwijsen (the Netherlands): GRIP on Challenging Behavior, a Multidisciplinary Care Program for Managing BPSD in Nursing Home Residents

Daniela Holle (Germany): Dementia-Specific Case Conferences in Nursing Homes (FallDem), a Method for Analyzing BPSD in Nursing Homes

Sytse Zuidema (the Netherlands): Participatory Action Research as a Research Tool to Increase the Quality of Care and Treatment of BPSD in Nursing Homes

SO4.01

Resilience and ageing

Kathy Murphy[1]; Helen Lavretsky[2]; Gill Windle[3]; Kate Bennett[4]; Dympna Casey[1]; Karljin Joling[5]
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Overview: This symposium focuses on understanding what resilience is, the relationship between resilience and older peoples physical and mental health and the factors that promote or hinder resilience in older age. Windle (2011) defines resilience as 'the process of effectively negotiating, adapting to, or managing significant sources of stress or trauma. She argues that strengthening the assets and resources within the individual, their life and environment, 'facilitate the capacity for adaptation and 'bouncing back' in the face of adversity. Resilience is therefore a 'behavioural process' built by strengthening personal attributes and external assets. It focuses on modifiable intra-personal skills and protective factors aimed at increasing a person's 'hardiness', i.e. the ability to remain psychologically and physically healthy, or 'resilient', in the face of adversity. Originating within the field of child and adolescent developmental psychology resilience theory provided a framework to understand why some children 'bounce back' in the face of adversity while others did not. Ageing often brings many adversities and challenges for people and how people respond to these can impact significantly on their quality of life. However the extent to which resilience exists or can be cultivated and nurtured in older people or people with dementia is still relatively unknown. This symposium therefore brings together experts from a range of disciplinary backgrounds who will help untangle what resilience is, the ways in which resilience impacts on ageing and the factors that impact on building resilience in later life. Data were gathered from older people, older people who were widowed, people with dementia and their caregivers in order to illuminate resilience and identify the factors that impact on resilience building in ageing.

SO4.02

Psychological resilience: An important resource in later life?

Gill Windle, *Dementia Development Services Centre, Bangor University, Bangor Wales, United Kingdom*

Objectives: This presentation examines the role of psychological resilience in the relationship between physical health, cognitive function, ADL disability and depression.
Methods: Data were obtained through a computer-assisted interview (N = 3593 people living independently or in care facilities, age 65+) as part of CFAS Wales, a longitudinal study of health, well-being and cognitive function in Wales, UK. Descriptive and multivariate analyses examine the first wave of data.
Results: Common health problems include high blood pressure (46%) and arthritis (53%). 12% (N = 398) had moderate/severe ADL impairment; 26% scored <25 on the MMSE, indicating impaired cognitive function. 7% reported feeling depressed often/all the time. 54% scored = /> the median score (74) on psychological resilience. The determinants of resilience are examined. Process analyses finds a range of small but significant indirect effects of ill-health and cognitive function on a) disability and b) depression, through psychological resilience.

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Conclusions: Psychological resilience may be a useful resource for mitigating the negative impact of ill-health on disability.

SO4.03

Resilience in family caregivers of persons with dementia

Dympna Casey; Karlijn J Joling
VU University Medical Centre, VU University Medical Centre, Amsterdam, Netherlands

Objective: This presentation will describe the findings of studies focused on the factors that impact on the resilience of people with dementia and carers. Study one was a longitudinal study that examined the ways in which carers demonstrate resilience, the determinants of their resilience, and tested the extent to which resilience is related to carers' health outcomes. Study two was a descriptive qualitative study undertaken with people with dementia exploring factors that impacted on resilience building.
Methods: In study one data were derived from four longitudinal studies including 1,311 family caregivers of people with dementia. Caregivers' resilience was defined as having relatively low levels of care distress in the face of high care demands at baseline. Regression analyses were performed to identify significant determinants of resilience and test its relationship with caregivers' health over time. In study 1:1 semi-structured interviews with a purposive sample of eight (n = 8) persons with mild dementia were undertaken. All interviews were recorded and transcribed. Transcripts were analyzed for themes using the constant comparative technique and Windle's (2012) resilience framework was used to guide analysis. The criteria identified by Lincoln and Gugba (1985) were used to ensure rigor.
Results: Preliminary findings indicate that internal and external factors influenced participant's resilience. Study one identified cohabiting status, a good quality of the carer-patient relationship, sense of competence, mastery, use of day care and carer mental health as significant determinants of resilience across samples. Between 29 to 61% of all caregivers demonstrated high resilience levels for each adversity. Baseline resilience was not significantly related to changes in carers' mental health or quality of life over time. Study two identified personal factors, enduring relationships, social support and community engagement as important.
Conclusion: Resilience in carers was present across multiple studies, even if operationalized in different ways. Further research is needed to test the robustness of our findings. It was also evident that people with dementia have the capacity to be resilient and that building resilience matters.

SO4.04

Resilience in older widowed people: Applying an ecological framework

Kate Bennett, *Psychological Science, University of Liverpool, Liverpool, United Kingdom*

There is growing interest in resilience amongst widowed people. However, much of the work has focused on quantitative analyses and on bereavement rather than qualitative work focusing on the longer-term effects of widowhood.
Objective: This study examined resilience amongst older widowed people using qualitative methods. The following definition of resilience was utilised: "the process of negotiating, managing and adapting to significant sources of stress or trauma. Assets and resources within the individual, their life and environment facilitate this capacity for adaptation and 'bouncing back' in the face of adversity" (Windle & Bennett, 2011).
Methods: Twenty-eight in-depth interviews of older widowed people were undertaken which focused on resilience. Utilising an ecological framework (Windle & Bennett, 2011), factors that promote or hinder resilience were examined.
Results: Fifteen participants were found to be resilient while thirteen were not. Individual, community and societal level resources that facilitate or hinder resilience were identified. Key factors included psychological characteristics, social support, and religious faith. The presentation will also discuss the methodological challenges in researching resilience, these include operationalizing resilience and identifying factors in the ecological system. The advantages and disadvantages of a binary classification for resilience will also be described.
Conclusion: Building resilience matters to quality of life and ways of supporting those widowed people who were not yet resilient to become so need to be developed.

SO4.05

Resilience in late life mood and cognitive disorders

Helen Lavretsky, *Psychiatry, UCLA, California, United States*

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Objectives: This presentation will focus on the definitions of resilience and resilience –building interventions in the context of late life mood and cognitive disorders. Resilience is a dynamic characteristic of the interaction between individuals and their environments, this construct can be fostered in both younger and older individuals, and consequentially leads to better outcomes for medical and mental disorders that come with aging.
Methods: Resilience enhancing interventions include wellbeing therapy, learned optimism training, hardiness training, all of which focus on positive aspects of difficult experiences thereby promoting more positive perceptions of challenges. Lifestyle factors such as diet, exercise, spirituality can enhance resilience by creating physical and mental wellbeing. The summary and several studies of complementary and integrative medicine (CIM) will be reviewed that allow a holistic approach to wellness which encompasses varied approaches to wellness including mind-body therapies (e.g., yoga, meditation, Tai Chi, Qi-Gong).
Results: Neuroimaging studies demonstrate neural substrates including the prefrontal cortex, hippocampus, amygdale, anterior cingulate as forming a pathway for resilience. Inflammatory mediators may constitute a link between lifestyle factors, infection, and the physiological changes of aging on the one hand and risk factors for age-associated diseases on the other and could serve as targets or biomarkers for resilience-building interventions.
Conclusion: Resilience- building interventions can enhance successful and aging and help prevent late-life mood and cognitive disorders.

SO5.01

Frontotemporal dementia and related disorders: Neuropathology of amyotrophic lateral sclerosis and frontotemporal lobar degeneration – an update

Yolande A. Pijnenburg[1]; Johannes Brettschneider[1]; Kelly Del Trecidi[2]; Heiko Braak[2]; Virginia Lee[3]; John Trojanowsky[3]; Albert Ludolph[2]
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Amyotrophic lateral sclerosis (ALS) is a devastating neurological disease that leads to death in 2–3 years. The defining pathology in the majority of ALS patients and in the largest subgroup of cases with frontotemporal lobar degeneration (FTLD) is the presence of neuronal aggregates of 43-kDa TAR DNA-binding protein (TDP-43) [1]. A smaller subgroup shows superoxide dismutase 1 (SOD1)-positive inclusions. Progressive accumulation of similar protein aggregates by a potentially self-propagating prion-like process is a characteristic feature of many neurodegenerative diseases [2]. However, studies demonstrating the seeding and propagation of TDP-43 are very limited to date. Preliminary data by our group indicates that TDP-43 could spread along corticofugal projections from the agranular neocortex, spinal cord, and brainstem somatomotor neurons to prefrontal and basal ganglia structures until it finally reaches anteromedial portions of the temporal lobe [3]. For FTLD-TDP presenting as behavioural variant FTD, a stereotypical pattern of TDP-43 dissemination was also recently proposed by our group [4]. However, we still do not know what characterizes the biochemical profile of TDP-43 at different stages of pathology, where and how TDP-43 aggregation begins in very early stage ALS, or how it compares to propagation of other disease-related proteins, such as SOD1. Finally, our recent proposal of 4 stages of TDP-43 pathology prompts the question whether these stages can be reproduced *in vivo* and whether they can be translated to an *in vivo* context for monitoring ALS disease progression.

SO5.02

Frontotemporal dementia and related disorders: FTD and ALS

Albert Ludolph[1]; Yolande Pijnenburg[2]
[1]*Ulm, Germany;* [2]*Alzheimer Center, VU University Medical Center, Amsterdam, Netherlands*

The relation of frontotemporal dementias and ALS was first described by Otto Dornblüth in 1889. After being temporarily forgotten in the scientific literature, Manuela Neumann´s discovery of TDP43 clarified the close molecular relation. According to recent molecular neuropathological results, including staging studies, we can distinguish:

a) Milder frontotemporal deficits that occur in the disease which primarily presents with upper and lower motor neuron deficits ("traditional ALS"). In these patients predominantly executive deficits are observed whereas behavioural changes are less frequent.
b) Frontotemporal dementias which start with behavioural and cognitive symptoms. In an unknown, but significant proportion this disease results in a rapidly progressive disease of the motor neurons ("FTD-ALS").

Genetically, the close relation of both clinical phenotypes is clearly shown by the C9ORF72

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mutations, the recently discovered gene TBK1 is further evidence for ALS and FTD being a part of a phenotypical spectrum of genetic changes. ALS and FTD, however, can still be clinically distinguished by its phenotype, clinical course, and its initiation and propagation pattern. It will be an interesting task of the future to show the modifying factors which result in a disease being initiated at the orbital frontal cortex on one side and in the motor cortex on the other side.

SO5.03

Frontotemporal dementia and related disorders: Diagnostic accuracy of the FTD consensus criteria in the late onset frontal lobe syndrome

Jort Vijverberg[1]; Annemiek Dols[2]; Yolande A. Pijnenburg[1]

[1]*Alzheimer Center, VU University Medical Center, Amsterdam, Netherlands;* [2]*Old Age Psychiatry, GGZ InGeest, Amsterdam, Netherlands*

Background: Consensus diagnostic criteria for the behavioral variant of frontotemporal dementia (bvFTD) have recently been revised (Rascovsky et al., 2011). Although this has yielded improved sensitivity (76% for *probable* bvFTD and 86% for *possible* bvFTD, respectively), the specificity of the new criteria remains unknown. The aim of our study was to assess accuracy of the diagnostic criteria for bvFTD in a cohort of patients presenting with frontal behavioral change in late adult life (the late onset frontal lobe syndrome (LOF)).
Methods: Fulfillment of Rascovsky diagnostic criteria for *possible* and *probable* bvFTD was assessed at baseline in 137 subjects that had been included in the LOF study, a multicenter follow-up study with a symptom based inclusion. The clinical /genetic/post-mortem diagnosis after 2 years follow-up was used as the gold standard. Sensitivity and specificity for *possible* and *probable* bvFTD were calculated. Moreover, sensitivity and specificity of the individual behavioral criteria for bvFTD were determined.
Results: Clinical diagnosis consisted of bvFTD (43%), other neurological diseases (26%) and psychiatric disorders (31%) with mood disorder as the most prevalent disorder. The consensus diagnostic criteria had a sensitivity of 90% but a specificity of 25% for *possible* bvFTD. Specificity of the consensus diagnostic criteria was 78% for *probable* bvFTD. Concerning the individual behavioral items, early perseverative behavior had a high sensitivity (100%), whereas hyperorality / dietary changes had the highest specificity (75%) at the cost of sensitivity (74%).
Conclusion: When a subject presents with frontal behavioral change, the new diagnostic criteria for bvFTD offer only moderate specificity, due to large symptomatic overlap. Also, the presence of functional decline and frontotemporal neuroimaging abnormalities, obligate for a diagnosis of *probable* bvFTD, is not highly specific for bvFTD. Therefore, there is a need for complementary biomarkers as well as systematic psychiatric evaluation in the work-up of bvFTD diagnosis.

SO5.04

Frontotemporal dementia and related disorders: Towards a diagnostic paradigm for behavioral variant frontotemporal dementia

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Introduction: The differential diagnosis of the behavioral variant of frontotemporal dementia (bvFTD) mainly consists of other dementias, such as Alzheimer's disease (AD) and psychiatric disorders, such as depression and schizophrenia. Whereas imaging and cerebrospinal fluid biomarkers have paved the way for a better distinction between bvFTD and AD, the distinction between bvFTD and psychiatric disorders still forms a diagnostic dilemma. The aim of our study is to develop a diagnostic paradigm for bvFTD.
Methods: In a naturalistic prospective multicentre study 137 patients (aged 45–75 years, 72% males) with a late-onset frontal lobe syndrome (LOF) we systematically rated behavioural changes using the Frontal Behavioral Inventory (FBI) and the Stereotypy Rating Inventory (SRI). Mood was assessed using the Montgomery Asberg Depression Scale (MADRS). Diagnoses were established in a multi-disciplinary consensus meeting based upon elaborate neuropsychological testing, MRI, 18F-FDG-PET, CSF biomarkers and clinical examination by a neurologist and a psychiatrist. The effect of both behavioral parameters and additional investigations on the eventual clinical diagnosis was examined.
Results: Clinical diagnosis consisted of bvFTD (43%), other neurological diseases (26%) and psychiatric disorders (31%) with mood disorder as the most prevalent disorder. To distinguish bvFTD from psychiatric disorders, the MADRS,

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the SRI and the positive subscale of the FBI were most helpful. Both MRI, FDG-PET and CSF biomarkers contributed to the diagnostic process. Whereas CSF has been advocated to rule out AD, it can also be used to support the presence of a non-AD neurodegenerative disorder in the diagnostic process of bvFTD.

Conclusions: The multidisciplinary diagnostic paradigm of bvFTD should contain the most distinguishing clinical behavioral measures in combination with MRI, FDG-PET and CSF biomarkers.

