

Dementia Current Awareness Bulletin

May 2020

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Title: Activity interventions to improve the experience of care in hospital for people living with dementia: a systematic review.

Citation: BMC geriatrics; Apr 2020; vol. 20 (no. 1); p. 131

Author(s): Lourida, Ilianna; Gwernan-Jones, Ruth; Abbott, Rebecca; Rogers, Morwenna; Green, Colin; Ball, Susan; Hemsley, Anthony; Cheeseman, Debbie; Clare, Linda; Moore, Darren; Hussey, Chrissy; Coxon, George; Llewellyn, David J; Naldrett, Tina; Thompson Coon, Jo

Abstract: An increasingly high number of patients admitted to hospital have dementia. Hospital environments can be particularly confusing and challenging for people living with dementia (Plwd) impacting their wellbeing and the ability to optimize their care. Improving the experience of care in hospital has been recognized as a priority, and non-pharmacological interventions including activity interventions have been associated with improved wellbeing and behavioral outcomes for Plwd in other settings. This systematic review aimed at evaluating the effectiveness of activity interventions to improve experience of care for Plwd in hospital.

Methods: Systematic searches were conducted in 16 electronic databases up to October 2019. Reference lists of included studies and forward citation searching were also conducted. Quantitative studies reporting comparative data for activity interventions delivered to Plwd aiming to improve their experience of care in hospital were included. Screening for inclusion, data extraction and quality appraisal were performed independently by two reviewers with discrepancies resolved by discussion with a third where necessary. Standardized mean differences (SMDs) were calculated where possible to support narrative statements and aid interpretation.

Results: Six studies met the inclusion criteria (one randomized and five non-randomized uncontrolled studies) including 216 Plwd. Activity interventions evaluated music, art, social, psychotherapeutic, and combinations of tailored activities in relation to wellbeing outcomes. Although studies were generally underpowered, findings indicated beneficial effects of activity interventions with improved mood and engagement of Plwd while in hospital, and reduced levels of responsive behaviors. Calculated SMDs ranged from very small to large but were mostly statistically non-significant.

Conclusions: The small number of identified studies indicate that activity-based interventions implemented in hospitals may be effective in improving aspects of the care experience for Plwd. Larger well-conducted studies are needed to fully evaluate the potential of this type of non-pharmacological intervention to improve experience of care in hospital settings, and whether any benefits extend to staff wellbeing and the wider ward environment.

Title: Family Identification of Delirium in the Emergency Department in Patients With and Without Dementia: Validity of the Family Confusion Assessment Method (FAM-CAM).

Citation: Journal of the American Geriatrics Society; Apr 2020

Author(s): Mailhot, Tanya; Darling, Chad; Ela, Jillian; Malyuta, Yelena; Inouye, Sharon K; Saczynski, Jane

Objective: To examine the ability of the family-rated Family Confusion Assessment Method (FAM-CAM) to identify delirium in the emergency department (ED) among patients with and without dementia, as compared to the reference-standard Confusion Assessment Method (CAM).

Design: Validation study.

Setting: Urban academic ED.

PARTICIPANTS: Dyads of ED patients, aged 70 years and older, and their family caregivers (N = 108 dyads).

Measurements: A trained reference standard interviewer performed a cognitive screen, delirium symptom assessment, and scored the CAM. The caregiver self-administered the FAM-CAM. Dementia was assessed using the Informant Questionnaire on Cognitive Decline in the Elderly and the medical record. For concurrent validity, performance of the FAM-CAM was compared to the CAM. For predictive validity, clinical outcomes (ED visits, hospitalization, and mortality) over 6 months were compared in FAM-CAM positive and negative patients, controlling for age, sex, comorbidity, and cognitive status.

Results: Among the 108 patients, 30 (28%) were CAM positive for delirium and 58 (54%) presented with dementia. The FAM-CAM had a specificity of 83% and a negative predictive value of 83%. Most false negatives (n = 9 of 13, 69%) were due to caregivers not identifying the inattention criteria for delirium on the FAM-CAM. In patients with dementia, sensitivity was higher than in patients without (61% vs 43%). In adjusted models, a hospitalization in the following 6 months was more than three times as likely in FAM-CAM positive compared to negative patients (odds ratio = 3.4; 95% confidence interval = 1.2-9.3).

Conclusions: Among patients with and without dementia, the FAM-CAM shows qualities that are important in the ED setting for identification of delirium. Using the FAM-CAM as part of a systematic screening strategy for the ED, in which families' assessments could supplement healthcare professionals' assessments, is promising.

Title: Improving advance care planning for care home residents with dementia: Evaluation of simulation training for care home workers.

Citation: Dementia (14713012); Apr 2020; vol. 19 (no. 3); p. 822-829

Author(s): Katwa, Asha Pari; Jenner, Chris; MacDonald, Karen; Barnett, Nina

Abstract: The importance of effective advance care planning is often underestimated by professionals caring for care home residents. Using a simulated scenario, this model aimed to highlight the importance of timely advance care planning for care home residents. An adapted simulation effectiveness tool was used to evaluate a simulated scenario of a resident with advanced dementia. Feedback from this tool, N = 28 (response rate 82%), suggests this model was well received and that simulation training delivered by a multi-professional faculty, effectively demonstrates the benefits of early advance care planning for residents with dementia.

Title: 'Living together with dementia' – Conceptual validation of training programme for family caregivers: Innovative practice.

Citation: Dementia (14713012); May 2020; vol. 19 (no. 4); p. 1333-1342

Author(s): Sousa, Lia; Sequeira, Carlos; Ferré-Grau, Carme

Abstract: This article presents results from a conceptual validation of the programme 'Living Together with Dementia', through an e-Delphi study carried out during April/May 2015 with 26 Portuguese and Spanish experts. The programme consists of seven individual weekly sessions and two group sessions over a seven-week period. It covers dementia,

communication and behaviour; demands and expectations of the caregiver role; basic activities of daily living; coping and problem-solving strategies; physical and mental health of the caregiver and community support. The programme methods mainly consist of discussion sessions, practical examples/simulations and skill training.

Title: Improving advance care planning for care home residents with dementia: Evaluation of simulation training for care home workers.

Citation: Dementia (London, England); Apr 2020; vol. 19 (no. 3); p. 822-829

Author(s): Katwa, Asha Pari; Jenner, Chris; MacDonald, Karen; Barnett, Nina

Title: Use of Immersive Virtual Reality in the Assessment and Treatment of Alzheimer's Disease: A Systematic Review.

Citation: Journal of Alzheimer's disease: JAD; Apr 2020

Author(s): Clay, Felix; Howett, David; FitzGerald, James; Fletcher, Paul; Chan, Dennis; Price, Annabel

Objectives: Immersive virtual reality (iVR) allows seamless interaction with simulated environments and is becoming an established tool in clinical research. It is unclear whether iVR is acceptable to people with Alzheimer's disease (AD) dementia or useful in their care. We explore whether iVR is a viable research tool that may aid the detection and treatment of AD. This review examines the use of iVR in people with AD or mild cognitive impairment (MCI).

Methods: Medline, PsycINFO, Embase, CINAHL, and Web of Science databases were searched from inception. PRISMA guidelines were used with studies selected by at least two researchers.

Results: Nine studies were eligible for inclusion. None reported any issues with iVR tolerability in participants with MCI and AD on assessment or treatment tasks. One study demonstrated capability for detecting prodromal AD and correlated with neuroanatomical substrates. Two studies showed iVR to have high accuracy in differentiating participants with AD from controls but were not hypothesis driven or with adequate controls measures. In a small validation study and two longitudinal case studies, iVR cognitive training was positively rated but did not demonstrate reliable benefit.

Conclusion: iVR is emerging as a viable method of assessing older adults and people with AD. Strongest benefits were seen when closely integrated with theoretical models of neurodegeneration and existing screening methods. Further randomized controlled trials integrated with clinical populations are required. This will consolidate the power of iVR for assessment of MCI and clarify treatment efficacy beyond current applications in physical rehabilitation.

Title: Patient-Reported Outcome Measures to Inform Care of People with Dementia-A Systematic Scoping Review.

