



**Empowering Nurses and Care Home Staff to Lead  
Excellence in Nutrition and Dignity In Dementia Care  
Through Evidence Based Learning to Enhance the Care  
Environment.**

**FINAL REPORT**

**December 2016**

**Website:** <http://www.bournemouth.ac.uk/nutrition-dementia>



**@nutri\_dementia**



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# Executive Summary

## Background

Around 850,000 people in the UK have dementia, which is expected to rise as people live longer. Older people with dementia have complex needs and ensuring appropriate nutrition and hydration should be at heart of providing person-centred dignity in care. There have been no standardised interventions to maintain adequate nutrition in people with dementia and the challenges of meeting nutrition and hydration continue to be reported. Nurses are in a prime position to address the problem but there is a need for empowerment and nurse leadership to embed values and behaviours in the resident care home environment that concentrates on creating and delivering change through person-centred and humanised care (evidenced within the practical 'real' world).

To address this problem, the Burdett Trust for Nursing awarded a research grant from their Delivering Dignity through Empowered Leadership programme to Bournemouth University (BU). The project started in January 2014, led by Principle Investigator Dr Jane Murphy with co-investigators Joanne Holmes and Dr Janet Scammell. A key strength of the research has been the cross disciplinary academic and practice colleagues (including nurses, nutritionists, dietitians, commissioners, and speech and language therapists) and collaborative working with external stakeholders, including care homes, council and care givers to identify new approaches to support staff to provide excellent nutritional care.

**The overall aim of the project was to identify best practice for delivering nutrition in dementia care by providing a new nutrition education programme based on fundamental principles of self-leadership and nutrition to empower nurses and care home staff.**

There were two main parts of the research. First in a quantitative study, twenty residents with confirmed dementia diagnosis were recruited from two care homes that specialised in dementia care. A physical activity monitor was employed to objectively determine total energy expenditure, sleep duration and physical activity. 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. The results showed the extent to which body mass, variable activity and sleep patterns could be contributing to energy expenditure and together with reduced energy intake, energy requirements were not satisfied in some people living with dementia. It also showed the value of using wearable technology and its potential to offer real-time monitoring to provide appropriate nutrition management that is more person-centred to prevent weight loss in dementia. The second part of the research used qualitative methods to obtain rich contextual data using focus groups and semi-structured interviews. Participants were purposefully sampled from care homes and healthcare services in the community and carer groups from a local database of care providers specialising in dementia care. Nine focus groups and five semi-structured interviews were conducted with 50 participants. Participants represented all those involved in the care of people living with dementia including care staff (health care assistants, nurses, care home and hospitality manager, catering staff) family carers, dietitians and speech and language therapists. The data informed the development of a conceptual model by eliciting care-related processes, thus supporting credibility from the perspective of the end-users. There were seven identified domain areas:

- 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
- Provision of information.

The findings of the research then informed the design of two workshops for nursing and care staff together with new strategies to deliver humanised care and empowered leadership. Evaluation of learning from the workshops showed key changes in practice and the way in which nutritional care was delivered to people with dementia including alterations in the mealtime experience, more person centred care and identifying individual needs and preferences.

**Research Outcomes:** The research findings enabled the creation of new education and training tools as a workbook and training film available via You Tube:

<https://www.youtube.com/watch?v=dIYPTTibTO8> (initially available as DVD).

The workbook is linked with this training film and designed to be used concurrently to help guide and support learning. The next phase of work, starting 2016 was focused on an implementation plan to disseminate the workbooks (in total 2000 workbooks were printed) and training film. Training was rolled out nationally to embed within continued learning for the professional development of nurses and care home staff to enhance dignity in care for older people living with dementia. Further research evaluation of the training has been undertaken through online surveys and telephone interviews to understand the impact training has had on practice. Key findings included positive changes in practice, more person-centred approaches, using food fortification, food modifications, using nutrition screening, use of activities to encourage food and drink and impact on residents (weight change, dining experience, social interaction).

**Project outputs:** The workbook and film have been and continue to be used widely in care homes, domiciliary care and hospitals and as part of training in universities across the country. The findings from the research have been accepted for presentation at national and international conferences, shared across other forums and websites, and a number of academic journal and practice articles have been published (see Section 6). The research culminated in an end of project research conference on 25<sup>th</sup> November 2015 (attended by Trustee Dame Christine Beasley and Chief Executive Shirley Baines) to over 100 stakeholders with keynote speaker Dr Hilda Hayo (Chief Admiral Nurse, Dementia UK). Further work is underway to create transferable strategies of the tools at scale beyond the life of the project via Health Education England's Dementia Workforce Action Group with reach to other care settings and national organisations.

## Members of the Steering Group

Principal Investigator	Dr Jane Murphy
Co-investigator – BU	Joanne Holmes
Co-investigator – BU	Dr Janet Scammell
Research Assistant	Cindy Brooks
Cllr Elaine Atkinson	Borough of Poole Council – former leader
Cllr Chris Wilson	Borough of Poole Council
Partners in Care	Sophie Trim
Partners in Care	Sam Clarke
Waypoints care home – Nurse Manager	Becky Robson
NHS Dorset Clinical Commissioning Group	Sandie Simms
Bournemouth & Poole College	Louise Garner
Partners in Care/advisor	Kevin Poulton
Service user/ carer	Pat Healy

Steering group meetings were quarterly, chaired by the Principle Investigator or Co-Investigator as deputy (in total 12 meetings were held). Terms of Reference were established at the outset and all meetings had written and confirmed minutes.

