



IPA INTERNATIONAL PSYCHOGERIATRIC ASSOCIATION
European Regional Meeting
3-5 December 2014

ABSTRACTS – FREE COMMUNICATION

FC01: PSYCHOSOCIAL INTERVENTIONS AND TECHNOLOGICAL INNOVATIONS

FC01-01 THE IMPACT OF BEFRIENDING ON MOOD DISORDERS IN OLDER ADULTS WITH CHRONIC OBSTRUCTIVE PULMONARY DISEASE (COPD)

Colleen Doyle*, Marcia Fearn¹, Debra Osborne²

¹National ageing research institute, ²Villa Maria Catholic Homes, Melbourne, Australia

Objectives: While there is substantial evidence that cognitive behavior therapy (CBT) is effective in treating mood disorders, there is also limited evidence that befriending or non-therapeutic talking assists some people (Jackson et al, 2008). Befriending is a series of conversations similar to those that you would have with a social acquaintance, involving discussion of neutral, everyday topics and events in a friendly manner. There is no problem-solving or exploration of emotions in befriending. The aim of this trial was to evaluate the effect of telephone-administered befriending on clients with chronic obstructive pulmonary disease (COPD) and at least mild levels of depression and/or anxiety, compared with cognitive behavior therapy (CBT).

Methods: Befriending was used as an active social control in a randomized controlled trial of telephone-administered CBT that we conducted for older adults with COPD. 110 participants were randomised into CBT intervention (n=54) or befriending (n=56). Befrienders were volunteers who were trained using a standardised manual to deliver the intervention. Cognitive behavior therapy was administered by trained psychologists. Both interventions were monitored for quality and treatment integrity.

Results: The befriending group showed a statistically significant reduction in depression and anxiety following a series of 8 weekly phone calls as measured by changes in PHQ-9 and BAI from baseline to followup assessments, similar to that seen in the CBT group. Participants in the befriending group also showed an increase in their levels of self-efficacy. The topics of conversation, age and health condition of the recipient and volunteer, gender and background matching, flexibility and a face-to-face meeting prior to the phone calls were all seen to impact on the effectiveness of the befriending.

Conclusion: In conclusion befriending improved symptoms of mood disorders in older adults with COPD. Further research is needed to understand whether the observed improvements are sustained over time.

References: Jackson, H. J., McGorry, P. D., Killackey, E., Bendall, S., Allott, K., Dudgeon, P., Harrigan, S. (2008). Acute-phase and 1-year follow-up results of a randomized controlled trial of CBT versus Befriending for first-episode psychosis: the ACE project. *Psychol Med*, 38(5), 725-735.

Keywords: anxiety, befriending, depression

FC01-02 FIRST RESULTS OF THE EVALUATION OF THE NATIONAL IMPLEMENTATION OF THE ALZHEIMER ART PROGRAMME IN DUTCH MUSEUMS

Rose-Marie Dröes^{*1}, Iris Hendriks¹, Franka Meiland²

¹Psychiatry, ²General practice & Elderly care medicine, VU UNIVERSITY MEDICAL CENTER, Amsterdam, Netherlands

Objectives: The Stedelijk Museum Amsterdam and Van Abbemuseum Eindhoven offer guided interactive museum tours for people with dementia (PwD) and their carers. This 'Unforgettable' programme is modelled after the Alzheimer programme of the Museum of Modern Art in New York. Because of the success of the programme the two Dutch museums developed an implementation and training programme to disseminate 'Unforgettable' to 10 other museums across the Netherlands. This implementation is accompanied by scientific research to get better insight into how the programme is appreciated by participants, its impact on a user, organisational and societal level, and on factors influencing the implementation.

Methods: Mixed methods are used: To determine how participants value the programme observations (n=85) are carried out during the museum tours and a survey is conducted afterwards (150 PwD, 150 carers). The impact of the programme on participants' mood and on the attitude towards dementia of the museum employees is tested in a pretest-posttest one group design with the Smiley Face Assessment Scale (150 PwD, 150 carers) and the Approaches to Dementia Questionnaire (200 employees). During the study new activities, in and outside the museums, resulting from the 'Unforgettable' programme, are registered. To inventory factors that facilitate or impede the implementation, key figures are interviewed.

Results: The study will provide insight in how people value the guided tours and different works of art and the possible relation with individual background characteristics and disabilities. Knowledge will be gained on the effect of the programme on participants, employees and other areas of society. Factors facilitating and impeding the implementation will be described. This will help other museums to successfully implement the programme.

Conclusion: This 3-year implementation study started in March 2014. First results of the user and impact evaluation, based on the implementation of the Alzheimer programme in two museums will be presented.

Acknowledgements: Main sponsor of the study and implementation: Gieskes Strijbis Foundation, additional sponsors of the study: Stichting Hofjes Codde en Van Beresteyn and VSB-fonds.

Keywords: carers, cultural participation, people with dementia, quality of life

FC01-03 THE ART OF SUCCESSFUL IMPLEMENTATION OF PSYCHOSOCIAL INTERVENTIONS IN RESIDENTIAL DEMENTIA CARE: A SYSTEMATIC REVIEW OF THE LITERATURE BASED ON THE RE-AIM FRAMEWORK

Petra Boersma^{*}, Julia van Weert¹, Jeroen Lakerveld², Rose-Marie Dröes³

¹Amsterdam School of Communication Research/ASCoR, University of Amsterdam, ²Department of General Practice and Elderly Care,

³Department of Psychiatry, VU University Medical Centre, Amsterdam, Netherlands

Objectives: In the past decades many psychosocial interventions for elderly people with dementia have been developed and implemented. Relatively little research has been done on the extent to which these interventions were implemented in the daily care. The aim of this study was to obtain insight into strategies for successful implementation of psychosocial interventions in the daily residential dementia care. Using a modified RE-AIM framework, the indicators that are considered important for effective and sustainable implementation were defined.

Methods: A systematic literature search was undertaken in PubMed, PsycINFO and Cinahl, followed by a hand search for key articles. The included publications were mapped based on the dimensions of the RE-AIM framework: Reach, Effectiveness, Adoption, Implementation and Maintenance.

Results: Fifty-four articles met the inclusion criteria and described various psychosocial interventions. A distinction was made between studies that used one and studies that used multiple implementation strategies. This review shows that to improve their knowledge, caregivers needed at least multiple implementation strategies, only education is not enough. For increasing a more person-centred attitude, different types of knowledge transfer can be effective. Little consideration is given to the *adoption* of the method by caregivers and to the long-term sustainability (*maintenance*).

Conclusion: This review shows that in order to successfully implement a psychosocial method the use of multiple implementation strategies is recommended. To ensure sustainability of a psychosocial care method in daily nursing home care, innovators as well as researchers should specifically pay attention to the dimensions Adoption, Implementation and Maintenance of the RE-AIM implementation framework.

References: Boersma, P., van Weert, J. C. M., Lakerveld, J., Dröes, R. M., 2014. 'The art of successful implementation of psychosocial interventions in residential dementia care: a systematic review of the literature based on the RE-AIM framework', *International Psychogeriatrics*. 1-17. doi: 10.1017/S1041610214001409

Keywords: caregivers, Dementia, implementation, quality of care, RE-AIM framework

FC01-04 AVAILABILITY AND AWARENESS OF ASSISTIVE TECHNOLOGY PRODUCTS AND SERVICES FOR PEOPLE WITH DEMENTIA IN THE UNITED KINGDOM.

Grant Gibson^{*}, Claire Dickinson¹, Louise Robinson¹

¹Institute of Health and Society, Newcastle University, Newcastle upon Tyne, United Kingdom

Objectives: Despite a limited evidence base for its effectiveness, increasing attention is being paid to the use of Assistive Technologies (AT) in dementia care. A mixed economy for AT is developing, in which products are provided through both health/social care and through the commercial market. However levels of awareness among people with dementia (PwD) and their carers regarding this market can be questioned. This presentation explores levels of awareness and accessibility regarding AT's used in dementia care.

Methods: This presentation reports findings from a review of AT products and services available within the UK and a qualitative study exploring awareness of AT among PwD and carers. The review identified all AT products provided by AT services in the UK; either by Health/Social Care organisations, by the voluntary/third sector or in the private market. Qualitative in-depth interviews with 29 PwD and carers explored levels of awareness regarding AT and experiences of accessing AT products or services among PwD and their carers.

Results: The review of AT products and services available in the UK identified 171 product types and 331 formal AT services provided across health, social and commercial care sectors. Information provision regarding AT products was variable, with few services giving high quality information about AT products, how to access them or their cost. A qualitative study of 29 PwD and carers identified key barriers to awareness and accessibility including knowledge of AT products and of referral pathways across health and social care services, difficulties with accessing information throughout the care economy, and cost of AT products as a barrier to accessibility.

Conclusion: Despite attempts to 'mainstream' AT services for PwD within the UK, awareness either of AT products or AT services among PwD/carers is currently low. In order to improve knowledge, awareness and uptake among PwD and carers a number of barriers must be overcome including improving information provision within AT referral pathways, improving awareness of AT referral pathways among health and social care professionals, and ensuring greater awareness of public information resources regarding AT across the mixed economy of AT provision.

Keywords: Assistive technology, availability, awareness, people with dementia

FC01-05 POLI- MEDICATION®: A COMPUTERIZED TOOL FOR REDUCING POTENTIALLY INAPPROPRIATE MEDICATION IN NURSING HOMES

Tomás M García-Caballero¹, Alejandro A. García-Caballero*², Juan Lojo³, Roberto Alvarez⁴, Carlos Menéndez¹, Raimundo Mateos⁵
¹Centro Saúde A Cuña, ²Dpt. Psychiatry, ³Dpt. Calidade, Complexo Hospitalario Universitario de Ourense, ⁴Residencia Santa Marta, Fundación San Rosendo, Ourense, ⁵Dpt. Psychiatry, School of Medicine, Universidade de Santiago de Compostela, Santiago de Compostela, Spain

Objectives: Polimedication is prevalent in nursing homes and primary care. The elderly are especially vulnerable to it due to comorbidity and changes in pharmacodynamics and pharmacokinetics. Moreover, polimedication also generates an unacceptable cost. An strategy is to use potentially inappropriate medications (PIM) lists. However using them is time consuming and difficult to implement in large samples.

The aims of our project were: 1) To design a computerized tool (Poli-medication) based on the Spanish version of STOPP (Screening Tool of Older Person's Prescriptions)(Delgado et al., 2009) 2) To evaluate the feasibility of Poli-medication in a nursing home 3) To calculate the potential time and pharmaco-economic savings.

Methods: Our first task was to create a complete database with active principles and brand names associated to their corresponding STOPP alerts. Secondly the application was created in Visual Basic for Applications (VBA) working with Excel sheets. Afterwards the software was sequentially debugged. Finally it was piloted in a nursing home (Residencia Santa Marta, Ourense). The excel database of the nursing home was processed using Poli- medication, and initial alerts generated. Subsequently the medical records of each patient were evaluated in order to decide the appropriateness of each alert. Finally approved alerts were proposed to the GP and psychiatrist of the nursing home, who accepted or refused them.