Citation: The Gerontologist; May 2020

Author(s): Ayton, Darshini R; Gardam, Madeleine L; Pritchard, Elizabeth K; Ruseckaite, Rasa; Ryan, Joanne; Robinson, Sandra J; Brodaty, Henry; Ward, Stephanie A; Ahern, Susannah

Objectives: Patient-reported outcome measures (PROMs) captures the patient's perspective regarding quality of life, daily functioning, symptom severity, and overall health, and how these may be impacted by health care or other interventions. PROMs are used in clinical quality registries (CQRs) for a number of diseases to assess the patient's perspective of the impact of clinical care on quality-of-life. This scoping review aimed to identify dementia-specific PROMs, determine how the PROMs are being used, and whether they are used within dementia registries.

Research design and methods: Three electronic databases were searched using Medical Subject Heading terms for dementia, quality of life, and patient-reported outcomes. Data were extracted on the PROMs used and the methods and mode of administering the PROM.

Results: Seven dementia-specific PROMs were identified; however, none were used in a dementia registry. All the PROMs were used at the patient level to identify patient needs and health service impacts. Three PROMs were also used at a system level to examine difference in care models. The majority of the PROMs were administered via a researcher or clinician and were predominantly completed by a proxy.

Discussion and implications: PROMs provide an opportunity for a patient with dementia to share experiences and perspectives of care. A number of dementia-specific PROMs exist, yet none are used in dementia registries and the majority of studies utilize PROMs via a proxy. The use of PROM for patients with dementia, particularly in the context of dementia registries, requires further exploration and consideration.

Title: Meditation-Based Interventions for Adults with Dementia: A Scoping Review.

Citation: The American journal of occupational therapy: official publication of the American Occupational Therapy Association; vol. 74 (no. 3); p. 7403205010p1

Author(s): Hoffman, Lindsey; Hutt, Rebecca; Yi Tsui, Celine Kin; Zorokong, Kim; Marfeo, Elizabeth

Importance: With the high prevalence and cost of dementia care worldwide, a need exists to develop cost-effective and evidence-based treatment for people with dementia. Meditation, which has been demonstrated to have positive effects on brain health, may be a viable intervention option.

Objective: To investigate how meditation-based interventions affect health and quality-of-life (QOL) outcomes for adults with dementia.

Data sources: Articles were located by using the keywords meditation, mindfulness, mind-body, dementia, and Alzheimer's to search the following electronic databases: PubMed, CINAHL, Embase, Cochrane, and JumboSearch at Tufts University.

Study selection and data collection: Using Arksey and O'Malley's methodology, a scoping review was conducted to examine scientific and gray literature published between 1997 and 2018. Data were abstracted and assessed using the Preferred Reporting Items for Systematic Reviews and Meta-Analyses. Only articles that included a meditation-based intervention and at least 1 participant with dementia were included.

Findings: Nineteen articles met inclusion criteria. The four main outcomes that emerged from the literature were improvement in QOL, mental health, cognition, and functional abilities after participation in a meditation-based intervention. The outcome with the strongest support was the effectiveness of meditation-based interventions in maintaining cognitive function in people living with dementia. Significant gaps in the research were identified, including weak research design, inconsistency in measurement of outcomes,

small sample sizes, and a lack of standardized meditation protocols for people with dementia.

Conclusions and relevance: Our findings suggest that incorporating meditation into interventions for clients with dementia can have beneficial results. Opportunities exist for occupational therapy practitioners to advocate for the continuation of research in this field. Notable gaps in the literature highlight the need for randomized controlled trials and the development of standardized meditation protocols for people with dementia.

What this article adds: Meditation-based interventions for people with dementia are associated with improved quality of life and cognition and may be viable treatment options for occupational therapists to implement in their practice.

Title: No Association Linking Short-Term Proton Pump Inhibitor Use to Dementia: Systematic Review and Meta-analysis of Observational Studies.

Citation: The American journal of gastroenterology; May 2020; vol. 115 (no. 5); p. 671-678

Author(s): Khan, Muhammad Ali; Yuan, Yuhong; Iqbal, Umair; Kamal, Sehrish; Khan, Mubeen; Khan, Zubair; Lee, Wade M; Howden, Colin W

Objective: Long-term use of proton pump inhibitors (PPIs) has been associated with a wide variety of potentially serious adverse effects including a possible increased risk of dementia. Studies evaluating this association have reached divergent conclusions. We aimed to evaluate this proposed association further and to assess the quality of the evidence in its support.

Methods: We searched MEDLINE, EMBASE, ISI Web of Science, and Cochrane databases for studies examining a link between PPI use and dementia, up to February 2019. Studies reporting summary results as hazard ratio (HR) or odds ratio (OR) were pooled using the DerSimonian and Laird random-effects model for meta-analyses. Methodological quality of individual observational studies was assessed using the Newcastle-Ottawa scale and the overall quality of evidence rated as per the GRADE approach.

Results: We identified and included 11 observational studies comprising 642,949 subjects; 64% were women. Most studies were short-term ranging from 5 to 10 years. There were 158,954 PPI users and 483,995 nonusers. For studies summarizing data as adjusted HR, pooled HR for all causes of dementia was 1.10 (0.88-1.37); for Alzheimer dementia only, it was 1.06 (0.72-1.55). For studies summarizing data as adjusted OR, pooled OR for all causes of dementia was 1.03 (0.84-1.25) and for Alzheimer dementia only 0.96 (0.82-1.11). Per Newcastle-Ottawa scale assessment, 10 studies were of high quality and 1 was of moderate quality. By applying GRADE methodology, quality of evidence for both outcomes was very low.

Discussion: We found no evidence to support the proposed association between PPI use and an increased risk of dementia. PPI use among patients who have a valid indication for it, should not be curtailed because of concerns about dementia risk.

Title: 24. Dementia is associated with increased mortality and poor patient-centered outcomes after vascular surgery.

Citation: Journal of vascular surgery; May 2020; vol. 71 (no. 5); p. 1685

Author(s): Shah, Samir K; Jin, Ginger; Reich, Amanda J; Gupta, Avni; Belkin, Michael; Weissman, Joel S

Objective: Dementia has been associated with increased complications and mortality in orthopedics and other surgical specialties but has received limited attention in vascular surgery. Therefore, we evaluated the association of dementia with surgical outcomes for elderly patients with Medicare who underwent a variety of open and percutaneous vascular surgery procedures.

Methods: We reviewed claims data from the Centers for Medicare and Medicaid Services for beneficiaries enrolled in Medicare Part A fee-for-service insurance from January 1, 2011, to December 31, 2011, who underwent inpatient vascular surgery. Only the first surgery during the first admission was considered for analysis. Traditional outcomes (30- and 90-day mortality, intensive care admission, complications, length of stay) and patient-centered outcomes (discharge to home, extended skilled nursing facility [SNF] stay, time at home) were adjusted for patient and procedure characteristics using multilevel linear or logistic regression as appropriate. All analyses were performed using SAS (v9.4, SAS Institute Inc, Cary, NC).

Results: Our study included 210,918 patients undergoing vascular surgery, of whom 27,920 carried a diagnosis of dementia. The average age of the entire cohort was 75.74 years, and 55.43% were male. Patients with dementia were older and had higher rates of comorbidities compared with patients without a dementia diagnosis. The three most common defined classes of intervention excluding miscellaneous ones were cerebrovascular, peripheral arterial, and aortic cases, which jointly accounted for 53.15% of cases. Among all cases, 56.62% were open. Emergent/urgent cases were more frequent amongst those with dementia (60.66% vs 37.93%; $P < .001$). After adjustment, patients with dementia had increased odds of 30-day mortality (odds ratio [OR], 1.21; $P < .0001$) and 90-day mortality (OR, 1.63; $P < .0001$), extended SNF stay (OR, 3.47; $P < .0001$), and longer hospital length of stay (8.29 days vs 5.41 days; $P < .001$). They were less likely to be discharged home (OR, 0.31; $P < .0001$) and spent a lower fraction of time at home after discharge (63.29% vs 86.91%; $P < .001$). Intensive care admission and inpatient complications were similar between the two groups.