S06.01

IPA Long Term Care Shared Interest Forum Symposium

Optimizing the use of psychotropic medications in long term care homes

David Conn, *Canada;* Sytse Zuidema *Netherlands;* Juanita Westbury, *Australia*

The optimal use of psychotropic medications in long term care homes around the globe remains very challenging. There is evidence to suggest that rates of prescription of various groups of psychotropics remain high in almost all countries although a "gold standard" remains elusive. We will review the latest data with regard to pharmacoepidemiology, as well as attempts to define appropriate use of these medications. Concerns have been focused primarily on rates of use of antipsychotic medications and some countries have set targets for reduced rates of use. We will review data on a variety of interventions focused on optimal prescribing, including educational and psychosocial approaches. These will include recent results from projects in the Netherlands and Australia.

S07.01

Does disturbed sleep promote Alzheimer's disease pathology?

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Historically, studies of the link between sleep disturbance and Alzheimer's disease (AD) focused on the significantly disrupted sleep exhibited by persons with AD (Vitiello et al., 1990) and investigated AD-related changes in the brain that accounted for alterations in sleep (Swaab et al., 1985). More recent research, however, suggests that disturbed sleep not only results from AD-related changes in the brain (Roh et al., 2012), but that poor sleep may actually promote cognitive decline and AD pathology. A 2009 study in an AD mouse model showed that sleep deprivation increases beta-amyloid (abeta) deposition (Kang et al., 2009), and this has recently been demonstrated in a *Drosophila* model of AD (Tabuchi et al., 2015). Investigations in humans also suggest connections between sleep disturbance and AD pathology. A study using wrist actigraphy found that cognitively normal individuals with poorer sleep efficiency (who spend a smaller proportion of their time in bed asleep) and greater sleep fragmentation have lower levels of cerebrospinal fluid (CSF) abeta, suggesting greater amyloid burden in the brain (Ju et al., 2013). Similarly, shorter sleep duration and poorer sleep quality, both measured by self-report, have been linked to greater brain abeta deposition, measured by positron emission tomography (Spira et al., 2013).

Although the mechanisms that might link disturbed sleep and AD are not yet well understood, two candidate mechanisms have been put forward. The first is based on the notion that slow-wave sleep serves to reduce synaptic strength that accumulates with time spent awake (Tononi and Cirelli, 2006). Given findings that elevated neuronal activity enhances production of abeta (Bero et al., 2011; Cirrito et al., 2005; Kamenetz et al., 2003), it has been suggested that sleep loss promotes abeta deposition by preventing this downscaling (Ju et al., 2014). Second, a recent study in mice demonstrated that a "glymphatic system" that flushes toxic metabolites, including abeta is more active during sleep (Xie et al., 2013). The authors suggested that sleep loss might contribute to abeta deposition by preventing glymphatic system activation. While further research in this area is needed, sleep disturbance may be a modifiable risk factor for AD.

S07.02

Transitional state from idiopathic REM sleep behavior disorder to dementia with Lewy bodies – a challenge to sleep medicine and psychogeriatrics

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REM sleep behavior disorder (RBD) is a relatively newly-defined parasomnia characterized by dream-enacted and potentially harmful behaviors during REM sleep (Schenck et al, 1986). Typically the patients are mostly men in their 60s or 70s, and come up to sleep clinicians after they or their bed partners have some injury. In order to confirm the diagnosis, polysomnography with continuous video-recording is required to prove intermittent/sustained loss of the skeletal muscle atonia of REM sleep (REM sleep without atonia [RWA]). As there have been experimental animal models for RBD/RWA produced by bilateral pontine tegmentum lesions (Sastre et al. 1979, Lu et al. 2006), anecdotal reports of RBD in patients with a discrete brainstem lesion might be best explained by these models. However, there has been accumulating evidence that about half of RBD cases were associated with neurological disorders, especially neurodegenerative diseases pathologically known as syncleiopathies (Parkinson's disease [PD], dementia with Lewy bodies, and multiple system atrophy [MSA]). In addition, it has been shown that a substantial number of idiopathic RBD (iRBD) patients eventually developed Parkinsonian diseases with/without unequivocal dementia (Boeve et al. 2007). Based on this data, the DLB Consortium revised diagnostic criteria for DLB, including RBD as suggestive clinical features in 2005. In addition, extensive studies revealed that apparent iRBD patients had various non-motor symptoms and abnormalities that were also seen in PD or DLB. It is an intriguing idea that RBD/RWA could be one of the early markers of DLB in that it may ultimately lead to disease modifying treatment from the perspective of Psychogeriatrics.

On the other hand, from the viewpoint of sleep medicine, we have no consensus about how sleep clinicians should manage this transitional state from iRBD to DLB. Sleep specialists usually see relatively healthy iRBD patients with no cognitive, psychiatric, or neurological signs and symptoms. They presented themselves as apparent iRBD with two worrying health risks: harmful nocturnal behaviors and possible future conversion to neurodegenerative diseases. 40–50% of the apparent idiopathic RBD patients developed a neurodegenerative disease with an interval of around 11 years (Schenck et al. 1996, Iranzo et al. 2006), but we do not have established methods to predict the time of conversion. As patients with the confirmed diagnosis of DLB show various symptoms antedating the onset of dementia (Fujishiro et al, 2013), sleep clinicians should expect diverse course of their progression. Collaboration between geriatric psychiatrists and sleep specialists is very important to early detection of DLB as well as to efficient intervention.

SO7.03

Melatonin as a treatment option in neurodegenerative disorders

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Circadian rhythms are everywhere. They seem to constitute the evolutionary result of adaptation to the most influential everlasting recurring event in nature: earth rotation, accompanied by the 24-hour rhythm of light/dark and warm/cold (Pittendrigh, 1993). Ten percent of human genes express in a clear 24-h-rhythm (Mohawk et al., 2012). Thus, organs and biological systems are driven in a 24-h-manner and it seems that the coordination of these rhythms are a prerequisite of proper biological functioning (Archer et al., 2014).

The 24-h-variation – called amplitude – of circadian rhythms is reduced in aging and even more so in neurodegenerative disorders (Wu and Swaab, 2007; Videnovic et al., 2014). Nevertheless, it remains unclear whether this reduction in amplitude is a sign of healthy aging or a disturbance by its own.

The two major zeitgebers to the circadian timing system are light and darkness. The timing here is of utmost importance. Light in the morning will strengthen the system, whereas light in the evening or night time induces the opposite. With darkness it's the other way around (Kunz and Mahlberg, 2004).

In the presentation I will introduce the basic mechanisms of the circadian timing system in humans, its changes with age and dementia as well as the influence of light and melatonin – as a signal of darkness (Swaab et al., 1985). Moreover, existing data on the effects of melatonin in Alzheimer's dementia as well as REM sleep behavior disorder (RBD) – as a predictor for synucleinopathy – will be presented. Today melatonin is considered to be therapy of choice in RBD (Kunz and Mahlberg, 2010; Boeve et al., 2015; Howell and Schenck, 2015). Future needs to show whether treatment of RBD with melatonin may influence conversion to synucleinopathy. With respect to Alzheimer´s disease, melatonin may prove to be a benefitial agent with low side effects to improve nighttime agitation (Mishima et al., 2000; Mahlberg et al., 2008; Mahlberg et al., 2004).

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S07.04

The role of photoreception and light intervention for sleep and neuropsychiatric disturbances in the elderly

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Light exerts influences on many physiological and behavioural functions in humans. These functions can be described as image-forming (IF) and non-image forming (NIF) visual processes, both originating in the retina of the eye. Image-forming refers to vision; the process of detecting and distinguishing shape and colour of objects. Non-image forming refers to detecting level of light intensity or brightness of ambient space, which affects basal physiology such as cycles of rest-activity. Rod and cone photoreceptors in the outer retinal layer are most important for image-forming vision, while non-image forming functions depend upon additional input from the photopigment melanopsin, which is expressed in retinal ganglion cells (RGC) that makes these cells photosensitive (pRGC) (Hattar, et al. 2002). Projections of these pRGCs convey light-induced impulses to a number of brain regions to exert their influence on vital functions such as alertness and sleep. Aging has effects on visual processing systems; most noticeably it diminishes visual acuity and colour contrast. The reduction in light transmission to the retina through increased spectral absorption by the aged lens, particularly at the blue end of the spectrum, also impairs NIF light detection, which may manifest as a change in sleep-wake patterns or daytime sleepiness (Cuthbertson, et al. 2009).

The ability of humans to manipulate their light exposure has the immediate potential to either create problems with human physiology (as in shift workers) or to compensate physiological disadvantages (of IF and NIF visual impairment). Studies for improving sleep and psychiatric disturbances using light therapy show inconsistent results for older individuals (Forbes, et al. 2014; Scheuermaier, et al. 2010). Since photoreceptors are not equally sensitive to light and photometric light measures are based on cone but not pRGC photoreception, these incomplete methods make it difficult to compare findings. Recent developments in light emitting diodes (LED) permit lighting designs that consider the spectral sensitivity of pRGCs and opens up solutions of dynamic lighting. With improved equations to quantify the effective irradiance for each of the photoreceptive inputs (Lucas, et al. 2014), it may be possible to predict the NIF impact of a given illuminant in future based on its spectral composition and intensity.

S08.01

Psychogeriatric SOS: A new e-health clinician-to-clinician model for rural, remote and under-resourced populations

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The biggest challenges in health care today are related to the ageing population, the increasing prevalence of chronic disease, the tyranny of distance in rural and remote areas, and escalating costs. In Australia, specialist mental health services for older people are significantly under-resourced in rural and remote areas, and the existing models of service delivery are relatively expensive and inefficient. Psychogeriatric SOS provides a means to improve the response of existing rural old age psychiatry and other aged care services to older people with mental health problems and dementia; and it provides an operational model for the effective use of e-health technology to achieve better outcomes for those rural-dwelling older people. The model involves using e-health technology to bring multidisciplinary expertise to rural and remote health clinicians who need assistance managing older people with mental health problems, mental illness and dementia. We use web-conferencing technology to provide individually tailored clinical guidance, education, case review and multidisciplinary case-conferencing to build up-skill rural clinicians, and build capacity in rural areas. We have engaged in initial evaluation of this service and are making evidence-based plans for future practise in this new model of care.

S09

Young Onset Dementia Shared Interest Forum Symposium

Towards recommendations on terminology and research priorities

The IPA shared interest forum (SIF) on Young Onset Dementia (YOD) published a special issue of International Psychogeriatrics in December 2014, with more than 10 papers regarding research on

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YOD. The SIF now faces new challenges. As was argued in the editorial of the special issue, there is a need for consensus on terminology and recommendations for research priorities. In this symposium new research-data will be presented from Austrralia, Norway and the Netherlands. The presentation will address psychotropic drug use, needs of children, caregiver issues, risk factors and head trauma.

SO9.01

Adult children of parents with young-onset dementia narrate the experiences of their youth through metaphors

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Background: Limited research exists about the development and needs of children of parents with young-onset dementia (<65 years old). There is scarce knowledge of how they experience the situation of growing up with a parent with dementia. This study investigates the stories of children of persons with young-onset dementia (YOD) and interprets their metaphorical expressions of their experiences as a source of understanding their situation and needs during the development and course of their parent's dementia.
Method: Qualitative interviews with 14 informants (aged 18–30 years; 9 daughters, 5 sons) were conducted in 2014 and subsequently analysed by the informants' use of metaphors. Steger`s three step method for analyzing metaphors was applied.
Findings: The analysis identified four themes of the metaphors: the informants' relations to the disease, to the self, to the parent, and to the others. From these themes, four core metaphors were abstracted: my parent is sliding away, emotional chaos, becoming a parent to my parent, and a battle.
Conclusion: The study revealed that growing up with a parent with dementia has a great impact on the children`s situation and their experiences of their personal development. Children of a parent' with YOD are a group with unmet needs for support. A formalized system where the children can get into contact with service providers to receive tailored information and individual follow-up needs to be established. The service providers must listen to the children`s stories, perceive how metaphors convey their experiences, and recognize their need for support for their own development.

SO9.02

Care needs and experiences with the use of services of people with young onset dementia and their caregivers

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RHAPSODY Consortium *Heather Gage, University of Surrey; Bruno Dubois, Université Pierre et Marie Curie, Alexandre de Mendonça, University of Lisbon, Caroline Graff, Karolinska Institutet, Sabine Jansen, Deutsche Alzheimer Gesellschaft, Volker Zimmermann, IMC Information Multimedia Communication AG*
Marjolein E. de Vugt, MSc, PhD School *for Mental Health and Neuroscience, Alzheimer Center Limburg, Maastricht, University Medical Center, Maastricht, the Netherlands*

Objective: Dementia is often associated with advancing age. However, in approximately 6–9% of all cases the onset of dementia is before the age of 65, resulting in additional problems specifically related to a younger age. Dementia services are often specifically designed for the elderly and might have difficulties in addressing the needs of younger individuals. In RHAPSODY, an international JPND study, the following topics were investigated in a cross national design: (1) the care needs of both people with YOD (pwYOD) and their informal caregivers; (2) their experiences with access to services and care; and (3) their experiences with the use of these services.
Methods: Firstly, a systematic literature review was conducted to investigate the research questions. Simultaneously, 18 semi-structured interviews with caregivers of pwYOD were analysed using inductive

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content analysis to explore the situation in the Netherlands. Lastly, with these findings we constructed a categorization matrix which was used to explore and compare the needs and experiences with available services across 5 European countries with focus groups.

Results: Preliminary findings revealed the following themes: (1) Dealing with behavioral changes, (2) Regaining and maintaining balance in the caring situation, (3), Changing relationships and a family centered approach, (4) Availability of appropriate services and unmet needs, (4) Worries about the future, (5) Need for timely diagnosis, (6) Need for information, (7) Barriers in access to care and asking for help.

Conclusion: Knowledge about these themes is an important prerequisite for the development of appropriate care and support. There is a lack of fit between the available health care services and the needs of pwYOD and their family members. The diagnostic process is often very challenging, delaying the initiation of appropriate care. More tailored information and practical support is needed to enable YOD families to cope with the disease and its consequences. It is preferred that service providers adapt a family–centred approach.

S09.03

Prevalence and correlates of psychotropic drug use in Dutch nursing home patients with young onset dementia

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Background and aim: Neuropsychiatric symptoms in dementia patients are common and are often treated with psychotropic drugs. Thus far studies on psychotropic drug use (PDU) focused on elderly with dementia (Nijk, Zuidema, & Koopmans, 2009). The aim of this study was to determine the prevalence and correlates of PDU in Dutch nursing home patients with young-onset dementia.

