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Impact of a person-centred dementia care training programme on hospital staff attitudes, role efficacy and perceptions of caring for people with dementia: a repeated measures study

Abstract

Background: People with dementia occupy up to one quarter of acute hospital beds. However, the quality of care delivered to this patient group is of national concern. Staff working in acute hospitals report lack of knowledge, skills and confidence in caring for people with dementia. There is limited evidence about the most effective approaches to supporting acute hospital staff to deliver more person-centred care.

Objectives: This study aimed to evaluate the efficacy of a specialist training programme for acute hospital staff regarding improving attitudes, satisfaction and feelings of caring efficacy, in provision of care to people with dementia.

Design: A repeated measures design, with measures completed immediately prior to commencing training (T1), after completion of Foundation level training (T2: 4-6 weeks post-baseline), and following Intermediate level training (T3: 3-4 months post-baseline).

Setting: One NHS Trust in the North of England, UK.

Participants: 40 acute hospital staff working in clinical roles, the majority of whom (90%) were nurses.

Methods: All participants received the 3.5 day *Person-centred Care Training for Acute Hospitals* (PCTAH) programme, comprised of two levels, Foundation (1/2 day) and Intermediate (3 days), delivered over a 3-4 month period. Staff demographics and previous exposure to dementia training was collected via a questionnaire. Staff attitudes were measured using the Approaches to Dementia Questionnaire (ADQ), satisfaction in caring for people with dementia was captured using the Staff Experiences of Working with Demented Residents questionnaire (SEWDR) and perceived caring efficacy was measured using the Caring Efficacy Scale (CES).

Results: The training programme was effective in producing a significant positive change on all three outcome measures following intermediate training compared to baseline. A significant positive effect was found on the ADS between baseline and after completion of Foundation level training, but not for either of the other measures.

Conclusions: Training acute hospital staff in Intermediate level person-centred dementia care is effective in producing significant improvements in attitudes towards and satisfaction in caring for people with dementia and feelings of caring efficacy. Foundation level training is effective in changing attitudes but does not seem to be sufficient to bring about change in satisfaction or caring efficacy.

Keywords: acute hospitals; dementia; education; general hospitals; person-centred care; staff training.

Contribution of the paper:

What is already known about this topic?

- Care for people with dementia is has often been found to be of poor quality in acute general hospitals and deficiencies in staff knowledge, skills and confidence to deliver dementia care is a contributory factor.
- Person-centred dementia care can improve quality of life for people with dementia in specialist settings but there remains limited knowledge and understanding about its application in acute hospitals.
- There is limited research about the effects of person-centred dementia care training on acute hospital staff knowledge, skills and confidence in delivering dementia care.

What this paper adds

- Half-day person-centred dementia care training is effective in producing a significant positive change in attitudes towards people with dementia.
- Basic person-centred care training to not, however, lead to significant positive changes in staff satisfaction in caring for people with dementia or greater feelings of caring efficacy.
- A more in-depth person-centred training programme leads to further significant improvements in staff attitude towards people with dementia, as well as increased satisfaction and feelings of caring efficacy.

Introduction

Care of people with dementia is a global issue (Alzheimer's Disease International, 2010, WHO/Alzheimer's Disease International, 2012), which has huge associated economic and social costs. Around 70% of the global expenditure on dementia occurs within North America and Western Europe, largely on hospital and social care services (WHO/Alzheimer's Disease International, 2012). In the UK people with dementia occupy up to one quarter of acute hospital beds at any one time (Alzheimer's Society, 2009) and internationally quality of dementia care in these settings is of concern (Department of Health, 2009, US Department of Health and Human Services, 2013). Studies from the US (Zhao et al., 2008), Australia (Draper et al., 2011, King et al., 2006), the UK (Alzheimer's Society, 2009, Johnston et al., 2011) and Europe (Guijarro et al., 2010, Lang et al., 2006) show that the average length of stay of a person with dementia in an acute hospital is longer than for someone without the condition. In the UK, the estimated cost savings if people with dementia were discharged from an acute hospital one week sooner is at least £80 million per year (Alzheimer's Society, 2009). In addition to increased costs, extended hospital stays result in worse outcomes for the person, such as loss of independence and skills and reduced likelihood of being able to return home.

Person-centred care (PCC), also sometimes referred to as patient or client-centred care has become an internationally recognised term for holistic, best-practice care of people with dementia (Bolster and Manias, 2010, Kontos and Naglie, 2007, McCormack and McCance, 2006). PCC is a value base that views each person with dementia as an individual with a unique life history, attempts to understand the world from the person's perspective and to provide a social and physical environment that is supportive of their needs (Brooker, 2004). PCC is the underpinning ethos for dementia care within many countries. However, there remain limited examples of the application of PCC within acute hospital settings (Edvardsson and Nay, 2010, McCarthy, 2006, Peek et al., 2007). For example, a national audit of dementia care in general hospitals in England (Royal College of Psychiatrists, 2011) found that care was largely task focussed and delivered in an impersonal manner. This can lead to additional and unnecessary distress for a person with dementia (Cowdell, 2009) and longer hospital stays.

