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Delivering person-centred nutrition and dementia: what are the key ingredients?

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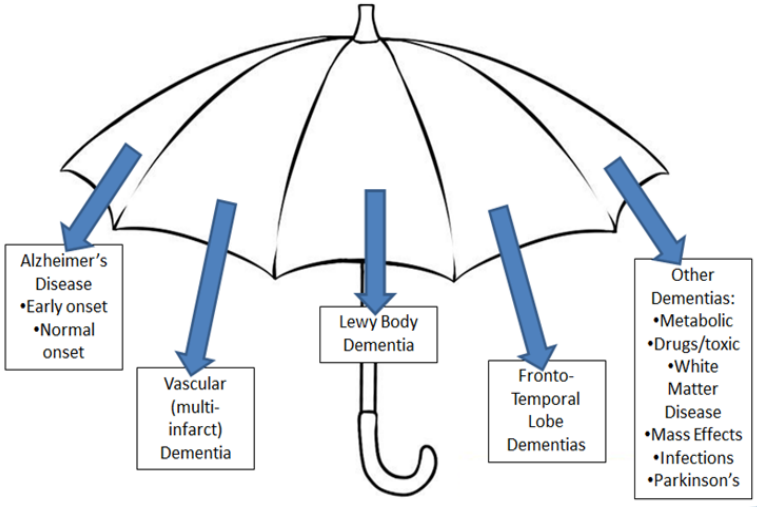
Dementia

- Collective term for a number of conditions
- In UK about 850,000 people with dementia, expected to double by 2030 with an ageing population
- Progressive decline in an individual's functioning, varies between people
- Around one in three people over the age of 65 will develop dementia in their lifetime
- Likely to be other comorbidities



Reasons for poor intake

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People with dementia experience difficulty eating and drinking

Behaviour changes	Physiological changes	Emotional/cognitive changes
Tremors/lack of co-ordination	Inability to recognise hunger, thirst, smell	Agitation – easily distracted from eating
Unable to undertake everyday food-related tasks – food preparation, shopping	Chewing and swallowing difficulties	Memory loss – forget to eat/ if eaten
Not sitting at mealtimes	Mouth/tooth problems	Unable to make food choices
Eating changes – disinterest, refusal to eat	Preference for sweet foods	Loss of eating skills/ independence

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Vicious cycle of undernutrition and dementia

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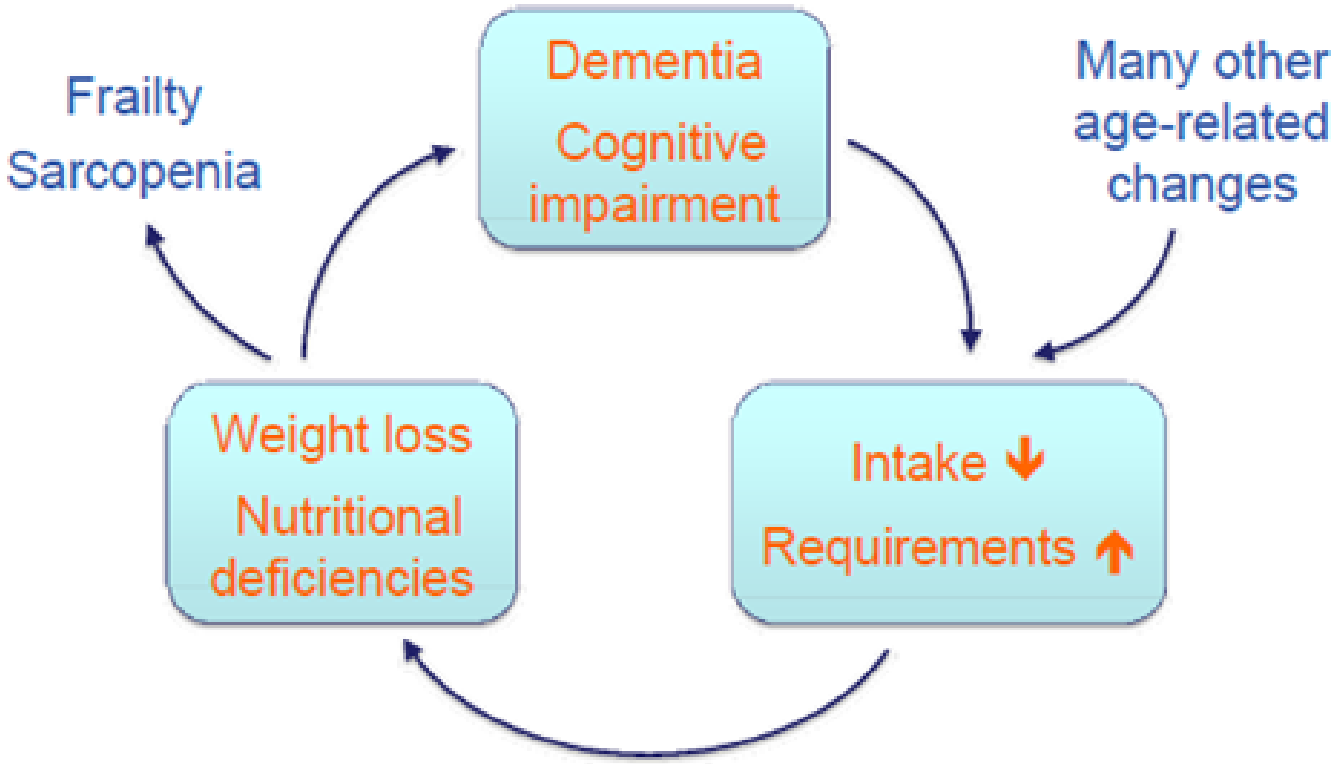