Methods: This study was part of the BEYOnD-study (Behavior and Evolution in Young-Onset Dementia) (Mulders, Zuidema, Verhey, & Koopmans, 2014), a cross-sectional study where PDU of 230 patients on 21 young-onset dementia special care units of 8 nursing homes was registered. Drugs were categorized according to the Anatomical Therapeutical Chemical (ATC) classification. The influence of age, gender, severity of dementia (measured by the Global Deterioration Scale GDS), type of dementia, neuropsychiatric symptoms (measured by the Neuropsychiatric Inventory-Nursing Home version NPI-NH), agitation (measured by the Cohen-Mansfield Agitation Inventory CMAI) on psychotropic drug use was analyzed using binominal logistic regression analysis.

Results: 87% of the patients used at least one psychotropic drug and 50% used an antipsychotic. Psychotropic drug use was positively associated with male gender and patients with very severe dementia. PDU varied significantly between the dementia subtypes, with the highest prevalence in alcohol related dementia and the lowest in frontotemporal dementia. PDU was significantly correlated with neuropsychiatric symptoms. Patients with apathy used significantly less psychotropic drugs. Antipsychotics were most frequently prescribed in patients with agitated and aggressive behavior. The use of anxiolytics was associated with severity of dementia, alcohol related dementia and night-time behavior. Antidepressants were most frequently prescribed to patients with depressive symptoms and eating changes. Sedatives were used more by females, alcohol related dementia patients and night-time behavior and used less by patients in GDS stage $\leq$4 and apathy.

Conclusion: Nursing home patients with young-onset dementia have a high prevalence of psychotropic drug use. The association with neuropsychiatric symptoms raises questions of efficacy of these drugs and the risk of chronic use. To our knowledge, this study is the first to describe prevalence and correlates of psychotropic drug use in patients with young-onset dementia. This could provide a stimulus for more research and focus on non-pharmacological treatment of challenging behavior in young onset dementia.

S09.04

Head knocks and hard times: Is there a link between head injury and young onset dementia?

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Objective: There has been much recent interest concerning links between head injury and the early

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onset of dementia, particularly given the high profile deaths of a number of athletes showing behavioural and cognitive signs as well as pathological brain changes at autopsy. This presentation will review the current evidence for an association between head injury and dementia, including data from the Inspired Study of younger onset dementia (YOD).
Methods: Published research (Medline, Cinahl, Informit) was systematically reviewed. Search terms included dementia, cognitive impairment, cognitive decline, Alzheimer's disease, head injury, brain injury, chronic traumatic encephalopathy (CTE), and dementia pugilistica. Data was also examined from the Inspired Study, an epidemiological, mixed methods study of people with YOD. Participants were recruited via health care professionals, local Alzheimer's Associations, or self-referral. Information was collected from in-depth interviews as well as a review of medical case notes.
Results: Neurodegeneration in older athletes in the form of increased tau deposits (CTE) has been observed on PET brain imaging and is associated with cognitive and neuropsychiatric symptoms. There are certainly overlaps with other dementia syndromes that need to be evaluated to see if CTE, requiring a history of head injury, is a unique condition. The Inspired Study has found higher rates than expected of prior head injury in a sample of people with YOD; 27.4% of YOD participants have sustained a previous head injury resulting in loss of consciousness and/or fractured skull, with 42% of these from sporting injuries, versus 5.7% in an Australian community sample (Anstey et al., 2004).
Conclusion: Though there is significant interest in this area and preliminary evidence is thought provoking, it remains difficult at the current time to establish causal links between head injury and dementia based on available evidence and given a lack of longitudinal, prospective studies.

S10.01

Tau PET imaging with THK tau tracers

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Objective: Recent progress in the development of tau-selective PET tracers enabled non-invasive visualization of neurofibrillary pathology in the human brain (Okamura et al., 2013). The amount and spatial distribution of tau tracer binding in the brain is closely associated with neurodegeneration and cognitive symptom of dementia (Okamura et al., 2014; Harada et al., 2015). Therefore, tau PET imaging is expected to be useful for tracking disease progression, assessing disease severity, and accurately predicting dementia prognosis. The purpose of this study was to assess the clinical usefulness of THK tau PET tracers.
Methods: Subjects with Alzheimer's disease, mild cognitive impairment and healthy controls underwent [^{18}F] THK-5351 and [^{11}C] PiB PET scans. Standard uptake value ratios between 50–60 minutes post injection for THK-5351 was calculated using the cerebellar cortex as a reference region.
Results: Subjects with mild cognitive impairment showed higher THK retention in the fusiform gyrus, inferior temporal and parietal cortices than healthy control subjects. Patients with Alzheimer's disease showed higher and more extensive neocortical THK retention than subjects with mild cognitive impairment. Insome cognitively normal individuals, THK retention was mildly elevated in the inferior temporal area. THK retention in the parahippocampal and fusiform gyrus, inferior temporal and parietal cortices was correlated with clinical severity of dementia.
Conclusion: THK-5351 enables sensitive and selective detection of neurofibrillar pathology in Alzheimer's disease. Tau PET imaging with this tracer could be employed to study longitudinal tau deposition in normal aging and pathological process of Alzheimer's disease.

S10.02

Tau imaging in dementia – challenges and achievements

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Over the last 10 years, imaging of beta-amyloid plaques with positron emission tomography (PET) has contributed greatly to a better understanding of the development of Alzheimer's disease, enabled therapy trials in preclinical and prodromal AD, improved subject selection and monitoring of target engagement in AD trials, and been approved to assist clinical diagnosis. In contrast, effective tau imaging tracers have only become available in the last year or two. At present there are two tau tracers in large cohort studies (AV1451 and THK5351) while several companies have additional tau tracers at various stages of development. Imaging tau will provide novel insight into the relationship of tau aggregation to beta-amyloid, cognitive decline and neurodegeneration in AD.

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It promises better diagnosis of a range of tau related neurodegenerative diseases including AD, progressive supranuclear palsy, chronic traumatic encephalopathy, corticobasal degeneration, some forms of fronto-temporal dementia, tangle predominant dementia, argyrophilic granule disease and primary age related tauopathy. Tau imaging will assist subject selection and treatment monitoring for therapy trials. To date, tau imaging has shown a strong correlation with cognitive function, hippocampal and cortical atrophy, and a different cortical distribution to the amyloid tracers. It has already been incorporated into several large, therapy trials. Sites of "off-target" binding have been identified that may limit application under some circumstances. To fully determine the diagnostic and prognostic value of tau imaging will require several more years of work in longitudinal cohort studies and ultimately post-mortem correlation.

S10.03

Tau pet imaging in neurodegenerative dementias

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Objective: A critical unmet need for neurodegenerative dementia research, especially therapeutic trials, is the development of biomarkers to identify and localize pathological forms of tau in living patients. We are working toward imaging tau pathology in vivo using PET in patients with a variety of neurodegenerative dementias.
Methods: We are using [18F] T807, a novel PET ligand, to scan a series of patients with Alzheimer's disease from the MCI stage to the dementia stage; patients across the spectrum of Frontotemporal Lobar Degeneration, including patients with genetic mutations, and those with sporadic forms of these illnesses including primary progressive aphasia (PPA), progressive supranuclear palsy (PSP) and corticobasal syndrome (CBS). We analyzed SUVR (cerebellum reference) data to localize and quantify [18F] T807 signal. We also co-registered analyzed [18F] T807 images to MRI images for visualization and calculation of % atrophy relative to controls.
Results: [18F] T807 signal is elevated in a manner predicted from what is known about tau pathology in MCI and AD, and in patients with MAPT-related FTLD and patients with PSP and CBS. The localization and magnitude of T807 signal relates strongly with regional atrophy and hypometabolism. Surprisingly, we also have seen elevated signal in a series of semantic variant PPA patients who would be expected to be more likely to have TDP43 pathology.
Conclusions: T807 is a promising new PET ligand for imaging tau pathology in vivo in patients with neurodegenerative dementias.

S11.01

Cognitive and functional status predictors of delirium and delirium severity after coronary artery bypass graft surgery: An interim analysis of the Neuropsychiatric Outcomes after Heart Surgery study

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Background: Cognitive and functional impairment increase risk for post-coronary artery bypass graft (CABG) surgery delirium (PCD), but how much impairment is necessary to increase PCD risk remains unclear.
Methods: The Neuropsychiatric Outcomes after Heart Surgery (NOAHS) study is a prospective, observational cohort study of subjects undergoing elective CABG surgery. Pre-operative cognitive and functional status based on Clinical Dementia Rating (CDR) scale and neuropsychological battery are assessed. We defined MCI based on either 1) CDR global score of 0.5 (CDR-MCI) or 2) performance 1.5 SD below population means on any cognitive domain based on neurocognitive battery (MCI-NC). Delirium was assessed daily post-operative day 2 through discharge using the confusion assessment method and delirium index. We investigate whether MCI – either definition – predicts delirium or delirium severity.
Results: So far we have assessed 102 subjects (mean age 65.1 ± 9; male: 75%) for PCD. Twenty six subjects (25%) have MCI-CDR whereas 38 (62% of those completing neurocognitive testing) met MCI-NC criteria. Fourteen subjects (14%) developed PCD. After adjusting for age, sex, comorbidity, and education, MCI-CDR, MMSE, and Lawton IADL score predicted PCD on logistic

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regression (OR: 5.6, 0.6, and 1.5, respectively); MCI-NC did not (OR [95% CI]: 11.8 [0.9, 151.4]). Using similarly adjusted linear regression, MCI-CDR, MCI-NC, CDR sum of boxes, MMSE, and Lawton IADL score predicted delirium severity (adjusted R^2: 0.26, 0.13, 0.21, 0.18 and 0.32, respectively).

Conclusions: MCI predicts post-operative delirium and delirium severity, but MCI definition alters these relationships. Cognitive and functional impairment independently predict post-operative delirium and delirium severity.

S11.02

Trends of patient referral to a memory clinic and towards earlier diagnosis from 1985–2009

Timo Grimmer[1]; Stephanie Beringer[1]; Victoria Kehl[2]; Panagiotis Alexopoulos[1]; Aurel Busche[1]; Hans Förstl[1], Oliver Goldhardt[1], Bianca Natale[1]; Marion Ortner[1]; Henning Peters[1]; Lina Riedl[1]; Carola Roßmeier[1]; Wiebke Valentin[1]; Janine Diehl-Schmid[1]; Alexander Kurz[1]

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Objective: It may be assumed that increased public awareness of dementia due to Alzheimer's disease (ADD) together with the availability of efficacious treatment will result in diagnostic evaluation at earlier stages of cognitive decline and diagnosis of ADD at earlier stages.

Methods: All persons that were examined at a university based memory clinic, in Germany, between 1985 and 2009 were included.

Results: In the 3951 persons identified, linear regression analysis revealed a positive association between MMSE score and year of initial examination (yearIE) ($\beta = 0.266$; $p < 0.001$). In the 1821 patients diagnosed with ADD a positive association between MMSE score and yearIE ($\beta = 0.230$; $p < 0.001$) was revealed. MMSE scores were higher ($\beta = 0.195$; $p < 0.001$) after the introduction of Cholinesterase inhibitors in Germany in 1997.

Conclusions: Diagnostic evaluation of individuals occurred at progressively earlier stages of cognitive decline. ADD was diagnosed at progressively earlier stages, and this trend was associated with the availability of efficacious treatment. This is the first study on changes in patient referral and diagnosis based on a continuous 25 years period.

S11.03

Sleep and agitation in nursing home residents with and without dementia

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Background: The incidence of dementia in Australian nursing homes is high. A large proportion of residents express themselves through agitated behaviors, with substantial interpersonal and day-to-day variance. One factor that may increase agitation is poor sleep. The current study aimed to determine if sleep influences symptoms of agitation in nursing home residents, and whether this effect differed by dementia status. As benzodiazepines are used widely as sleep medication, their impact was also considered.

Methods: Actigraph devices worn on residents' non-dominant wrists for three days were used to obtain objective measures of sleep. Symptoms of agitation were assessed using staff responses to two standardised questionnaires – the Cohen-Mansfield Agitation Inventory (CMAI) and the Neuropsychiatric Inventory – nursing home version (NPI-NH). Presence of dementia and benzodiazepine use were obtained from resident medical charts.

Results: Forty-nine residents (mean age: 85.57 years) from four nursing homes in Tasmania were included in the study. Results indicated that residents were in bed for an average of 11.04 hours and slept for 10.14 hours per day. Significant relationships between sleep and verbal as well as non-aggressive agitation were found. No relationships between sleep and aggressive agitation were detected. A significant moderation effect of dementia was found, in which residents without dementia expressed verbal agitation when obtaining less sleep, but not residents with dementia. Benzodiazepine use did not result in significantly more sleep.

Conclusion: These results suggest that sleep could play an important role in explaining agitation, but more research is needed to explore the role of sleep and benzodiazepines.

S12.01

The art of becoming a leader in geriatric psychiatry: Learn from the experts

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Provost for Faculty Affairs, University of Massachusetts Medical School, Worcester, United States

Strong leadership skills are needed by geriatric psychiatrists for multiple reasons: to advocate for their patients, trainees and colleagues; to preserve and expand the field of geriatric psychiatry; and to realize individual goals and impact. The need for leadership training in geriatric psychiatry is an imperative for the field and for those committed to the discipline.

This leadership development workshop is intended to increase participants' skills in interpersonal communication, including advocating for oneself and one's work in order to raise one's visibility and perception as a leader. This session is an interactive workshop that provides a unique leadership training opportunity by two prominent leaders: Dr. Luanne Thorndyke, MD, Vice Provost of Faculty Affairs at the University of Massachusetts Medical School and immediate past Chair of the American Association of Medical Colleges Group on Faculty Affairs, and Dr. Tatyana Shteinlukht, MD, PhD, Director of ECT service in the Department of Psychiatry, University of Massachusetts Medical School.

An interactive discussion format will elucidate the differences between "self-promotion" and bragging, and the ways that individuals can strategically gain visibility for themselves and their work within an organization. Through small group exercises and role-play, participants will work on tools for effective interpersonal communication, graceful self-promotion, and leadership. This workshop has been conducted in many venues, and has shown improvements in skills and confidence of participants.

At the conclusion of this session, participants will be able to:

1. Demonstrate effective interpersonal communication skills to interact with others about ourselves and our accomplishments.
2. Explore preferences and styles of interacting with others to enhance leadership "presence:" the ability to impress others as a leader.
3. Utilize several tools for presenting one's accomplishments with self-confidence and integrity.

S13.01

Care concepts for challenging behavior

Helen C. Kales, *University of Michigan, United States*

Summary: Behavioral and psychological symptoms of dementia (BPSD) include agitation, depression, apathy, repetitive questioning, psychosis, aggression, sleep problems, wandering, and a variety of inappropriate behaviors. These symptoms are among the most complex, stressful, and costly aspects of care, and they lead to a myriad of poor patient health outcomes, healthcare problems, and income loss for family caregivers. Non-pharmacologic (behavioral and environmental) approaches are recommended as first line for BPSD by multiple expert groups. However, they have largely not been translated and disseminated into standard care, with psychotropic medications remaining the mainstay of treatment despite risk/benefit concerns. This session will address new care concepts for challenging behaviors that aim to increase dissemination of person- and caregiver-centered care. Dr. Ann Kolanowski (United States) will discuss a qualitative study that examined how nursing home staff obtain and communicate information for implementing person-centered care. Dr. Claudia Cooper (United Kingdom) will present the START (STrAtegies for RelaTives) randomized controlled trial of an 8-session manual-based coping intervention for family dementia carers. Dr. Henry Brodaty (Australia) will summarize his Guide for Managing Behaviors as well as studies on BPSD including the CADRES, PerCen and SMILE studies. There will be time for discussion and questions regarding the studies presented and of the management of BPSD.