Results: We analyzed the data corresponding to 125 patients in 2 journeys of 4 hours (6,26 min/case), confirming the feasibility of Poli-medication even for primary care use. The automatic alerts were 711, approved alerts were 158, and 91 were finally accepted and entailed medication changes, mainly in neuroleptics, benzodiazepines and anticholinergic drugs. Besides, no relevant secondary effects were found. The changes represent a cost saving of 3768,39 €/year.

Conclusion: Poli-medication is reliable, user- friendly and fast, allowing time and costs savings. Further studies are needed to evaluate its impact on Daily living abilities, quality of life, cognition, etc.

Poli- medication is currently being fuelled with all internationally relevant PIM lists (PRISCUS, French consensus, Beers, NORGEP...). Horizon 2020 could represent an opportunity to adapt and evaluate it in different European countries.

Keywords: inappropriate, medication, polimedication, potentially

FC02: CULTURE AND CAREGIVERS

FC02-01 THE IMPACT OF DEMENTIA ON RELATIONSHIPS: IMPLICATIONS FOR CARE

Susan Mary Benbow¹, Victoria Sharman¹

¹Harrow, United Kingdom

Objectives: Dementia affects the whole family. How the family deals with it will powerfully influence how the individual lives with dementia and the care/ support they and other family members require. Are people aware of relationships changing before and after diagnosis? Does the size of the family affect the quality of relationships before and after diagnosis? Our initial objective is to increase understanding of how dementia impacts on relationships and how that in turn influences care.

Methods: We are developing ideas in conversations with people with dementia and their family members, including conversations as part of narratives study (Benbow and Kingston, 2014) and relating to the role of family therapy (Benbow and Sharman, 2014).

Results: In partner relationships issues include: loss of choice/ ability to make decisions; impact on closeness/ distance; feeling treated like a small child; becoming more dependent/ change in division of responsibilities; lack of patience in recognising emotional expressions of dementia e.g. frustration, anger, humiliation; having to withdraw rather than say things to upset the partner for fear of possible consequences. In relationships with family members they identify similar issues and: being left out/ wanting to be included; feeling that control/ responsibility is lost; differences between children and grandchildren.

Other areas include: lack of openness/ awareness that protects against fear of life transformation and loss of constructed self/family sometimes with associated lack of planning till reaching a crisis stage; difficulty making sense of what to do with time, boredom and depending on others for stimulation; the importance of friends and of having a forum where they can speak freely.

Conclusion: People with dementia are able and willing to talk about relational issues/ dilemmas, but unspoken compliance may offer protection against risk taking in the interests of family/ wider relationships. Listeners need to be sensitive to the language of sensory communication and acknowledge the need for safety, differing perceptions of difficult behaviour, the advantages/ disadvantages of getting it wrong, forgetting and word loss. Given opportunity, people with early dementia are able to make perceptive observations about how dementia has affected relationships. Many do not have anywhere to share these concerns. Memory cafes, where people with dementia meet as a group, offer one potential source of support. Individual and/ or family counseling may also help.

References: BENBOW, S. M. & KINGSTON, P. 2014. 'Talking about my experiences . . . at times disturbing yet positive': Producing narratives with people living with dementia. *Dementia*, in press.

BENBOW, S. M. & SHARMAN, V. 2014. Review of family therapy and dementia: twenty-five years on. *International Psychogeriatrics*, FirstView, 1-14.

Keywords: caregiving, dementia, families, relationships

FC02-02 BETTER CONVERSATIONS WITH PRIMARY PROGRESSIVE APHASIA (PPA): COMMUNICATION TRAINING TO KEEP FAMILIES TOGETHER.

Anna Volkmer*, Martin Orrell¹, Suzanne Beeke²

¹Division of psychiatry, ²Language and Communication Research Department, University College London, London, United Kingdom

Objectives: To demonstrate whether a conversation based therapy approach can demonstrate improvements for people with Primary Progressive Aphasia (PPA) and their conversation partners in terms of: conversation; confidence in communication; self-efficacy; well-being.

Methods: This is a small-scale case series evaluation of a speech and language therapy intervention within the neuropsychiatry memory disorders clinic at St Thomas' Hospital, London, UK.

Participants: Two patients with PPA and their conversation partners have consented to participate in this pilot study comprising three phases: i) 2 sessions of pre-intervention assessment, ii) 4 sessions of intervention and iii) 1 session of post-intervention re-assessment.

Intervention: The communication-training program is a modified version of the Better Conversations with Aphasia (BCA) resource (Beeke et al, 2013). It constitutes four therapy sessions targeting self-reflection, negotiation of strategies, practice and consolidation. Dyad self reflection is encouraged via joint viewing of short video extracts from their conversations. The speech and language therapist facilitates their identification of positive communication strategies they wish to practice.

Outcome measures: Routine language assessment is conducted prior to the intervention. Additional pre and post intervention measures include video recordings of conversation, and assessment of self-efficacy using The Ryff self-efficacy scale (Ryff, 1989). Measuring change in conversation will follow methods developed for BCA, and involve coding and counting interactional features known to be affected by dementia, such as episodes of conversation breakdown, topic initiation, and question and answer sequences (Perkins et al, 1998).

Results: This will show on post-intervention measures of change including conversation rating and the Ryff measure of self-efficacy. Preliminary qualitative analysis reveals reduced episodes of conversation breakdown and improvements in reported confidence by the person with PPA and their conversation partner.

Conclusion: This novel communication-training program can benefit people with PPA and their partners.

References: Beeke, S. et al. (2013) Better conversations with aphasia: an e-learning resource. Available at: <https://extend.ucl.ac.uk/>
Perkins, L. Whitworth, A. and Lesser, R. (1998) Conversing in dementia: a conversation analytic approach. *Journal of Neurolinguistics*, 12 (1-2) 35-53.

Ryff, C. D. (1989) Happiness is everything, or is it? Explorations on the meaning of psychological well-being. *Journal of Personality and Social Psychology*, 57(6), 1069-1081. doi:10.1037/0022-3514.57.6.1069.

Keywords: Communication Training, Primary Progressive Aphasia

FC02-03 CULTURE AND HEALTH CARE USAGE IN GERIATRIC PSYCHIATRIC INPATIENTS

Friederike Tornau^{*}, Gaby Bruchmann¹, Georg Juckel²

¹LWL- psychiatry association Westfalia-Lippe, Münster, ²Department of Psychiatry, Psychotherapy and Preventive Medicine, LWL-University Hospital, Ruhr-University Bochum, Bochum, Germany

Objectives: Patients from different cultural backgrounds also differ in many ways, in particularly in the psychiatric field (e.g. epidemiology, psychopathology, etiopathology). Among the reasons for these differences are socialization within the culture of origin as well as experiences within a possible migration process and the aligned consequences. Thus it is no surprise that patients with migration background use health care differently than German patients. These differences are particularly striking in multi-morbid older patients with serious psychiatric disorders. Since this is an extremely vulnerable group with a corresponding high potential for prevention, there is a high necessity for research.

The purpose of the present study is to identify and compare the health care usage of geriatric psychiatric patients with different cultural backgrounds who have reached a degree of severity in the psychiatric disease that made a hospitalization necessary.

Methods: Within two psychiatric hospitals in Westphalia-Lippe data from approx. 1,500 patients over the age of 60 were screened, 220 patients with a migration background were detected.

Anonymized merging with ambulatory data from the statutory health insurance (data base: Association of Statutory Health Insurance Physicians Westphalia-Lippe - KVWL) was realized via MD5-Hash-method.

Descriptive analyses of age and gender distribution in the sub-groups (immigrants, resettlers, Germans and particular countries of origin) as well as analyses of diagnostic spectra were performed. Group comparisons of patients of different countries of origin and different diseases followed.

Results: Compared with German geriatric patients, patients with a migration background show a similar health care usage behavior. With regard to the diagnostic spectrum, patients with a migration background show an increased number of F1 and F4 diagnoses, accompanied by a changed health care usage behavior. Female Polish patients appear to play a special role.

Conclusion: The results show differences in the diagnostic spectrum and the utilization behavior of patients with different cultural backgrounds. Many of the reasons of these differences remain subject for further research.

Supporting cultural and linguistic qualifications of professionals seems a promising approach to allow those patients to use the offered health care services.

References: Koch, E., Hartkamp, N. & Schouler-Ocak, M. (2007). Patienten mit Migrationshintergrund – eine Umfrage zur Inanspruchnahme stationärer Versorgung. [engl.: Patients with migration background - a survey on the usage of inpatient care.] *Psychiatrische Praxis*, 34(7), 361–362.

Künzler, N. (2004) Deutschkenntnisse psychiatrischer Patienten anderer Kulturen: Einfluss auf Freiwilligkeit und Dauer der stationären Behandlung. [engl.: Knowledge of German in psychiatric inpatients from other cultures: influence on voluntariness and duration of hospitalization.] *Psychiatrische Praxis*, 31, 1, 21–23.

Iögd NRW & LIGA.NRW. (2005). *Regionale Cluster auf der Basis soziostruktureller Indikatoren für NRW, 2002*. [engl.: Regional clusters on the basis of socio-structural indicators for NRW, 2002.] Available online at: http://www.lzg.gc.nrw.de/_media/pdf/gesundheitberichtedaten/nrw-kurz-und-informativ/clusteranalyse_0508.pdf

Machleidt, W., Behrens, K., Ziegenbein, M. & Calliess, I. T. (2007). Integration von Migranten in die psychiatrisch-psychotherapeutische Versorgung in Deutschland. [engl.: Integration of Immigrants into the Mental Health Care System in Germany] *Psychiatrische Praxis*, 34, 325–331.

Ströker, K.. (2007). Modellierung von Szenarien zur zukünftigen Entwicklung der Bevölkerung mit Migrationshintergrund in NRW. In: Information und Technik Nordrhein-Westfalen, Geschäftsbereich Statistik (Hg.): *Statistische Analysen und Studien Nordrhein-Westfalen*. Düsseldorf, Bd. 42.

Please enter here the author's name, the company, and the nature of the relationship: The presented study was funded by the German Medical Association (Bundesärztekammer).

Keywords: culture, geriatric psychiatric inpatients, health care usage, migration background

FC02-04 DEMENTIA CARE IN EUROPEAN COUNTRIES, FROM THE PERSPECTIVE OF PEOPLE WITH DEMENTIA AND THEIR CAREGIVERS

Staffan Karlsson^{*}, Michel Bleijlevens¹, Brenda Roe², Kai Saks³, Maria Soto Martín⁴, Astrid Stephan⁵, Riita Suhonen⁶, Adelaida Zabalegui⁷, Ingalill Rahm Hallberg⁸

¹Health Services Research, Maastricht University, Maastricht, Netherlands, ²Evidence-based Practice Research Centre/Personal Social Services Research Unit, Edge Hill University/University of Manchester, Ormskirk/Manchester, United Kingdom, ³Internal Medicine, University of Tartu, Tartu, Estonia, ⁴Alzheimer's disease Research and Clinical Center, Toulouse University Hospital, Toulouse, France, ⁵Department of Nursing Science, Witten/Herdecke University, Witten/Herdecke, Germany, ⁶Department of Nursing Science, University of Turku, Turku, Finland, ⁷Hospital Clinic of Barcelona, Barcelona, Spain, ⁸Pufendorf Institute, Lund University, Lund, Sweden

Objectives: To investigate persons with dementia and their caregiver's views of information, communication and collaboration throughout the trajectory of dementia care.