Volkert et al 2015 Clinical Nutrition 34 1052

HEALTHY HEART
IS KEY TO
FIGHTING
DEMENTIA

Simple steps can h
your risk of

KEEPING your hea
blood pressure under
key to avoiding Alzhei

Taking Vitamin D 'may reduce the risk of Alzheimer's disease'

By LEON WATSON

PUBLISHED: 08:12, 3 December 2012 | UPDATED: 10:54, 3 December 2012

Comments (44) | Share +1 1 Tweet 103 Like 375

Women should take Vitamin D supplements to reduce the risk of Alzheimer's disease, according to new research.

Two new studies show that w ave enough Vitamin D as they hit middle age are at grea l decline and developing Alzheimer's.

The fi oped Alzheimer's disease had op the illness.

Media interest – hits the headlines

Daily serving of leafy greens could help prevent dementia, study suggests

By PRESS ASSOCIATION
PUBLISHED: 08:15, 21 December 2017 | UPDATED: 08:15, 21 December 2017

Share

Eating plenty of leafy green vegetables every day could ward off dementia in later life, new research suggests.

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Eat oily fish to prevent memory loss, researchers claim

Eating oily fish while avoiding red meat can help prevent memory loss in later life, a study suggests.

Previous studies have suggested a variety of benefits from the Mediterranean diet, including longer life and a lower risk of conditions including heart disease, obesity, diabetes, cancer and dementia. Photo: ANDREW CROWLEY

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Nutritional interventions – what's the evidence?

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- **No definitive evidence of either effectiveness or lack of effectiveness for any specific nutritional intervention for combating under-nutrition in dementia**
  (Abelhamid et al 2016; Mole et al 2018; Herke et al 2018)

- **Lack of high quality evidence – small and short term studies**

- **A person-centred approach focussed on individual needs appears to be most beneficial**

ESPEN guidelines

Grade system - 26 recommendations

Contents lists available at ScienceDirect

Clinical Nutrition

journal homepage: http://www.elsevier.com/locate/clnu

e-SPEN guideline

ESPEN guidelines on nutrition in dementia

Dorothee Volkert [a, *], Michael Chourdakis [b], Gerd Faxen-Irving [c], Thomas Frühwald [d], Francesco Landi [e], Merja H. Suominen [f], Maurits Vandewoude [g], Rainer Wirth [a, h], Stéphane M. Schneider [i]

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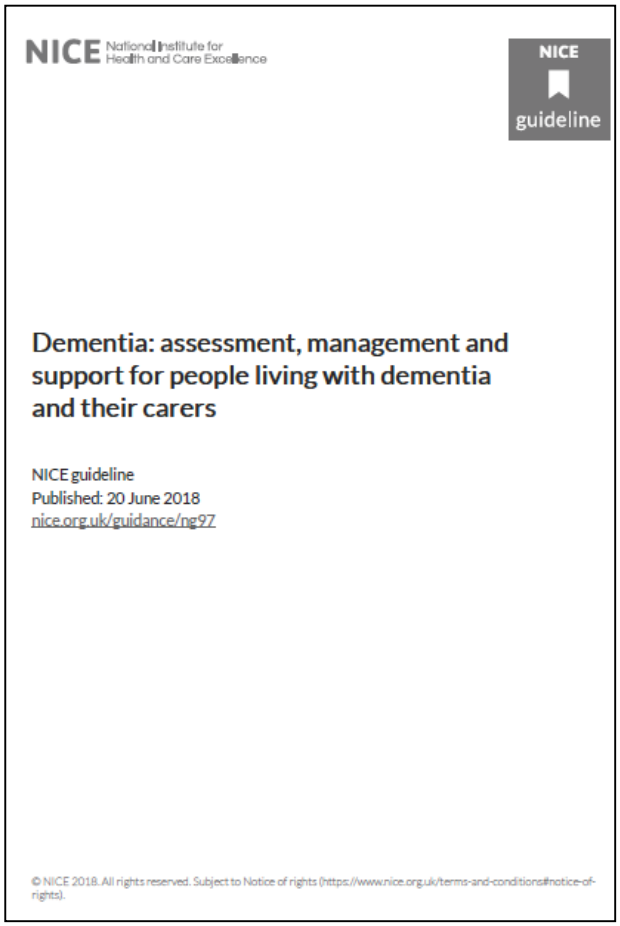
Clinical Nutrition 34 (2015) 1052