S13.02

Strategies for helping people with BPSD

Henry Brodaty, *Dementia Collaborative Research Centre, University of New South Wales, Randwick, Australia*

Clinicians must choose from a menu of strategies and drug treatments helping people with behavioral and psychological symptom of dementia (BPSD) guided by the evidence, the setting, the patient, the behavior and available resources. This paper summarizes policies, psychosocial interventions and strategies that we have developed for assisting people with BPSD.

1. A triangle hierarchy of strategies for assisting with BPSD has been influential in Australia for developing services.
2. A meta-analysis demonstrated that caregiver interventions have an effect size of 0.34 in reducing BPSD in community dwelling family members and 0.15 in reducing their own distress.
3. The CADRES study demonstrated that training nurses in person-centered care (PCC) or providing feedback using Dementia Care Mapping reduced agitation levels over four months and these benefits

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were sustained over a further four month follow-up. PCC was relatively inexpensive, costing about $6 per point reduction in the agitation score.
4. Results from the PerCen cluster randomized controlled trial, which compared PCC, Person-Centred Environment, their combination or neither, were equivocal. Putative reasons are presented.
5. The SMILE cluster randomized controlled trial of humor therapy in nursing homes also demonstrated reduction in agitation but benefit for depression and quality of life only became apparent when we adjusted for dose of intervention. 6) A guide for clinicians in managing BPSD has been very popular in Australia and our analysis of utility of an app for iPhones and Androids is underway.

In conclusion no single approach is uniformly effective for in managing BPSD. Assuming the patient has received a thorough assessment and possible causes such as pain or urinary infection have been attended to, common elements of successful psychosocial interventions appear to be tailoring the intervention to the individual and the setting, engagement of the individual and the family if possible, and training of staff or family caregivers. The challenge remains to encourage adoption of psychosocial interventions and to discourage pharmacotherapy as first line treatment.

S13.03

The START (STtrAtegies for RelaTives) intervention: Randomised controlled trial and implementation

Claudia Cooper, *London, United Kingdom*

Background: From 2009–13 we evaluated a manual based coping strategy compared with treatment as usual in a pragmatic, cluster randomised controlled trial. We have been disseminating the intervention within the UK National Health Service, and evaluating that implementation as part of a 'train the trainers' programme.
Methods: 260 family dementia carers recruited to the START study, a pragmatic multi-centre randomised controlled trial, were followed up for 24 months. The intervention was an 8-session, manual-based coping intervention delivered by supervised psychology graduates. Our primary outcome was carer affective symptoms (hospital anxiety and depression (HADS) score and proportions who were depression and anxiety "cases"); secondary outcomes included potentially abusive behaviour by the carer towards the recipient of care. In the implementation study, local staff have been trained to deliver the intervention.
Results: 173 carers were randomly assigned to START and 87 to TAU (Treatment as Usual). Of these 260 participants, 209 (80%) were included in the clinical effi cacy analysis (140 START, 69 TAU). At 24 months, compared with TAU the START group had significantly lower HADS scores (mean difference –2·58 points, 95% CI –4·26 to –0·90; p = 0·003). Significantly fewer cases of HADS-depression occurred in START compared with TAU (odds ratio [OR] 0·14, 95% CI 0·04–0·53). The difference in HADS-anxiety caseness was not significant (OR 0·57, 0·26–1·24). There was no significant difference in the proportion of carers reporting behaving abusively at least sometimes between randomization groups although our sensitivity analysis suggested that among those who did not drop out of follow-up, the intervention reduced abusive behaviour over the first 8 months.
Conclusions: START is clinically effective, improving carer mood and anxiety levels for 2 years. This is the first RCT with abusive behaviour in dementia as an outcome; findings for this outcome are equivocal and warrant further study. We will discuss our preliminary experiences of implementing the intervention.

S13.04

Wish we would have known that!

Ann Kolanowski[1]; Kimberly Van Haitsma[1]; Janice Penrod[1]; Nikki Hill[1]; Andrea Yevchak[2]
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Objective: The management of behavioral and psychological symptoms of dementia (BPSD) and the implementation of person-centered care (PCC) approaches for these symptoms have been identified as research priorities in nursing homes (Morley et al., 2014). Established barriers to the use of behavioral approaches include limited knowledge, skills, beliefs in the benefits of antipsychotics, and lack of staff motivation. Information access and effective facility-wide communication are also critical components of quality PCC. We know little about how staff obtain and disseminate information essential to the provision of PCC for residents who display BPSD. The purpose of this qualitative study was to understand how staff in nursing homes obtain information needed for implementing a person-centered approach to dementia care and

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how they communicate this information to other staff. Barriers to PCC and information exchange were also explored.
Methods: Participants were 59 staff from two nursing homes in Pennsylvania. Focus group methodology captured discussions in eight one-hour sessions. Sessions were audio-taped and transcribed. Data were analyzed using qualitative content analysis to provide a comprehensive summary of the real world context of implementing person-centered care for BPSD.
Results: To deliver PCC staff identified a need for access to the psychosocial/medical history of the resident and knowledge of strategies families used for managing BPSD in the past. We learned that resident behavioral information is not consistently shared with all staff, particularly Certified Nursing Assistants (CNAs). Staff reported that the written documentation systems used for communicating resident-specific information are not routinely updated and do not support their time-pressured work pattern. Word-of-mouth and trial-and-error were considered more reliable and expedient than educational sessions. CNAs described themselves as visual learners who prefer educational programs addressing individual resident emergent behaviors and programs that are scheduled at dedicated times.
Conclusions: To improve PCC for BPSD the flow of information exchange requires: inclusion of all staff, particularly CNAs; systems of communication that consider the time and resource constraints of nursing homes; development of educational programs for BPSD that are responsive to staff learning styles; administrative investment in nursing leadership to effect these changes; and reimbursement approaches to encourage culture change investments.

S14.01

Older peoples' narratives of use and misuse of alcohol and psychotropic drugs among older people

Aud Johannessen, *Norwegian National Advisory Unit of Ageing and Health, Tønsberg, Norway*

Background: Psychosocial factors that frequently occur among older people are associated with higher rates of use and misuse of alcohol and psychotropic drugs. Studies published the past ten years have revealed that such use and misuse is an increasing problem among older people. Such use and misuse is also a risk factor for mortality and morbidity among the age group. It is important to point out that older people do seek care from care providers, providing more opportunities to recognition and to the use of effective interventions to change patterns of use. Therefore, we assume that any intervention that could increase the knowledge and attention to the use and misuse of alcohol and psychotropic drugs among older people can contribute to reduce unhealthy consumption of alcohol and psychotropic drugs.
Content: We will organize four presentations with speakers from Australia, The Netherlands, and Norway. The first presentation will focus on barriers and facilitators accessing drug and alcohol services for older people. The second lecture will contain results from studies about benzodiazepine dependence and treatment strategies. The third and fourth lecture will report results from two qualitative studies focusing on to what extend such use and misuse among older people is an issue when services are planned for and implemented, and older people's narratives of such use and misuse.
Purpose: To contribute to the development of awareness, knowledge, and understanding of older peoples use and misuse of alcohol and prescribed psychotropic of drugs. The purpose is based on scientific studies.

S14–02

Use and misuse of alcohol and psychotropic drugs among older people: Is that an issue when services are planned for and implemented?

Anne Helvik, *Norwegian National Advisory Unit of Ageing and Health, Tønsberg, Norway*

Background: To investigate health personnel's perceptions and experiences of alcohol and psychotropic drug use among older people (65 years and above) and to what extent this is an issue when services are planned for and implemented.
Method: Qualitative interviews with 16 health professionals who work with older patients; 13 registered district nurses, two occupational therapists, and one physiotherapist were performed during 2013. The sample included informants aged 34 to 62 years from 14 municipalities, four were male.
Findings: Two main categories emerged: state of practice and a desire to improve services. The first category details the informants' perceptions of legitimacy and attention to substance use and misuse among older people in need of healthcare, and their competence and knowledge on the topic. The topic was experienced as demanding to bring up. Health personnel described a lack of attention and competence how to handle use and misuse of alcohol and psychotropic drugs.

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The category is described in the subcategories legitimacy and attention to substance use and misuse and competence and knowledge in practice. The second category demonstrates the informants' desire to improve services so it better can contribute to detect misuse among older people and contribute to treatment. The variation is contained in the subcategories improving collaboration and changing routines.
Conclusion: Use and misuse of alcohol and psychoactive drugs among older people had little attention when the community health service is planned for and implemented. The participating health professionals had a desire to improve routines and collaboration in the health care services, but were also in need of improved competence about use and misuse of alcohol and psychoactive drugs.

S14.03

Benzodiazepine dependence and treatment strategies

Richard Oude Voshaar, *Psychiatry, University Medical Center Groningen, Groningen, Netherlands*

Many older persons use benzodiazepines on a long-term basis, eventhough clinical guidelines recommend only short-term usage for anxiety disorders and insomnia. These guidelines are based on the risk-benefit balance between long-term effectiveness and side effects like addiction, anterograde amnesia, and increased risk on falling (resulting in hip fractures), traffic accidents and even mortality. These side effects are of particular concern for older persons. Although initially most attention has been paid to the physical withdrawal syndrome, psychological aspects of benzodiazepine dependence have received more and more attention in the past decades. Recently, a relationship between the brain-reward system, involved in addiction, and benzodiazepine use, was demonstrated. Also low-dose benzodiazepine use can lead to benzodiazepine dependence.

When both the physician and patient recognize long-term benzodiazepine use as problematic, different treatment modalities are available to support patients in achieving abstinence (Oude Voshaar et al, 2006; Parr et al., 2009; Gould et al., 2014). One of every four patients is able to stop by themselves with the aid of a minimal intervention providing psycho education and encouragement. Two out of three long-term uses are able to stop their usage with the aid of systematic tapering protocols guided by a physician or psychologist. In case of an underlying insomnia or anxiety disorder, cognitive-behavioural therapy should be added to the tapering protocol. In contrast to the general opinion, we will show data of controlled trials that advanced old age has no negative impact on the treatment response.

S14.04

Barriers and facilitators to accessing specialist drug and alcohol services for older people with risky substance use

Brian Draper, *Academic Department for Old Age Psychiatry, Prince of Wales Hospital, Sydney, Australia*

Background: Few older people with substance use disorders access specialist drug and alcohol (D&A) services.
Aim: To identify barriers and facilitators to accessing specialist D&A services for older people with risky substance use.
Method: Older people attending hospital and community geriatric health services who screened positive on either the AUDIT-C for alcohol or ASSIST for other substances undertook semi-structured interviews about their substance use and accessing services. Twenty clinicians working in the same hospital and in community geriatric health services participated in focus groups that covered identification of problematic substance use, referral practices and barriers to care.
Results: There were 41 screen positive participants - 36 for alcohol, 7 for benzodiazepines (four were screen positive for both) and two for opioids. The majority (34; 83%) denied having ever felt that they had a problem. Around a third reported that someone (usually a doctor) had recommended that they either receive help or cut back their consumption. Only three participants had tried to get help for their problems and only one could name a specific D&A service. Barriers included stigma, lack of knowledge of treatment options, difficulties with transport, mobility problems and financial burden. Facilitators included family, employer and doctor support. Few were aware that alcohol or medications could harm them and many felt that if they had been aware of the physical harm it might influence their attitudes. The general practitioner (GP) was the key person they turned to for advice; 24% of the alcohol group stated that the GP had not been concerned about their drinking. Clinician focus groups identified key barriers. Namely, the lack of clarity about what constituted harmful drinking; difficulties in obtaining an accurate alcohol/substance misuse

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history; difficulties in referral to D&A services; and clinicians' lack of knowledge about D&A problems in late life. They reiterated the important role of the GP and continuity of care.

Conclusion: For older people and clinicians there is a lack of clarity about what constitutes risky substance use in late life and how to access D&A services. Older people and aged care clinicians view GPs as being the key service provider and GPs may therefore require further education about assessment and referral pathways.

S15–01

Results from PET imaging in the Australian imaging biomarkers and lifestyle (AIBL) flagship study

David Ames, *Professorial Fellow, Department of Psychiatry, University of Melbourne, Australia*

Professor David Ames will present novel data from a prospective PET amyloid imaging study of people with, and at variable risk of developing, Alzheimer's disease. This has been undertaken in Melbourne over nine years on members of the AIBL cohort. Results have established the trajectory of amyloid deposition over decades and the high risk of developing symptomatic cognitive impairment for those who accumulate significant amounts of brain amyloid.

S15.02

Amyloid PET imaging as a tool to investigate neurobiological changes in Lewy body dementia

Paul Donaghy, *Clinical Academic Fellow, Newcastle University, United Kingdom*

The pathological hallmarks of dementia with Lewy bodies (DLB) are Lewy bodies and Lewy neurites. Many cases of DLB also display amyloid-beta deposition, though it is unclear if this is pathologically significant. Amyloid imaging ligands now enable this relationship to be investigated in vivo. DLB, Alzheimer's disease (AD) and control volunteers had an amyloid PET scan using Florbetapir. Each subject also had a thorough clinical and neuropsychological assessment and MR imaging. Data will be presented on mean cortical amyloid binding in AD, DLB and controls, and the proportion of amyloid positive cases in each group based on visual rating. In particular, comparisons will be made between amyloid positive and amyloid negative DLB cases based on clinical profile (presence and severity of DLB features), neuropsychological profile (particularly memory, attention/executive function and visuospatial function) and MR atrophy.

S15.03

Diffusion imaging as a biomarker for Lewy body dementias

John O'Brien, *Professor of Old Age Psychiatry, University of Cambridge, United Kingdom*

Parkinson's disease is a strong risk factor for cognitive decline and the resulting dementia is part of a spectrum of Lewy body dementias, which also includes the closely related dementia with Lewy bodies. Lewy body dementias are known to be associated with relative structural preservation compared to other dementias like Alzheimer's disease. The present series of studies has investigated cross-sectional and longitudinal diffusion imaging changes in Lewy body dementia and in those with Parkinson's disease at risk of future cognitive decline. These series of studies suggest that diffusion imaging changes occur early in Lewy body dementias, and change relatively little over time. New findings suggest early diffusion changes in Parkinson's disease have potential as early biomarkers for cognitive impairment, and may be useful for predicting which subjects with Parkinson's disease will subsequently decline cognitively.

