



DEMENTIA INNOVATION HUB

Research Bulletin

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- Keeping family mealtimes meaningful
- The Effect of Aroma Hand Massage Therapy
- The link between Body Mass Index (BMI) and the risk of dementia
- Reminiscence Therapy: Effects on Cognitive Function and Depressive Symptoms
- Factors enabling good end of life care for people with dementia
- Dementia Risk Prediction Modelling



Introduction

This bulletin brings you a brief summary of some recent research papers related to dementia and dementia care.

1 Keeping family mealtimes meaningful

Background

Mealtimes are an essential part of living and can be personally meaningful. A research paper by Keller et al present findings from their study which investigated the meaning of mealtimes for persons with dementia and their family care partners.

Study Characteristics

This qualitative study was undertaken over a three-year period involving 27 families from South-Western Ontario.

Results

The paper described and categorised some of the strategies that families had devised to adapt to their evolving situation. The findings were used to develop a theory based on three inter-connecting concepts: being connected, honouring identity, and adapting to an evolving life. The paper suggests that in addition to nutritional benefits, family mealtimes can provide important opportunities for persons with dementia and their family care partners to socially engage and continue meaningful roles.



The strategies identified by participants of the study provide a basis for further education and support to families living with dementia. These include:

- Identifying which traditions need to be maintained and which can be adapted to save time or energy (such as switching from home-cooked desserts to bought items)
- Using external resources where possible (meal providers, taxis for shopping, semi-prepared foods etc.)
- Asking family to take turns organising family meals to support the principle carer, or suggesting 'potluck' contributions from everyone
- Involving wider family/other people in most of the preparation but leaving the creative and final touches to the person with dementia if cooking had been a prominent part of their family life
- Encouraging participation in different aspects of the process utilising capacities and strengths (such as shopping, cooking, table setting or clearing away) to enable a person with dementia to have a role
- Regard mealtimes as an opportunity for making decisions
- Allowing more time to prepare meals to support participation
- Providing help with following a recipe but not taking over
- Introducing conversation aids at the table, such as reading letters or emails from family, or a fishbowl of memories contributed by family members as a prompt for conversations
- Drawing upon the outside environment as a conversation topic (such as birds in the garden viewed from the window)
- Use specific foods as a trigger for reminiscence or to spark a conversation
- Slow down the pace of the conversation, taking time to listen, recapping conversations so they can be followed more easily
- Rehearse names prior to mealtime visits outside the home



In summary, this study presents a number of strategies that are employed by family members to support social engagement around mealtimes, such as: using conversation aids and finding ways to promote decisions and involvement in conversations. The goal of maintaining involvement in mealtime activities was supported by: negotiating capacity for tasks on a day-to-day basis; providing supervision and assistance as needed; and being sensitive to desired roles and how to support them. By focusing on the meaning of the mealtime experience, the study offers a different and more hopeful view of how families learn to adapt when a member is experiencing dementia.

Primary Source:

Keller HH, Martin LS, Dupuis S, Reimer H, Genoe R (2015) "Strategies to support engagement and continuity of activity during mealtimes for families living with dementia; a qualitative study", BMC Geriatrics 15(1):119.



2 The Effect of Aroma Hand Massage Therapy for People with Dementia

Background

Clinical aromatherapy is a complementary therapy that is suggested to be beneficial in dementia care – to reduce the behavioural and psychological symptoms of dementia (BPSD), improve quality of care, and thereby improve quality of life. This study assessed the effectiveness and safety of clinical aromatherapy for people with dementia in a clinical care setting.

Study characteristics

The pilot trial took place in a nursing home in Nara, Japan and involved 14 patients over the age of 65 who had mild-to-moderate dementia. Participants were divided into two groups and offered, alternately, control therapy and clinical aromatherapy 3 times a week for the 4-week trials. The effects on behavioural and psychological symptoms and on activities of daily living (ADL) were evaluated quantitatively and qualitatively.

Results:

The quantitative data showed that neither therapy significantly improved the BPSD or ADL results. The qualitative data were classified into four main categories—mood, behaviour, verbal communication, and nonverbal communication—reflecting the positive experiences of participants during both therapies. No harmful reactions or changes in medication occurred during the study.

Summary

This pilot study demonstrated that clinical aromatherapy was clinically safe but did not lead to statistically significant improvements in BPSD or ADL among people with dementia. The study concludes that further research is needed to develop high-quality care with clinical aromatherapy and to fully establish evidence for effective and safe practice in health care institutions.

Primary Source:

Yoshiyama Kazuyo, Arita Hideko, and Suzuki Jinichi. *The Journal of Alternative and Complementary Medicine*. -Not available-, ahead of print. doi:10.1089/acm.2015.0158.



3 The link between Body Mass Index (BMI) and the risk of dementia

Background

A recent study involving 2 million people over two decades suggests that the risk of dementia falls with increasing Body Mass Index (BMI). The authors of this paper, Harrison and Shenkin, respond with clinical opinion of this study given its implications for public health messages about obesity.