Methods: 136 persons participated in focus group interviews in England, Estonia, Finland, France, Germany, The Netherlands, Spain and Sweden. Content analysis generated a tentative model of information, communication and collaboration to persons with dementia and their caregivers.

Results: The core finding was that the primary focuses of information, communication and collaboration was on the persons with dementia and their caregivers. The relation to the professional care was addressed to establishing a trusting relationship, tailor-made and a single point of access. Professional knowledge and commitment, variation in service and care adapted to needs were essential.

Conclusion: Since focus was on the persons with dementia and their caregivers appear family-centred care suitable for dementia care. A trusting relationship and single point of access seems to be indicators of best practice.

Keywords: dementia, focus groups, older people, informal caregiver, nursing, best practice

FC03: LONG TERM CARE—ALTERNATIVE METHODS AND ENHANCING QUALITY OF LIFE

FC03-01 QUALITY OF LIFE IN PEOPLE WITH DEMENTIA IN GERMAN NURSING HOMES – CHANGES OVER A TWO-YEAR-PERIOD

Rebecca Palm^{1,2}, Christian G.G. Schwab^{1,2}, Bernhard Holle^{1,2}

¹Department of Nursing Science, University of Witten Herdecke, ²German Center for Neurodegenerative Diseases, Witten, Germany

Objectives: Quality of life (QoL) is an important outcome parameter in health service research. The interpretation of QoL results from standardized assessments is complicated, because previous findings are based on different QoL instruments and only a few results picture how QoL develops over time. The present study shows how different subdomains of proxy-rated QoL from people with different stages of dementia in nursing homes changed after two years.

Methods: In the study 'DemenzMonitor' the QoL is assessed annually by proxy-raters (trained nurses who are familiar with the resident) using the validated instrument QUALIDEM (Ettema, Droes et al. 2007, Dichter, Dortmann et al. 2013, Dichter, Schwab et al. 2014). The instrument was administered in 337 residents from 19 German nursing homes in May 2012 and 2014: 140 residents with mild to severe (FAST 2-6) and 133 residents with very severe dementia (FAST 7). In both groups six subdomains were assessed: care relationship, positive affect, negative affect, restless tense behavior, social relationship, and social isolation. The subdomain scores were converted to a percentage scale (0-100%) to improve comparability. Initial data analysis was performed using descriptive statistics.

Results: Residents from both groups showed minor changes regarding positive and negative affects. In residents with mild to severe dementia, showing negative affects improved about 1.3%, but positive affects declined about 6.4%. The same pattern was found more markedly in residents with very severe dementia: negative affect improved about 4.7%; positive affect declined about 14.2%. In both groups the care relationship declined, but the change was lower than 5%. Social relationships also declined in the group of mild to severe dementia about 7.1%, in residents with very severe dementia about 6.8%. Restless tense behavior declined in residents with mild to severe dementia about 1.6%, but improved in residents with very severe dementia about 6.4%. The remaining subdomains sustained stable.

Conclusion: In both groups we found only slight changes in the single subdomains - this raises the question whether changes are considered as relevant. Further investigations have to be performed to assess the statistical significance of these changes when taking the nested structure of the data and random effects into account.

References: Dichter, M. N., O. Dortmann, M. Halek, G. Meyer, D. Holle, J. Nordheim and S. Bartholomeyczik (2013). "Scalability and internal consistency of the German version of the dementia-specific quality of life instrument QUALIDEM in nursing homes - a secondary data analysis." *Health Qual Life Outcomes* **11**: 91.

Dichter, M. N., C. G. Schwab, G. Meyer, S. Bartholomeyczik, O. Dortmann and M. Halek (2014). "Measuring the quality of life in mild to very severe dementia: testing the inter-rater and intra-rater reliability of the German version of the QUALIDEM." *Int Psychogeriatr* **26**(5): 825-836.

Ettema, T. P., R. M. Droes, J. de Lange, G. J. Mellenbergh and M. W. Ribbe (2007). "QUALIDEM: development and evaluation of a dementia specific quality of life instrument. Scalability, reliability and internal structure." *Int J Geriatr Psychiatry* **22**(6): 549-556.

Keywords: Dementia, longitudinal, nursing home, quality of life

FC03-02 ALTERNATIVES TO TRADITIONAL NURSING HOME CARE: THE CASE OF GREEN CARE FARMS.

Bram de Boer¹, Hanneke Beerens¹, Jan Hamers¹, Hilde Verbeek¹

¹Health Services Research, Maastricht University, Maastricht, Netherlands

Objectives: Nursing home (NH) care for people with dementia is developing towards more small-scale living (SSL). A diversity of different living facilities should be provided for people with dementia. This development, together with the development of farms looking for other sources for their income has led to an innovative example of SSL: green care farms (GCFs). GCFs combine agriculture with care activities. Usually, GCF's focused on day- care for people with dementia and other populations. Recently, some GCF's additionally provide 24 hour care. Little is known about GCFs providing long term nursing home care and more insight in this new care concept and the impact it has on its' residents is needed. The objective of this study is to compare GCF's providing 24-hour nursing home care for people with dementia with other SSL- facilities and large scale NH's.

Methods: Mixed-methods case study. Quantitative data were collected on residents' characteristics such as cognitive performance (CPS) and ADL (ADL-H). Observations on daily life of the residents were done using a coding scheme. Semi- structured interviews were conducted with a subset of the residents' family members on their opinions about e.g. quality of life and quality of care for the residents. Data was collected in GCFs, regular NHs and SSL.

Results: Two GCF's were included, one being a dairy farm providing two living facilities for a total of 18 residents with dementia, the other being a SSL facility build in a farm-like setting providing three living facilities for a total of 21 residents. After the consent procedure a total of 94 residents were included in the study; 35 from GCFs, 28 from regular NHs and 31 from SSL. No significant differences were found between groups on the CPS and ADL-H. Overall, family members were positive about the activities done at the GCF and the personal approach of care being provided, first experiences indicate more opportunity for meaningful activities for residents, as these are integrated in the physical environment. At regular NHs medical and physical care were appreciated. Family in SSL liked the atmosphere of the locations.

Conclusion: Positive first experiences were reported with GCF's as an alternative for traditional nursing homes. However, more insight is needed into the quality of care provided, costs and effects on residents' quality of life.

Keywords: alternatives to traditional nursing home care, care farm, dementia, quality of care, quality of life, small scale living

FC03-03 CHALLENGING THE ACTIVE AGEING (AA) CONCEPT IN RESIDENTIAL CARE: CORRELATION BETWEEN QUALITY OF LIFE AND MEANINGFUL ACTIVITIES

Patricia De Vriendt¹, Ruben Vanbosseghem¹, Valerie Desmet², Lien Van Malderen³, Ellen Gorus³, Dominique Van de Velde⁴, Elise Cornelis²

¹nursing, ²Occupational Therapy, University College Artevelde, Ghent, ³Gerontology, Vrije Universiteit Brussel, Jette, ⁴Occupational Therapy, UGhent, Ghent, Belgium

Objectives: The number of older people living in nursing homes (NH) has increased significantly. Professionals are expected to enable residents to engage in meaningful Activities of Daily Living (ADL) and promote autonomy, both of which are closely related to the concept of Active Ageing (AA). Nonetheless, AA is hardly implemented in NH. Inhibiting and facilitating factors are related to the resident, the NH environment and the Activity Repertoire (AR). This study aimed to explore the relevance and the meaningfulness of the AR of residents and how this is related to Quality of Life (QoL).

Methods: A survey was administered to 143 cognitively healthy residents (M 85 years \pm 5.72; 43 men and 106 women). A questionnaire on their AR was administered, together with cognitive, functional and mobility measures. QoL was assessed with the Anamnestic Comparative Self-Assessment (ACSA) scale for Quality of Life. Descriptive statistics and correlation analysis were conducted to explore the nature and the relationship of the datasets.

Results: Respondents reported a positive QoL of 1.78 (range -5 +5; most answered 3). Although basic (b-) ADL (e.g. washing and dressing) remained relevant, respondents described an important loss of autonomy in self-care from the time of their admission in the NH. Similarly a loss of meaningful instrumental (i-) ADL (e.g. housekeeping) (M 4.39±1,73) and advanced (a-) ADL (e.g. hobby and leisure) (M 15.87±7,29) was reported. However, 38 respondents gained 'new' ADL, such as making crosswords and using a computer or tablet pc. Inhibiting factors were being male, having a (mild) cognitive problem, limitations in mobility and a larger dependency (differences between groups and correlations all $p < 0.05$). Although a-ADL were undertaken the most, 83 participants considered b-ADL as personally most important. However, the self-reported ADL performance score was on average 4.5/10, satisfaction with performance scored 5.3/10. The challenge experienced within the ADL scored 5.4/10. No correlations were found between QoL and the most aspects of ADL, only a significant correlation was observed between QoL and the parameter 'activities according to the individual wishes' ($r = .272$; $p < 0.05$) and 'activities with the neighbourhood' ($r = .167$; $p < 0.05$).

Conclusion: It remains a challenge to identify the occupational needs of NH residents and stimulate and enable them to engage in meaningful activities.

Keywords: meaningful activities, nursing home, quality of life

FC03-04 AN AFFECT EDUCATION MODEL FOR CAREGIVERS: A TWO-PERSON CENTRED APPROACH FOR MANAGING BEHAVIOURAL AND PSYCHOLOGICAL SYMPTOMS OF DEMENTIA IN LONG-TERM CARE

Kenneth Schwartz*¹

¹Baycrest, Toronto, Canada

Objectives: 1. To identify how professional and family caregivers can respond in ways that elicit more problematic behaviours in individuals with BPSD.

2. To learn an innovative Affect Education Model for caregivers.

3. To learn about a pilot study incorporating the Affective Education Model which is designed to lessen caregiver stress for staff working with individuals with BPSD in LTC home.

Methods: Government funding has been obtained to study the effectiveness of an innovative Affect Education Model for Caregivers that addresses the issue of caregiver stress of staff working on a LTC behavioural support unit at a University of Toronto academic LTC home. This LTC facility accepts referrals from community based LTC homes to treat individuals with BPSD who cannot successfully be managed in their own facility. Nursing and ancillary staff will be taught the Affect Education model in 5 sessions. Pre and post tests using various scales to measure caregiver stress and BPSD will be used to assess impact. A focus group will provide qualitative data. The two-person centred affect education approach emphasizes that stressed caregivers may behave in ways that elicit more problematic and/or responsive behaviours from individuals with BPSD. The model emphasizes the importance of reflecting and understanding one's own feelings before intervening to help.