S16.01

Social health and the potential for new outcomes to better understand living with dementia

Myrra Vernooij-Dassen[1]; Esme Moniz-Cook[1]; Gail Mountain[2]
[1]*Hull, United Kingdom;* [2]*Sheffield, United Kingdom*

Social health (Huber, 2011) is challenged by dementia. The capacity of persons with dementia to participate in social activities and to fulfil social obligations is endangered but still in place. Social functioning can both positively and negatively be influenced by social actions of family members and professionals. Yet, social health is a neglected area of dementia care research.

In our search to better understand dementia and living with dementia, social health opens new windows. One of these opportunities is to better use the international context. The interpretation of social health will differ with the prevailing societal cultural values. For instance, family care represents

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an important cultural value in Indonesia and is obligatory (Effendy, 2014), while it's voluntary in Northern EU countries. Acknowledging these cultural differences might open the eyes for the benefits and disadvantages of social interactions and obligations.

Since most studies have been done in western countries, the outcome measures reflect their dominant values. Moreover, most outcomes do not reflect social health. INTERDEM did an evaluation study of outcomes fit for psychosocial intervention studies (Moniz-Cook, 2008) and is now doing an update. The studies include domains such as health related quality of life, carer mood distress and well-being, family carer burden, behaviour of persons with dementia, patient mood and IADL/ADL. Of these domains only the social quality of life dimension and burden reflect aspects of social health.

It is timely to look for outcomes better representing social health issues in dementia care such as reciprocity, forgiveness and outcomes representing non-western cultural values such as acceptance. This requires that choices for outcomes will no longer be determined by the availability of validated outcomes. Dementia research should look for relevant social health outcomes reflecting important values that allow connecting to new interventions that can strengthen social health. It also provides a new window of opportunities to benefit from the wisdom and solutions in dealing with dementia in different parts of the world. I will discuss the value and validation of social health outcomes.

S16.02

Concepts of autonomy in person-entered dementia care and research as an aspect of social health

Martina Roes; Jonathan Serbser; Jan Dreyer
DZNE, Witten, Germany

Background and objective: Huber et al. (2011) define independency despite a medical condition as an important dimension in their domain of Social Health. But to achieve this dimension for people living with dementia seems to be crucial. In the progression of the disease the person's ability to act autonomously constantly decreases until it virtually disappears in advanced stages. The affected person is increasingly depend on help, support and decisions of others. The German Ethics Council in their statement (2012) takes the challenging problem of autonomy of the person with dementia into account. The Council recommends adopting the concept of "partial autonomy" in case of dementia affected persons and purposes in their reasoning on assisted self-determination. By taking into consideration the needs and individual characteristics of the persons with dementia, those should be as far as possible enabled to live a self-determined life. Person-centered approaches are considered as promising by the Council to achieve these aims. Thus the question arises in what way the literature on person-centeredness considers the concepts of autonomy and self-determination, and how they are linked to the domain of Social Health.
Methods: We conducted a systematic literature review on person-centeredness and person-centered care in dementia in eight international databases. The search results were used for a subanalysis addressing concepts of autonomy. The terms autonomy, self-determination and independency will be specified, and compared with the explanations and requirements of the domain of Social Health and the statement of the German Ethics Council.
Results: There is a need to clarify the conceptual overlap between the domain Social Health, the requirements stated by the German Ethical Council and the principles of person-centeredness. It is important to take a closer look on the impact of autonomy, self-determination and independency to clarify their benefit for person-centered care. Thus, the results will be used as a basis for a discourse about autonomy in person-centered dementia care concepts and research.

S16.03

Promoting social health for people affected by dementia: An online module for National Health Service staff

Murna Downs[1]; Neha Baj[2]
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The G8 summit on dementia called for a step change in how we respond to dementia in order to improve quality of life for people living with dementia. In the United Kingdom the Prime Minister's Challenge on Dementia 2020 (Department of Health, 2015) seeks to establish the UK as one of the best countries to live with dementia. It is now recognised that people directly affected by dementia are in a unique position to influence and direct effective, evidence-based solutions to living well with dementia. As policy makers look to research for evidence of successful approaches to supporting people with dementia, there is an imperative that researchers

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directly engage with people affected by dementia, including those from hard to reach communities such as minority ethnic communities. A key challenge to living well with dementia is stigma (Alzheimer's Disease Society, 2012; Mukadam, et al, 2011; Vernooij-Dassen et al., 2005; Werner, 2005; 2008). There are numerous examples of how this stigma plays out including the negative connotations and expectations associated with dementia. These include, but are not limited to, perspectives that dementia is a 'living death' and that living 'a good life' with dementia is not achievable (Corner and Bond, 2005; Van Gorp and Vercruysse, 2011). There is now a significant groundswell of public and professional activity determined to overcome the stigma of dementia. These efforts, directed at both lay and professional communities, include public awareness campaign such as Konfetti im Kopf as well as international efforts to develop dementia friends and dementia-friendly communities (see for eg Henwood and Downs). Training for professionals is a major emphasis in combating the stigma and hopelessness associated with dementia (Downs et al., 2009). In England, Health Education England will require all National Health Service staff to have completed dementia awareness training. This paper will describe the development of a freely available online dementia awareness module designed to promote social health for people with dementia, Challenging stigma and promoting social health. It will describe how its development required key collaborations: 1) between academic/clinical expertise and technical implementation; and 2) between academic/clinical subject expertise and experts by experience – people directly affected by dementia. It will conclude that effective approaches to combating the stigma associated with dementia require partnership between a range of experts including experts by experience, academics, clinicians, and learning technologists.

S16.04

Optimising social health of people living with dementia and family caregivers through person centered and reablement approaches to care

Yun-Hee Jeon, *Sydney Nursing School, The University of Sydney, Sydney, New South Wales, Australia*

Key elements of 'a good life' from the perspectives of over 770 older Australians and their families include having individual uniqueness respected, being in control of life, having optimism, maintaining health, belonging to relationships and roles, and making contributions and participation in everyday life (Barnett & Dean 2012). A striking resemblance is found in Kitwood's essential needs of persons with dementia: identity, love, comfort, attachment, occupation and inclusion (Kitwood 1997). Whilst these elements have been compartmentalised in the literature so that each can be clearly articulated, they are not mutually exclusive in achieving a meaningful life.

In the same vein, living with a chronic condition or a dementia does not reduce the person's essential needs to those that relate to their illness experience. Psychological, neurological, and social impairments caused by dementia, for example, may limit the person's everyday living and experiences, but s/he still retains the capacity to enjoy a meaningful life. The notion of 'social health' is critical in understanding the person's experience with dementia as it values each individual's particular capabilities and the importance to them of being able to maximise their potential for fulfilment through achieving a balance between opportunities and limitations (Huber et al. 2011). I argue that this approach provides practitioners, policymakers and researchers with the opportunity to visualise each person's wellbeing beyond the conventional definitions of health, care and support services and outcome measures.

The rise in popularity of care philosophies such as person centred care, reablement or restorative care, and consumer directed care appears to be a significant trend in our modern society. Yet, gaps exist as to how these philosophies can be best embedded and delivered within contemporary health and aged care services that are often resource limited and immersed in a predominantly bio-medical and task oriented culture that is shy of integration with other sectors such as social care and welfare. In this paper, drawing on research evidence, I will discuss key contributions that person centered and reablement approaches to care make to optimising social health of people living with dementia and family caregivers, challenges associated with the implementation of these care approaches and future directions for research and practice.

S17.01

Clinical profile of prodromal DLB: The Newcastle LewyPro study

Alan Thomas[1]; Frederic Blanc[1]; Paul Donaghy[2]; Olivier Bousiges[1]

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Objective: Previous studies examining symptoms in people who progressed to DLB have been retrospective and prospective analyses are needed to develop very early diagnostic criteria to identify prodromal disease.
Methods: The Newcastle LewyPro study is an ongoing cohort study to prospectively assess a broad range of symptoms in the prodromal phase of the illness to determine the pattern and timing of symptoms in this pre-dementia stage to facilitate the development of future diagnostic criteria.
Results: Currently 51 subjects have completed baseline assessments showing high frequencies of core and suggestive symptoms, e.g REM sleep behaviour disorder (>50%), complex visual hallucinations (40%) and Parkinsonism (35%), and other characteristic Lewy body symptoms, e.g. depression (40%).
Conclusions: In people presenting to memory and dementia services characteristic symptoms of Lewy body disease may be identified during the MCI phase.

S17.02

Cortical thickness in dementia with Lewy bodies and Alzheimer's disease: A comparison of prodromal and dementia stages

Frederic Blanc[1]; Alan Thomas[1]; Paul Donaghy[2]; Olivier Bousiges[1]

[1]Hospital, University of Strasbourg, Strasbourg, France; [2]Neuroscience, Newcastle University, Newcastle upon Tyne, United Kingdom

Objective: To assess and compare cortical thickness (CTh) of patients with prodromal Dementia with Lewy bodies (pro-DLB), prodromal Alzheimer's disease (pro-AD), DLB dementia (DLB-d), AD dementia (AD-d) and normal ageing.
Methods: Study participants (28 pro-DLB, 27 pro-AD, 31 DLB-d, 54 AD-d and 33 elderly controls) underwent 3Tesla T1 3D MRI and detailed clinical and cognitive assessments. We used FreeSurfer analysis package to measure CTh and investigate patterns of cortical thinning across groups.
Results: We found right anterior insula thinning in pro-DLB, and more bilateral parietal lobe and left parahippocampal gyri thinning in pro-AD. In DLB-d cortical thinning was found predominantly in the right temporo-parietal junction, and insula, cingulate, orbitofrontal and lateral occipital cortices. In AD-d the most significant areas affected included the entorhinal cortices, parahippocampal gyri and parietal lobes. The comparison of AD-d and DLB-d demonstrated more CTh in AD-d in the left entorhinal cortex.
Conclusion: Cortical thickness is a sensitive measure for characterising patterns of grey matter atrophy in early stages of DLB distinct from AD.

S17.03

FP CIT imaging in prodromal DLB

Paul Donaghy[1]; Frederic Blanc[2]; Alan Thomas[2]; Olivier Bousiges[2]

[1]Neuroscience, Newcastle University, Newcastle upon Tyne, United Kingdom; [2]Hospital, University of Strasbourg, Strasbourg, France

Objective: The Newcastle LewyPro Study is a prospective study which aims to characterise the clinical and biomarker profile of prodromal DLB.
Methods: Each patient had a comprehensive clinical and neuropsychological assessment, followed by striatal dopaminergic ^{123}I-FP-CIT imaging. ^{123}I-FP-CIT scans were rated by conventional reporting and by semi-quantitative assessment.
Results: 51 patients have been recruited, of whom 37% have positive ^{123}I-FP-CIT scans. Those with positive scans are more likely to report Parkinsonism and REM sleep behaviour disorder (RBD), but key symptoms, e.g. RBD and visual hallucinations, are also frequent in those with negative scans. Utilisation of semi-quantitative assessment seems to improve the early identification of Lewy body disease.
Conclusions: It is possible to identify patients with features of LB disease during the MCI phase. Many subjects with a synucleinopathy may have normal ^{123}I-FP-CIT scans in this phase.

S17.04

Conventional Alzheimer's biomarkers in cerebrospinal fluid are not pathological in patients with prodromal dementia with Lewy bodies

Olivier Bousiges[1]; Paul Donaghy[2]; Frederic Blanc[1]; Alan Thomas[1]

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Objective: To study Alzheimer CSF biomarkers in comparing AD and DLB groups, both at early (prodromal) and dementia stages.
Method: AD and DLB subjects were defined with standard criteria. Prodromal patients were defined as MCI (Petersen criteria) and according to the DSM-5 mild neurocognitive disorder of Lewy body

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disease. We obtained CSF for by lumbar puncture and analyzed the results for their biomarkers.

Results: The results in the CSF of AD were consistent with the results in the literature (Tau and Ph-Tau increase, Aβ42 decrease, and a decrease of the Aβ42/Aβ40 ratio, whatever the stage) as were those for DLB (lower level of Aβ42in CSF of patients with DLB compared to controls). However, DLB patients at the prodromal stage had non-pathological Alzheimer biomarkers, notably the levels of Aβ42 were not altered, and were identical to controls.

Conclusion: We found at the prodromal stage the DLB patients had no pathological profile. Thus conventional Alzheimer biomarkers may be able to discriminate these two diseases at an early stage, when the clinical diagnosis is difficult.

S18.01

Which is worse in late life, depression or anxiety?

Gerard J. Byrne[1]; Nancy A. Pachana[2]

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Whilst anxiety disorders are more prevalent, depressive disorders are more often the focus of clinical activity for clinicians working with older people. One reason for this is that clinicians often consider depressive disorders to be more serious mental disorders than anxiety disorders. We investigated this conventional assumption using population-level data.

We employed data from the 2007 National Survey of Mental Health and Wellbeing undertaken by the Australian Bureau of Statistics. This national household survey included 1,905 community-residing respondents aged 65–85 years who were interviewed using the WHO Composite International Diagnostic Interview (CIDI v3). Current non-hierarchical anxiety and affective disorders were identified using DSM-IV criteria. Relative severity was estimated by measuring self-reported psychological distress (K10), disability (WHODAS), and quality of life (SC10).

There were 1,001 (52.6%) females and 904 (47.4%) males with a mean age of 73.3 (SD 5.8) years. Most were either married (52.7%) or widowed (29.7%). A minority (19.6%) reported a university education. Eighty-one (4.3%) met criteria for an anxiety disorder and 44 (2.3%) met criteria for an affective disorder over the past 12 months. Mean (SD) scores on the measures of distress, disability and quality of life were as follows: K10 13.1 (4.4); WHODAS12 16.5 (6.3); and SC10 2.7 (0.98). Affective disorder and anxiety disorder were independently associated with psychological distress, disability and quality of life in the expected directions. There were no significant differences between the mean levels of these parameters in people with affective disorder and anxiety disorder, although for each severity measure the group with affective disorder had nominally higher values than the group with anxiety disorder. Affective disorders and anxiety disorders in older people are associated with similar levels of self-reported distress, disability and quality of life.

S18.02

Suicide in late-life anxiety disorder: A challenge for clinical practice

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A recent meta-analysis of 14 studies in mixed age groups has shown that the presence of an anxiety disorder increases the risk of completed suicide (Kanwar et al., 2013). Nonetheless, it is still debated whether the association between anxiety and suicidality is confounded by the presence of comorbid psychiatric disorders, especially depression. Based on a 16-year national clinical survey of all suicides in the United Kingdom (n = 25,128), we present characteristics of older patients (≥60 years) with a primary anxiety disorder who died by suicide (n = 209) (Oude Voshaar et al., 2015) as well as the characteristics of depressed cases with (n = 333) and without anxiety disorders (1,576) (Oude Voshaar et al., submitted). In summary, anxiety disorders are involved in one of every six older patients who died by suicide. Characteristics of older anxious patients who died by suicide (n = 209) show severe psychopathology (history of self-harm, violence, and substance abuse), with a more prominent role for physical decline and social isolation compared to their younger counterparts (n = 773). Moreover, treatment was less optimal in the older persons with anxiety disorders, suggesting ageism. Also in depressed older suicide cases we found a higher

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prevalence of several suicide risk factors (longer duration of illness, more psychotropic drug use, and more distress during last contact) among those with comorbid anxiety disorders compared to those without. In contrast, the detection of comorbid anxiety disorders was low and even when recognized clinicians rated anxious depressed individuals still at low risk. These results shed light on the phenomenon of suicide in patients suffering from late-life anxiety disorder and suggest areas where prevention efforts might be focused.