### The Project Steering Group



**Acknowledgements**

We would like to sincerely thank and acknowledge all the service users and care staff who generously gave up their time – in particular the consent from care home managers and help from the kitchen and front-line care assistants and nursing staff, the residents themselves and their families who gave permission for us to carry out the research without which none of the work would have been possible. We also thank The Burdett Trust for Nursing for supporting the project financially.

## SECTION 1: Background and rationale

A key foundation highlighted in The Commission on Dignity in Care for Older People (2012) for achieving dignity in care is to '***always remember nutrition and hydration needs***'. The on-going problems highlighted in the care home environment are associated with the lack of screening for malnutrition (under nutrition), poor assessment of nutritional status, lack of support for assisted feeding, inadequate provision of food and fluids and inappropriate referral for specialist nutritional advice. Nutrition is a central aspect to maintain and promote good health and wellbeing but as people age they are more likely to suffer from a variety of age-related conditions or incidents so appropriate nutrition is even more crucial to achieve excellence in care.

A priority concern across our ageing population is the increasing number of people with dementia that represents the majority of people (<80%) living in care homes today (Alzheimer's Society, 2013). Indeed the challenge of managing dementia across health and social care was highlighted by the Prime Minister to identify innovations in care to help people and families receive the right level of personalised support (Department of Health, 2012). Ensuring appropriate food and nutrition is a vital part in delivering dignity in care for people with dementia who are at increased risk of severe malnutrition (under nutrition) and weight loss as the organisational, conceptual and physical skills required to manage eating and drinking become increasingly difficult as a result of the disease process.

Despite these policies and highlighted concerns, worryingly there have been no standardised interventions to maintain adequate nutrition in people with dementia (Cole 2012) and the challenges of meeting nutrition and hydration continue to be reported. Nurses are in a prime position to address the problem but there is a need for empowerment and nurse leadership to embed values and behaviours in the resident care home environment that concentrates on creating and delivering change through person-centred and humanised care (evidenced within the practical 'real' world). Therefore through high quality education and training, nurses and care home staff can build and extend existing core skills and acquire new knowledge, approaches and attitudes and develop a strong commitment to support the complex health and nutritional needs within the context of upholding residents' right to be treated with care and dignity.

Moreover eating well and achieving a good nutritional intake is so much more than simply providing adequate food and nutrition to meet a person's nutritional needs. There is growing interest and research on the importance on understanding the impact of the environment and the person's interaction with food and drink as part of the overall 'meal experience' to deliver person-centred humanised care. What is also needed is an understanding the life world of the person to establish food and drink preferences and the way in which a person with dementia is best supported at mealtimes. However there were no evidence based literature or reports that has evaluated these areas of best practice from a nutritional perspective, to determine if nutritional needs are met and can uphold standards of food, nutrition and dignity in care delivery.

This much needed project aimed to tackle these on-going and as yet unresolved concerns of nutrition and delivering of dignity in the care of people with dementia through a programme of evidence based learning to empower and maximise the leadership capability of nurses and care staff in care homes.

## **SECTION 2: Aims and Objectives**

**The overall aim of the project was to identify best practice for delivering nutrition in dementia care by providing a new nutrition education programme based on fundamental principles of self-leadership and nutrition to empower nurses and care home staff.**

The programme would be easily translated and adopted widely to induce a long-lasting culture change towards excellence in dementia care that is person-centred and upholds dignity. This would be achieved by involving external stakeholders at the outset and during the project, working in collaboration with care homes, council, workforce development, Clinical Commissioning Groups and other organisations across health and social care.

### **Specific objectives:**

- Identify aspects of best practice for delivering excellence in nutrition and dignity in dementia care by coproduction with nurses, care home staff, dignity champions, families and carers.
- Identify transferable approaches for education that have potential to enhance dignity in care for older people
- Produce a high quality education programme to extend existing core skills and provide new knowledge and awareness of nutrition in dementia care to empower nursing and care staff in care homes to deliver excellence in nutrition and dignity in dementia care,
- Disseminate the materials and roll out nationally to embed within continued learning for the professional development of nurses and care home staff.

The learning would be designed to induce a long-lasting culture change towards person-centred care, through empowered leadership and transfer of knowledge and skills, sustained through evidenced based changes in behaviour and attitudes by changing perceptions of self-awareness, confidence, leadership and communicative abilities. Ultimately these changes would be reflected in improvements in the care environment and the overall organisation's performance and reputation based on key performance indicators (e.g. Care Quality Commission).

The project started January 2014 and was originally planned to be a 2 year project. However the project was extended to be able to undertake dissemination and impact evaluation work of the outputs (see section 6) and to present and publish the findings.