Policy and practice

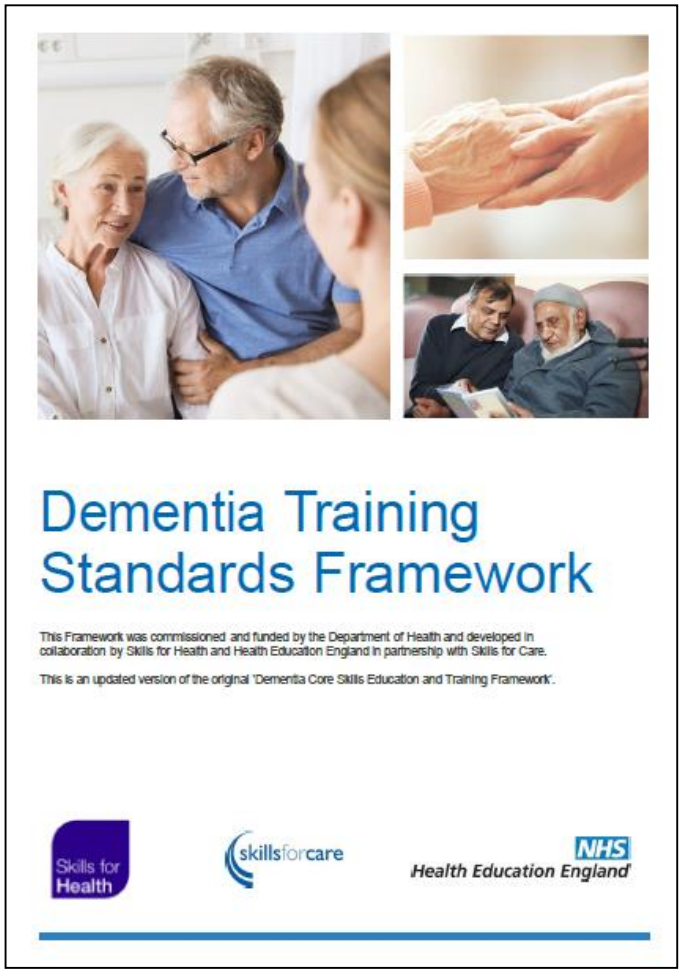


NICE (NG 97) guidance – June 2018

‘1.10.6 Encourage and support people living with dementia to eat and drink, taking into account their nutritional needs’

https://www.nice.org.uk/guidance/ng97

Policy and practice



Dementia Training Standards Framework July 2018

(formerly the Dementia Core Skills Education and Training Framework)

Review by HEE, Skills for Health and Skills for Care and panel of subject matter experts. New additions regarding food, drink and oral health

https://hee.nhs.uk/our-work/dementia-awareness/core-skills

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What can enable good nutritional care in people living with dementia?

What advice can we give to carers (formal and informal carers)?

Nutrition and Delivering Dignity in Dementia Care

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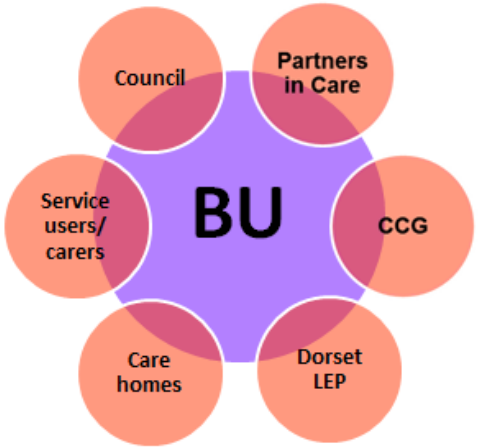
AIMS

1. To identify and understand best practice (evidence base) for delivering excellence in nutrition and dignity in dementia care (care homes).