S18.03

Mindfulness to combat anxiety in people with Parkinson's disease

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Parkinson's disease (PD) is a chronic, progressive, complex, disabling and incurable age-related brain disease. Classically PD is characterised by abnormalities in movement like tremor, stiffness, walking problems and slowness; however, non-motor symptoms such as anxiety are common in PD, presenting in up to 50% of patients with PD and negatively impacting patients' quality of life. The reported current prevalence rates of clinically significant current anxiety disorders in persons with PD varies between 12.8% and 43.0%. Pharmacological interventions to treat anxiety symptoms may increase the risk of side effects in patients with PD, who are usually already taking multiple medications. Treatments for anxiety in older persons with PD and co-morbid anxiety are offered infrequently, well below the rates at which such symptoms are reported. A growing body of recent research has been devoted to mindfulness to treat anxiety and affective disturbances. The aim of this study was to examine the benefits of mindfulness to alleviate anxiety symptoms in PD. Twelve non-demented PD patients completed an 8-week group based mindfulness intervention program. Four patient groups were included and 6 mindfulness sessions were conducted. This manualised intervention was tailored for PD patients. Participants completed assessments pre and post intervention, and statistical analyses were performed to evaluate change in primary and secondary outcome measures. A significant reduction in anxiety based on the Geriatric Anxiety Inventory ($Z = -2.20$, $p = .028$, $d = -0.64$) was observed. A reduction in depression scores based on Hamilton Depression Rating Scale ($t(13) = 2.20$, $p = .043$, $d = 0.61$) was also seen. This study provides preliminary evidence that mindfulness improves anxiety in PD and suggests the need to conduct future randomized controlled mindfulness trials for older patients with PD.

S18.04

Multicomponent intervention strategies for managing fear of falling and related anxiety in older people

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Fear of Falling (FoF) (sometimes called *postfall syndrome*) is a disabling fear that may affect between 20% and 85% of community-dwelling older adults (Bertera & Bertera, 2008; Zijlstra et al., 2007). Older persons who are afraid of falling quickly find themselves caught in a vicious circle: the more they restrict their activities, the more they become frail (inactivity reduces the mass and strength of muscles), and the less confidence they have in maintaining their balance, thus the more they feel anxious, and the more they are at risk of falling and getting hurt. This consequence reinforces their FoF (and increases the level of anxiety), which, in turn, drives these persons to reduce their activities, which exposes them to new falls, and so on. FoF is usually treated by fall-prevention exercise programs focusing on strength, balance and mobility. Although such programs are efficient to prevent falls, they neglect anxiety components/symptoms that may maintain FoF (i.e., catastrophic thinking, avoidance behaviors, etc.). This ongoing study aims to evaluate the feasibility and effectiveness of a multicomponent intervention program combining fall-prevention exercises with cognitive-behavioral therapy (CBT) for anxiety (breaking the vicious circle of FoF). Two older women (both aged 80 years) were eligible for the intervention (on five potential participants). They completed an 8-week group-based multicomponent intervention (CBT + exercises). Pre/post comparisons indicated that FoF (based on the Falls Efficacy Scale-International), anxiety (based on the Geriatric Anxiety Inventory), and depressive symptoms (based on the Geriatric Depression Scale-30) decreased, respectively, by 30%, 90%, and 60%. These preliminary results support our hypothesis by showing the importance of including anxiety management strategies in FoF treatment programs. In order to consolidate these promising findings, analyses will be carried out on more subjects and updated results will be presented during the symposium.

S19.02

Alzheimer's disease-related changes in elderly patients with depression: Possible reversal by brain stimulation

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Objective: To elucidate underlying mechanisms of a possible link between depression and Alzheimer's disease (AD), we investigated correlations between scales of depression or cognitive functions and AD-related changes in brain imaging or plasma levels of amyloid β (Aβ) in elderly patients with depression. We investigated also whether AD-related changes observed in depression were influenced by anti-depressive therapies including electroconvulsive therapy (ECT).
Methods: We investigated consecutive 42 patients aged 50 years and over who were inpatient of University of Yamanashi Hospital, and diagnosed as major depressive disorder, bipolar I or II (currently in a depressive episode) (DSM-IV-TR). Within a period of two weeks after admission and before discharge, HAM-D, BDI-II, GDS, MMSE, CDR, WMS-R logical memory, WCST, and Verbal Fluency Test were administered and blood samples for plasma Aβ40 and Aβ42 measurements were collected. As for the brain imaging, analyses were performed with voxel-based specific regional analysis system for AD (VSRAD) for brain MRI (Hirata et al., 2005) and with easy Z-score imaging system (eZIS) for Tc99m-ECD SPECT (Matsuda et al., 2007), which were capable of evaluating structural and functional brain changes associated with the early stage of AD. All procedures were approved by the University Ethical Committee.
Results: At the time of discharge, significant positive correlations were found between HAM-D or GDS and VSRAD Z-score (an index of parahippocampal atrophy), and between BDI-II and eZIS- severity (an index of the regional cerebral blood flow (rCBF) reduction in the AD-specific regions including the posterior cingulate gyrus). Moreover, plasma Aβ40 was correlated positively with BDI-II and VSRAD Z-score and negatively with verbal fluency. When patients treated with ECT were compared to those treated with only antidepressants, a significant reduction in plasma Aβ40 was observed after anti-depressive therapy in the ECT group.
Conclusion: Correlations of AD-like brain atrophy or rCBF reduction with depression scales suggest that depression in the elderly and AD represent a possible clinical continuum. Of particular interest in view of preemptive therapy for AD, a higher level of plasma Aβ40 is associated with depression scale, cognitive dysfunction, and parahippocampal atrophy, which can be modified by brain stimulation.

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S19.03

Psychotherapeutic strategies for reducing depressive symptoms in dementia family caregivers

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Dementia caregiving is associated with significant levels of depressive symptomatology in caregivers. Paths through which caregivers' depressive symptoms may develop or be maintained may be hypothesized through therapeutic models such as Cognitive-Behavioural Therapy (CBT) or Acceptance and Commitment Therapy (ACT). In this work we describe different CBT and ACT based psychotherapeutic strategies that have been developed for helping dementia caregivers and reducing their distress. Results from two randomized controlled intervention studies will be presented that provide support to the use of these strategies for reducing caregivers' levels of depression. We will also present data from an ongoing intervention study analyzing the combined use of CBT and ACT strategies through a modular intervention guided by functional analysis (MFA). Taken together, the results of the intervention studies suggest that clinically significant reductions in caregivers' depressive symptomatology may be obtained through the mentioned interventions.

S19.04

Age-appropriate augmented CBT for late life depression

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Cognitive Behaviour Therapy (CBT) is an effective treatment for depressive disorders and recommended to use with adults of all ages. However, the traditional conceptualizations of CBT may not always be the most optimal fit when working with older people, who may be experiencing different developmental life stages compared to adults of working age (Laidlaw & Kishita, in press).

This paper provides an overview of the current evidence on CBT for late-life depression and its limitations. We also address how CBT may be different with older people and describe the benefits of using gerontological theory to augment treatment outcome in CBT. The presentation includes some examples of how gerontological theory can be useful in bringing about an enhanced treatment outcome in CBT; (1) The ageing stereotype and attitudes to ageing are considered as a stress-diathesis that interacts with depression and anxiety to maintain hopelessness, (2) Selection, optimisation with compensation is described as a problem-solving intervention in CBT when dealing with age-specific challenges, and (3) wisdom is conceptualised as arising from navigating life-challenges drawing upon the personal well of resilience and resource when dealing with challenges in the here and now.

Age-appropriate augmented CBT may be especially important with specific client populations where traditional non-modified CBT has not established efficacious outcomes, such as for some physical comorbidities or where problems are considered chronic or treatment resistant.

S19.05

The intraindividual dynamics of emotions in everyday life: Insights regarding depression in adulthood and old age

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Subjective emotional well-being in terms of positive and negative affect is both a stable and a variable characteristic of individuals (Eid and Diener, 1999). It can remain stable or change both in the long-term, but also fluctuates across short-term periods such as days and weeks (Röcke and Brose, 2013), and exhibits systematic age-related differences between young and older adults (Röcke et al., 2009). Rather than being considered unreliable information covering up the ‚true' well-being or other trait of a person, the degree and dynamics of this within-person variability have been shown to capture self-regulative processes, adaptation to specific (daily) life events as well as vulnerability (Nesselroade, 1991; Ram and Gerstorf, 2009). From a lifespan and aging perspective, linking this short-term variability captured in everyday life to long-term trajectories of development provides unique glances into a complete understanding of developmental and aging processes in individuals' daily lives (Hoppmann & Riediger, 2009; Röcke & Brose, 2013). In the affective and other

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self-related domains, such short-term variability has been linked, for example, with important outcomes such as depressive symptoms in different age groups (Bisconti et al., 2004; Gable & Nezlek, 1998; Kuppens et al., 2012). The talk presents and integrates current approaches and findings on intraindividual variability in domains such as affect, cognition, health and discusses its usefulness for applications in clinical settings dealing with depressive symptoms in late life.

S20.01

Background and rationale of the Actifcare project

Frans Verhey[1]; Marjolein de Vugt[1]; Claire Wolfs[1]; Ron Handels[1]; Hilde Verbeek[2]; Liselot Kerpershoek[1]; Astrid Stephan[3]; Anja Bieber[3]; Gabriele Meyer[3]; Manuel Gonçalves Pereira[4]; Maria Marques[4]; Helena Bárrios[4]; Conceição Balsinha[4]; Robert Woods[5]; Anders Wimo[6]; Geir Selbaeck[7]; Kate Irving[8]; Orazio Zanetti[9]

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Previous research (Wolfs et al. 2010) has shown that most patients and caregivers are not aware of the treatment options available to them. About 40% of the care that was offered is actually declined to people with dementia and their carers. Health care professionals should play an important role with regard to this empowerment. Counseling, medication, activities and home care were the options that were most frequently utilized by the 252 patients and caregivers who were included in the study. Group guidance and admissions were the main treatment categories that had not been utilized (although they were proposed). The most important reasons given were refusal by the patient and the fact that help was not necessary yet according to the caregiver. Burden of care and cognition were the most important factors in predicting which of the treatment options were not utilized.

The European Actifcare project aims to better understand the reasons for inequalities in access to healthcare. To achieve this aim, the work plan involves 1) a review of access pathways to formal home care, based on literature review, expert consultation, and focus groups; 2) a European cohort study will be performed to examine the predisposing and enabling factors in relation to access to formal care, needs and quality of life in community dwelling dementia patients and their carers. 3) A cost–consequences analysis, based on the clinical and economic data assessed in the cohort study; and 4) the identification of good-practice pathways to access formal care and the development of best-practice strategies, in terms of costs and consequences. The public awareness of the project will be enhanced by dissemination of the results to relevant stakeholders, including national political decision makers, and providing implementation support, dissemination of best-practice strategies, and initialization of a 'platform' for research and advocacy regarding economic evaluations of dementia care across Europe.

A mix of methods will be used, including literature review, expert consultation, focus groups, quantitative clinical assessments, qualitative research and a cost-consequence analysis. This combination of methodologies will provide information at different levels and will ensure the credibility, validity, and generalisability of the data.

S20.02

Access to formal dementia care: Results from a systematic review and a European focus group study

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Background: Community services for people with dementia (PwD) and their carers seem to be underused. The European project ActifCare aims to investigate the utilisation of community dementia services in eight European countries and to identify reasons for inequalities in access. The Andersen behavioural model of health service utilisation is applied as a framework (Andersen 1995) that considers access as the result of the decision of individuals, depending on their needs, individual characteristics and enabling resources. As part of the descriptive work package of the project we investigated (1) carer and patient related characteristics described as influencing factors and (2) experiences made by people with dementia, their carer and healthcare professionals when accessing community dementia services.

Methods:

1) A systematic review on carer and patient related the socioeconomic or cultural characteristics influencing the utilisation of community dementia services was performed in PubMed, CINAHL, SSCI and PsychInfo, supplemented by searches in national databases. Studies were selected according to predefined criteria by two researchers and results were presented in a narrative way.
2) Focus groups were performed with PwD, carers and healthcare professionals, exploring the experiences of accessing and using formal dementia community services in each country. Qualitative content analysis will be applied and findings will be synthesized across countries.

Results:

1) Evidence on socioeconomic or cultural aspects is sparse. Few findings suggest that people with a migrant background tend to use services less often. Out-of-pocket payments and gender of the informal carer may contribute further to low utilisation since female carers tend to use fewer services than male carers.
2) The focus group study is on-going and the analyses are currently performed in all countries. To date n = 17 groups with HCP, n = 22 groups with carers and n = 7 groups with people with dementia have been performed across the countries. The German pilot data suggest that a key coordinator and a proactive system may be facilitators. Moreover, the carers often have to deal with the resistance of the person with dementia when accessing needed services.

Conclusions: Few studies are available that investigated socioeconomic and cultural aspects influencing the access and use of community dementia services within the eight EU-countries. Thus the ActifCare study fills a considerable gap. Additionally, the findings of the perspectives of healthcare professionals, informal carers and people with dementia are combined within the focus group study, which is necessary to understand the complex interaction between involved parties when it comes to the utilisation of community dementia services.

S20.03

Access to timely care in Portugal as compared to other European countries

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Access to dementia care varies across Europe, an impression for which more evidence is needed. In Portugal, data is scarce on the accessibility and utilization of formal care by persons with dementia. The health and social care systems are complex, and regulations have often changed in recent times. Despite improvements, timely access to services does not seem to be standard practice yet. The Actifcare project aims to collect all information available on the topic and to

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provide new evidence on qualitative and qualitative grounds. Focus groups' preliminary results point to issues concerning the availability and accessibility of formal care, along with strong (but changing) family networks. In the cohort study, difficulties with the ongoing recruitment process illustrate how persons with mild dementia are not easily identified in primary care; referral to specialized care often occurs when functional dependence befalls. Among Actifcare countries this scenario differs.

S21.01

The impact of age on cognitive deficits following ECT for depression – results from the effect-dep trial

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Objective: Electroconvulsive therapy (ECT) is the most efective treatment for severe depression but is limited by cognitive side-effects, to which older adult may be more vulnerable. The most common form of ECT worldwide uses bitemporal (BT) electrode placement which is more powerful than right unilateral (RUL) placement but is associated with more cognitive deficits. However, RUL-ECT at higher electrical doses may be as effective as BT-ECT but with less cognitive side-effects. The aim of this trial was to compare the effectiveness and cognitive side-effects of high-dose RUL-ECT with standard BT-ECT.