## SECTION 3: Methods

### Research design

#### 1. Quantitative study

This cross-sectional study was performed between July 2014 and October 2014. Care home residents were recruited from two care homes in South West England that specialised in dementia care with confirmed clinical diagnosis of dementia (assessed by Mini Mental State Examination with scores less than 23). Recruitment was restricted to two care homes owing to the intensive nature of the study that has taken a whole systems approach involving everyone who has responsibility for delivering food and nutrition including managers, health care professionals, care and catering staff as well as relatives and family members. Residents with dementia were selected and recruited under the informed guidance of the care home managers. Exclusion criteria were residents with advanced dementia (advanced deterioration of language and cognition), those receiving palliative care treatment or artificial enteral or parenteral nutrition, dysphagia leading to aspiration, mood disorders and aggressive and volatile behaviour which would make it difficult to perform the measurements.

#### *Data collection and procedures*

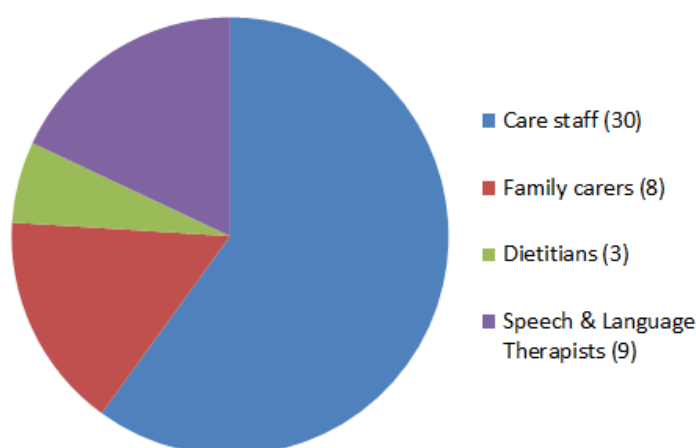
There were 20 residents who participated in the study. All care home staff that were responsible for the delivery of food and drink (caregiver, chef, kitchen assistant) were trained by a researcher on how to record all food and drink intake. Total dietary intake from all food and drink consumed was collected over 5 days by care home staff using a weighed plate-wastage method to improve the accuracy of the intake, using electronic weighing scales. The care home staff served the meals to the residents and helped them with feeding as required. Residents received their regular meals and no foods or snacks were altered or modified in any way for the purpose of this study.

All the residents wore a Sensewear™ Armband (Bodymedia, Pittsburgh, PA) for up to 7 days, placed halfway between the acromion and olecranon processes on the upper left arm. The device uses four sensors to assess energy expenditure, sleep duration and sedentary physical activity duration as well as step count. The armband includes a tri-axial accelerometer, a thermistor-based skin sensor, a proprietary heat flux sensor and a galvanic skin response sensor.

#### 2. Qualitative study

This qualitative study obtained rich contextual data using focus groups and semi-structured interviews. Participants were purposefully sampled from care homes and healthcare services in the community and carer groups from a local database of care providers specialising in dementia care. Nine focus groups and five semi-structured interviews were conducted with 50 participants. Participants represented all those involved in the care of people living with dementia including care staff (health care assistants, nurses, care home and hospitality manager, catering staff) family carers, dietitians and speech and language therapists (see pie chart).

*Pie chart showing numbers of participants*



### *Data collection and procedures*

An interview guide was developed by reviewing other qualitative research exploring eating and drinking in people living with dementia in community settings to inform questions that would elicit the most informative responses. This was then discussed with the research team and key stakeholders on the project steering group (comprising a commissioner, lay user, workforce development representative, councillor representing social care) to determine what questions would most thoroughly explore the participants' experiences. Focus groups were held in a neutral venue led by the research assistant for this project with background experience of qualitative methods and prior research experience on a project involving people and staff in healthcare and community settings. Two researchers were present in each group or semi-structured interview with the research assistant leading the discussion each time. At each focus group and interview she was supported by one other researcher to moderate and for quality control purposes.

All focus groups and interviews were recorded and transcribed verbatim to ensure accuracy. Only comments relevant to the research question were transcribed.

### Research Governance

Ethical approval for the study was obtained from Bournemouth University Research Ethics Committee. Informed written and verbal consent was ensured throughout the studies. Written consent was provided by the care home manager for access to the care home population. Residents provided informed verbal and/or written consent for their involvement in the study as well as a close family member and the care managers of both care homes. Participants were not obliged to participate and had the opportunity to ask questions before the research was undertaken. No identifiable information was collected from any of the residents. Confidentiality and anonymity was ensured by the use of numbers to code and represent data and all data was securely stored in locked environments.

## SECTION 4: Findings

### Quantitative study:

The mean age of the residents was 78.7 (SD  $\pm$  11.8) years, Body Mass Index (BMI) 23.0 (SD  $\pm$  4.2) kg/m<sup>2</sup>; 50% were women. Energy intake (mean 7.4; SD  $\pm$  2.6) MJ/d) was correlated with TEE (mean 7.6; SD  $\pm$  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.