2. To establish high quality nutrition education and learning.

Burdett Trust for Nursing



Research Methods

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Measures of nutritional status

Food & fluid intake intake, energy expenditure/physical activity & sleep patterns (accelerometry)

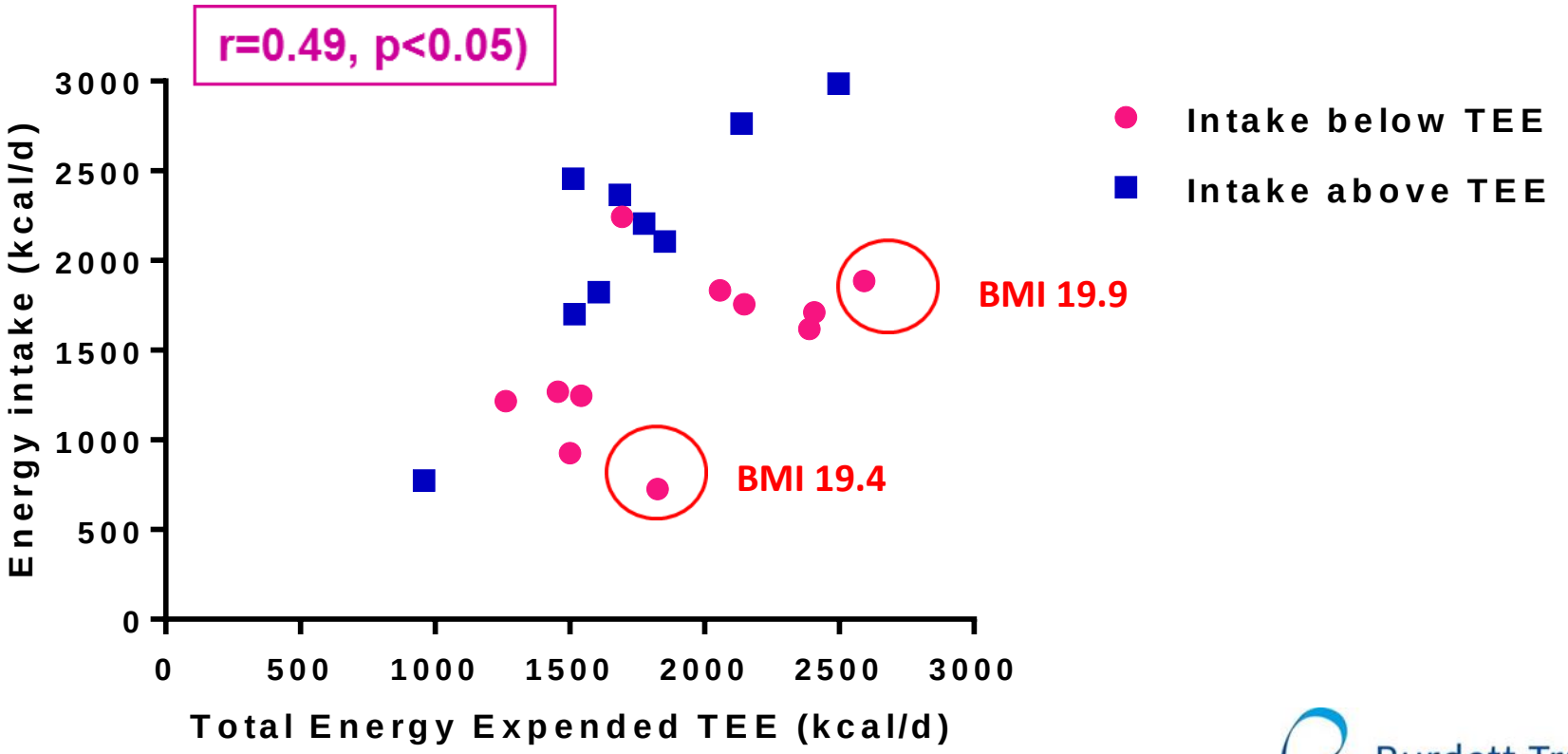
Focus groups/interviews

All those responsible for food, nutrition and delivery of care in care homes.

(Care home managers, care staff, family carers, chefs and kitchen staff, dietitians, speech and language therapists)