Methods: We carried out a pragmatic, two-group, parallel-design, randomised, non-inferiority trial (ISRCTN23577151) of twice-weekly BT-ECT at 1.5 times seizure threshold versus high-dose RUL-ECT at 6 times seizure threshold for patients with a major depressive episode. Recruitment was from May 2008 until November 2012. 138 patients (69 per group) were randomised to ensure adequate power to assess non-inferiority of high-dose RUL ECT. The primary outcome was the Hamilton Rating Scale for Depression (HRSD-24) score at end-of-treatment with a non-inferiority margin of 4.0 points. Secondary outcomes included recovery of orientation after ECT sessions as well as immediate and longer–term cognitive performance after completion of the ECT course.

Results: Overall, high-dose RUL ECT was non-inferior to BT ECT with respect to the HDRS-24 at the end of ECT course (mean difference 1.2 points in favour of RUL ECT (95% CI, -1.510 to 3.995)). Recovery of orientation was quicker following RUL ECT (median 19·1 vs 26·4 mins, $p < 0{\cdot}001$). RUL ECT was associated with better % recall of autobiographical information (OR = 0·66, $p = 0{\cdot}001$) that persisted for six months.

Conclusion: Twice-weekly high-dose RUL ECT is not inferior to bitemporal ECT, and may be preferable due to a more acceptable cognitive side-effect profile. Analyses of the effects of age on recovery of orientation after individual treatments and cognitive performance soon after completion of the ECT course and during the six-month follow-up will be presented and discussed.

S21.02

The relationship between hippocampal volume, mood and serum BNDF following ECT in late life depression: A longitudinal study

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Objective: Recent structural imaging studies have described hippocampal volume changes following electroconvulsive therapy (ECT). It has been proposed that Brain Derived Neurotrophic Factor (BDNF) mediated neuroplasticity contributes critically to brain changes following antidepressant treatment. To date no studies have investigated the relationship between hippocampal volume, mood and serum BDNF following ECT. Here, we combine these measurements in a longitudinal study of severe late life unipolar depression (LLD).

Methods: 34 elderly patients (65% female, mean age 72.5 years) with severe LLD (53% late onset, 44% psychotic depression) were treated twice weekly until remission (Montgomery-Åsberg Depression Rating Scale (MADRS) <10). sBDNF and MADRS were obtained before ECT (T0), 1 week after the last ECT (T1) and 4 weeks after the last ECT (T2). Hippocampal volumes were obtained by manual segmentation of 3T structural magnetic resonance images at T0 and T1. We used paired T-tests and simple linear regression to study ECT effect and relationship between measurements respectively.

Results: Patients received a mean of 11.5 right unilateral ECT's (SD = 3.80). Following ECT (T1 versus T0), there was a significant decrease in MADRS scores ($p < 0.0001$) and a significant increase in left ($p = 0.02$) and right ($p = 0.0005$)

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hippocampal volume. Compared to T0, BDNF levels remained unchanged at T1 ($p = 0.89$), but increased significantly at T2 ($p < 0.004$). We did not find any correlation between changes in MADRS scores, hippocampal volume and sBDNF.
Conclusion: Hippocampal volume increase and sBDNF increase are independent neurobiological effects that are unrelated to clinical response, suggesting a complex mechanism of action of ECT in LLD.

S21.03

Mood disorders in elderly treated with electroconvulsive therapy (MODECT), a two-site longitudinal study: Preliminary clinical results

Annemiek Dols, *Department of Old Age Psychiatry, GGZinGeest, VUmc, Amsterdam*

Objective: In severe depressed frail elderly, ECT is often the treatment of preference since its effect is better and faster, with response rates of 60–70%; moreover its side-effects are milder than of pharmacotherapy. Clinical characteristics, such as specific depressive symptoms, have been found to predict outcome, however not consistently. It has been hypothesised that ECT exerts its therapeutic efficacy through an influence on neurotrophic factors and a stimulation of neurogenesis. Larger, prospective and longitudinal studies are warranted to better identify which patients will remit after ECT and to unravel the possible mechanism of action by integrating the clinical profile of depressed patients with potential biomarkers in blood and (f)-MRI scans.
Methods: We designed Mood Disorders in Elderly treated with ElectroConvulsive Therapy (MODECT), a two-site study including older patients (55 years and over) with severe unipolar depression eligible for ECT. Data on clinical profile, blood samples and MRI scans were collected prospectively for 6 months.
Results: The design of the MODECT study and the clinical characteristics of the patients included at the two sites are presented. The baseline sample consists of 110 severely depressed older patients with a mean age of 73.0 years (SD 8.45) and consists of 72 (66.1%) women. The patients included in Amsterdam differed significantly from those included in Leuven with respect to marital status and level of education. In the Amsterdam sample there was more physical comorbidity ($p = 0.003$) and white matter hyperintensities in the brain were more prominent ($p = 0.02$). Patients were severely depressed at study entry, with a mean MADRS of 33.2. After a mean number of 11.7 treatments, 67.3% ($n = 74$) remitted and an additional 10.0% ($n = 11$) of patients responded. In Leuven the remission rate was 81.4%, with a sustained remission after 4 weeks in 60.5%, both significantly higher than in Amsterdam ($p = 0.04$ and $p < 0.001$).
Conclusions: ECT is an effective treatment in late life depression. The differences between the two study sites are possibly explained by clinical practice. Further analyses are warranted to better identify which patients will remit after ECT and to unravel the possible mechanism of action in older patients in MODECT.

S21.04

Vascular risk factors in elderly patients with depression: Outcome of electroconvulsive therapy versus medication

Rob Kok, *Department of Old Age Psychiatry, Parnassia Psychiatric Institute, The Hague, Netherlands*

Objective: To study the influence of vascular risk factors (VRF) on remission rates after electroconvulsive therapy compared with antidepressant medication.
Methods: The study sample consisted of 81 patients participating in a randomised controlled trial (RCT) comparing nortriptyline versus venlafaxine, and 43 participants from an electroconvulsive RCT comparing brief pulse versus ultra-brief pulse treatment. All patients had a major depression according to DSM-IV criteria, were inpatients, aged 60 and over and had a MADRS score ≥ 20. Remission was defined as a MADRS score of <10. The presence or absence of the VRF (hypercholesterolemia, hypertension, smoking, diabetes mellitus, cardiovascular disease and stroke) was established from the medical records. Remission rates were calculated using various cut offs in number of VRF. Logistic regression was used to study the influence of treatment condition (ECT or medication) on outcome, and the interaction with the number of VRF.
Results: Remission rates were 62.8% (27/43) in the ECT group, and 32.1% (26/81) in the medication group ($\chi 2 = 10.812$, $df = 1$; $p = .001$). Comparing patients with no versus ≥ 1 VRF, remission rates were decreased more in the presence of vascular burden in ECT patients (23%) than in medication patients (6%). Logistic regression revealed no interaction between the number of VRFs and treatment condition.

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Conclusion: The clinical impression that ECT would be more effective in depression with vascular risk factors, is merely the consequence of the higher efficacy of ECT per se and not of an extra effect in depression with vascular risk factors.

S22.01

Changing practice to reduce admissions for people with dementia

Afifa Qazi, *Consultant Psychiatrist, Dementia Crisis Support Team, NELFT, United Kingdom*

The dementia crisis support team is an innovative model of dementia care in the community which provides holistic; person centred integrated care to people with dementia in the community with the aim of reducing inappropriate hospital admissions. The author has set up the team in Essex in the United Kingdom, using the Community care model of dementia developed by the author in earlier work in an outer London area. The service won the prestigious Health Enterprise East; Health Innovation award, awarded by the Eastern Academic Health Science Network in the UK and is featured in a live documentary on the Department of Health Website as best practice in dementia nationally. The talk presents an overview of the background and the running of the service with case examples to highlight care in the community and data on admission avoidance.

S22.02

Understanding the causes and solutions for crises in dementia

Martin Orrell; Sandeep Toot; Ritchard Ledgerd
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Background: Many people with dementia and their carers experiences crises with the common consequence of a breakdown in care and the potential for hospital admission. The consequences of this can be that the person with dementia is no longer able to be supported in their own place which can result in a permanent loss of their home and long term admission to a nursing home. This usually means quality of life is lower and costs are higher, even though with the right support they could potentially be maintained at home for considerably longer. Little is known about the precise causes of crisis and even less about the best measures to manage them. A series of studies are presented which look at the risk factors for and the precipitants of crisis from the point of view of family carers, staff, and the people with dementia themselves, and related work identifies the best methods for the prevention of crises and the most useful ways to intervene and prevent admissions.
Methods: Methods include systematic reviews, focus group studies, a national survey and consensus methods.
Results: The results showed that falls, infection and delirium were highly rated as risks factors for crises. Carers and people with dementia rated aggression as less important but severity of memory impairment as much more important than staff did. Education and support for family carers and home care staff was highly valued. Well trained home care staff, communication equipment, emergency contacts and access to respite were highly valued for managing crises.
Conclusion: In conclusion, understanding potential crisis situations and interventions to support people with dementia and their carers is critical to providing effective support.

S22.03

Assistive technologies to support independent living in people with dementia: The experience in urban and rural areas of Zamora, Spain

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Assistive technologies are devices, tools, and systems that are used to accomplish tasks that the user would be otherwise unable to do (Boger and Mihailidis, 2011). The potential impact of cognitive and physical training in older adults has been a field of increasing interest and research; aerobic and cognitive activity could moderate the cognitive decline in older adults (Gonzalez-Palau et al., 2014). There is a pressing demand to improve psychosocial interventions with people living with dementia and their carers, and the utilisation of innovative methods could help us meet that demand (Garcia-Betances et al., 2014). Non pharmacological interventions have been shown to be an effective treatment for PWD (Olazarán et al., 2010). An initial analysis of the data set of the English Longitudinal Study of Aging (ELSA) indicates that the use of email/internet may reduce cognitive decline (Xavier et al., 2014). Thus, the regular use of computers and computer based cognition focused interventions might help reduce the pace of cognitive decline. Even though there is a prejudice about computers not being "elderly

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friendly", when older people get the opportunity to use them, they regard the computer as a "status symbol" often associated with youth; thus, the use of computers would have a positive effect in self-confidence and self-esteem (Hofmann et al., 2003). As the cohort of patients who are now entering their sixties and are familiar with the use of computers in their daily lives grows older, the development of assistive technologies to support their independent living in their communities becomes a priority. In this lecture, we want to review the state of the art of assistive technologies in the field of home dwelling people living with dementia, sharing a concrete experience in both urban and rural areas of Zamora, in Spain, that we have been developing in the last fifteen years.

S22.04

Home care in dementia

Guenter Klug; Gerhard Hermann; Manuela Gallunder
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The lecture is tracing two aims:

1. What discriminates home care in dementia from treating elderly people with other psychiatric diagnosis?
2. What has to be paid attention to in home care in dementia, and which factors are influencing it?

For this purpose two approaches were chosen: The data of the supply of services, during 15 years of out patient treatment in geriatric psychiatry, are compared quantitatively, separated by diagnostic groups.

With the help of case reports the results are interpreted qualitatively for differences in working approach and target. In the end it will be discussed, which factors on the level of the patients, the team and the environmental network influence the described home care in dementia sustainably.

S22.05

Online psycho-education to empower caregives of people with dementia in the management of night-time agitation (OPEC-D)

Nele Spruytte; Marieke Van Vracem; Anja Declercq; Chantal Van Audenhove
LUCAS, KU Leuven, Leuven, Belgium

Night-time agitation in dementia is an underestimated problem which challenges many family caregivers at home. Agitated behaviours, such as wandering, yelling or moving furniture in the middle of the night, exhaust the family caregiver, and this in turn may trigger the decision for moving into residential care. The causes of night-time agitation are multifactorial. Sensory and spatial interventions are under-used in coping with night-time agitation.

The OPEC-D study aims to develop and evaluate a web-based psycho-education program for family caregivers of people with dementia on the non-pharmacological management of night-time agitation. The aim of the tool is not only to inform family caregivers at home, but also to guide and support them in the active search for an individualised strategy in coping with night-time agitation. Based on literature review and focus groups with professional and family caregivers, we developed a psycho-education tool which aims to inform and guide family caregivers through a variety of causes and non-pharmacological strategies of coping with night-time agitation. Family caregivers are actively involved in the development of the psycho-education tool.

Expert panels with family caregivers of persons with dementia (n = 20) are conducted to evaluate the tool. Family caregivers recruited through Alzheimer Associations and other organisations are asked to clarify the content and form of the tool, to incorporate additional practice examples of sensory and spatial strategies and to anticipate on potential barriers and facilitators for implementation of the online tool.

Finally, an evaluation study will be performed with three research questions: (1) What expectations do family caregivers have towards online psycho-education? (2) How effective is the tool as to the main outcome of strengthening the sense of competence? And (3) How feasible is the tool in practice? This evaluation study will use interviews and validated questionnaires for the participating family caregivers.

This presentation will give an overview of the OPEC-D study and present some of the lessons learnt on the participation of family caregivers in research and on the implementation of online support for family caregivers.

S23.01

Quality of life of nursing home residents with dementia: Is the change over two years associated to the concept of the nursing home or the care unit?

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Objective: The presentation aims at answering the research questions if quality of life (QoL) of nursing home residents with dementia changes and if the change is associated to the concept of the nursing home and the concept of the care unit the resident lives in.
Method: Data were derived from three measurement time points of a German monitoring study (2012–2014). Residents were included if a dementia diagnosis was recorded, they were screened positively for dementia (DSS>2) and lived at least four weeks in the nursing home. Overall QoL was measured with the QUALIDEM, a dementia-specific proxy-rated instrument with sufficient psychometric properties. The concept of the nursing home was categorized as: dementia specialized nursing home / nursing home with a specialized dementia care unit/ nursing home without a dementia specialized care unit. The concept of the care unit was operationalized with the variables size (≤ 15/ > 15 places) and dementia specialization (yes/ no). Resident-related covariates were: age, sex, care level, neuropsychological symptoms (NPI-Q), dementia severity (mild-moderate 3–7 DSS ccore/ severe >7 DSS score), and length of stay. Covariates on the institutional level were: nursing home size (≤ 100/ > 100 places), utilization, provider (private, non-private) and resident case mix. A linear mixed model adjusted for the covariates and the cluster and time effect was performed separately for the group of residents with mild-moderate dementia and severe dementia.
Results: There were n = 640 with mild-moderate dementia (n = 797 observations) and n = 1433 with severe dementia (n = 1944 observations). In the group of residents with severe dementia QoL changed slightly over time (fig. 1); no significant time effect could be found in the other group. In both groups, the care level, neuropsychological symptoms and degree of cognitive impairment were identified as significantly associated to QoL. In residents with mild-moderate dementia QoL change was additionally associated with the provider. In this group, QoL improved in residents from care units with > 15 places and from nursing homes that are specialized on people with dementia. For both groups, a significant group by time interaction was found for the variables size of the care unit and concept of the nursing home.
Conclusion: Concept-related variables have an influence on QoL on residents with dementia in nursing homes. Further analyses are needed to understand the nature of the change of QoL.