Conclusions: Dementia is associated with poor traditional outcomes, including increased 30- and 90-day mortality and longer hospital lengths of stay in this large national patient sample. It is also associated with worse patient-centered outcomes, including substantially lower discharge rates to home, less time spent at home after discharge, and higher rates of extended stay in a SNF. These data should be used to counsel patients facing vascular surgery to provide goal-concordant care, particularly to patients with dementia.

Title: Aspirin and other non-steroidal anti-inflammatory drugs for the prevention of dementia.

Citation: The Cochrane database of systematic reviews; Apr 2020; vol. 4; p. CD011459

Author(s): Jordan, Fionnuala; Quinn, Terry J; McGuinness, Bernadette; Passmore, Peter; Kelly, John P; Tudur Smith, Catrin; Murphy, Kathy; Devane, Declan

Background: Dementia is a worldwide concern. Its global prevalence is increasing. At present, there is no medication licensed to prevent or delay the onset of dementia. Inflammation has been suggested as a key factor in dementia pathogenesis. Therefore, medications with anti-inflammatory properties could be beneficial for dementia prevention.

Objectives: To evaluate the effectiveness and adverse effects of aspirin and other non-steroidal anti-inflammatory drugs (NSAIDs) for the primary or secondary prevention of dementia.

Search methods: We searched ALOIS, the specialised register of the Cochrane Dementia and Cognitive Improvement Group up to 9 January 2020. ALOIS contains records of clinical

trials identified from monthly searches of several major healthcare databases, trial registries and grey literature sources. We ran additional searches across MEDLINE (OvidSP), Embase (OvidSP) and six other databases to ensure that the searches were as comprehensive and up-to-date as possible. We also reviewed citations of reference lists of included studies.

Selection criteria: We searched for randomised controlled trials (RCTs) and controlled clinical trials (CCTs) comparing aspirin or other NSAIDs with placebo for the primary or secondary prevention of dementia. We included trials with cognitively healthy participants (primary prevention) or participants with mild cognitive impairment (MCI) or cognitive complaints (secondary prevention).

Data collection and analysis: We used standard methodological procedures according to the Cochrane Handbook for Systematic Reviews of Interventions. We rated the strength of evidence for each outcome using the GRADE approach.

Main results: We included four RCTs with 23,187 participants. Because of the diversity of these trials, we did not combine data to give summary estimates, but presented a narrative description of the evidence. We identified one trial (19,114 participants) comparing low-dose aspirin (100 mg once daily) to placebo. Participants were aged 70 years or older with no history of dementia, cardiovascular disease or physical disability. Interim analysis indicated no significant treatment effect and the trial was terminated slightly early after a median of 4.7 years' follow-up. There was no evidence of a difference in incidence of dementia between aspirin and placebo groups (risk ratio (RR) 0.98, 95% CI 0.83 to 1.15; high-certainty evidence). Participants allocated aspirin had higher rates of major bleeding (RR 1.37, 95% CI 1.17 to 1.60, high-certainty evidence) and slightly higher mortality (RR 1.14, 95% CI 1.01 to 1.28; high-certainty evidence). There was no evidence of a difference in activities of daily living between groups (RR 0.84, 95% CI 0.70 to 1.02; high-certainty evidence). We identified three trials comparing non-aspirin NSAIDs to placebo. All three trials were terminated early due to adverse events associated with NSAIDs reported in other trials. One trial (2528 participants) investigated the cyclo-oxygenase-2 (COX-2) inhibitor celecoxib (200 mg twice daily) and the non-selective NSAID naproxen (220 mg twice daily) for preventing dementia in cognitively healthy older adults with a family history of Alzheimer's disease (AD). Median follow-up was 734 days. Combining both NSAID treatment arms, there was no evidence of a difference in the incidence of AD between participants allocated NSAIDs and those allocated placebo (RR 1.91, 95% CI 0.89 to 4.10; moderate-certainty evidence). There was also no evidence of a difference in rates of myocardial infarction (RR 1.21, 95% CI 0.61 to 2.40), stroke (RR 1.82, 95% CI 0.76 to 4.37) or mortality (RR 1.37, 95% CI 0.78 to 2.43) between treatment groups (all moderate-certainty evidence). One trial (88 participants) assessed the effectiveness of celecoxib (200 mg or 400 mg daily) in delaying cognitive decline in participants aged 40 to 81 years with mild age-related memory loss but normal memory performance scores. Mean duration of follow-up was 17.6 months in the celecoxib group and 18.1 months in the placebo group. There was no evidence of a difference between groups in test scores in any of six cognitive domains. Participants allocated celecoxib experienced more gastrointestinal adverse events than those allocated placebo (RR 2.66, 95% CI 1.05 to 6.75; low-certainty evidence). One trial (1457 participants) assessed the effectiveness of the COX-2 inhibitor rofecoxib (25 mg once daily) in delaying or preventing a diagnosis of AD in participants with MCI. Median duration of study participation was 115 weeks in the rofecoxib group and 130 weeks in the placebo group. There was a higher incidence of AD in the rofecoxib than the placebo group (RR 1.32, 95% CI 1.01 to 1.72; moderate-certainty evidence). There was no evidence of a difference between groups in cardiovascular adverse events (RR 1.07, 95% CI 0.68 to 1.66; moderate-certainty evidence) or mortality (RR 1.62, 95% CI 0.85 to 3.05; moderate-certainty evidence). Participants allocated rofecoxib had more upper gastrointestinal adverse events (RR 3.53, 95% CI 1.17 to 10.68; moderate-certainty evidence). Reported annual mean difference scores showed no evidence of a difference between groups in activities of daily living (year 1: no data available; year 2: 0.0, 95% CI -0.1 to 0.2; year 3: 0.1, 95% CI -0.1 to 0.3; year 4: 0.1, 95% CI -0.1 to 0.4; moderate-certainty evidence).

Authors' conclusions: There is no evidence to support the use of low-dose aspirin or other NSAIDs of any class (celecoxib, rofecoxib or naproxen) for the prevention of dementia, but there was evidence of harm. Although there were limitations in the available evidence, it seems unlikely that there is any need for further trials of low-dose aspirin for dementia prevention. If future studies of NSAIDs for dementia prevention are planned, they will need to be cognisant of the safety concerns arising from the existing studies.

Title: The effectiveness of interventions to improve the care and management of people with dementia in general hospitals: A systematic review.

Citation: International journal of geriatric psychiatry; May 2020; vol. 35 (no. 5); p. 463-488

Author(s): Feast, Alexandra R; White, Nicola; Candy, Bridget; Kupeli, Nuriye; Sampson, Elizabeth L

Objective: People with dementia are at greater risk of being admitted to hospital where care may not be tailored to their needs. Interventions improving care and management are vital. This article aims to assess the effectiveness of interventions designed to improve the care and management of people with dementia in hospital.

Method: Six medical and trial registry, and grey literature databases were searched (1999-1998/2018). Search terms included "Dementia," "Hospital," and "Intervention" and limited to experimental designs. Interventions designed to improve the care and management of people with dementia in the general hospital setting were examined. Outcomes included behavioural and psychological symptoms of dementia (BPSD), psychosocial, clinical, staff knowledge, and length of hospital stay. The CASP tools, Cochrane risk of bias tool, and GRADE system assessed methodological quality and certainty of evidence.

Results: 9003 unique citations were identified; 24 studies were included. Studies were limited in study design and their conduct was at a risk of bias. There is very low-quality evidence that multisensory behaviour therapy reduces BPSD. There is low-quality evidence that a multidisciplinary programme reduces postoperative complications and that robot-assisted therapy, music therapy, multimodal-comprehensive care, person-centred care, and family-centred function-focused care interventions improved staff knowledge, competence, efficacy, and communication. No studies reported reduced length of stay.

Conclusions: Whilst we found that these interventions improved the care and management of people with dementia in hospital, it was low- to very low-quality evidence. New clinical recommendations cannot be made based on current evidence, and robust trial designs are necessary to inform evidence-based care.

Title: The value of dementia care towards the end of life-A contingent valuation study.