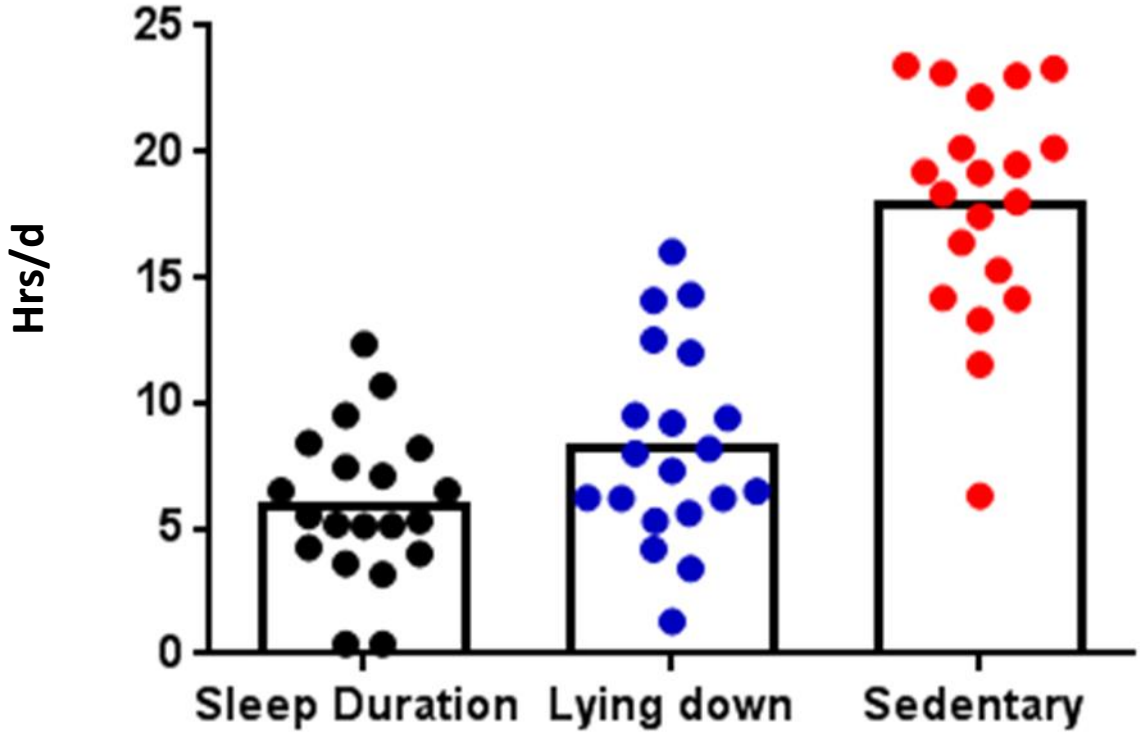
Results

Energy consumed versus total energy expended

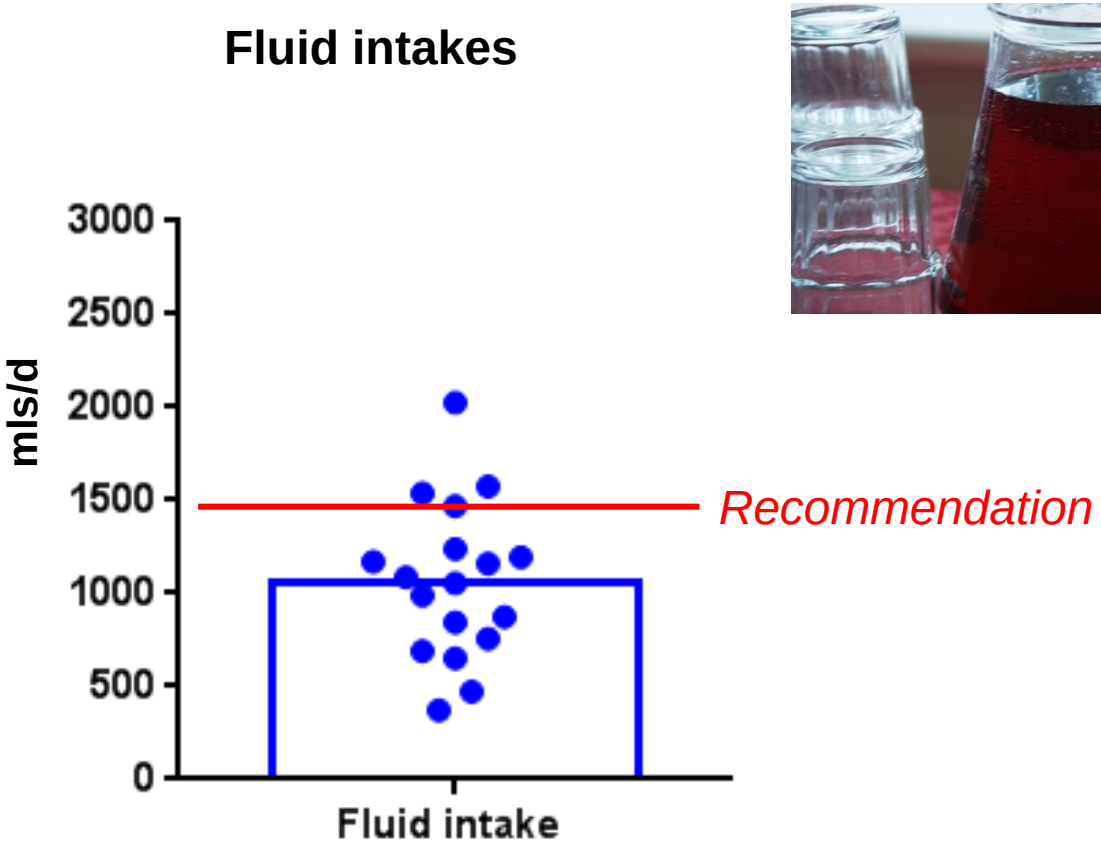


Results

Amount of activity, sleep and lying down



Results


Fluid intakes
3000
2500
2000
1500
1000
500
0
mls/d
Fluid intake
Recommendation

Nutritional Status Summary

- **Body mass, variable physical activity and sleep patterns contribute to low intakes in some residents and were unable to meet their energy needs.**