Results: Detailed case examples incorporating the use of the Affect Education Model employed in training nursing and ancillary staff working on a LTC behavioural support unit for individuals with BPSD will be illustrated and presented. The curriculum and preliminary quantitative and qualitative data will be presented.

Conclusion: The use of current pharmacologic and/or nonpharmacologic approaches to help manage individuals with BPSD may be greatly enhanced by an interpersonal two-person centred affect education model that emphasizes caregivers' reflecting on and understanding the underlying feelings of both the person with BPSD and ourselves-family and LTC caregivers.

Keywords: BPSD, Caregiver burden, Caregivers, Long-Term Care

FC04: COMMUNITY APPROACHES TO CARE

FC04-01 INCREASING DEMENTIA LITERACY IN YOUNG ADULTS - A CHALLENGING ISSUE TACKLED BY THE PHOTO CONTEST PROJECT "ALMAR - ALTERNDE MENSCHEN AN DER RUHR" (AGING PEOPLE AT THE RUHR)

Friederike Tornau*, Georg Juckel¹

¹Department of Psychiatry, Psychotherapy and Preventive Medicine, LWL-University Hospital, Ruhr-University Bochum, Bochum, Germany

Objectives: Preserving quality of life in aging, loss experiences, dementia and depression becomes an increasingly important issue in many regions of Germany. However young adults usually engage little with this topic or even seem to actively avoid it, although their generation needs to be the main driver of the upcoming restructuring process. Additionally, given the prospected demographics, most of nowadays young adults are likely to be confronted with these issues in their own future vicinity.

This presentation covers two central questions:

- What causes young adults to avoid the topic of geriatric psychiatric disorders?
- What measures can provide points of contact between young adults and mentally vulnerable or ill elderly, allay fears and uncertainties and promote intergenerational cohesion at the local level?

Methods: To tackle those questions, the LWL-University Hospital Bochum initiated the creative social integration project "AlMaR" (Aging people at the Ruhr), awarded and funded by the Federal Ministry of Education and Research.

Its key component was a photo contest among teenagers and young adults (announced multilingual i.a. in schools, universities and the media). Submitted photos should creatively represent resources of mentally vulnerable or ill elderly in the Ruhrzone.

The selected photographs were displayed in an exhibition in combination with a public information day about demographic change and geriatric psychiatric illnesses. Through those activities, young people could deal in a non-threatening and creative manner with the subjects of aging and mental illness. Through its entire duration, the project was accompanied by interactive media (i.a. Facebook). A particular focus was put on providing opportunities for intergenerational interaction.

Results: Creatively engaging with these issues seemed to be of interest for young adults and encouraged further inquiries, although it was difficult to reach adolescents and young adults who had not had experience with geriatric psychiatry disorders. The results could help similar awareness-raising measures to optimize, intensify and stabilize their effects.

Conclusion: In the long run, awareness-raising activities prepare the future generation for fulfilling their challenging social role. The intended higher ability for integration might help to maintain the social-emotional quality of life of mentally ill elderly, thus reducing serious sequelae by stigmatization and social exclusion.

Please enter here the author's name, the company, and the nature of the relationship: The presented project was funded by the Federal Ministry of Education and Research through "Science in Dialog" and "Science-Year 2013" within the Program "Coping with Demographic Change... But How? Young scientists communicate their research."

Keywords: creativity, dementia literacy, geriatric psychiatric literacy, intergenerational cohesion, mental health literacy, quality of life, resource-orientation, young adults

Susan Mary Benbow¹, Carmelle Peisah¹, Rumandeep Tiwana²

¹Sydney, Australia, ²Chester, United Kingdom

Objectives: 'Sexuality is a central aspect of being human throughout life ... (It) is influenced by the interaction of biological, psychological, social, economic, political, cultural, ethical, legal, historical, religious and spiritual factors.' (World Health Organisation, 2006) This definition makes it clear that different contexts will influence older adults' sex lives as a result of a wide range of factors including economic, political, cultural, legal and religious factors. Care settings influence all aspect of the lives of residents with dementia, and residents are sometimes referred to health professionals when they enter into a sexual relationship. Often residential care staff/ service providers refer because of concerns about capacity, consent, the potential for physical and emotional injury, and the possibility of sexual assault or coercion. Sexual behavior may be labeled as appropriate or inappropriate because of its context, and staff and family attitudes towards later life sexual expression. The assumption is that treatment (usually with drugs) will be the solution and will eliminate the behavior, irrespective of the rights, wishes and needs of residents with dementia. Our objective is to develop a collaborative approach to sexual expression, which recognizes the needs of people with dementia and uses a risk enablement approach (Department of Health, 2010, Lightbody, 2014).

Methods: We reviewed scientific literature and developments in different legal contexts plus Ethics and Human Rights frameworks including the Convention on the Rights of People with Disabilities (Benbow et al., 2014, O'Neill and Peisah, 2011) to develop a practical stepped approach to sexuality and dementia to assist healthcare professionals.

Results: This approach involves first considering who to involve in the process and how, then working through the following steps:

1. What are the systemic and family factors contributing to the referral?
2. If assessment is required each partner in the relationship is considered with regard to causes of behaviour; capacity to consent; harm, risk or abuse.
3. Whether or not to intervene, using a positive risk management approach which privileges non-pharmacological interventions and reserves the use of drugs for situations involving harm and intractable predatory behaviour.

Conclusion: In care settings, it is possible to take an individualised, human rights approach to sexual behaviour in dementia, to protect people with dementia from abuse whilst promoting autonomy and dignity.

References: BENBOW, S. M., BEESTON, D., BENBOW, G. A. T. & BEESTON, L. 2014. Sexual problems in older adults. . In: KAR, N. & KAR, G. C. (eds.) *Comprehensive Textbook of Sexual Medicine* 2nd ed. New Delhi: Jaypee Brothers Medical Publishers Ltd.

DEPARTMENT OF HEALTH. 2010. 'Nothing Ventured, Nothing Gained': *Risk guidance for people with dementia* [Online]. Available: http://www.dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/@dh/@en/@ps/documents/digitalasset/dh_121493.pdf [Accessed 3 October 2012].

LIGHTBODY, E. 2014. *Sexuality and dementia: for better or worse?* [Online]. London: Faculty of Old Age Psychiatry, Royal College of Psychiatrists. Available: [http://www.rcpsych.ac.uk/pdf/Lightbody Elizabeth essay.pdf](http://www.rcpsych.ac.uk/pdf/Lightbody%20Elizabeth%20essay.pdf) [Accessed 23 September 2014].

O'NEILL, N. & PEISAH, C. 2011. Decision-making and relationships. *Capacity and the Law*. Sydney, Australia: Sydney University Press.

WORLD HEALTH ORGANISATION 2006. Defining sexual health. Report of a technical consultation on sexual health 28–31 January 2002, Geneva. Geneva.

Keywords: capacity, dementia, institutional care, person-centred care, risk enablement

FC04-03 A COMMUNITY OUTPATIENT MODEL FOR THE TREATMENT OF DEPRESSION; THE BAYCREST PSYCHIATRIC DAY HOSPITAL INTERVENTION TRAINING MANUAL

Kenneth Schwartz^{*}, Robert Madan¹, Judi Cohen¹

¹Psychiatry, Baycrest, Toronto, Canada

Objectives: 1. To help in the development of effective treatment models of depressed older adults which assumes greater importance with a growing and underserved aging population struggling to cope with multiple losses and psychological stressors.
2. To share the clinical knowledge and experience that Baycrest Psychiatric Day Hospital for Depressed Elderly has accumulated in over 25 years of operation.
3. To assist health care professionals in developing, organizing and implementing a similar multi-component and multidisciplinary psychiatric day hospital or intensive outpatient community treatment model.

Methods: The Baycrest Psychiatric Day Hospital uses integrated and cognitive behavioural group and individual therapies, along with various other group treatments and antidepressant medications. Marital and family therapy are employed. Treatments occur four days a week over four months in a therapeutic social milieu composed of 20 patients and interdisciplinary staff. Weekly follow-up psychotherapy groups are offered.

Results: The Psychiatric Day Hospital for Depression opened in 1986. Effectiveness is demonstrated by its longevity, waiting list for admission, recently conducted focus groups for patients and their families, and the results of quantitative outcome studies (Conn, et al, 2000; Mackenzie, et al, 2006; Vine & Steingart, 1994). A previous qualitative paper describes the utility of concurrent group and individual psychotherapy in this setting (Schwartz, 2004). Detailed case illustrations will demonstrate how combined use of medication, group and individual therapies in a supportive milieu contribute to symptom reduction and psychological growth of depressed older adults (Schwartz & Madan, 2014).

Conclusion: Elderly adults require additional treatment considerations because of medical co-morbidity, cognitive decline, lack of social support, adverse responses to medications, and polypharmacy (Blazer, 2003). As well, depressed elderly are often socially isolated. Given the extraordinary current and projected growth of the elderly population and the relationship between wellness, perceived isolation, and social engagement (Cornwell & Waite, 2009), the use of groups and group therapy is indicated with this population. The Baycrest Psychiatric Day Hospital for Depressed Elderly provides a more comprehensive treatment than routine outpatient therapy in a setting that is less intensive, less expensive and more community focused than inpatient care.

References:

- Blazer, D. G. (2003). Depression in late-life: Review and commentary. *Journal of Gerontology Medical Sciences*, 58A: 249-265.
- Conn, D. K., Clarke, D., & van Reekum, R. (2000). Depression in holocaust survivors: Profile and treatment outcome in a geriatric day hospital program. *International Journal of Geriatric Psychiatry*, 15: 331-337.
- Cornwell, E. Y. & Waite, L. J. (2009). Social disconnectedness, perceived isolation, and health among older adults. *Journal of Health and Social Behaviour*, 50(1): 31-48.
- Mackenzie, C. S., Rosenberg, M., & Major, M. (2006). Evaluation of a psychiatric day hospital program for elderly patients with mood disorders. *International Psychogeriatrics*, 18: 631-641.
- Schwartz, K. M. (2004). Concurrent group and individual psychotherapy in a psychiatric day hospital for depressed elderly. *International Journal of Group Psychotherapy*, 54(27), 177-201.
- Schwartz, K. M., & Madan, R. (2014). A community outpatient model for the treatment of depression: The Baycrest Psychiatric Day Hospital Intervention Training Manual. Baycrest.

Keywords: Day Hospital, Seniors

FC04-04 SEXUALITY IN OLDER AGE: ESSENTIAL CONSIDERATIONS FOR HEALTHCARE PROFESSIONALS

Abi Taylor¹, Margot Gosney

Objectives: To give an overview of research in the area of sexuality in older people, particularly for healthcare professionals who had not previously considered the sexuality of their older patients.

To investigate the difficulties involved in discussing sex with older people

To offer recommendations for how to discuss sex with older people

Methods: Literature Review and Discussion

- Description of the fact that many elderly people enjoy an active sex life and examines the evidence against the general perception of an 'asexual' old age.

- Description of some of the sexual problems faced by older people, especially the difficulties experienced in disclosing such problems to healthcare professionals.