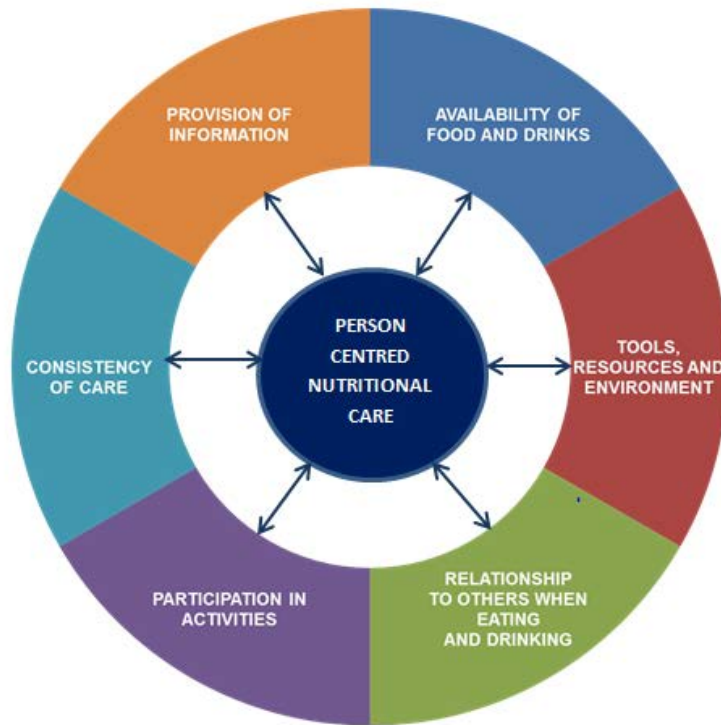
The results show that the relationship between TEE and energy intake is influenced by body mass, variable activity and sleep patterns that contributed to low energy intakes in some of the residents. Overall the monitoring devices were well received by both the residents and care staff and in all but one resident encountered no problems with their application. Thus the study would support their feasibility and acceptability to use in people with dementia.

As a group, daily energy intakes compared favourably with intakes measured in studies among similarly aged community-dwelling people with dementia. This observation reflects good practices for delivering food and nutrition including fortification of food, use of supplements, and influence of caregiver. As such some residents had intakes that exceeded their requirements yet over half of the cohort were still not meeting their energy needs and/or were losing weight due to low intakes. The reasons for this requires closer examination which might be due to altered activity associated with changed behaviours given the observed differences in sleep and sedentary activity patterns. Those residents who had greater TEE were those who required less sleep and/or spent less time lying down. On the other hand, residents were likely to have poor appetites due to reduced activity and as the result of other known behavioural disorders affecting food consumption including food aversions, forgetfulness, sensory changes. Another explanation for low energy intake might be attributed to the eating environment and meal experience to promote appropriate nutrition and hydration that has been raised in other studies for people with dementia.

### Qualitative study:

The experiences shared by the participants enabled the key themes to be constructed in the form of a model of good nutritional care (see model below). At the centre of the model is the overarching theme to prioritise person-centred nutritional care. The determinants of person-centred nutritional care are influenced by the stage of dementia (and presence of other co-morbidities), psychosocial, cultural and generational factors.

## Model for the provision of good nutritional care in dementia



The overarching theme of *'person-centred nutritional care'* identified the need to prioritise the nutrition and hydration needs and preferences of people living with dementia. The second theme related to the importance that food and drink should be readily available, entitled *'availability of food and drinks'*. The third theme, *'tools, resources and environment'* focused on the range of tools, resources and influential environmental factors needed to support the delivery of food and hydration. The fourth theme, *'relationship to others when eating and drinking'* was concerned with how the presence of others, including care staff, family members and other residents and the setting (own room, dining room and other communal area) affected the individual's mealtime experience. The fifth theme, *'participation in activities'* captured the ways in which activities could be used to engage residents and stimulate the appetite. The sixth theme, *'consistency of care'* recognised the need for prioritisation and consistency in the provision of nutritional care for people living with dementia in care homes but also across health and social care environments (at home, across care sectors – care homes, in hospital, day centres). This led on to the final theme, *'provision of information'*, that embraced the need for better information, education, training and support to guide nutritional care for both formal and informal carers.

## Conclusion

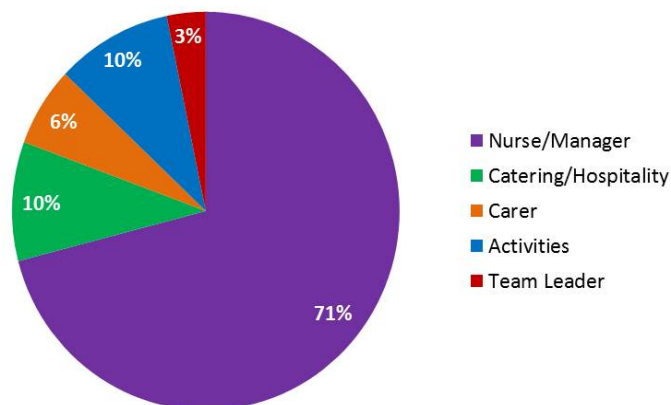
The quantitative study showed the value of real-time monitoring using wearable technology to measure TEE and the influence of body mass, variable activity and sleep patterns on energy intake in dementia. Thus it demonstrates the importance of assessing energy needs in dementia because altered behaviours can influence nutritional status as energy requirements were not satisfied, that could lead to weight loss.