- **Majority of residents were not meeting recommendations for hydration**

- **Real time monitoring using wearable technology can support better food and nutrition for person-centred care in people living with dementia**

J Nutr Health Aging

MEASUREMENTS OF DAILY ENERGY INTAKE AND TOTAL ENERGY EXPENDITURE IN PEOPLE WITH DEMENTIA IN CARE HOMES: THE USE OF WEARABLE TECHNOLOGY

J. MURPHY, J. HOLMES, C. BROOKS

Faculty of Health & Social Sciences, Bournemouth, United Kingdom. Corresponding author: Jane Murphy, Bournemouth University, Faculty of Health & Social Sciences, Christchurch Road, Bournemouth, BH1 3LT, United Kingdom, +44 1202 962805, jmurphy@bournemouth.ac.uk

Abstract: *Objective*: To estimate daily total energy expenditure (TEE) using a physical activity monitor, combined with dietary assessment of energy intake to assess the relationship between daily energy expenditure and patterns of activity with energy intake in people with dementia living in care homes. *Design and setting:* A cross-sectional study in care homes in the UK. *Participants:* Twenty residents with confirmed dementia diagnosis were recruited from two care homes that specialised in dementia care. *Measurements:* A physical activity monitor (Sensewear™ Armband, Body Media, Pittsburgh, PA) was employed to objectively determine total energy expenditure, sleep duration and physical activity. The armband was placed around the left upper triceps for up to 7 days. Energy intake was determined by weighing all food and drink items over 4 days (3 weekdays and 1 weekend day) including measurements of food wastage. *Results:* The mean age was 78.7 (SD ± 11.8) years, Body Mass Index (BMI) 23.0 (SD ± 4.2) kg/m^2; 50% were women. Energy intake (mean 7.4; SD ± 2.6) MJ/d) was correlated with TEE (mean 7.6; SD ± 1.8 MJ/d; $r=0.49$, $p<0.05$). Duration of sleeping ranged from 0.4-12.5 (mean 6.1) hrs/d and time spent lying down was 1.3-16.0 (8.3) hrs/d. On average residents spent 17.9 (6.3-23.4) hrs/d undertaking sedentary activity. TEE was correlated with BMI ($r=0.52$, $p<0.05$) and body weight ($r=0.81$, $p<0.001$) but inversely related to sleep duration ($r=-0.59$, $p<0.01$) and time lying down ($r=-0.62$, $p<0.01$). Multiple linear regression analysis revealed that after taking BMI, sleep duration and time spent lying down into account, TEE was no longer correlated with energy intake. *Conclusions:* The results show the extent to which body mass, variable activity and sleep patterns may be contributing to TEE and together with reduced energy intake, energy requirements were not satisfied. Thus wearable technology has the potential to offer real-time monitoring to provide appropriate nutrition management that is more person-centred to prevent weight loss in dementia.

Key words: Dementia, energy expenditure, energy intake, technology, diet, care home, activity.

Murphy, J., Holmes, J. & Brooks, C. J Nutr Health Aging (2017). doi:10.1007/s12603-017-0870-y

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The Meal Experience

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Model to Deliver Good Nutritional Care in Dementia