A large retrospective cohort study was conducted between 1992 and 1997 by Quizilbash et al (2015) which sought to determine the link between BMI and dementia. They used a UK primary care database of 2 million individual records of people who were aged over 40 years. 2% of the sample developed incident dementia over the course of the following two decades. This was based on use of terms such as 'dementia, Alzheimer, Lewy Body disease, Picks disease' present on individual records or death certificates. They found that the 'underweight' group (5% of the total sample) had a 34% excess risk of dementia compared to those of a healthy weight.

Study characteristics

Harrison and Shenkin observe some methodological issues that merit caution in the interpretation of the Quizilbash et al's study findings. They note that as an observational study, the results can only describe an association, not causation. They refer to previous studies which contradict these findings (e.g. Kivipelto et al 2005 found increased odds of dementia if obesity was present in mid-life), suggesting the relationship between weight and risk is complex.

The rate of incident dementia in the sample is low, and question the reliability of using health records and death certificates for dementia diagnosis (as this may identify only 70% of cases), so it is unknown how this might affect the outcomes. The authors note that the other health consequences of obesity mean that many individuals may not survive to old age to develop dementia, so it is possible that survival bias has contributed to the findings of the study.



Summary

The authors conclude that the relationship between body composition and dementia is complex, and they advise clinicians to continue to encourage patients to maintain a healthy weight for their overall health.

Primary Source

Harrison JK, Shenkin SD., (2015) 'Body mass index and the risk of dementia--what do we know and what should we do?' *Journal Royal College Physicians Edinburgh*. 45(2):141-2. doi: 0.4997/JRCPE.2015.211.

Referenced works

Nawab Qizilbash., John Gregson., Michelle E Johnson., Neil Pearce., Ian Douglas., Kevin Wing., Stephen J W Evans., Stuart J Pocock., (2015) 'BMI and risk of dementia in two million people over two decades: a retrospective cohort study', *Lancet Diabetes and Endocrinology* 3(6): 431-6.

DOI: [http://dx.doi.org/10.1016/S2213-8587\(15\)00033-9](http://dx.doi.org/10.1016/S2213-8587(15)00033-9)

Kivipelto M, Ngandu T, Fratiglioni L et al (2005), Obesity and vascular risk factors at midlife and the risk of dementia and Alzheimer disease. *Arch Neurol*; 62: 1556-60.



4 Reminiscence Therapy: Effects on Cognitive Function and Depressive Symptoms

Background

Cognitive function impairments and depressive symptoms are common in older people with dementia. Previous meta-analyses based on outdated and small-scale studies have reported inconsistent results regarding the effects of reminiscence therapy on cognitive functions and depressive symptoms. The authors conducted a meta-analysis by including more recent randomized controlled trials (RCTs) with large sample sizes to investigate the immediate and long-term (6–10 months) effects of reminiscence therapy on cognitive functions and depressive symptoms in older people with dementia.

Study Characteristics

Using relevant electronic databases, the authors selected eligible articles for review. In total, 12 randomised control trials investigating the effects of reminiscence therapy on cognitive functions and depressive symptoms were included.

Results

Reminiscence therapy had a small-size effect on cognitive functions and a moderate-size effect on depressive symptoms. Long-term effects of reminiscence therapy on cognitive functions and depressive symptoms were not confirmed. Institutionalized people with dementia exhibited greater improvement in depressive symptoms than community-dwelling people with dementia.

Summary

The authors conclude that reminiscence therapy is effective in improving cognitive functions and depressive symptoms in older people with dementia, particularly in institutionalized residents with dementia.

Primary Source

Hui-Chuan Huang, Yu-Ting Chen, Pin-Yuan Chen, Sophia Huey-Lan Hu, Fang Liu, Ying-Ling Kuo, Hsiao-Yean Chiu, (2015) 'Reminiscence Therapy Improves Cognitive Functions and Reduces Depressive Symptoms in Elderly People With Dementia: A Meta-Analysis of Randomized Controlled Trials', *Journal of the American Medical Directors Association*.



5 Expert views on the factors enabling good end of life care for people with dementia

Background

People with advanced dementia experience similar symptoms to those dying with cancer yet professional carers find prognostication difficult and struggle to meet palliative care needs, with physical symptoms undetected and untreated. The aim of this study was to determine expert views on the key factors influencing good practice in end of life care for people with dementia.

Study characteristics

Semi-structured telephone and face-to-face interviews with 30 experts in dementia care and/or palliative care in England.

Results

Four key factors influencing good practice in end of life care for people with dementia were identified: leadership and management of care, integrating clinical expertise, continuity of care, and use of guidelines.