Taken together with the findings from the qualitative study and a collaboratively developed, person-centred model it was possible to design new education and training tools to be readily translated into existing programmes (see Section 5). This would better inform appropriate nutritional management strategies with more person-centred approaches for people living with dementia in care homes and other care settings.

## SECTION 5: Transferability of the Research and Development of Training Tools (Training Film and Workbook)

As a first step, two face to face 1 day workshops were delivered to nursing and care home staff in two centres. Additional input for humanised care, leadership and 'knowing the person with dementia' were provided by BU academic colleagues (Dr Janet Scammell, Professor Keith Brown and Dr Michele Board). In total there were 38 participants who attended the workshops. The impact of the learning upon everyday practices was assessed immediately following the workshops and 6 -12 weeks later using semi-structured interviews by telephone.

Pie chart showing the roles of the participants



## Results

Of the 39 participants who attended the workshop, 29 (76%) provided a telephone interview. The findings revealed successful implementation of workshop training with changes reported across all essential components. The most commonly reported changes were to mealtime experience (79%) and person-centred care (66%). Other reported changes included fortification of food (62%), leadership (59%) and resources (28%). Key themes included availability and provision of food and drinks, fortification of food and issues of pureeing, options for increasing hydration, participation in activities, tools, resources and environment, relationship to others when eating and drinking, understanding the individual's preferences and needs and leadership and training needs.

The findings demonstrated the potential to develop new platforms of evidence-based training for front-line staff to deliver quality improvements in food and nutrition for people living with dementia. The education resulted in key changes particularly in the mealtime experience including the availability and delivery of food and drink options, manageable portions, person centred activities, understanding a person's relationship to others at mealtimes, ensuring food is colourful and using food moulds, colourful crockery and creating a calm mealtime experience and person centred care including raised awareness of how the stage of dementia can make people forget if they have eaten or drunk, being patient, finding out a person's individual needs and preferences taking into account psychosocial, medical, historical and generational factors. In addition the importance of consulting with families and recording and communication of information about residents between care staff.

*Word cloud presenting themes and examples of changes implemented.*



Feedback from participants:

*'It's just a reminder to me, even though I have training etc....empowering my staff and motivating them to want to be the best and want to do things and giving them that knowledge and motivation to do that and how key their role is in that.'* (Registered Nurse Manager)

*'Yes, I like to be out there a little bit more, you lead by example anyway, if I am talking to a resident I will always make them a drink. If I'm expecting staff to do that [and they] see me doing that. ... the heat wave policy, making sure offer lollies, ice creams and that plenty of fluids are available and if having salty snacks and encouraging them to drink.'* (Care Home Manager)

Taking together the findings of the research and learning gained from the workshops enabled the creation of a training film available via you-tube:-  
<https://www.youtube.com/watch?v=dIYPTTibTO8> ( initially available as DVD) and the workbook ( see cover below). The workbook is linked with a training film to be used concurrently to help guide and support learning.



The workbook and film were officially launched at the end of the research project conference on 25<sup>th</sup> November 2015 on delivering excellence in nutrition and dignity in dementia care to

over 100 delegates across health and social care. We were delighted that Dame Christine Beasley and Shirley Baines from The Burdett Trust were able to join us for this event. At this highly successful event, academic colleagues from BU and Elaine Atkinson OBE from Poole Borough Council, presented together with Dr Hilda Hayo, Chief Admiral Nurse from Dementia UK as our keynote speaker.

<http://blogs.bournemouth.ac.uk/research/2015/12/06/sharing-best-practice-for-delivering-excellence-in-nutrition-and-dignity-in-dementia-care/>





## **SECTION 6: Dissemination and Impact Evaluation of the Training**

The research objectives had been successfully delivered during a two year period between January 2014 and December 2015. We were fortunate to have the approval of the Burdett Trust for Nursing to allow us to continue with the project for dissemination and evaluation of the training tools with funding retained from the original budget.

A key objective of this phase of work was to disseminate the materials and roll out nationally for continued learning for the professional development of nurses and care home staff to enhance dignity in care for older people living with dementia. This section outlines the dissemination and impact activities undertaken between January and December 2016. It includes the impact research evaluation of the workbook, academic and public conference events and lists journal article and conference publications.

### **1. Dissemination of the training tools during 2016**

In total, 2000 workbooks were printed and disseminated free of charge across the health and social care community at various events and on request. The first 1000 copies incorporated a DVD to access the training film. The second updated version (printed in June 2016) signposted the training film online as feedback suggested that the You-tube format worked well and was easily accessible. The You-Tube film has been viewed 1694 times (December 2016). To date about 1700 workbooks have been disseminated at key events and conferences e.g. Dementia 2020 conference, Wessex Academic Health Science Network annual conference, Hampshire Care Association meetings and on request (via website) to a range of providers and carers near and far across the country. These include nursing and care staff, managers from care homes, domiciliary care and Hospital NHS Trusts. The research findings and workbook has also been incorporated into undergraduate nurse training programmes (Bournemouth, Manchester and Hull Universities). In 2017, the workbook will also be incorporated into a regional training programme provided by Tricuro that provides social care to adults across Dorset (<http://www.tricuro.co.uk/>).

#### *Testimonials:*

##### **...on training**

Mark Gretton is a Lecturer in Nursing at the University of Hull and has been using the workbook and DVD as part of his dementia care modules.