Citation: International journal of geriatric psychiatry; May 2020; vol. 35 (no. 5); p. 489-497

Author(s): Bhattarai, Nawaraj; Mason, Helen; Kernohan, Ashleigh; Poole, Marie; Bamford, Claire; Robinson, Louise; Vale, Luke

Objectives: A dementia nurse specialist (DNS) is expected to improve the quality of care and support to people with dementia nearing, and at, the end of life (EoL) by facilitating some key features of care. The aim of this study was to estimate willingness-to-pay (WTP) values from the general public perspective, for the different levels of support that the DNS can provide.

Methods: Contingent valuation methods were used to elicit the maximum WTP for scenarios describing different types of support provided by the DNS for EoL care in dementia. In a general population online survey, 1002 participants aged 18 years or more sampled from the United Kingdom provided valuations. Five scenarios were valued with mean WTP value calculated for each scenario along with the relationship between mean WTP and participant characteristics.

Results: The mean WTP varied across scenarios with higher values for the scenarios offering more features. Participants with some experience of dementia were willing to pay more compared with those with no experience. WTP values were higher for high-income groups compared with the lowest income level ($P < .05$). There was no evidence to suggest that respondent characteristics such as age, gender, family size, health utility or education status influenced the WTP values.

Conclusion: The general population values the anticipated improvement in dementia care provided by a DNS. This study will help inform judgements on interventions to improve the quality of EoL care.

Title: People with dementia attending farm-based day care in Norway - Individual and farm characteristics associated with participants' quality of life.

Citation: Health & social care in the community; May 2020; vol. 28 (no. 3); p. 1038-1048

Author(s): Ibsen, Tanja L; Kirkevold, Øyvind; Patil, Grete G; Eriksen, Siren

Abstract: Farm-based day care for people with dementia is supposed to improve the participants quality of life by using activities and resources of the farm environment to promote mental and physical health. In this paper, we describe the characteristics of those attending farm-based day care services in Norway and explore the association between individual and farm characteristics and the quality of life. A sample of 94 people with dementia who attended farm-based day care was recruited from 25 farms between January 2017 and January 2018. The data collection was performed using standardized instruments. Information about the farms was retrieved from a former study. The association between the participants' quality of life and their individual and/or farm characteristics was examined with a linear multilevel regression model. The participants had a mean age of 76 years, 62% were men, and 68% had additional education after primary school. Most of them had mild (54.3%) or questionable dementia (18.3%). A few participants used antipsychotics (3.7%), tranquilizers (9.9%) and painkillers (13.6%), while a higher number used antidepressants (30.9%). Quality of life was associated with the experience of having social support ($p = .023$), a low score on depressive symptoms ($p < .001$), and spending time outdoors at the farm ($p < .001$). The variation between the farm-based day care services in the participants' reported quality of life was related to time spent outdoors at the farm. In light of the present study, it seems as farm-based day care is addressing people with dementia in an early stage, dominated by men, with quite good physical and medical condition. The strong association between quality of life and spending time outdoors underscores that facilitation for outdoor activity should be prioritized in all types of dementia care.

Title: Characteristics of People with Dementia vs Other Conditions on Admission to Inpatient Palliative Care.

Citation: Journal of the American Geriatrics Society; Apr 2020

Author(s): Ding, Jinfeng; Johnson, Claire E; Lee, Yun Chong Olivia; Gazey, Angela; Cook, Angus

Objectives: Our aim was to (1) describe the clinical characteristics and symptoms of people diagnosed with dementia at the time of admission to inpatient palliative care; and (2) compare the nature and severity of these palliative care-related problems to patients with other chronic diseases.

Design: Descriptive study using assessment data on point of care outcomes (January 1, 2013, to December 31, 2018).

Setting: A total of 129 inpatient palliative care services participating in the Australian Palliative Care Outcomes Collaboration.

Participants: A total of 29,971 patients with a primary diagnosis of dementia (n = 1,872), lung cancer (n = 19,499), cardiovascular disease (CVD, n = 5,079), stroke (n = 2,659), or motor neuron disease (MND, n = 862).

Measurements: This study reported the data collected at the time of admission to inpatient palliative care services including patients' self-rated levels of distress from seven common physical symptoms, clinician-rated symptom severity, functional dependency, and performance status. Other data analyzed included number of admissions, length of inpatient stay, and palliative care phases.

Results: At the time of admission to inpatient palliative care services, relative to patients with lung cancer, CVD, and MND, people with dementia presented with lower levels of distress from most symptoms (odds ratios [ORs] range from .15 to .80; P < .05 for all) but higher levels of functional impairment (ORs range from 3.02 to 8.62; P < .001 for all), and they needed more assistance with basic activities of daily living (ORs range from 3.83 to 12.24; P < .001 for all). The trends were mostly the opposite direction when compared with stroke patients. Patients with dementia tended to receive inpatient palliative care later than those with lung cancer and MND.

Conclusion: The unique pattern of palliative care problems experienced by people with dementia, as well as the skills of the relevant health services, need to be considered when deciding on the best location of care for each individual. Access to appropriately trained palliative care clinicians is important for people with high levels of physical or psychological concerns, irrespective of the care setting or diagnosis.

Title: Characteristics of Young-Onset and Late-Onset Dementia Patients at a Remote Memory Clinic.

Citation: The Canadian journal of neurological sciences. Le journal canadien des sciences neurologiques; May 2020; vol. 47 (no. 3); p. 320-327

Author(s): Wong, Jennifer F W; Kirk, Andrew; Perlett, Landon; Karunanayake, Chandima; Morgan, Debra; O'Connell, Megan E

Objective: Young-onset dementia (YOD) is defined as the onset of dementia symptoms before the age of 65 years and accounts for 2-8% of dementia. YOD patients and their caregivers face unique challenges in diagnosis and management. We aimed to compare the characteristics of rural YOD and late-onset dementia (LOD) patients at a rural and remote memory clinic in Western Canada.

Methods: A total of 333 consecutive patients (YOD = 61, LOD = 272) at a rural and remote memory clinic between March 2004 and July 2016 were included in this study. Each patient had neuropsychological assessment. Health, mood, function, behaviour and social factors were also measured. Both groups were compared using χ^2 tests and independent sample tests.

Results: YOD patients were more likely to be married, employed, current smokers and highly educated. They reported fewer cognitive symptoms but had more depressive symptoms. YOD patients were less likely to live alone and use homecare services. YOD caregivers were also more likely to be a spouse and had higher levels of distress than LOD caregivers. Both YOD and LOD patient groups were equally likely to have a driver's licence.

Conclusions: Our findings indicate YOD and LOD patients have distinct characteristics and services must be modified to better meet YOD patient needs. In particular, the use of homecare services and caregiver support may alleviate the higher levels of distress found in YOD patients and their caregivers. Additional research should be directed to addressing YOD patient depression, caregiver distress and barriers to services.

Title: Presentation of the clothed self on the hospital ward: an ethnographic account of perceptual attention and implications for the personhood of people living with dementia.

Citation: Medical humanities; Apr 2020

Author(s): Boddington, Paula; Featherstone, Katie; Northcott, Andy

Abstract: This study contributes to our understanding of the 'medical gaze' and its impact on the ways in which people living with dementia experience care during a hospital admission. Visual perception has a powerful effect on our emotional and moral reactions to others. One aspect of how we perceive and respond to others is through clothing, which relates strongly to class and social position. Our focus is on exploring the ways in which patient clothing may affect the perceptions and response of others, and self-perception and resulting behaviour. We draw on ethnographic research within acute hospital wards in five hospitals across England and Wales, examining the everyday organisation and delivery of care to people living with dementia. People living with dementia are a significant population who have poor experiences and outcomes of care within the acute setting. Our data suggest that the twin aspects of clothing and appearance-of self-perception, and of perception by others-may be especially important in the fast-paced context of an acute ward environment, where patients living with dementia may be struggling with the impacts of an additional acute medical condition within in a highly timetabled, regimented, and unfamiliar environment of the ward, and where staff perceptions of them may feed into clinical assessments of their condition and subsequent treatment and discharge pathways.

Title: The impact of street clothes among caregivers on residents with dementia in special care units: The STRECLO study.