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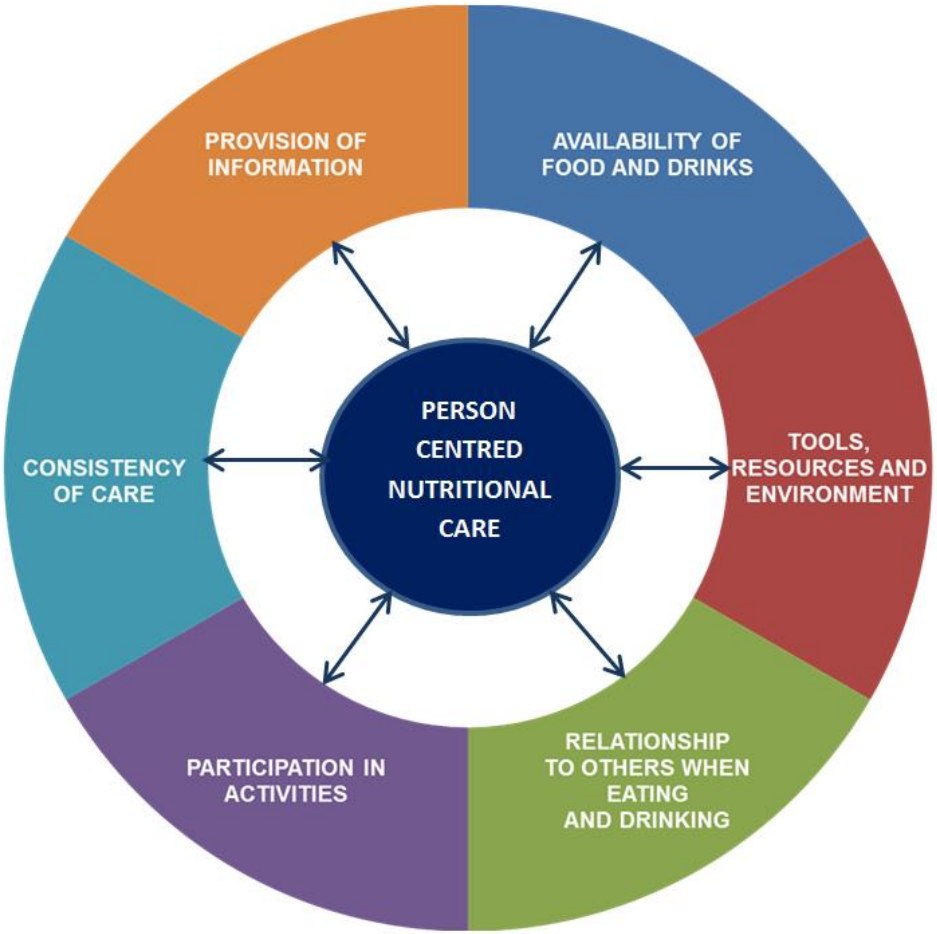

Murphy et al. BMC Geriatrics (2017) 17:55
DOI 10.1186/s12877-017-0443-2

BMC Geriatrics

RESEARCH ARTICLE Open Access

Nutrition and dementia care: developing an evidence-based model for nutritional care in nursing homes

Jane L. Murphy*, Joanne Holmes and Cindy Brooks

Abstract

Background: There is a growing volume of research to offer improvements in nutritional care for people with dementia living in nursing homes. Whilst a number of interventions have been identified to support food and drink intake, there has been no systematic research to understand the factors for improving nutritional care from the perspectives of all those delivering care in nursing homes. The aim of this study was to develop a research informed model for understanding the complex nutritional problems associated with eating and drinking for people with dementia.

Methods: We conducted nine focus groups and five semi-structured interviews with those involved or who have a level of responsibility for providing food and drink and nutritional care in nursing homes (nurses, care workers, catering assistants, dietitians, speech and language therapists) and family carers. The resulting conceptual model was developed by eliciting care-related processes, thus supporting credibility from the perspective of the end-users.

Results: The seven identified domain areas were person-centred nutritional care (the overarching theme); availability of food and drink; tools, resources and environment; relationship to others when eating and drinking; participation in activities; consistency of care and provision of information.

Conclusions: This collaboratively developed, person-centred model can support the design of new education and training tools and be readily translated into existing programmes. Further research is needed to evaluate whether these evidence-informed approaches have been implemented successfully and adopted into practice and policy contexts and can demonstrate effectiveness for people living with dementia.

Keywords: Nutrition, Dementia, Residential care, Eating, Drinking, Meal environment, Qualitative

Murphy et al (2017) Nutrition and dementia care: developing an evidence-based model for nutritional care in nursing homes BMC Geriatrics 17:55

Training tools

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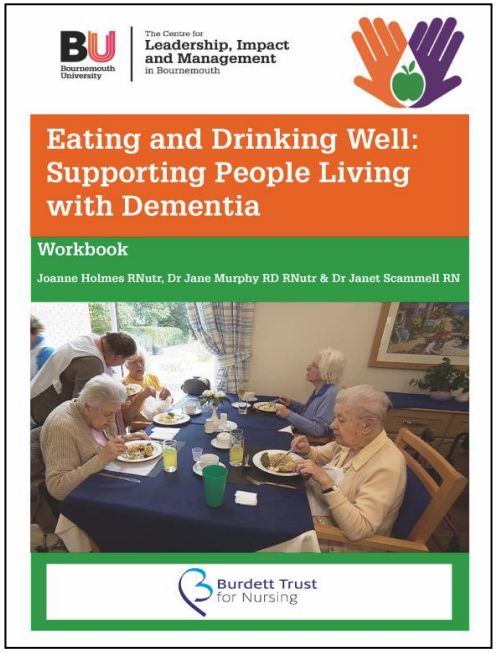
Workbook (PDF format) linked with training film