Leadership and management of care

- Owners and managers of care homes were regarded as having a responsibility to resource care appropriately:
- managers should take a role in utilising their staff appropriately for end of life care
- Managers were viewed as having an important role in demonstrating good practice to other members of staff
- Multiple levels of management and corporate policies within larger residential care companies were recognised as a possible constraint on local service development.
- Whilst highly skilled and well supported care staff were viewed as integral to good practice, experts also explicitly commented that low levels of pay and investment in the development of care staff were barriers to achieving this in practice.



Integrating clinical expertise in palliative care into routine care settings

- Palliative expertise needs to be more appropriately and widely distributed amongst generalists and specialists
- Clinical and palliative expertise has an important role to play in end of life care for people with dementia, but this needs to be responsive to the co-morbidities of the people with dementia, and in managing some of the physical causes of distress

Ensuring continuity of care

- One of main advantages of having continuity of care is that staff can develop their knowledge of a particular person (including routines, biography, preferences and relationships), ideally before the onset of advanced dementia makes verbal communication difficult.
- There was also recognition that it may be unavoidable that a person with dementia will move between different key professionals
- Although residential settings can offer a level of continuity of care (subject to staff turnover), some interviewees highlighted the implications of management and staff not being able to recognise dementia or deal with advanced dementia and dying
- Being able to respond to dying and death within a care setting contributes to the continuity of care, often through a reduction in unnecessary hospitalisation. Not being too quick to act upon a change in condition was seen as a potentially positive response if that meant unnecessary hospitalisation could be avoided.
- Continuity of care could ensure that those most involved in a person's care at end of life have a knowledge of the person, that comfort is supported by familiar surroundings, and that staff understand verbal and non-verbal communication. Importantly, continuity of care means that existing relationships with family members are not disrupted.



The use of guidelines and care pathways

- Improving end of life care has been a national policy priority for many years. There has been an extensive dissemination of 'good palliative care practice' guidance for example, the Gold Standards Framework (GSF) and care pathways for the final days of life, such as the Liverpool Care Pathway for the Dying Patient (LCP). The LCP has recently been phased out of practice following an independent, national review and this generated considerable debate in terms of its use and relevancy for people with advanced dementia.
- Discussion of guidelines and tools focused on the use and demise of the LCP, with some discussion of the GSF and local policies. The importance of the interpretation and implementation of guidelines for practice was emphasised, in particular how the use of guidance should be informed by knowing the person and caring for them with compassion.

Conclusion

The relationships between these factors are important. 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. Lack of integration across health and social care is undermining continuity of care. Experts interviewed regarded unnecessary hospitalisation as a disruption to continuity of care, and they supported people with dementia remaining in familiar environments and being cared for by people known to them. Hospital settings, despite offering specialist medical care, are not necessarily the most appropriate place of care for people with dementia at end of life.

Limitations

International comparisons may have added to, and broadened, the understanding identified in this study. In addition, the views presented are those of experts; individuals who may no longer be directly involved in care delivery or service provision. Comparisons with data based on interviews and focus groups with service managers and frontline staff (currently being undertaken by the authors) may further understanding of the issues from different perspectives.



Primary Source:

Richard Philip Lee*, Claire Bamford, Catherine Exley and Louise Robinson, Expert views on the factors enabling good end of life care for people with dementia: a qualitative study, BMC Palliative Care 2015, 14:32 doi:10.1186/s12904-015-0028-9. The electronic version of this article is the complete one and can be found online at: <http://www.biomedcentral.com/1472-684X/14/32>



6 Dementia Risk Prediction Modelling

Background

Numerous models have been developed for predicting dementia. To evaluate these risk models, the authors undertook a systematic review of literature in in 2014, following a previous review conducted in 2010.

Study characteristics

They searched the main literature databases, and identified 21 new articles that met the inclusion criteria of their search. They found new developments including: the testing of non-APOE genes, use of non-traditional dementia risk factors, incorporation of diet, physical function and ethnicity, and model development in specific subgroups of the population including individuals with diabetes and those with different educational levels.

Results

The number of potential risk variables are considerable. They include demographic variables (such as age, education and sex); subjective cognitive complaints (reported difficulty remembering); functional changes (e.g. fastening buttons); the results of neuropsychological tests (activity recall, word recall, naming tests, copying etc.); health status (such as presence of angina, COPD, depression, diabetes, Parkinson's, stroke, high cholesterol); lifestyle factors (such as intake of alcohol, physical activity, smoking, diet); genetic factors; results of MRI screening (e.g. enlarged ventricles, white matter disease); based on statistical analysis, family history and other factors, such as walking speed.

Summary

The authors concluded that at present, there is no one model that is recommended and they suggest it is unlikely that one model will fit all. They propose that further work is required to validate new or existing models in different populations, as well as determine the ethical implications of dementia risk prediction before applying them in population or clinical settings.



Primary Source:

Tang et al (2015) 'Current Developments in Dementia Risk Prediction Modelling: An Updated Systematic Review' PLoS One, 10(9), doi: 10.1371/journal.pone.0136181.

End of Bulletin

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