Citation: Journal of clinical nursing; May 2020; vol. 29 (no. 9-10); p. 1723-1732

Author(s): Bailly, Nathalie; Sanchez, Stéphane; Ferrand, Claude; Souesme, Guillaume; Giraudeau, Caroline; Agli, Océane

Objectives: To examine the impact of caregivers' street clothes on people living in special care units (SCUs). We hypothesised that caregivers wearing street clothes would improve residents' relationships with other residents and caregivers and, as a consequence, would improve their quality of life.

Background: Environmental factors have been recognised as important elements in the care of people with dementia. Among these factors, the importance of the caregivers' appearance and more particularly their street clothes has been raised.

Design: The Street Clothes study (STRECLO) was designed as a multicentre crossover observational study.

Method: This study was conducted in two volunteer nursing homes. It involved videotaping residents (N = 24) over a 6-month period: caregivers wore uniform and then street clothes for two consecutive three-month periods. Three outcome measures were observed as follows: (a) behaviours of residents, (b) contents of conversations and (c) proximal interactions between residents and caregivers. The STROBE checklist was used to ensure quality reporting during this observational study.

Results: When caregivers wore street clothes, we observed the following: (a) greater solicitation and less anxiety in residents, (b) content of conversations between residents and caregivers included more personal and less health information, and (c) more proximal interaction between caregivers and residents.

Conclusion: To our knowledge, this is the first study which investigated the long-term effects on residents of SCU caregivers wearing street clothes. Our study demonstrated the potential benefit of not wearing uniform on the quality of life of institutionalised people with dementia.

Relevance to clinical practice: Given the budgetary constraints faced by nursing homes, wearing street clothes for caregivers could be readily applied to clinical practice and represents a promising way to increase the quality of life of dementia residents and their families.

Title: Therapeutic Effects of Exercise Training on Elderly Patients with Dementia: A Randomized Controlled Trial.

Citation: Archives of physical medicine and rehabilitation; May 2020; vol. 101 (no. 5); p. 762-769

Author(s): Liu, I-Ting; Lee, Wei-Ju; Lin, Shih-Yi; Chang, Shin-Tsu; Kao, Chung-Lan; Cheng, Yuan-Yang

Objective: To investigate whether strength or aerobic training can offer significantly more benefits with regarding the activities of daily living of elderly patients with dementia as well as to determine the effects of exercise on cognition, depression, and biochemical markers.

Design: Single-blind randomized controlled trial.

Setting: A nursing home for veterans.

Participants: A volunteer sample of participants (N=80) whose scores on the Mini-Mental State Examination were between 15 and 26 were included. Because of cardiopulmonary or orthopedic conditions that prohibit exercise training, along with any cognitive problems that may impede answering the contents of our questionnaires, 11 participants were excluded. During the exercise training period, 8 participants voluntarily dropped out of the study.

Interventions: The participants were randomly assigned to perform either strength or aerobic training for a total of 4 weeks.

Main outcome measures: The main outcome measure was the Barthel Index. Other outcome measures included the Mini-Mental State Examination, Montreal Cognitive Assessment, Geriatric Depression Scale, plasma monocyte chemotactic protein-1 levels, insulin-like growth factor-1 levels, and serum brain-derived neurotrophic factor levels.

Results: After completion of the program, we discovered a significant improvement in the patients' Barthel Index, Mini-Mental State Examination, Montreal Cognitive Assessment, and plasma monocyte chemotactic protein-1 levels in the strength-training group. For the patients who had received aerobic training, their serum brain-derived neurotrophic factor

also improved significantly. However, the degree of improvement regarding these outcome measures did not achieve significant statistical difference between the 2 groups.

Conclusions: Through our study, an intensive 4-week exercise program, whether it be strength or aerobic training, is evidenced to bring significant benefits to elderly patients with dementia, while the serum brain-derived neurotrophic factor was additionally improved through aerobic training.

Title: The association between dementia severity and hospitalisation profile in a newly assessed clinical cohort: The South London and Maudsley case register.

Citation: BMJ open; Apr 2020; vol. 10 (no. 4); p. e035779

Author(s): Gungabissoon, Usha; Perera, Gayan; Galwey, Nicholas W; Stewart, Robert

Objectives: To evaluate the risk and common causes of hospitalisation in patients with newly diagnosed dementia and variation by severity of cognitive impairment.

Setting: We used data from a large London mental healthcare case register linked to a national hospitalisation database.

Participants: Individuals aged ≥ 65 years with newly diagnosed dementia with recorded cognitive function and the catchment population within the same geography.

Outcome measures: We evaluated the risk and duration of hospitalisation in the year following a dementia diagnosis. In addition, we identified the most common causes of hospitalisation and calculated age-standardised and gender-standardised admission ratios by dementia severity (mild/moderate/severe) relative to the catchment population.

Results: Of the 5218 patients with dementia, 2596 (49.8%) were hospitalised in the year following diagnosis. The proportion of individuals with mild, moderate and severe dementia who had a hospital admission was 47.9%, 50.8% and 51.7%, respectively ($p = 0.097$). Duration of hospital stay increased with dementia severity (median 2 days in mild to 4 days in severe dementia, $p = 0.0001$). After excluding readmissions for the same cause, the most common primary hospitalisation discharge diagnoses among patients with dementia were urinary system disorders, pneumonia and fracture of femur, accounting for 15%, 10% and 6% of admissions, respectively. Overall, patients with dementia were hospitalised 30% more than the catchment population, and this trend was observed for most of the discharge diagnoses evaluated. Standardised admission ratios for urinary and respiratory disorders were higher in those with more severe dementia at diagnosis.

Conclusions: Individuals with a dementia diagnosis were more likely to be hospitalised than individuals in the catchment population. The length of hospital stay increased with dementia severity. Most of the common causes of hospitalisation were more common than expected relative to the catchment population, but standardised admission ratios only varied by dementia stage for certain groups of conditions.

Title: Simulated presence therapy for dementia.

Citation: The Cochrane database of systematic reviews; Apr 2020; vol. 4; p. CD011882

Author(s): Abraha, Iosief; Rimland, Joseph M; Lozano-Montoya, Isabel; Dell'Aquila, Giuseppina; Vélez-Díaz-Pallarés, Manuel; Trotta, Fabiana M; Cruz-Jentoft, Alfonso J; Cherubini, Antonio

Background: Dementia is a common and serious neuropsychiatric syndrome, characterised by progressive cognitive and functional decline. The majority of people with dementia develop behavioural disturbances, also known as behavioural and psychological symptoms of dementia (BPSD). Several non-pharmacological interventions have been evaluated to treat BPSD in people with dementia. Simulated presence therapy (SPT), an intervention that uses video or audiotape recordings of family members played to the person with dementia, is a possible approach to treat BPSD.

Objectives: To assess the effects of SPT on behavioural and psychological symptoms and quality of life in people with dementia.

Search methods: We searched ALOIS (the Specialised Register of the Cochrane Dementia and Cognitive Improvement Group), CENTRAL (The Cochrane Library) (9 April 2020), MEDLINE Ovid SP (1946 to 9 April 2020), Embase Ovid SP (1972 to 9 April 2020), PsycINFO Ovid SP (1806 to 9 April 2020), CINAHL via EBSCOhost (1980 to 9 April 2020), LILACS via BIREME (all dates to 9 April 2020), ClinicalTrials.gov (ClinicalTrials.gov) (all dates to 9 April 2020), and the World Health Organization (WHO) Portal (apps.who.int/trialsearch) (all dates to 9 April 2020). We also checked the reference lists of relevant articles to identify any additional studies.

Selection criteria: Randomised and quasi-randomised controlled trials, including cross-over studies, that evaluated the efficacy of SPT, consisting of personalised audio or videotape recordings of family members, in people with any form of dementia.

Data collection and analysis: Two authors independently selected studies, assessed risk of bias and extracted data. No meta-analyses were conducted because of substantial heterogeneity among the included studies.