YouTube https://www.youtube.com/watch?v=dlYPTTibTO8

3 sections

Section 1: Food and drink availability
Section 2: Importance of activity: encouraging food and drink intake through activity
Section3: Importance of communication and relationships

http://www.bournemouth.ac.uk/nutrition-dementia

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JUST LAUNCHED

ADRC
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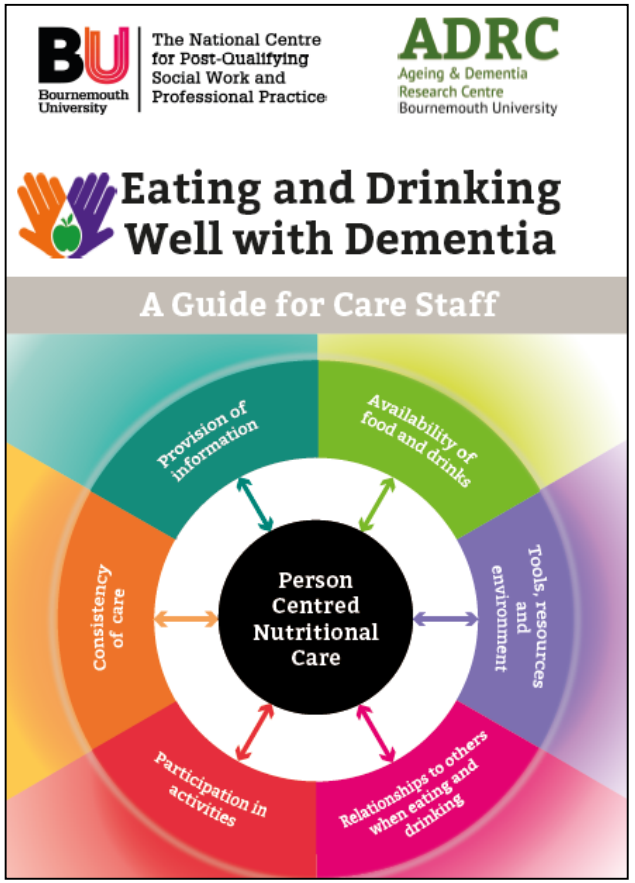
'Eating and Drinking Well with Dementia' – A Guide for Care Staff

For a free hardcopy email:

adrc@bournemouth.ac.uk



Does it make a difference?

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" We have a resident that doesn't eat well without being prompted. Because we now changed the colour of plate they are now able to eat well. "

Care staff

I weigh monthly and since we've started and update must scores monthly, obviously we've seen an increase in weight. A good couple of kilos for the majority of residents

Manager and Registered Nurse

...we have now revolutionised our meal times and this has proven to be of great success, in the few short weeks of implementing this we have observed and recorded an increase in weight with the majority of our residents and a more sociable and interactive feel that surrounds our mealtimes."

Registered Manager

Approximately 40% of those who responded reported weight gain in some of the people they cared for since using the workbook

Any questions?
Thank you for listening!

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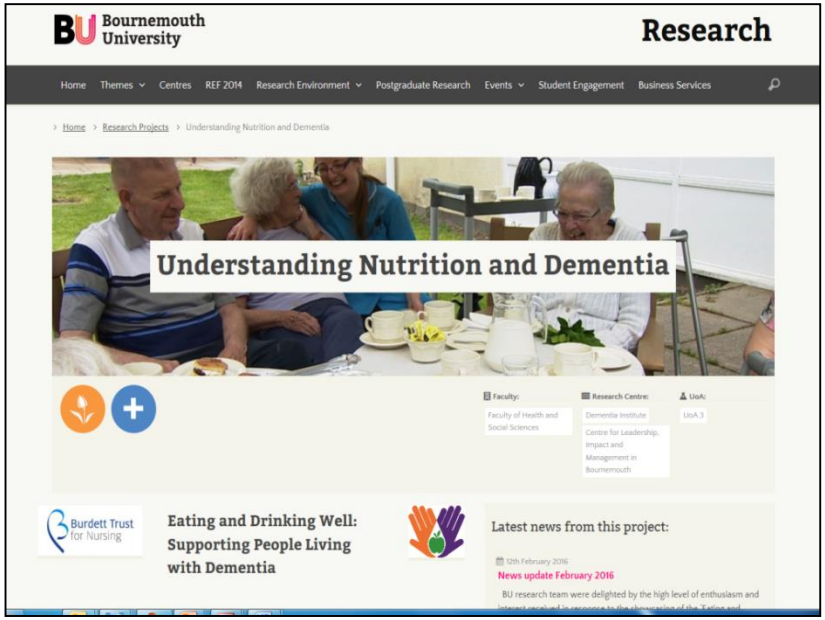

www.bournemouth.ac.uk/nutrition-dementia

OPEN Older People's Essential Nutrition

Wessex Academic Health Science Network

Endorsed by the British Dietetic Association

http://wessexahsn.org.uk/OPEN-toolkit

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