- Examining why healthcare professionals routinely avoid discussing sexual problems with older patients, and how this can be improved.

Results: Recommendations for healthcare professionals

- Screen for sexual problems in a private environment and allow adequate time

- Be sensitive to patient preferences regarding gender of healthcare professional

- Educate patients on lifestyle choices

- Be aware of own prejudices and subconscious feelings; do not make assumptions

Conclusion: Many older people enjoy an active sex life, although they are likely to experience problems. In general, the environment of care does not lend itself to discussions about sex and many patients find it difficult and embarrassing to talk to healthcare professionals about sexual problems. Conversely, many HCPs believe that their older patients are not (or should not be) sexually active.

In conclusion, sexual problems in older people should be managed sensitively and practically by healthcare professionals, with respect to individual differences in sexual interest and activity.

References: Taylor, A. and Gosney, M. (2011) Sexuality in older age: essential considerations for healthcare professionals. *Age and Ageing*. 40 (5): 538-543. doi: 10.1093/ageing/afr049

Keywords: Healthy aging, Sex

FC04-05 MEETING THE NEEDS OF GROWING POPULATION WITH DEMENTIA AND DEPRESSION: TASK SHIFTING AND DEVELOPING A NEW WORK FORCE

Mary Guerriero Austrom*¹, Cathy Alder², Michael LaMantia², Debra Litzelman², Ann Cottingham², Malaz Boustani²

¹Psychiatry and Indiana Alzheimer Disease Center, Indiana University School of Medicine, ²Indianapolis, IN 46202, United States

Objectives: In 2009, the Aging Brain Care Medical Home began delivering collaborative care to 200 adults aged 65 and older with dementia and/or depression receiving primary care at Eskenazi Health (Eskenazi) in Indianapolis, Indiana. The team included a nurse practitioner and social worker care coordinators supervised by a geriatrician with expertise in dementia and depression. In 2012, with a CMS Innovation Challenge Award, we expanded the pilot program to more than 2000 patients receiving primary care services at Eskenazi or Indiana University Health Arnett (Arnett).

Methods: Expansion of the pilot required development of a new work force to serve as liaisons between patients and caregivers and the hospital-based collaborative team. In six months, we developed an innovative screening/interviewing process to hire 20 Care Coordinator Assistants (CCAs) to deliver the intervention at both sites. Successfully hired CCAs received an intensive 10-day training

program to prepare them to work in multi-disciplinary teams. Training was delivered using multiple educational methods including interactive didactic sessions, roleplaying, simulations, reflection, and clinical immersion. Continuing education is provided quarterly including review of dementia and depression, discussion of difficult cases, attention to staff burnout and team building. Additional training in advanced and end-of-life care planning was provided. Staff participates in monthly meetings designed to provide continuing support in a safe and confidential space.

Results: During the first two years, CCAs have successfully delivered high quality care to enrolled patients via 7301 home visits and 11,651 coordination of care services—the vast majority performed by CCAs. Both depression and dementia outcomes (measured by PHQ-9 and HABC Monitor) have shown significant improvement. Patient and caregiver satisfaction are rated highly.

Conclusion: Task shifting has been key to the success of the expansion, allowing more effective management of larger numbers of patients. CCAs report working with patients, caregivers and their teams, and feeling they are making a difference as the most positive aspects of their jobs; communication between teams and managers and dealing with challenging patients are the most difficult parts of their jobs.

References: Alder CA, Callahan CA, Boustani MA, Hendrie HC, Austrom MG. (2012). Providing Care to the Caregiver: Implementing the PREVENT Model in a Real World Memory Care Clinic, Chapter 3 pp 34-42. In JR Thyrian and W. Hoffmann (Eds). *Dementia Care Research: Scientific Evidence, Current Issues and Future Perspectives*. Pabst Science Publishers: Miami.

Boustani MA, Sachs, GA, Alder CA, Munger S, Schubert CC, Guerriero Austrom M, . . . Callahan CM. (2011). Implementing innovative models of dementia care: The Healthy Aging Brain Center. *Aging & Mental Health*, 15(1), 13-22. doi: 10.1080/13607863.2010.496445

Callahan CM, Boustani MA, Unverzagt FW, Austrom MG, Damush TM, Perkins AJ, . . . Hendrie HC. (2006). Effectiveness of collaborative care for older adults with Alzheimer's disease in primary care: a randomized controlled trial. *Jama*, 295(18), 2148-2157. doi: 10.1001/jama.295.18.2148

Callahan CM, Boustani MA, Weiner M, Beck RA, Livin LR, Kellams JJ, . . . Hendrie HC. (2011). Implementing dementia care models in primary care settings: The Aging Brain Care Medical Home. *Aging & Mental Health*, 15(1), 5-12.

Guerriero Austrom M, Damush TM, Hartwell CW, Perkins T, Unverzagt F, Boustani M, . . . Callahan CM. (2004). Development and implementation of nonpharmacologic protocols for the management of patients with Alzheimer's disease and their families in a multiracial primary care setting. *Gerontologist*, 44(4), 548-553. doi: 44/4/548 [pii]

Guerriero Austrom M, Hartwell C, Moore P, Boustani M, Hendrie HC, and Callahan, CM. (2005). A Care Management Model for Enhancing Physician Practice in Primary Care for Alzheimer Disease. *The Clinical Gerontologist*, 29(2) 35-43.

Keywords: dementia care, depression, development, training

FC05: FACTORS AFFECTING QUALITY OF LIFE AND CARE

FC05-01 MY HOUSE - MY CAR - MY NEIGHBORHOOD - MY DOCTOR'S APPOINTMENTS: RELATION BETWEEN ENVIRONMENTAL FACTORS OF PLACE OF RESIDENCE AND THE USE OF HEALTH CARE SERVICES IN MENTALLY ILL ELDERLY

Friederike Tornau^{*}, Georg Juckel¹

¹Department of Psychiatry, Psychotherapy and Preventive Medicine, LWL-University Hospital, Ruhr-University Bochum, Bochum, Germany

Objectives: The specific usage patterns of the health care system shown by mentally ill elderly patients call for particular attention. This is not only because of their increase due to the demographic change. Research has shown that people's help-seeking behavior varies in different environments. The aim of this study is to investigate the relation between environmental factors and the health care usage patterns of mentally ill elderly patients.

Methods: The described analysis uses billing data of all statutory health insurances (90% of population) and small-scale data on two selected regions in Germany (city of Bochum and district Gütersloh - both located in North Rhine Westphalia).

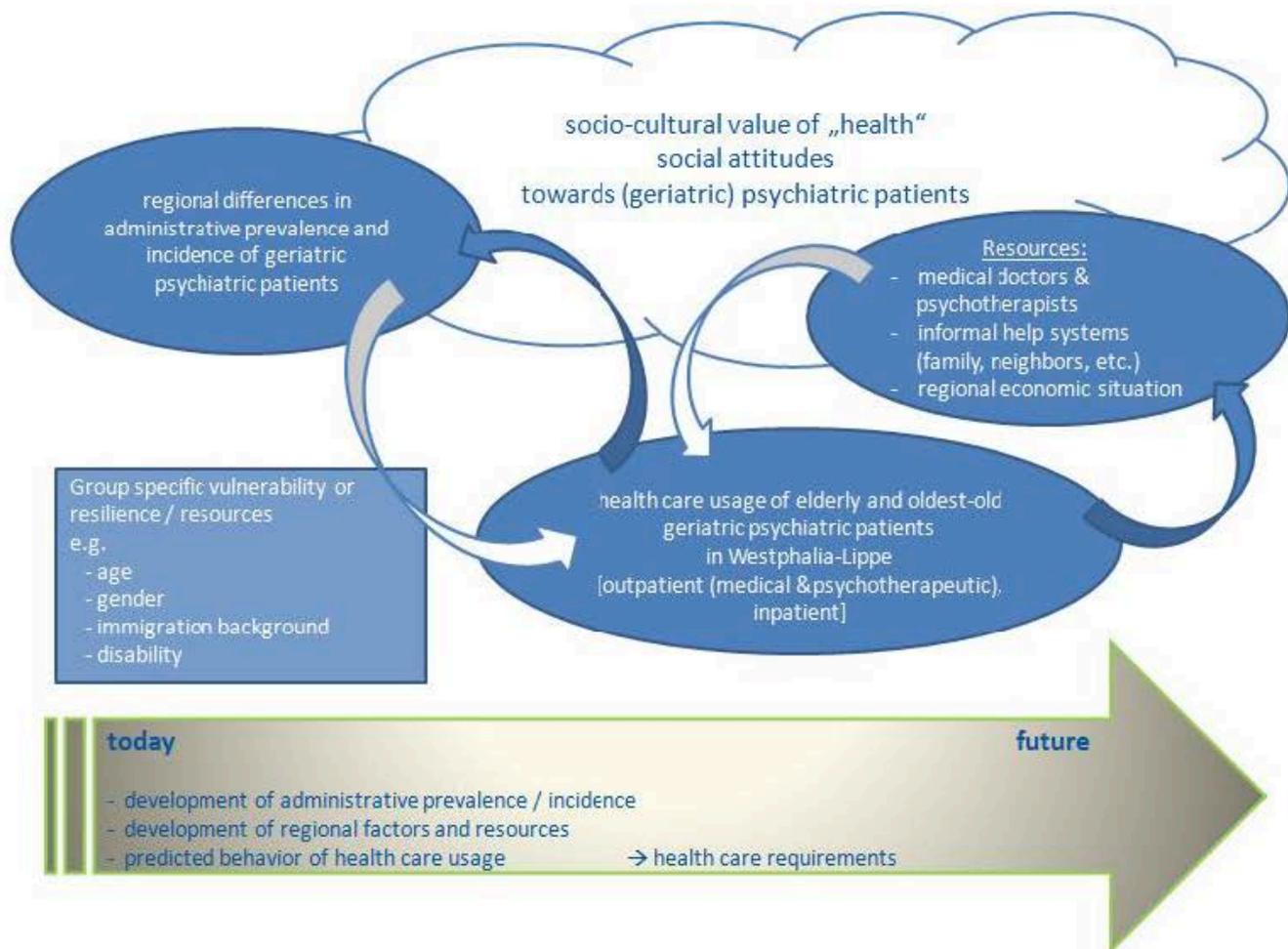
The resulting database covers a period of five years and includes data from more than 20,000 patients over the age of 60 from these heterogeneous regions.

Descriptive analyses were performed using randomly drawn samples with and without mental disorders. Further group comparisons were realized for groups of patients with somatic diseases. Analyses of variance of selected diseases, comorbidities and age groups followed.

Results: The results suggest that environmental factors of place of residence have an additional effect alongside somatic disorders and comorbid psychiatric diagnoses on the health care usage behavior of mentally ill elderly. This relation seems to vary by type of mental illness, comorbidities and severity.