Main results: Three trials with 144 participants met the inclusion criteria. Two of the trials had a randomised cross-over design, one was a cross-over trial which we classified as quasi-randomised. Participants in the included studies were people with dementia living in nursing homes. They were predominantly women and had a mean age of over 80 years. SPT was performed using an audio or video recording prepared by family members or surrogates. It varied in its content, frequency of administration and duration. All the studies compared multiple treatments. In one study, SPT was compared with two other interventions; in the other two studies, it was compared with three other interventions. Specifically, SPT was compared to usual care, personalised music (two studies), a 'placebo' audiotape containing the voice of a person (two studies), and one-to-one social interaction performed by trained research assistants (one study). In terms of outcomes evaluated, one study considered agitation and withdrawn behaviour (both assessed with three methods); the second study evaluated verbal disruptive behaviour (assessed with three methods); and the third study evaluated physically agitated behaviour and verbally agitated behaviour (the method used was not clearly described). According to the GRADE criteria, the overall quality of the evidence was very low due to very small numbers of participants and risk of bias in the included studies; (none of the trials was at low risk of selection bias; all the trials were at high risk of performance bias; one trial was at high risk of attrition bias; and all had unclear selective reporting). Because of variation in the participants, the format of SPT, the comparison interventions, and the measures used to assess outcomes, we judged the results unsuitable for a meta-analysis. Within each trial, the effect of SPT on behaviour, compared to usual care, was mixed and depended on the measure used. Two trials which included a personalised music intervention reported no significant differences between simulated presence and music on behavioural outcomes. Because the overall quality of the evidence was very low, we were very uncertain regarding all the results. None of the studies evaluated quality of life or any of our secondary outcome measures (performance of activities of daily living, dropout and carer burden).

Authors' conclusions: We were unable to draw any conclusions about the efficacy of SPT for treating behavioural and psychological symptoms and improving quality of life of people with dementia. New high-quality studies are needed to investigate the effect of SPT.

Title: Effectiveness of Dementia Care Mapping™ to reduce agitation in care home residents with dementia: an open-cohort cluster randomised controlled trial.

Citation: Aging & mental health; Apr 2020; p. 1-14

Author(s): Surr, Claire A; Holloway, Ivana; Walwyn, Rebecca E A; Griffiths, Alys W; Meads, David; Martin, Adam; Kelley, Rachael; Ballard, Clive; Fossey, Jane; Burnley, Natasha; Chenoweth, Lynn; Creese, Byron; Downs, Murna; Garrod, Lucy; Graham, Elizabeth H; Lilley-Kelly, Amanda; McDermid, Joanne; McLellan, Vicki; Millard, Holly; Perfect, Devon; Robinson, Louise; Robinson, Olivia; Shoesmith, Emily; Siddiqi, Najma; Stokes, Graham; Wallace, Daphne; Farrin, Amanda J

Objectives: Agitation is common and problematic in care home residents with dementia. This study investigated the (cost)effectiveness of Dementia Care Mapping™ (DCM) for reducing agitation in this population.

Method: Pragmatic, cluster randomised controlled trial with cost-effectiveness analysis in 50 care homes, follow-up at 6 and 16 months and stratified randomisation to intervention (n = 31) and control (n = 19). Residents with dementia were recruited at baseline (n = 726) and 16 months (n = 261). Clusters were not blinded to allocation. Three DCM cycles were scheduled, delivered by two trained staff per home. Cycle one was supported by an external DCM expert. Agitation (Cohen-Mansfield Agitation Inventory (CMAI)) at 16 months was the primary outcome.

Results: DCM was not superior to control on any outcomes (cross-sectional sample n = 675: 287 control, 388 intervention). The adjusted mean CMAI score difference was -2.11 points (95% CI -4.66 to 0.44, p = 0.104, adjusted ICC control = 0, intervention 0.001). Sensitivity analyses supported the primary analysis. Incremental cost per unit improvement in CMAI and QALYs (intervention vs control) on closed-cohort baseline recruited sample (n = 726, 418 intervention, 308 control) was £289 and £60,627 respectively. Loss to follow-up at 16 months in the original cohort was 312/726 (43.0%) mainly (87.2%) due to deaths. Intervention dose was low with only a quarter of homes completing more than one DCM cycle.

Conclusion: No benefits of DCM were evidenced. Low intervention dose indicates standard care homes may be insufficiently resourced to implement DCM. Alternative models of implementation, or other approaches to reducing agitation should be considered.

Title: Increased risk of death associated with the use of proton pump inhibitors in dementia patients and controls - a pharmacoepidemiological claims data analysis.

Citation: European journal of neurology; Apr 2020

Author(s): Cetin, Hakan; Wurm, Raphael; Reichardt, Berthold; Tomschik, Matthias; Silvaieh, Sara; Parvizi, Tandis; König, Theresa; Erber, Astrid; Schernhammer, Eva; Stamm, Tanja; Stögmann, Elisabeth

Objective: The use of proton pump inhibitors (PPIs) was reported to be associated with increased mortality risk and has been proposed as a potential risk factor for neurodegenerative diseases. We aimed to assess the impact of PPI use on survival in dementia patients as compared to controls.

Methods: This register-based control-matched cohort study included 28,428 dementia patients ascertained by the prescription of anti-dementia drugs (ADDs) and two control individuals matched by sex, age, and area of residence for each dementia patient during the

study period from January 1, 2005 to June 30, 2016. Cumulative defined daily doses (cDDD) of PPIs were extracted from the health insurance prescription registries. A multivariate Cox regression model for non-proportional hazards was used to analyse mortality risk in dependence of PPI exposure, which was limited to one year preceding the date of cohort entry (= index date) in order to avoid immortal time bias.

Results: PPI exposure of 100 DDDs in the year before the index date was associated with an increased mortality risk in dementia patients (adjusted HR 1.07, 95% CI 1.03-1.12), but also in controls (adjusted HR DDDs 1.47, 95%CI 1.31-1.64). The mortality risk in relation to PPI use was significantly lower in dementia patients as compared to controls ($p < 0.0001$), and highest in the first two years after the index date in both cohorts.

Conclusions: Our findings promote more stringent pharmacovigilance strategies to avoid PPI use in cases lacking the clear indication for therapy or where potential risks outweigh the benefits.

Title: The prevalence and predictors of loneliness in caregivers of people with dementia: findings from the IDEAL programme.

Citation: Aging & mental health; Apr 2020; p. 1-7

Author(s): Victor, Christina R; Rippon, Isla; Quinn, Catherine; Nelis, Sharon M; Martyr, Anthony; Hart, Nicola; Lamont, Ruth; Clare, Linda

Objectives: To establish the prevalence of loneliness among family caregivers of people with dementia and to identify potential risk factors for loneliness.

Methods: Using data from the baseline wave of the Improving the experience of Dementia and Enhancing Active Life (IDEAL) cohort study, we examined loneliness in 1283 family caregivers of people with mild-to-moderate dementia living in Great Britain. Multinomial regression was used to examine the relative influence of a series of risk factors for caregiver loneliness.

Results: Almost half, 43.7%, of caregivers reported moderate loneliness and 17.7% reported severe loneliness. Greater social isolation and increased caregiving stress were linked with both moderate and severe loneliness. Better quality of relationship with the person with dementia along with increased levels of well-being and life satisfaction were associated with a lower relative risk of reporting both moderate and severe loneliness.

Discussion: This study examines the prevalence and predictors of loneliness in a large sample of family caregivers of people with dementia. Notably over two-thirds of caregivers in our sample reported feeling lonely. Interventions aimed at reducing caregiving stress and supporting meaningful relationships may go some way towards helping to reduce loneliness.

Title: Depression in People with Dementia and Caregiver Outcomes: Results from the European Right Time Place Care Study.

Citation: Journal of the American Medical Directors Association; Apr 2020

Author(s): Parrotta, Ilaria; De Mauleon, Adelaide; Abdeljalil, Anne Bahia; De Souto Barreto, Philippe; Lethin, Connie; Veerbek, Hilde; Stephan, Astrid; Saks, Kay; Zabalegui, Adelaida; Soto Martin, Maria Eugenia

Objective: To investigate the cross-sectional associations between depression in people with dementia and both caregiver burden and quality of life in 8 European countries, and to test these associations compared with the presence of other neuropsychiatric symptoms.

Design: Cross-sectional study.