*"I became aware of this work while attending the study day set up as part of the project to disseminate the research findings. Nutrition for people living with dementia has up until now been an under-researched area, so this work and the excellent workbook and DVD that have been produced in the light of it are extremely timely," says Mark.*

*"I have subsequently used these resources as key elements for our dementia care modules at associate practitioner, degree and Master's level. The students on all of these programmes have found them beneficial. We are planning to continue to use these materials for these modules and are also looking to utilise them as part of the dementia provision in our pre-registration all nursing fields programme."*

### **...on care homes**

Shona Omand-Smith is a Care Home Manager in Scotland and has been sharing the training tools with care homes in the area.

*"I found out about the research via Future Learn and emailed the team to find out more. I looked through the workbook and watched the YouTube film and was so impressed by the film that I immediately forwarded it to a colleague who wanted to find out more and share it with his team," says Shona. "I discussed the content with a colleague who organises the training and development for our team and suggested that she incorporate it into the next development day for our care home cooks. I've also shared a copy of the workbook with all Care Home Managers in the area and explained how I was intending to use the resources with my team."*

*"I'm going to show the second section of the film at our Wellbeing Group meeting, where all our care homes discuss activities and participation. I'm not always convinced that staff make the connection between keeping residents busy and engaged as a means of increasing their appetite. The film makes the link really clear."*

*"having a staff group who have a better knowledge base can only be for the greater good."*

A short quiz has been developed that can be accessed on the project's website to enable learners to gain a certificate of learning.

(<https://mrgsurvey.bournemouth.ac.uk/surveys/s.asp?k=145882417433>)

2. Evaluating the impact of the 'Eating and Drinking Well: Supporting People Living with Dementia' training materials for staff supporting people living with dementia in the community

To evaluate impact of the education and training in the everyday practice of frontline care staff the following approaches were used:

- **Online questionnaire ( 2-4 weeks after receiving the workbook and film)**
- **Telephone evaluation ( 3 months after receiving the workbook and film)**

#### Online questionnaire

To date 57 people have responded to the online questionnaire, that includes those working in care homes, domiciliary care and NHS Hospital Trusts.

Further analysis of the results is ongoing and the results below show data from 50 of the respondents.

*Understanding the workbook:*

In summary, 97% reported that they understood everything.

Useful aspects	number
Case studies	8
Fortification and issues of pureeing	6
MUST scoring	6
Role of activity to enhance appetite	13
Person-centred approach	5
Humanised approach – head, heart, hand	6
All of it	5

***Explaining the MUST tool, also how many calories can be lost by liquidising with water, how much energy used by someone pacing.*** (Manager, Residential/nursing care home).

***‘A good way to encourage someone to improve their diet could be to incorporate food in an activity. Doing a physical activity is a good way to stimulate the appetite.’*** (Care worker, NHS)

*Learning approach:*

Learning approaches (1-10 from least useful to most useful)	score
Average	8.5
Extra reading	8.5
The tasks	8.3
Reflection upon practice	8.4
Case studies	8.9

***This has made us all reflect on the reasons and possible complication associated with dementia, how we can adopt and adapt changing ideas keeping them person centred.*** (Manager, residential/nursing care home)

## Telephone evaluation

Follow-up telephone interviews were carried out with 18 nursing and care staff from across health and social care.

Changes made (total no of participants = 18)	Yes	Reinforced existing practice	No ( but may make changes in the future)
Have you made any changes to your practice using the MUST Screening Tool?	7	3	8
Have you made any changes to your practice to how food and drinks are made available?	15	-	3
Have you made any changes to your practice around the use of activity to encourage food and drink intake?	15	1	2
Have you made any changes to your practice around communication about food and drinks?	13	-	5

### Impact on residents: weight change

Approximately 40% of participants reported weight gain in some of the people they care for, since using the workbook.

*‘Two or three have put weight on this month and last month. I know one of the gentlemen is also putting weight on. That is partly because he is having more activity and he is being encouraged to eat himself rather than being encouraged assisted to eat and actually doing role play with the girls does help.’*

(Manager and Registered Nurse, residential/nursing care)

*“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, and we have included her with people who are chatty and [she] eats by herself and she’s become more herself you know.”*

(Care and Support Worker residential/nursing care)

*“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.”*

(Registered Manager, residential/nursing care)

In summary, the following highlights the benefits of the training tools on practice and the quality of nutritional care delivered:

- Changes reported in practice
- Enhancing knowledge, self-reflection and awareness:
- Person-centred approaches
- Fortification, food modification
- Greater variety and availability of food and drinks
- Documenting and Sharing of knowledge
- Communication around food and drink
- Using MUST
- Availability of food and drink
- Use of activities to encourage food and drink
- Impact on residents ( weight change, dining experience, social interaction)

*“I think every resident, everybody is effected by this course. Everything I’ve learned here and I think fulfilling the resident needs etc. we will provide. As a group we can provide and fulfil their needs because we have the knowledge and we know what we’re doing.”*

(Care and Support Worker, residential/nursing care)

The findings were presented at Health Education England/s Dementia Workforce Action Group on 26th September 2016. Current work is underway to create transferable strategies beyond the life of the project to implement the tools at scale across other care settings and organisations eg Sheltered Housing, Care England.