Conclusion: To determine the exact origin of the uncovered differences on the individual level, patient-centered studies with mentally ill elderly should be performed, since the present study only refers to environmental factors and large groups of patients. Combining the resulting findings could lead to a better understanding of enabling and disabling factors regarding the health care usage of mentally ill elderly. The results also indicate the need for better networking systems for those involved in the care of aging and mentally ill people in their daily work. Considering regional factors in addition to demographic structures is essential to predict future patient volumes and to meet future patient needs.

Image:



References: Glaesmer, H., Gunzelmann, T., Martin, A., Brähler, E., & Rief, W. (2008). Die Bedeutung psychischer Beschwerden für die medizinische Inanspruchnahme und das Krankheitsverhalten Älterer. [engl.: The Impact of Mental Disorders on Health Care Utilization and Illness Behaviour in the Elderly] *Psychiatrische Praxis*, 35(4), 187–193.

Hartkopf, E. (2006). *Sozialräumliche Strukturen und Disparitäten in Bochum. Zusammenfassung einer faktoriellökologischen Untersuchung der aktuellen demographischen und sozio-ökonomischen Situation auf Ortsteilebene. Diskussionspapier aus der Fakultät für Sozialwissenschaft der Ruhr-Universität Bochum.* [engl.: Spatial structures and social disparities in Bochum. Summary of a factorial ecological study of the current demographic and socio-economic situation at the district level. Discussion paper from the Faculty of Social Science at the Ruhr-University Bochum.] Bochum

IT.NRW (2012). Landesdatenbank NRW. [engl.: State database NRW] Available online at: <http://www.it.nrw.de/>.

Iögd NRW & LIGA.NRW. (2005). *Regionale Cluster auf der Basis soziostruktureller Indikatoren für NRW, 2002.* [engl.: Regional clusters on the basis of socio-structural indicators for NRW, 2002.] Available online at:

http://www.lzg.gc.nrw.de/_media/pdf/gesundheitberichtedaten/nrw-kurz-und-informativ/clusteranalyse_0508.pdf

Wüstenbecker, M., Bruchmann, G., & Juckel, G. (2011). Gerontopsychiatrische Versorgung: Entwicklung von Bedarfen und Ressourcen. [engl.: Geriatric psychiatric care: development of requirements and resources.] In G. Stoppe (Hrsg.), *Die Versorgung psychisch kranker alter Menschen. Bestandsaufnahme und Herausforderung für die Versorgungsforschung.* [engl.: The care of the mentally ill elderly. Inventory and challenge for health services research.] Köln: Deutscher Ärzte-Verlag.

Please enter here the author's name, the company, and the nature of the relationship: The presented study was partially financially supported by the Association of Statutory Health Insurance Physicians (Kassenärztliche Vereinigung Westfalen-Lippe).

Keywords: comorbidity, diseases of affluence, environmental factors, geriatric psychiatry, health care usage, mentally ill elderly, socioeconomic and sociocultural factors

Claire Bamford¹, Richard Lee¹, Catherine Exley¹, Louise Robinson¹

¹Institute of Health & Society, Newcastle University, Newcastle upon Tyne, United Kingdom

Objectives: A number of studies and reviews have identified key features of good end of life care (EoLC) for people with dementia (Goodman et al, 2010; Seymour et al, 2010; Thune-Boyle et al 2010; van der Steen et al, 2014). However, little is known about how such care is supported or constrained in actual practice (Goodman et al, 2010). This paper presents the key factors thought to influence the delivery of good end of life care for people with dementia from the perspectives of UK national experts.

Methods: UK national experts in dementia and/or palliative care were identified by the project team and review of policy documents. Sampling for the study was purposive and iterative and snowballing was used to identify additional participants. Thirty experts took part in either telephone or face-to-face individual semi-structured interview. The sample included policy makers, clinicians, academics, trainers and representatives of private care providers. The interviews were transcribed verbatim and analysed thematically.

Results: Experts emphasised the role of service organisation in supporting the delivery of good EoLC for people with dementia. Four specific aspects of service organisation identified as important were: leadership and management of care, integrating clinical expertise, continuity of care, and use of guidelines. These factors are interrelated: for example, leadership and management of care was discussed in terms of its importance for the successful implementation of guidelines, while the appropriate and timely use of clinical expertise could prevent hospitalisations and so ensure continuity of care.

Conclusion: The interviews with national experts highlight the organisational factors which may facilitate or constrain good quality EoLC for people with dementia. Addressing these factors may be difficult to achieve in a sector characterised by low levels of investment in care staff and in the context of a lack of integration of services and expertise across social and health care. Further research is needed to explore how the views of those professionals directly responsible for providing and delivering such care compare with those of national experts.

References: Goodman C, Evans C, Wilcock J, et al. End of life care for community dwelling older people with dementia: an integrated review, *International Review of Geriatric Psychiatry* 2010; 25: 329-337.

Seymour J, Kumar A, Froggatt K. Do nursing homes for older people have the support they need to provide end-of-life care? A mixed methods enquiry in England, *Palliative Medicine* 2010; 25, 2: 125-138.

Thune-Boyle I, Sampson EL, Jones L et al. Challenges to improving end of life care of people with advanced dementia in the UK. *Dementia* 2010; 9: 259-84.

van der Steen JT, Radbruch L, Hertogh CPM et al. White paper defining optimal palliative care in older people with dementia: A Delphi study and recommendations from the European Association for Palliative Care. *Palliative Medicine* 2014; 28, 3: 197-209.

Keywords: Dementia, End of life care, Qualitative research

Disclaimer: This abstract presents independent research funded by the UK National Institute for Health Research (NIHR) under its Programme Grants for Applied Research programme (Grant Reference Number RP-PG-0611-20005). The views expressed are those of the author(s) and not necessarily those of the NHS, the NIHR or the Department of Health.

FC05-03 COGNITIVE FUNCTIONING OVER 2 YEARS IN LATE-LIFE DEPRESSION: IMPACT OF VASCULAR BURDEN AND REMISSION

Marij Zuidersma¹, Hannie C. Comijs^{2,3}, Paul Naarding^{4,5}, Richard C. Oude Voshaar¹

¹Psychiatry, University Medical Center Groningen, Groningen, ²GGZ InGeest, ³Department of Psychiatry / EMGO Institute for Care and Research, VU University Medical Center, Amsterdam, ⁴Psychiatry, Radboud University Medical Center Nijmegen, Nijmegen,

⁵Department of Old Age Psychiatry, GGNet Center for Mental Health, Apeldoorn, Netherlands

Objectives: Vascular burden is thought to underlie both late-life depression and cognitive impairments. However, little is known about the course of cognitive functioning in depressed older persons and the potential impact of vascular burden on it. The objective of the present study was to evaluate the 2-year course of cognitive functioning in depressed older persons. In addition, we evaluated whether non-remission at 2 years follow-up and higher vascular burden at baseline were associated with worse cognitive outcomes in older persons with depression at baseline.

Methods: Depressed patients (n=352) and a non-depressed control group (n=130) aged ≥ 60 were examined at baseline and 2 years later. At baseline and follow-up, presence of a DSM-IV depressive episode was established with the Composite International Diagnostic Interview, and three neurocognitive tasks evaluated processing speed, working memory, verbal memory and interference control. Framingham Risk Score, ankle-brachial index and history of a vascular event defined vascular burden at baseline.

Results: After adjusting for baseline cognitive functioning, age, sex and education level, depressed older persons had worse verbal memory scores at follow-up than controls (regression coefficient: -0.286; p=0.002), but did not differ in the other three cognitive outcomes. In the sample of 352 initially depressed patients, remission status at follow-up was not associated with cognitive outcomes. In addition, baseline vascular burden did not predict worse cognitive outcomes at follow-up, after adjustment for baseline cognitive functioning, age, sex, education level, and baseline depressive symptom severity.

Conclusion: Our findings suggest that cognitive deficits persist in depressed older persons, even after remission of the depression. Therefore, cognitive deficits in depressed older persons are likely a trait instead of a manifestation or byproduct of depression. In addition, although vascular burden is often found to impact cognitive decline in older persons from the general population, we could not confirm this in a sample of depressed older persons.

Keywords: cognitive functioning, depression, vascular burden

FC05-04 PATTERN OF USE OF TERTIARY HEALTH CARE SERVICES PRIOR TO THE REFERRAL TO A PSYCHOGERIATRICS CLINIC

Diana R. F. D. A. Loureiro¹, Flávia Polido¹, Luísa Lagarto¹, Sandra Neves¹, Joaquim Cerejeira¹

¹Psychiatry, Centro Hospitalar e Universitário de Coimbra, Coimbra, Portugal

Objectives: Previous studies have suggested that elderly people with medical comorbidities have a greater probability of also having a psychiatric diagnosis, but few have assessed the extent of use of hospital services by this population. We performed a retrospective descriptive study to analyze the pattern of use of health care services in a cohort of geriatric patients in the year prior to their admission to a specialized Psychogeriatric unit.

Methods: Our sample included all subjects over 65 years of age admitted to our specialized Psychogeriatric Clinic between 01.01.2013 and 30.06.2014. Data regarding the number of ER admissions, hospitalizations (with type – medical, surgical or psychiatric) and number of specialist consultations in the year prior to referral was gathered from patient's hospital records. Results are shown as percentages. Correlations between age or presence of cognitive decline and the primary events were assessed with Spearman's rho (S_{rho}).

Results: 254 subjects were included in the analysis. Altogether, this sample accounted for 890 events (98 hospitalizations, 460 ER admissions and 332 specialist consultations). Hospitalizations were more frequent in medical wards (N=56, 57, 14%). Only 32 (12,6%) patients didn't have any contact with hospital services. 26,38% of subjects were hospitalized at least once, 68,5% had at least one ER visit, and 62,99% had at least one specialist consultation. Diagnosis were available for 186 patients, with 79,57% (148) having a Neurocognitive Disorder. No correlations of at least moderate intensity were found between age and any type of events (S_{rho} of -0.0252, -0.0017 and -0.1932 for hospitalizations, ER admissions and consultations, respectively). The same holds true for the presence of cognitive decline (S_{rho} of -0.0530, 0.0688 and 0.3057).

Conclusion: Our findings show that most of the elderly that required psychiatric assistance had contact with tertiary health care services in the year before their referral, thus supporting the negative impact of medical or surgical illness in the mental health of the elderly, independent of age or cognitive decline.

References: Dols, A., Rhebergen, D., Beekman, A., Kupka, R., Sajatovic, M. And Stek M.L. (2014). Psychiatric and medical comorbidities: Results from a bipolar elderly cohort study. *Am J Geriatr Psychiatry*, [Epub ahead of print]. doi: 10.1016/j.jagp.2013.12.176.

Tiwari, S.C. et al. (2014). Prevalence of psychiatric morbidity among urban elderlies: Lucknow elderly study. *Indian J Psychiatry*, 56(2), 154-160. doi: 10.4103/0019-5545.130496.

Gleason, O.C., Pierce, A.M., Walker, A.E. and Warnock, J.K. (2013). The two-way relationship between medical illness and late-life depression. *Psychiatr Clin North Am*, 36(4), 533-544. doi: 10.1016/j.psc.2013.08.003.