Setting and participants: In total, 1223 dyads comprised of informal caregivers and people with dementia living in a community-dwelling setting, recruited from the Right Time Place Care study, a cohort survey from 8 European countries.

Measures: To test the associations between depression (according to the Cornell Scale for Depression in Dementia) and informal caregiver burden (defined by the Zarit scale and hours of supervision in terms of Resource Utilization in Dementia), distress (defined by the Neuropsychiatric Inventory Questionnaire distress score), and quality of life (according to the visual analogue scale and 12-item General Health Questionnaire).

Results: Linear regressions showed an association between depression and main outcomes (Zarit scale: β 3.7; $P = .001$; hours of supervision: β 1.7; $P = .004$; Neuropsychiatric Inventory Questionnaire distress score: β 1.2; $P = .002$). A similar association was found concerning psychological and overall well-being (12-item General Health Questionnaire: β 1.8; $P < .001$; Euroqol Visual Analogue Scale: β -4.1; $P = .003$). Both associations remained significant despite the presence of other NPS and after adjusting for confounders.

Conclusions and implications: Further studies are needed to assess whether providing tailored strategies for optimizing diagnosis and managing of depression in people with dementia might improve caregiver quality of life and reduce their burden in the community-dwelling setting

Title: Family Identification of Delirium in the Emergency Department in Patients with and Without Dementia: Validity of the Family Confusion Assessment Method (FAM-CAM).

Citation: Journal of the American Geriatrics Society; Apr 2020

Author(s): Mailhot, Tanya; Darling, Chad; Ela, Jillian; Malyuta, Yelena; Inouye, Sharon K; Saczynski, Jane

Objective: To examine the ability of the family-rated Family Confusion Assessment Method (FAM-CAM) to identify delirium in the emergency department (ED) among patients with and without dementia, as compared to the reference-standard Confusion Assessment Method (CAM).

Design: Validation study.

Setting: Urban academic ED.

Participants: Dyads of ED patients, aged 70 years and older, and their family caregivers (N = 108 dyads).

Measurements: A trained reference standard interviewer performed a cognitive screen, delirium symptom assessment, and scored the CAM. The caregiver self-administered the FAM-CAM. Dementia was assessed using the Informant Questionnaire on Cognitive Decline in the Elderly and the medical record. For concurrent validity, performance of the FAM-CAM was compared to the CAM. For predictive validity, clinical outcomes (ED visits, hospitalization, and mortality) over 6 months were compared in FAM-CAM positive and negative patients, controlling for age, sex, comorbidity, and cognitive status.

Results: Among the 108 patients, 30 (28%) were CAM positive for delirium and 58 (54%) presented with dementia. The FAM-CAM had a specificity of 83% and a negative predictive

value of 83%. Most false negatives (n = 9 of 13, 69%) were due to caregivers not identifying the inattention criteria for delirium on the FAM-CAM. In patients with dementia, sensitivity was higher than in patients without (61% vs 43%). In adjusted models, a hospitalization in the following 6 months was more than three times as likely in FAM-CAM positive compared to negative patients (odds ratio = 3.4; 95% confidence interval = 1.2-9.3).

Conclusions: Among patients with and without dementia, the FAM-CAM shows qualities that are important in the ED setting for identification of delirium. Using the FAM-CAM as part of a systematic screening strategy for the ED, in which families' assessments could supplement healthcare professionals' assessments, is promising.

Title: Measuring the prevalence of sleep disturbances in people with dementia living in care homes: a systematic review and meta-analysis.

Citation: Sleep; Apr 2020; vol. 43 (no. 4)

Author(s): Webster, Lucy; Costafreda Gonzalez, Sergi; Stringer, Aisling; Lineham, Amy; Budgett, Jessica; Kyle, Simon; Barber, Julie; Livingston, Gill

Objectives: Sleep disturbances are a feature in people living with dementia, including getting up during the night, difficulty falling asleep, and excessive daytime sleepiness and may precipitate a person with dementia moving into residential care. There are varying estimates of the frequency of sleep disturbances, and it is unknown whether they are a problem for the individual. We conducted the first systematic review and meta-analysis on the prevalence and associated factors of sleep disturbances in the care home population with dementia.

Methods: We searched Embase, MEDLINE, and PsycINFO (29/04/2019) for studies of the prevalence or associated factors of sleep disturbances in people with dementia living in care homes. We computed meta-analytical estimates of the prevalence of sleep disturbances and used meta-regression to investigate the effects of measurement methods, demographics, and study characteristics.

Results: We included 55 studies of 22,780 participants. The pooled prevalence on validated questionnaires of clinically significant sleep disturbances was 20% (95% confidence interval, CI 16% to 24%) and of any symptom of sleep disturbance was 38% (95% CI 33% to 44%). On actigraphy using a cutoff sleep efficiency of <85% prevalence was 70% (95% CI 55% to 85%). Staff distress, resident agitation, and prescription of psychotropic medications were associated with sleep disturbances. Studies with a higher percentage of males had a higher prevalence of sleep disturbance.

Conclusions: Clinically significant sleep disturbances are less common than those measured on actigraphy and are associated with residents and staff distress and the increased prescription of psychotropics. Actigraphy appears to offer no benefit over proxy reports in this population.

Title: Five-year risk of admission to long-term care home and death for older adults given a new diagnosis of dementia: a population-based retrospective cohort study.

Citation: CMAJ: Canadian Medical Association journal = journal de l'Association medicale canadienne; Apr 2020; vol. 192 (no. 16); p. E422

Author(s): Huyer, Gregory; Brown, Catherine R L; Spruin, Sarah; Hsu, Amy T; Fisher, Stacey; Manuel, Douglas G; Bronskill, Susan E; Qureshi, Danial; Tanuseputro, Peter

Objective: After diagnosis of a health condition, information about survival and potential transition from community into institutional care can be helpful for patients and care providers. We sought to describe the association between a new diagnosis of dementia and risk of admission to a long-term care home and death at 5 years.

Methods: We conducted a population-based retrospective cohort study using linked health administrative databases. We identified individuals aged 65 years or older, living in the community, with a first documented diagnosis of dementia between Jan. 1, 2010, and Dec. 31, 2012, in Ontario, Canada. Dementia diagnosis was captured using diagnostic codes from hospital discharges, physician billings, assessments conducted for home care and long-term care, and dispensed prescriptions for cholinesterase inhibitors. Our primary outcome measures were 5-year risk of death and placement in a long-term care home, adjusted for sociodemographic and clinical factors.

Results: We identified 108 757 individuals in our study cohort. By the end of 5 years, 24.4% remained alive in the community and 20.5% were living in a long-term care home. Of the 55.1% who died, about half (27.9%) were admitted to a long-term care home before death. Three risk factors were associated with increased odds of death: older age (age \geq 90 yr; odds ratio [OR] 9.5, 95% confidence interval [CI] 8.8-10.2 [reference: age 65-69 yr]), male sex (OR 1.7, 95% CI 1.6-1.7), and the presence of organ failure, including chronic obstructive pulmonary disease (OR 1.7, 95% CI 1.7-1.8), congestive heart failure (OR 2.0, 95% CI 1.9-2.0) and renal failure (OR 1.7, 95% CI 1.6-1.8). Groups formed by combinations of these 3 factors had an observed 5-year risk of death varying between 22% and 91%.

Interpretation: Among community-dwelling older adults with newly identified dementia in Ontario, the majority died or were admitted to a long-term care home within 5 years. This information may be helpful for discussions on prognosis and need for admission to long-term care.

Title: Systematic Review and Meta-Analysis of Racial and Ethnic Differences in Dementia Caregivers' Well-Being.

Citation: The Gerontologist; Apr 2020

Author(s): Liu, Chelsea; Badana, Adrian N S; Burgdorf, Julia; Fabius, Chanee D; Roth, David L; Haley, William E

Objectives: Studies comparing racial/ethnic differences on measures of psychological and physical well-being for dementia caregivers have reported differences between minority and white caregivers. Recruitment methods often differ for minority and white participants due to enrollment targets and may lead to biased comparisons, especially in convenience samples. We aimed to examine racial/ethnic differences in dementia caregiver outcomes and to determine whether differences vary between studies with population-based or convenience samples.