### 3. Conference presentations

The findings of the work have been presented as oral or poster presentations in the UK and at international conference events and abstract published:

Murphy JL, Holmes J, Brooks C Nutrition and dementia care: Developing an evidence-based model for delivering person-centred care in nursing homes. To be presented at 26th Annual Conference of Alzheimer Europe, Copenhagen, Denmark 31 October–2 November 2016.

Murphy JL, Holmes J, Brooks C Understanding the strategies required to meet hydration needs of people living with dementia. Alzheimer's Association International Conference, Washington DC, 18 Jul 2015 - 23 Jul 2015. *Alzheimer's and Dementia*. 2015 11 (7), Supplement, P739.

Murphy JL, Holmes J, Brooks C. The use of wearable technology to measure energy expenditure, physical activity, and sleep patterns in dementia. Alzheimer's Association International Conference, Washington DC, 18 Jul 2015 - 23 Jul 2015. *Alzheimer's and Dementia*. 2015 11 (7), Supplement, P188.

Murphy, J.L. , Holmes, J. and Brooks, C. (2015) Measurements of energy intake and expenditure in people with dementia living in care homes: the use of wearable technology. In: International Academy of Nutrition and Aging, Barcelona, 18 Jun 2015 - 19 Jun 2015. *Journal of Nutrition, Health and Aging*. Jan 2016

Murphy, J.L , Holmes, J. and Brooks, C. (2015). Understanding Nutrition and Dementia – Exploring the impact of training to enhance the delivery of nutrition and dignity for people living with dementia in care homes. In: *Dementia: Improving quality through collaboration across Wessex event*, Southampton. (Poster)

Murphy, J.L. Holmes, J. and Brooks, C. (2015). Understanding the quality of nutritional care for people living with dementia in care homes. In: *Wessex AHSN (Academic Health Science Network)*, Southampton. (Poster)

#### 4. Academic publications

Murphy J, Holmes J, Brooks C Measurements of daily energy intake and total energy expenditure in people with dementia in care homes: the use of wearable technology. *Journal of Nutrition, Health and Aging* 2016 (In press).

Murphy JL, Holmes J, Brooks C. Nutrition and dementia care: Developing an evidence-based model for nutritional care in nursing homes. *BMC Geriatrics* (responded to reviewer comments – in review).

Murphy J & Holmes J. 2014 Nutrition and dignity in care for people with dementia. *Journal of Nursing & Residential Care* 16 501-503

Holmes J, Murphy J, Scammell J. Eating and Drinking well: Supporting people living with dementia. Workbook. Bournemouth: Bournemouth University. First edition November 2015; Second edition June 2016.

Murphy JL, Scammell J, Holmes J. Exploring the potential of the humanisation framework to support eating and drinking well in people living with dementia. (manuscript preparation) 2016.

#### 5. Public Engagement Events

Murphy J (2016) Alzheimer's Support conference. Trowbridge 23<sup>rd</sup> November 2016

Murphy J (2016) Hampshire Care Association – 6<sup>th</sup> October 2016 Presentation on the project

Murphy J (2016) National Association of Care Caterers – South West Training and Development Day. 14<sup>th</sup> July 2016.

Holmes, J. and Murphy J. (2016). The Alzheimer's Show, 10<sup>th</sup>-11<sup>th</sup> June, the Olympia, London (Presentation) 'Eating and Drinking Well: Supporting People Living with Dementia'

Murphy, J.L and Holmes, J (2016) *National Dementia 2020 Conference – South*, London. (Presentation). 'Eating and Drinking Well: Supporting People Living with Dementia' (April 2016)

Murphy J.L and Holmes, J. (2016) *National Dementia 2020 Conference – North. Manchester*. (Presentation). 'Eating and Drinking Well: Supporting People Living with Dementia' (June 2016).

Wednesday 22<sup>nd</sup> June 2016. Dementia Event Kate Blake, Bournemouth and Poole College

Wednesday 8<sup>th</sup> June 2016. Joanne Holmes and Jane Murphy presented at this Dorset Dementia Partnership Meeting.

Wednesday 30<sup>th</sup> March 2016. Jane Murphy and Joanne Holmes present at public lecture day at the University.

Tuesday 8<sup>th</sup> March 2016– Jane Murphy and Joanne Holmes presentation to the Project Integraal team at Dorset County Council, Dorchester. <http://www.projectintegraal.eu/intro-shift>.

Monday 7<sup>th</sup> March 2016. Presentation at Nutrition Cluster Meeting, Bournemouth University. March 2016

Malnutrition Task Force – Parliamentary reception, House of Commons (2016). This event celebrated the completion of our Malnutrition Prevention Programme, a pilot which was funded by the Department of Health as part of their response to the Francis Inquiry, and the publication of new guidance from NHS England on commissioning excellent nutrition and hydration.

February 2016. Joanne Holmes made an after dinner speech at event organised by Alzheimers Wiltshire, Devizes Town Hall.

17<sup>th</sup>-19<sup>th</sup> November 2015. Jane Murphy presented at Food Matters Live. Also disseminated postcards about project and showcased Workbook.