Leoutsakos, J.M. et al. (2012). Effects of general medical health on Alzheimer's progression: the Cache County dementia progression study. *Int Psychogeriatr*, 24(10), 1561-1570. doi: 10.1017/S104161021200049X.

Seitz, D.P. et al. (2012). Characteristics of older adults hospitalized in acute psychiatric units in ontario: a population-based study. *Can J Psychiatry*, 57(9), 554-563.

Shin, J.H., Do, Y.K., Maselko, J., Brouwer, R.J., Song, S.W. and Østbye, T. (2012). Predictors of and health services utilization related to depressive symptoms among elderly Koreans. *Soc Sci Med*, 75(1), 179-185. doi: 10.1016/j.socscimed.2012.03.012.

Duthie, A., Chew, D. and Soiza, R.L. (2011). Non-psychiatric comorbidity associated with Alzheimer's disease. *Q J Med*, 104, 913-920. doi: 10.1093/qjmed/hcr118.

Millán-Calenti, J.C., Maseda, A., Rochette, S., Vázquez, G.A., Sánchez, A. and Lorenzo, T. (2011). Mental and psychological conditions, medical comorbidity and functional limitation: differential associations in older adults with cognitive impairment, depressive symptoms and coexistence of both. *Int J Geriatr Psychiatry*, 26(10), 1071-1079. doi: 10.1002/gps.2646.

Witlox, J., Eurelings, L.S.M., de Jonghe, J.F.M., Kalosvaart, K.J., Eikelenboom, P. and van Gool, W.A. (2010). Delirium in elderly patients and the risk of postdischarge mortality, institutionalization, and dementia: A meta-analysis. *JAMA*, 304(4), 443-451. doi: 10.1001/jama.2010.1013.

Sampson, E.L., Blanchard, M.R., Jones, L., Tookman, A. and King, M. (2009). Dementia in the acute hospital: prospective cohort study of prevalence and mortality. *The British Journal of Psychiatry*, 195, 61-66. doi: 10.1192/bjp.bp.108.055335.

Van der Weele, G.M., Gussekloo, J., De Waal, M.W.M., De Craen, A.J.M. and Van der Mast, R.C. (2009). Co-occurrence of depression and anxiety in elderly subjects aged 90 years and its relationship with functional status, quality of life and mortality. *International Journal of Geriatric Psychiatry*, 24, 595-601. doi: 10.1002/gps.2162.

Marengoni, A. et al. (2004). Poor mental and physical health differentially contribute to disability in hospitalized geriatric patients of different ages. *International Journal of Geriatric Psychiatry*, 19, 27-34. doi: 10.1002/gps.1027.

Pijl, Y.J. and Sytema, S. (2003). The identification of trends in the utilization of mental health services by elderly: a Dutch case register study. *International Journal of Geriatric Psychiatry*, 18, 373-380. doi: 10.1002/gps.838.

Keywords: comorbidities, health care use, psychogeriatric

FC05-05 COMMUNITY RESPONSE ENHANCED ASSESSMENT, CRISIS AND TREATMENT (REACT) SERVICE – ECONOMIC EVALUATION OF THE SERVICE

Sabarigirivasan Muthukrishnan¹, Kate J. Hydon*, Kathy Smith¹, Alice Thomas¹

¹Cardiff and Vale University Health Board, Cardiff, United Kingdom

Objectives: The dementia population in Cardiff and Vale is projected to increase from just over 5000 to just over 8000 by 2030. It is reasonable to assume that a similar growth can be expected for older people with functional mental health issues. In order to manage these increasing demands for services, changes to the service structure and delivery of Mental Health Services for Older People (MHSOP) has been necessary.

These changes have focussed on rebalancing the amount of care that can be provided in the community with an aim to support service users to remain within their home environment or community placement for as long as possible. However there has not been a service that is able to respond to patients urgent needs and/or that operates outside Monday – Friday 9am-5pm. Consequently Community Mental Health Teams (CMHTs) for Older People are frequently engaged in crisis work, which detracts from proactive support of service users. In addition, out of hours, the community support breaks down when a patients circumstances change or they require more intensive support. This creates a cycle of 'crisis' and results in waiting list for community services, inpatient services and long term dependency. It is this cycle the MHSOP Community REACT Service has sought to break.

The Community REACT Service commenced on the 27 February 2012 and currently operates 7 days a week 8.30 am-8pm Monday to Friday and 9 am-5 pm at weekends and bank holidays.

Methods: Detailed economic analysis of the service has been done and the results will be presented in detail.

Results: REACT service has shown significant cost savings for the admission avoidance work, facilitating discharge from inpatient dementia and functional wards and also the district general hospital wards.

The service model was changed to ensure continuity of care by Band 6 and Band 7 Psychiatric nurses and Consultant assessment within 24-48 hours of referral. This has led to significant reduction in length of stay in some months from 21 days to 8 days.

Conclusion: After the change in service model with continuity of care and rapid Consultant assessment every £1 invested had saved £5.57 (7.12 EUR or US\$9.33).

Keywords: Community, crisis team, economic evaluation, Mental Health Services for Older People, REACT

FC06: RISK FACTORS FOR DEMENTIA

FC06-01 RENAL DYSFUNCTION AND RISK FOR COGNITIVE IMPAIRMENT: A SYSTEMATIC REVIEW AND META-ANALYSIS

Kay Deckers^{*1}, Ileana Camerino¹, Martin van Boxtel¹, Frans Verhey¹, Kate Irving², Sebastian Köhler¹

¹Psychiatry & Neuropsychology, Maastricht University, Maastricht, Netherlands, ²School of Nursing and Human Sciences, Dublin City University, Dublin, Ireland

Objectives: Renal dysfunction has been associated with cognitive impairment and may be a risk factor for dementia. We therefore conducted a systematic review and meta-analysis into the prospective association between (markers of) renal dysfunction and risk for cognitive impairment or dementia.

Methods: We searched Medline, Embase and Cochrane Database of Systematic Reviews for articles, book chapters and conference abstracts. The search strategy included: 1) predictor-related term; 2) outcome-related terms; and 3) limitations. All publications until 24th July 2013 were included if they fulfilled the inclusion criteria (prospective design, ≥ 100 participants, aged ≥ 45 years, ≥ 1 year follow-up). Assessment of study quality and extraction of data was conducted by two independent assessors.

Results: The literature search yielded 5,294 abstracts, of which 5255 were excluded after full-text scrutiny. Markers of renal dysfunction identified were: estimated glomerular filtration rate (eGFR), proteinuria or albuminuria, Cystatin C (CysC), and elevated serum creatinine level. Meta-analyses of 14 longitudinal studies representing 54,085 persons showed increased odds of cognitive impairment or dementia in those with any marker of renal dysfunction (OR = 1.65, 95%CI 1.33-2.03, $p < 0.001$). Similar results were found in separate analyses for cognitive impairment (OR = 1.68, 95%CI 1.35-2.09, $p < 0.001$) and dementia (OR = 1.64, 95%CI 0.92-2.92, $p = 0.094$). The risk was increased in individuals with eGFR level < 60 ml/min/1.73 m² (OR = 3.67, 95%CI 1.73-7.79, $p = 0.001$), albuminuria (OR = 1.58, 95%CI 1.23-2.02, $p < 0.001$), and CysC level > 1.25 mg/L (OR = 1.82, 95%CI 1.39-2.39, $p < 0.001$).

Conclusion: The findings support an association between (markers of) renal dysfunction and risk of cognitive impairment and dementia

Keywords: chronic kidney disease, Dementia, renal dysfunction, risk factors

FC06-02 DETERMINANTS OF MULTIDIMENSIONAL FRAILITY IN COMMUNITY-DWELLING ELDERLY

Tiago Coelho¹, Constança Paúl², Robbert J. J. Gobbens³, Lia Fernandes^{*4}

¹School of Allied Health Sciences, Porto Polytechnic Institute, Vila Nova de Gaia, ²UNIFAI/ICBAS, University of Porto, Porto, Portugal,

³Research & Development Centre Innovations in Care, Rotterdam University of Applied Sciences, Rotterdam, Netherlands,

⁴UNIFAI/CINTESIS - Faculty of Medicine, University of Porto, Porto, Portugal

Objectives: This study aims to analyze which determinants predict frailty in general and each frailty domain (physical, psychological, and social), considering the integral conceptual model of frailty (Gobbens, Luijkx, Wijnen-Sponselee, & Schols, 2010a, 2010b, 2010c).

Methods: A cross-sectional study was designed using a non-probabilistic sample of 252 community-dwelling elderly from three Portuguese cities. Frailty and determinants of frailty were assessed with the Portuguese version of the Tilburg Frailty Indicator (Coelho, Santos, Paúl, Gobbens, & Fernandes, 2014; Gobbens, van Assen, Luijkx, Wijnen-Sponselee, & Schols, 2010). Hierarchical regression analysis were conducted.

Results: The mean age of the participants was 79.2 years (± 7.3), and most of them were women (75.8%), widowed (55.6%) and with a low educational level (0-4 years: 63.9%). In this study, determinants explained 46% of the variance of total frailty, and 39.8%, 25.3%, and 27.7% of physical, psychological, and social frailty respectively. Age (quadratic effect), being female, lower income, death of a loved one in the past year, unhealthy lifestyle, dissatisfaction with living environment and self-reported comorbidity predicted total

frailty, while the remaining determinants' contribution was non-significant. The effect of age on frailty was complex, considering that the youngest and oldest participants had less frailty. This was explained by the fact that these individuals had less social frailty than the rest of the participants, who lived more often alone. Each frailty domain was associated with a different set of determinants.

Conclusion: In the present study, a significant part of frailty was predicted, and the different contributions of each determinant to frailty domains provided additional evidence of the integral model of frailty's relevance.

References: Coelho, T., Santos, R., Paúl, C., Gobbens, R. J. J., & Fernandes, L. (2014). Portuguese version of the Tilburg Frailty Indicator: Transcultural adaptation and psychometric validation. *Geriatr Gerontol Int*, n/a-n/a. doi: 10.1111/ggi.12373

Gobbens, R. J., Luijckx, K. G., Wijnen-Sponselee, M. T., & Schols, J. M. (2010a). In search of an integral conceptual definition of frailty: opinions of experts. *J Am Med Dir Assoc*, 11(5), 338-343. doi: 10.1016/j.jamda.2009.09.015

Gobbens, R. J., Luijckx, K. G., Wijnen-Sponselee, M. T., & Schols, J. M. (2010b). Toward a conceptual definition of frail community dwelling older people. *Nurs Outlook*, 58(2), 76-86. doi: 10.1016/j.outlook.2009.09.005

Gobbens, R. J., Luijckx, K. G., Wijnen-Sponselee, M. T., & Schols, J. M. (2010c). Towards an integral conceptual model of frailty. *J Nutr Health Aging*, 14(3), 175-181.