Research design and methods: We systematically reviewed articles with primary data from PubMed, Google Scholar, and PsycINFO. We included studies comparing African American or Hispanic/Latino to white dementia caregivers on measures of psychological well-being or physical well-being. Reviewers screened titles and abstracts, reviewed full texts and conducted risk-of-bias assessments. Meta-analyses were conducted to assess effects by race/ethnicity and study bias.

Results: A total of 159 effects were extracted from 38 studies, 2 of which were population based. Random-effects models revealed small but statistically significant effects with better psychological well-being in African American caregivers compared with white caregivers in both population-based ($d = -0.22$) and convenience sample studies ($d = -0.21$).

Hispanics/Latino caregivers reported lower levels of physical well-being than white caregivers ($d = 0.12$), though these effects varied by level of rated study bias.

Discussion and implications: Consistency across study methods raises confidence in the validity of previous reports of better psychological well-being in African American caregivers. Future studies should use population-based samples with subgroups of Hispanic/Latino, Asian American, and American Indian caregivers that are culturally distinct on factors such as country of origin and tribe.

Title: Natural and synthetic drugs used for the treatment of the dementia.

Citation: Biochemical and biophysical research communications; Apr 2020; vol. 524 (no. 3); p. 772-783

Author(s): Dembitsky, Valery M; Dzhemileva, Lilya; Glorizova, Tatyana; D'yakonov, Vladimir

Abstract: This review is devoted to comparative pharmacological analysis of synthetic drugs such as memantine and its isomers, as well as tacrine, velnacrine, rivastigmine, and donepezil, with natural alkaloids, terpenoids, and triterpenoid peroxides, which are used to treat dementia, Alzheimer's and Parkinson's diseases, myasthenia gravis and other neurodegenerative diseases. Recently discovered by French scientists from Marseille triterpenoid hydroperoxides demonstrate high activity as potential therapeutic agents for the treatment of dementia. The information presented in this review is of great interest to pharmacologists, medical chemists, physiologists, neurologists and doctors, as well as for the pharmaceutical industry.

Title: Non-contact monitoring of agitation and use of a sheltering device in patients with dementia in emergency departments: a feasibility study.

Citation: BMC psychiatry; Apr 2020; vol. 20 (no. 1); p. 165

Author(s): Kroll, Lisa; Böhning, Nikolaus; Müßigbrodt, Heidi; Stahl, Maria; Halkin, Pavel; Liehr, Birgit; Grunow, Christine; Kujumdshieva-Böhning, Borjana; Freise, Christian; Hopfenmüller, Werner; Friesdorf, Wolfgang; Jockers-Scherübl, Maria; Somasundaram, Rajan

Objective: Agitation is common in geriatric patients with cognitive impairment, e.g. in persons with dementia (PWD), who are admitted to an emergency department (ED). It might be a first sign of upcoming delirium and is associated with a higher risk of an unfavorable clinical course. Hence, monitoring of vital signs and enhanced movement as indicators of upcoming agitation is essential in these patients during their stay in the ED. Since PWD rarely tolerate fixed monitoring devices, a novel developed non-contact monitoring system (NCMSys) might represent an appropriate alternative. Aim of this feasibility study was to test the validity of a NCMSys and of the tent-like "Charité Dome" (ChD), aimed to shelter PWD from the busy ED environment. Furthermore, effects of the ChD on wellbeing and agitation of PWD were investigated.

Methods: Both devices were attached to patient's bed. Tests on technical validity and safety issues of NCMSys and ChD were performed at the iDoc institute with six healthy volunteers. A feasibility study evaluating the reliability of the NCMSys with and without the ChD was performed in the real-life setting of an ED and on a geriatric-gerontopsychiatric ward. 19 patients were included, ten males and nine females; mean age: 77.4 (55-93) years of which 14 were PWD. PWD inclusion criteria were age ≥ 55 years, a dementia diagnosis and a

written consent (by patients or by a custodian). Exclusion criteria were acute life-threatening situations and a missing consent.

Results: Measurements of heart rate, changes in movement and sound emissions by the NCMSys were valid, whereas patient movements affected respiratory rate measurements. The ChD did not impact patients' vital signs or movements in our study setting. However, 53% of the PWD (7/13) and most of the patients without dementia (4/5) benefited from its use regarding their agitation and overall wellbeing.

Conclusions: The results of this feasibility study encourage a future controlled clinical trial in geriatric ED patients, including PWD, to further evaluate if our concept of non-contact measurement of vital signs and movement combined with the "Charité Dome" helps to prevent upcoming agitation in this vulnerable patient group in the ED.

Title: Group-based cognitive stimulation therapy for dementia: a qualitative study on experiences of group interactions.

Citation: Aging & mental health; Apr 2020; p. 1-8

Author(s): Orfanos, Stavros; Gibbor, Luke; Carr, Catherine; Spector, Aimee

Objectives: Cognitive Stimulation Therapy (CST) is an evidence-based group intervention shown to improve cognition and quality of life in dementia and is widely implemented across the NHS. However, no attempt has been made to understand the possible advantages, and/or disadvantages, of delivering CST in a group format. The main aim of the present study was to explore experiences of group interactions in CST and longer-term maintenance CST (MCST) groups.

Method: A total of twenty-one semi-structured in-depth interviews were conducted across four separate groups delivered in London, the East Midlands, South West and South East of England; including two CST and two MCST groups. Group members with mild to moderate dementia and facilitators from these groups were interviewed. Thematic analysis was used to analyse the data using NVivo software.

Results: The final analysis identified six themes: 'benefits and challenges of group expression', 'importance of companionship and getting to know others', 'togetherness and shared identity', 'group entertainment', 'group support' and 'cognitive stimulation through the group'. The inter-connecting relationship between these themes are synthesised and summarised.

Conclusion: Findings support the notion that therapeutic advantages inherent to the group format exist in group-based CST. New insights into the challenges related to a group format are also highlighted and discussed. Future research may benefit from exploring the relationship between the identified experiences of group interactions and clinical outcomes.

Title: A comprehensive meta-review of systematic reviews and meta-analyses on nonpharmacological interventions for informal dementia caregivers.

Citation: BMC geriatrics; Apr 2020; vol. 20 (no. 1); p. 137

Author(s): Cheng, Sheung-Tak; Zhang, Fan

Background: Many reviews with conflicting findings on dementia caregiver interventions have been published. A meta-review was conducted to synthesize the findings of systematic reviews and meta-analyses.

Methods: MEDLINE, PsycINFO, CINAHL and Cochrane Library were searched to identify reviews published during 2006-2018. RESULTSSixty reviews covering > 500 intervention studies were selected and appraised with Assessment of Multiple Systematic Reviews (AMSTAR) II. The great majority of studies were of low quality according to AMSTAR II, but quality factors appeared unrelated to the conclusions obtained. Depression was most modifiable, with effects found across a spectrum of interventions (psychoeducation, counseling/psychotherapy, occupational therapy, mindfulness-based interventions, multicomponent interventions, etc.). Evidence of intervention effect was also found for quality of life (psychoeducation), mastery (psychoeducation, occupational therapy and multicomponent interventions) and communication skills (communication training). Null or weak results were found for anxiety, social support and burden. Support groups and respite were generally ineffective. There was no evidence that dyadic programs were better than caregiver-only programs, or that programs delivered individually or in groups would differ in their impacts. The evidence also does not support multicomponent interventions to have broader impacts than single-component programs. Methodological issues in the existing reviews (e.g., selective use of studies to serve different research purposes and inconsistent classification of interventions) were noted and taken into account when interpreting findings.

Conclusions: This meta-review clarified variations in review methodology and identified a few potent groups of intervention (most notably psychoeducation, psychotherapy, occupational therapy, and multicomponent interventions), although no intervention type had broad effects on caregiver outcomes. We note that improvements are needed in the reporting of intervention studies and in making the classification of interventions more transparent and consistent. We further recommend fewer and larger-scale reviews and more attention to positive outcomes in order to better inform the field. Developing interventions with broader impacts and packaging them to meet caregivers' changing needs in the course of dementia should be a priority for researchers and practitioners.