4<sup>th</sup> and 5<sup>th</sup> November 2015. The Independent Care Providers Conference. Care Commissioning Group disseminated 'Nutrition for Older People Living in the Community' Workbooks at Conference.

25<sup>th</sup> September 2015. Project team meeting with Clinical Commissioning Group, Bournemouth University. Shared newsletters and postcards.

## 6. Press Release, Newsletters and other articles

June 2016. No. 600. Helping residents with dementia. First magazine, the magazine for local government.

*Press releases:*

01.10.16 Dignity in dementia: how can we support people to stay eat well and stay healthy for longer? Dorset Magazine <http://www.dorsetmagazine.co.uk/magazines/digital-archive>

1.06.16 Helping residents with dementia. First, the magazine for Local Government

4.9.15 Good nutrition is vital in dementia care. Evening Gazette. (p.38).

2.9.15. Good nutrition is vital in dementia care. Coventry Telegraph. (p.46)

25.08.15. Article in Health Notes. Daily Mirror (p.33).

19.5.15. Dignity in care: improving nutrition in people with dementia by Stone Hearth News

Project Newsletters (also disseminated electronically):

April 2016.

September 2015.

February 2015.

NHS CCG Newsletters :

August 2015

March 2015

NIHR Vision Mag: December 2016:

<https://research.bournemouth.ac.uk/2016/12/research-in-the-news-dementia-research-features-in-vision-magazine>.

BU publications

Faculty of Health & Social Care: The Beacon

Annual Review 2016: <https://www1.bournemouth.ac.uk/about/governance/annual-review-2016/research-bu/improving-dementia-education-training-social-care>



## 7. Project Website

[www.bournemouth.ac.uk/nutrition-dementia](http://www.bournemouth.ac.uk/nutrition-dementia)

Time period	Page Views
1 <sup>st</sup> Nov-30 <sup>th</sup> Nov	253
1 <sup>st</sup> Oct – 31 <sup>st</sup> Oct	248
1 <sup>st</sup> Sept- 30 <sup>th</sup> Sept	214
1 <sup>st</sup> Aug -30 <sup>th</sup> Aug 2016	264
1 <sup>st</sup> July – 31 <sup>st</sup> July 2016	245
1 <sup>st</sup> June-30 <sup>th</sup> June 2016	310
1 <sup>st</sup> May-31 <sup>st</sup> May 2016	254
1 <sup>st</sup> April-30 <sup>th</sup> April 2016	251
1 Mar 2016-31 Mar 2016	290
30 Jan 2016-29 Feb 2016	93
12 May 2014 (website inception)-31 December 2015	1,003

## 8. Social media Twitter @nutri\_dementia

Total number of followers: May 2014-July 2016	750
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## 9. Other websites ( refers to the research or project website)

<http://www.ncpqsw.com/further-research/nutrition-and-caring-for-older-people-living-in-the-community-course/>

<http://dementia2020.co.uk/index.php/resources> - the workbook is under dementia resources

<http://dementiascotland2016.co.uk/index.php/resources>

<http://dementia2020north.co.uk/index.php/resources>

<https://dementianews.wordpress.com/2015/07/25/investigating-activity-nutrition-and-hydration-among-people-with-dementia-in-care-homes-bournemouth-university-burdett-trust-for-nursing/>

<http://www.malnutritiontaskforce.org.uk/understanding-good-nutritional-and-hydrational-care-for-people-with-dementia/>

<http://www.scie.org.uk/dementia/living-with-dementia/eating-well/importance-of-nutrition.asp>

<http://www.ukqcs.co.uk/eating-drinking-well-supporting-people-living-dementia/>.

*Testimonial:*

**From:** Stiles, Helen [<mailto:Helen.Stiles@archant.co.uk>]

**Sent:** 26 August 2016 12:38

**To:** Rachel Bowen

**Subject:** RE: COLUMN FOR DORSET MAGAZINE

A really great feature – thank you – I think this will really resonate with a lot of people in the county both those who have family members with dementia and the care givers and homes

Thank you

H

Helen Stiles

Editor, Dorset Magazine



## Appendix

### Postcards to signpost training tools



The Centre for  
**Leadership, Impact  
and Management**  
in Bournemouth



## Understanding Nutrition and Dementia

**Eating and drinking well: Supporting people living with dementia**

**A new workbook and training film are now available.**

These training tools are designed to equip frontline nurses and care home staff with the skills needed to improve the delivery of nutrition and hydration for people living with dementia.

For further information please visit the project website:  
[www.bournemouth.ac.uk/nutrition-dementia](http://www.bournemouth.ac.uk/nutrition-dementia)

To access the training film please visit:  
[www.bournemouth.ac.uk/nutrition-dementia-video](http://www.bournemouth.ac.uk/nutrition-dementia-video)



The National Centre  
for Post-Qualifying  
Social Work



## Understanding Nutrition and Dementia

**Evidence based learning to enhance dignity in dementia care.**

**Ensuring appropriate food and nutrition is vital for delivering dignity in care for people with dementia.**

**This project will equip frontline nurses and care home staff with the skills needed to improve the delivery of nutrition for people living with dementia through evidence-based learning in nutrition and empowered leadership.**