Gobbens, R. J., van Assen, M. A., Luijckx, K. G., Wijnen-Sponselee, M. T., & Schols, J. M. (2010). The Tilburg Frailty Indicator: psychometric properties. *J Am Med Dir Assoc*, 11(5), 344-355. doi: 10.1016/j.jamda.2009.11.003

Keywords: Determinants, Elderly, Frailty, Tilburg Frailty Indicator

FC06-03 FACILITATORS AND BARRIERS TO THE DIAGNOSIS OF DEMENTIA WITH LEWY BODIES IN ROUTINE PRACTICE

Claire Bamford¹, Miriam Boyles¹, Tracy Finch¹, Louise Allan², David Burn², Ian McKeith², John O'Brien³, John Paul Taylor², Alan Thomas²

¹Institute of Health & Society, ²Institute of Neuroscience, Newcastle University, Newcastle upon Tyne, ³Department of Psychiatry, University of Cambridge School of Clinical Medicine, Cambridge, United Kingdom

Objectives: Dementia with Lewy bodies (DLB) is the second most common cause of degenerative dementia in older people after Alzheimer's disease (Stevens et al, 2002). Despite the known prevalence of DLB, only around one in 3 cases are currently detected in routine care (Alzheimer Society, 2007). This study seeks to understand the reasons for low diagnostic rates of DLB in routine practice, to explore the value of a proposed assessment tool and perceived barriers and facilitators to its implementation.

Methods: Data were collected through in-depth semi-structured interviews with old age psychiatrists and specialist nurses and observation of routine practice. Interviews were transcribed and fieldnotes were made of observations. Data were analysed thematically and interpretation was informed by Normalization Process theory (May & Finch, 2009).

Results: A range of barriers to the diagnosis of DLB were identified: these included a lack of familiarity with atypical presentations; earlier presentation for diagnosis of dementia; the skills and training of community psychiatric nurses responsible for initial assessments; lack of multidisciplinary assessments; cognitive biases; access to dopamine scans; lack of detailed neurological examination and lack of feedback on diagnostic accuracy.

The idea of an assessment tool was generally viewed favourably with clinicians welcoming the prompts provided. Key barrier to implementing the tool in routine practice were the time available and 'fit' with existing practice and recording systems. Concerns were also raised that the tool might over-emphasise DLB at the expense of other dementias.

Conclusion: A range of reasons for current under-diagnosis of DLB in the UK was identified. While the concept of an assessment tool was appealing in theory, a range of practical concerns over implementation were highlighted. Convincing clinicians of the benefits to patients and carers of improving diagnostic accuracy will be essential for successful implementation.

References:

Alzheimer Society. Dementia UK: A report on the prevalence and economic cost of dementia. London School of Economics and the Institute of Psychiatry at King's College London: Alzheimer's Society; 2007.

May C, Finch T. Implementing, embedding, and integrating practices: An outline of normalization process theory. *Sociology*. 2009;43(3):535-54.

Stevens T, Livingston G, Kitchen G, Manela M, Walker Z, Katona C. Islington study of dementia subtypes in the community. *British Journal of Psychiatry*. 2002;180:270-6.

Keywords: Dementia with Lewy bodies, Normalization process theory, Qualitative research

Disclaimer: This abstract presents independent research funded by the UK National Institute for Health Research (NIHR) under its Programme Grants for Applied Research programme (Grant Reference Number DTC-RP-PG-0311-12001). The views expressed are those of the author(s) and not necessarily those of the NHS, the NIHR or the Department of Health.

FC06-04 RISK PREDICTION MODELS IN DEMENTIA: NEW DEVELOPMENTS

Eugene Y. H. Tang¹

¹Institute of Health and Society, Newcastle University, Newcastle upon Tyne, United Kingdom

Objectives: Accurate identification of individuals at high risk of dementia will become crucial given the expanding interest in dementia risk minimization. To assist with this, numerous risk prediction models and scores for dementia have been developed but none are currently in clinical use. However, risk prediction models have been developed in a number of other disease specialties, such as type 2 diabetes (Noble *et al.*, 2011), chronic kidney disease (Echouffo-Tcheugui and Kengne, 2012) and cancer (pancreatic (Capitanio *et al.*, 2010), ovarian (Geomini *et al.*, 2009) and breast (Gail *et al.*, 1989)) and most notably (and regularly used in clinical practice), cardiovascular disease (CVD) (e.g., Framingham (Wilson *et al.*, 1998) and QRISK2 (Siontis *et al.*, 2012)). An original review of all dementia risk prediction models was performed in 2010 which identified over 50 different models (Stephan *et al.*, 2010). Given the recent intensity in this research area, this review aimed to highlight the current level of model development in dementia risk prediction.

Methods: A systematic search was performed from January 2009 to March 2014 in electronic databases (MEDLINE, Embase, Scopus, Web of Science). Articles examining risk of dementia in non-demented individuals and including measures of sensitivity, specificity and the area under the curve (AUC) or c-statistic were included.

Results: A total of 1,234 articles were identified from the search with 21 articles meeting our inclusion criteria. Several new developments in dementia risk prediction have occurred: 1) the testing of non-APOE genes 2) use of non-traditional dementia risk factors 3) incorporation of information on diet, physical function and ethnicity 4) model development in specific subgroups of the population including individuals with diabetes and those with low vs. high educational attainment. Only four models were externally validated and only three studies considered time or cost implications of computing the model.

Conclusion: There is currently no consensus as to whether one model can be recommended for dementia risk prediction in population-based settings. Before any model can be recommended for clinical usage several issues need to be addressed: 1) validation outside the development cohort 2) cost effectiveness and accessibility of variables used and, 3) acceptability of risk models, especially in cases where individuals may not wish to know their cognitive prognosis.

References: Capitanio, U., Briganti, A., Gallina, A., Suardi, N., Karakiewicz, P.I., Montorsi, F. and Scattoni, V. (2010) 'Predictive models before and after radical prostatectomy', *Prostate*, 70(12), pp. 1371-8.

Echouffo-Tcheugui, J.B. and Kengne, A.P. (2012) 'Risk models to predict chronic kidney disease and its progression: a systematic review', *PLoS Med*, 9(11), p. e1001344.

Gail, M.H., Brinton, L.A., Byar, D.P., Corle, D.K., Green, S.B., Schairer, C. and Mulvihill, J.J. (1989) 'Projecting individualized probabilities of developing breast cancer for white females who are being examined annually.', *Journal of the National Cancer Institute*, 81(24), pp. 1879 - 1886.

Geomini, P., Kruitwagen, R., Bremer, G.L., Cnossen, J. and Mol, B.W. (2009) 'The accuracy of risk scores in predicting ovarian malignancy: a systematic review', *Obstet Gynecol*, 113(2 Pt 1), pp. 384-94.

Noble, D., Mathur, R., Dent, T., Meads, C. and Greenhalgh, T. (2011) 'Risk models and scores for type 2 diabetes: systematic review', *Bmj*, 343, p. d7163.

Siontis, G.C., Tzoulaki, I., Siontis, K.C. and Ioannidis, J.P. (2012) 'Comparisons of established risk prediction models for cardiovascular disease: systematic review.', *BMJ*, 344, p. e3318.

Stephan, B.C.M., Kurth, T., Matthews, F.E., Brayne, C. and Dufouil, C. (2010) 'Dementia risk prediction in the population: are screening models accurate?', *Nat Rev Neurol*, 6(6), pp. 318 - 326.

Wilson, P.W., D'Agostino, R.B., Levy, D., Belanger, A.M., Silbershatz, H. and Kannel, W.B. (1998) 'Prediction of coronary heart disease using risk factor categories.', *Circulation*, 97(18), pp. 1837 - 1847.

Keywords: dementia, risk, systematic review

FC06-05 AN ICF-BASED EVALUATION FOR BASIC AND INSTRUMENTAL ACTIVITIES OF DAILY LIVING: VALIDITY AND RELIABILITY OF A NEW METHOD TO MEASURE DAILY FUNCTIONING IN ELDERLY WITH COGNITIVE DISORDERS.

Elise Cornelis^{1,2,3}, Ellen Gorus^{1,2,4}, Ingo Beyer^{1,2,4}, Patricia De Vriendt^{2,3,4}

¹Department of Geriatrics, Universitair Ziekenhuis Brussel, ²FRIA Research Group, Vrije Universiteit Brussel, Brussel, ³Department of Occupational Therapy, Artevelde University College Ghent, Gent, ⁴Department of Gerontology, Vrije Universiteit Brussel, Brussel, Belgium

Objectives: The evaluation of activities of daily living (ADL) is important for the diagnostic differentiation between normal cognitive ageing (NC), Mild Cognitive Impairment (MCI) and Alzheimer's Disease (AD). Unfortunately, current evaluations appear to be inaccurate due to their poor psychometric properties and lack of uniformity in terminology and scoring system (e.g. Sikkes et al., 2009). Based on the International Classification of Functioning Disability and Health (ICF) (WHO, 2001), we developed a new evaluation for basic (b-) and instrumental (i-) ADL. This evaluation focuses on individual slopes of functional decline, by taking each person as his own reference and determines the underlying cause of limitation. It distinguishes a Disability Index (DI), taking into account the number of limited activities and the severity of limitation, and a Cognitive Disability Index (CDI) and Physical Disability Index (PDI), considering exclusively activities limited because of respectively cognitive and physical problems. This study explored the psychometric properties of these indices.

Methods: In a cross-sectional design, 100 community-dwelling participants (mean age 78.9; SD±7.31) were classified as (1) NC (n=33); (2) patients with MCI (n=27) and (3) with mild to moderate AD (n=40), based upon a standard clinical evaluation. Additionally, the new evaluation for b- and i-ADL was administered.

Results: This new evaluation showed good psychometrical properties. The inter-rater reliability was excellent for all indices (ICC ranging from .944 to .994). Regarding the construct validity, the CDI for b-ADL as well as for i-ADL differed significantly between the three groups (p<.05) with a mean b-ADL-CDI of 0.0% (SD±0) for NC, 3.2% (SD±0.07) for MCI and 9.2% (SD±0.12) for AD, and a mean i-ADL-CDI of 0.5% for NC (SD±0.01), 20% for MCI (SD±0.17) and 52% for AD (SD±0.24). The DI and PDI for b- and i-ADL were significantly different between the persons with NC and the patients (p<.001). ROC curves showed satisfactory results for the DI and CDI of both b- and i-ADL, with an AUC ranging from .609 to .998.

Conclusion: The indices showed promising results. This new evaluation provided clarity and more nuance in assessing ADL by illustrating the continuum of functional decline due to cognitive disorders. It might offer a useful contribution to the identification and follow up of elderly with cognitive disorders. Further research is needed to examine the predictive validity of this evaluation.

References: Sikkes, S.A., De Lange-de Klerk, E.S., Pijnenburg, Y.A., Scheltens, P. And Uitdehaag, B.M. (2009). A systematic review of Instrumental Activities of Daily Living scales in dementia: room for improvement. *J Neurol Neurosurg Psychiatry*, 80, 7-12. doi:10.1136/jnnp.2008.155838.

World Health Organization (2001). International Classification of Functioning, Disability and Health. Geneva: World Health Organization.

Keywords: Alzheimer's disease, Assessment of daily functioning, International Classification of Functioning, Disability and Health, Mild Cognitive Impairment