S23.02

Daily lives of people with dementia: Development of the Maastricht Electronic Daily Life Observation (MEDLO) tool

Bram de Boer, *Department of Health Services Research, CAPHRI School for Public Health and Primary Care Faculty of Health, Maastricht, Netherlands*

Background: Spending days meaningfully is of crucial importance for the quality of life of people with dementia. Detailed insight into their daily lives would offer researchers the opportunity to investigate differences in how people with dementia living in different long term care facilities spend their days. It would also provide possibilities to investigate associations between daily lives and quality of life. However, currently there is no instrument available that provides researchers with a detailed insight into the daily lives of people with dementia living in long term care facilities.
Objective: To develop the Maastricht Electronic Daily Life Observation (MEDLO) tool; an open access, easy to use, electronic observational tool to give a full and extensive description of the daily lives of people with dementia living in a long term care facility.
Methods: In the development of the MEDLO-tool, three steps were taken: (1) determining the relevant daily life related outcomes based on a literature search and expert interviews; (2) determining the observational procedure and operationalization of domains based on the literature, pilot testing and expert opinions; (3) exploring interrater-reliability and feasibility of the MEDLO-tool by means of pilot testing and a questionnaire for users of the tool.
Results: The following daily life related outcomes are included in the MEDLO-tool: activities, engagement in these activities, social interaction, interaction with the physical environment, physical effort, mood, agitation, and location. Observations are carried out with tablets. To give an extensive description of the daily lives of people with dementia observations take place at two mornings, three afternoons, and two evenings in a period of two weeks. Eight residents are observed every 20 minutes. Using the MEDLO-tool provides the researcher with 84 observations per resident on all daily life related outcomes. The pilot test resulted in 56 observations performed simultaneously by two observers independently. First results indicate that the MEDLO - tool has a moderate to good interrater-reliability with (weighted) kappa values ranging from .46 to 1 depending on the daily

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life related outcome. Users of the MEDLO-tool indicated that the observation operationalization was clear. Overall, the users' opinion about the MEDLO-tool was positive indicating the tool appears to be feasible.
Conclusion: The MEDLO-tool appears to be a reliable and feasible tool to describe (in real time) the daily lives of people with dementia living in a long term care facility. The MEDLO - tool can be used to compare the daily lives of people with dementia living in different types of long term care facilities. More extensive reliability and validity testing is recommended.

S23.03

Living with dementia in a long-term care facility: Self-reported quality of life and real-time observations of daily life

Hanneke C. Beerens, *Department of Health Services Research, CAPHRI School for Public Health and Primary Care Faculty of Health, Maastricht, Netherlands*

Introduction: A considerable number of People with Dementia (PwD) living in long-term care facilities is still able to judge his/her own Quality of Life (QoL). However the association between self-reported QoL and daily life-related outcomes such as activities, social interactions with other people, physical effort, and psychological states, is unknown. Therefore, the following research question was formulated: *which daily life-related outcomes are associated with self-reported QoL of PwD living in long-term care facilities?*
Methods: The current study has an observational study design. 66 PwD living in long-term care facilities were, based on their ability of complete a QoL questionnaire, included in this study. They were on average 84 years old and mainly female. The electronic tablet-based Maastricht Electronic Daily Life Observation-tool (MEDLO-tool) was used to perform repeated real-time observations of the daily lives of PwD and includes observations on activity, engagement, social interaction, physical effort, mood and agitation. QoL was assessed by PwD using the Quality of Life-Alzheimer's Disease scale (QoL-AD). Pearson correlations were calculated.
Results: For each resident, daily life-related outcomes were observed for 84 times within two weeks. The main activities that were displayed were passive activities (22%) and engagement in active, expressive, or social activities (33%). They had during 31% of their time social interaction, and were physically active during 10% of their time. Finally, PwD showed small signs of happiness most of the time and agitation was rarely observed (0%). Tentative results show that a higher self-reported QoL was associated with a low frequency of passive activities ($r = -.309$, $p < .05$), frequent engagement in active, expressive, or social activities ($r = .4$, $p < .01$), frequent social interactions with others ($r = .347$, $p < .01$) and a high mean mood score indicating a positive mood ($r = .260$, $p < .05$).
Discussion: Self-reported QoL seems to be associated with active engagement in active, expressive, and social activities. Future research on the difference between self-reported and caregiver-reported QoL in relation to daily life-related outcomes is needed.

S23.04

Active ageing in the nursing home: The importance and experienced realization of meaningful leisure and the influence on quality of life

Lien van Malderen, *Department of Gerontology, Frailty in Ageing Research Group, Brussels*

Introduction: Active Ageing (AA) (WHO, 2002) aims to enhance the quality of life (QoL) by focusing on different AA-determinants. Despite its importance, no literature exists on AA in the nursing home (NH). Therefore, a qualitative study was performed to examine what AA could mean in this setting. This study showed that the WHO-determinants were also applicable in the NH to improve residents' (NHR) QoL. In addition, two extra determinants appeared to be important to realize AA: participation and meaningful leisure (ML). Based on these findings, our next research aim was to examine the current AA-status of NH in Flanders, Belgium.
Methods: An AA-survey for NHR was developed, encompassing the different AA-determinants. It included 61 statements on the NH operation. Likert-scales were used to examine the experienced reality and experienced importance per item. This reliable survey (Cronbach's $\alpha = 0.91$) was administered to a representative sample of 383 NHR with no cognitive problems. In addition, the Anamnestic Comparison Self-Assessment (ACSA, range -5/+5) was used to measure the QoL. This abstract will further focus on the AA-results of the ML determinant.
Results: The participants' QoL was positive (ACSA = 1,75). In general, NHR felt the ML determinant for 72% as realized in comparison to an importance rate of 84%. With regards to the experienced reality, men scored lower than women

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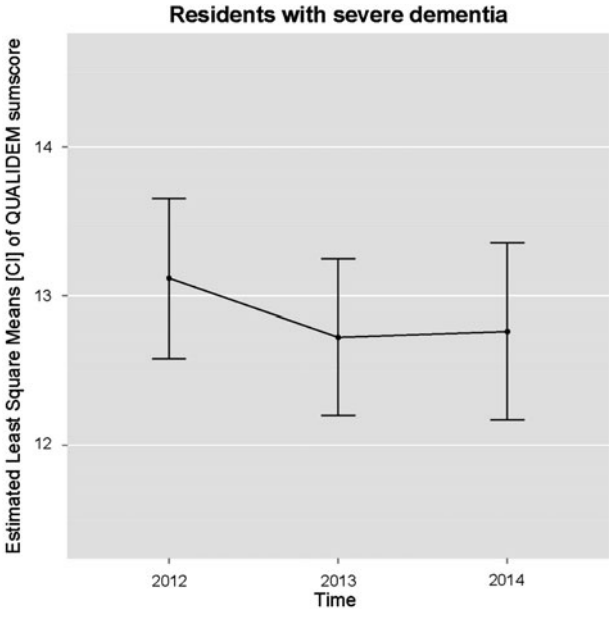
(p < 0,01), lower educated people were more content than NHR with a university degree (p < 0,01); public NH scored higher than profit NH (p < 0,01). Regarding the different ML items, 87% of the NHR felt they were systematically invited to participate in the organized ML activities, but for a third of them these activities were insufficient in number (32%), not adjusted to the own wishes (30%) and only 49% thought there was enough variety. Furthermore, 67% of the NHR felt they were occupied meaningfully throughout the day and only 38% could continue their hobbies from home.
Discussion: Within our AA-studies, ML is perceived as a distinct and important AA-determinant. Nevertheless the importance of ML for NHR QoL shown in the qualitative and quantitative study, the experienced reality knows some existing lacks, including a varied activity program, adjusted to the wishes of the NHR and providing the possibility to continue ones hobbies. Further research could explore if focusing on these aspects as NH could improve further the QoL of the NHR.

S23.05

Mission accomplished? Active ageing in nursing homes: A new approach to enable meaningful activities and quality of life

Elise Cornelis, *Arteveldehogeschool, Gent, Belgium*

Objectives: The engagement of Nursing Homes (NH) residents in performing meaningful activities of daily living (ADL) promotes well-being and Quality of Life. It serves as a mediating factor in both psychological and physical health, reflected in the concept of Active Ageing (AA). However, AA is hardly implemented in NH. This project aimed to develop a multidisciplinary approach to identify residents' needs concerning meaningful activities, which are situated in different areas (self-care, leisure, etc.) and to guide NHs in a more creative and innovative attitude towards residents' daily activities.
Method: The "framework for design and evaluation of complex interventions to improve health care" (Campbell, et al. 2008) lead to the design of a novel approach. In a first step, the need for this new intervention was identified through qualitative research on NH residents (the preclinical or theoretical phase). In a second step (the modelling phase), the components of this new approach were explored using a survey with 143 NH residents. Additionally, a systematic review on interventions to improve meaningful activities was completed. In the third phase (the exploratory phase) we developed the new approach, which was tested in three living labs. Feasibility and acceptability was evaluated and an in depth analysis of the benefits for the residents was performed. To support implementation, a qualitative analysis of 'good practices' was carried out. Additionally, focus groups were organized with different stakeholders (nurses, management, animators, occupational therapists) to identify their point of view towards enabling meaningful activities.
Results: The novel approach was a client- and activity-oriented approach, characterized by an active participatory attitude of resident and caregiver. Based on a systematic process, globally four phases are distinguished, from an initial 'getting to know each other', over an all-encompassing evaluation concerning wishes, desires, priorities and (multiple) inhibiting factors. After cataloging the resources and strengths of the person (the facilitating factors), a 'plan' targeting on enabling residents' prioritized meaningful activities can be developed. A 'toolbox' was also developed with all necessary material for the professionals to put these results into practice.
Discussion and conclusion: In a further step, this approach will be investigated in a Randomised Controlled Trial to evaluate its outcome and cost-effectiveness.



S24.01

Geriatric psychiatry training in the Netherlands

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Traditionally, training in psychiatry was confined to 4.5 years in the Netherlands, with no formal training in geriatric psychiatry (although it was recommended to fulfil a 6-month residency in old age). Since January 2011 the training programme has changed dramatically. After a general training for 2.5 years in psychiatry, residents have to choose between the subspecialties of Child and Adolescence, Adult, or Geriatric Psychiatry (each for a period of 2 years).

For training in geriatric psychiatry, we have developed a national training programme organised in five themes/courses, i.e. gerontology, psychiatric disorders in late-life, neurocognitive disorders, psychotherapy and finally one on ethics, law and management. Locally, training programmes have been developed and certified to train competencies of residents in geriatric psychiatry. These local training programmes have to meet the criteria set-up nationally and need to be certified by both Dutch Association of Psychiatry (NVVP) as well as the Dutch Registration system for Medical Specialisms (RGS). Certifications need to be renewed every five years. During the symposium, the training programme will be explained in more detail, including the pitfalls and success we have faced during preparation and implementation.

S24.02

The situation of psychogeriatric training in Germany

Hans Gutzmann, *German Society for Geriatric Psychiatry and Psychotherapy, Berlin, Germany*

The majority of psychogeriatric patients in Germany live in the community and in the majority of cases, medical care is provided by general practitioners. There is still a rampant belief that the supply of general psychiatric services alone can satisfy the demand for specialized psychogeriatric care. That belief depends on the interests of certain stakeholders and blocks the initiative for a development of a subspecialty status of Geriatric Psychiatry. Currently, there are psychogeriatric specialists in Germany, most of them hospital-based, but regrettably most without a formal training, based on curricula approved by the respective professional bodies. Some have acquired their competency elsewhere (e.g. in the United Kingdom), most of them tried it autodidactic. For all that, it is urgently necessary for psychogeriatrics in Germany to be further integrated into specialist training programmes.

As a first step a geriatric psychiatry certificate has been developed by the German Society for Geriatric Psychiatry and Psychotherapy (DGGPP), the German Academy for Geriatric Psychiatry and Psychotherapy (DAGPP), and the German Society for Psychiatry, Psychotherapy and Neurology (DGPPN). The certificate at first was mainly aimed at general practitioners as providers of primary care for the elderly mentally ill. The certificate has since been expanded to psychiatric specialists. To attain the certificate currently as a medical specialist, the applicant should be a psychiatrist or neurologist, and should prove his/her competency in geriatric psychiatry by 1) at least one year internship in geriatric psychiatry or at least two years of caring for and treating of elderly psychiatric patients, 2) knowledge of basics and special aspects of geriatric psychiatry (provided by a 40 hours and 60 hours curriculum, respectively), and finally 3) proof of self-reliant work in geriatric psychiatry, i.e. diagnosing, treating, and documenting 150 typical in- or out-patients aged 65 years or older. Although the certificate is very well accepted, it is by no means a substitute for comprehensive subspecialty training.

S24.03

Old age psychiatry training in Sweden

Karin Sparring Björkstén, *Department of Neurobiology, Care Sciences and Society, Karolinska Institute, Stockholm, Sweden*

Specialized psychiatric services for the elderly are available only in few places in Sweden and split between geriatrics and psychiatry, and between dementia and non-dementia. The split has not been advantageous for developing services for the elderly. The specialist training for physicians in Sweden was not regulated in detail until 2008, when it was adapted to European standards with a five-year curriculum for all specialities. Sweden has no specialist exam or re-certification. After 15 years of lobbying from the Swedish Association for Old Age Psychiatry, Old Age Psychiatry will become an additional speciality for specialist of either psychiatry or geriatrics in 2015. It will likely take an additional two years of training. Excellent clinical skills and knowledge are required about neurocognitive disorders as well as other common psychiatric disorders in the elderly such as delirium, affective disorders, anxiety, crisis, personality disorders, psychiatric symptoms in somatic disease, and about electro-convulsive treatment, psychopharmacology and polypharmacy. A good knowledge is required about common somatic disorders in the elderly, alcohol and substance abuse, relevant legal issues and basic skills and knowledge about psychotherapy in old

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age. A wide orientation about non-medical parts of the society that are relevant for elderly is included. The presentation will include the on-going work how to create the new speciality in Sweden.

S24.04

Training in psychogeriatrics: The Spanish perspective

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Currently geriatric psychiatry is not recognized as specific speciality in Spain. Because of this, there are few psychiatric departments with a Psychogeriatric Unit though the number of aging in Spain is very high. The Spanish Psychogeriatric Association is active and one of their main goals is to obtain acceptation of geriatric psychiatry as specialization that requires specific training. Within the symposium, we will give an overview of the graduate and postgraduate training programs offered by Spanish Universities. Subsequently, we will present a proposal for a training program in geriatric psychiatry that should be provided to all residents in psychiatry to ensure a minimal basis of psychogeriatric knowledge and competencies.

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