Studies highlight four main reasons for poor reported outcomes for people with dementia being cared for in acute hospitals:

- 1) an unsupportive physical environment including issues with safety, orientation, way finding and availability of space to walk around (Heath et al., 2010, Nolan, 2007, Royal College of Psychiatrists, 2011);
- 2) a negative organisational and ward culture, including inflexible, strict routines, weak clinical leadership (National Audit Office, 2010, Webster, 2011) and a culture of care that labels people with dementia as 'difficult' (Cowdell, 2009);

3) stigma and negative staff attitudes towards people with dementia, including seeing them as demanding too much nursing time, being disruptive to ward routines and threatening to other patients (Eriksson and Saveman, 2002, Moyle et al., 2010);

4) poor staff skills and knowledge (Eriksson and Saveman, 2002, Thompson and Heath, 2011) including failure to meet basic dignity and care needs (Care Quality Commission, 2011).

Identified knowledge and skills gaps within the acute care workforce include: recognising and understanding dementia and how it differs from delirium (Hare et al., 2008, Moyle et al., 2008); effective communication (Moyle et al., 2008); nutrition, hydration and supported eating and drinking (Alzheimer's Society, 2009, Thompson and Heath, 2011); supporting opportunities for social interaction and engagement; and involving people with dementia and their families in decision making (Alzheimer's Society, 2009).

Research suggests there may be a complex interplay between acute hospital staff attitudes towards people with dementia, their knowledge and education, the culture and organisational context and their satisfaction with work (Nilsson et al., 2012). In a systematic review of evidence Hanson (2014) found that while many variables contribute towards nurses' attitudes towards older people, studies indicate a strong correlation between negative attitude and insufficient knowledge. Similarly Dewing and Dijk (2014) highlight that poor outcomes for people with dementia in acute hospitals result from a tension between prioritising medical treatment versus the delivery of person-centred dementia care, exacerbated by the fact there is insufficient understanding of what person-centred care is and a lack of staff knowledge and skills to deliver such care. This is supported by Nolan (2006) who found acute hospital nurses in Ireland expressed a desire to care for people with dementia in a person-centred way, but lacked the knowledge to base such care on.

A lack of staff knowledge about dementia, alongside limited access to dementia specific training was found within an English audit of acute hospitals (Royal College of Psychiatrists, 2011), in which only 23% of hospitals provided training on dementia within their training framework, and in only 5% of hospitals was this mandatory. Therefore, staff working in acute hospitals need access to training on person-centred dementia care if they are to have the right attitudes and skills to deliver good quality care to this group.

Background to the study

Whilst there is a wealth of existing evidence that identifies the current dementia knowledge and skills gaps within the acute care workforce, which can be used to inform the content of educational programmes, relatively little is known about effective approaches to implementing staff training within an acute hospital context.

This setting provides an unique set of challenges in the implementation of training, for example research highlights difficulties in releasing staff to attend training sessions, with dementia training taking low priority compared to statutory and mandatory programmes (Bezzant, 2008, Horner et al., 2013).

Of four studies published to date evaluating dementia training programmes for staff working in acute hospital settings, three have demonstrated positive outcomes. Galvin et al (2012) implemented a 7-hour training programme across four community hospitals in the US. They evaluated impact via a pre-test, post-test and 120-day delayed post-test evaluation with 540 staff working in 4 community hospitals. Using a non-validated questionnaire at each time point they found the training had an immediate impact on staff knowledge, competence and attitudes and that this was largely maintained over the 120 day period of time. Likewise, in a UK pre-post design study, Elvish et al (2013) found that in a sample of 71 general hospital staff who completed a 6-hour dementia training programme, knowledge about dementia, confidence in providing care to this group and beliefs about 'challenging behaviour', assessed using validated measures, significantly improved.

Banks et al (2014) implemented a blended learning dementia champions programme comprised of 5 study days alongside a half day in a community care setting, with 100 staff working at an 'enhanced level' in acute settings. Participants were also required to undertake online activities in preparation for each study day, submit a reflective account of their half-day community observation and complete a written assignment. Using a mixed-methods, pre-post design Banks et al found participants showed a significant positive change in attitudes towards people with dementia as assessed using a validated measure. Participants' reflective account assignments showed learners felt they had gained a great deal from observing practice in a community-based setting. Questionnaires completed post-training showed that the community-based learning had in particular challenged their perceptions about the condition and motivated the majority to want to make change in their own practice area. Analysis of the 'change assignments' completed by participants at the end of the training programme demonstrated they were able to identify areas that were of concern within their own practice areas and person-centred ways that care could be improved.

Smythe et al (2014) conducted a two phase study which initially utilised six focus groups, with 32 participants drawn from a range of health professional disciplines to determine the parameters and content of the training programme to be developed. The second phase involved development of a one-hour per week skills-based training programme, delivered over five-weeks on an individualised basis in the ward setting. Using a mixed-methods quasi-experimental design they compared this to a standard 6-week, didactic, in-classroom programme. Thirty-one participants received the individualised training and 50 completed the standard didactic training programme with 81% (n=66) of all staff completing baseline and follow up data collection. They found no significant difference on standardised validated measures

of caring efficacy, approaches to dementia, dementia knowledge or burnout between staff who attended the skills-based programme and those who attended the standard training or no training at all.

The existing, albeit limited evidence base, therefore suggests that staff education may be one effective approach to address issues of care quality for people with dementia in acute hospitals. However, more research is needed on the content and delivery models that are effective and practical to implement in an acute hospital setting.

In response to the national priority to train acute hospital staff on dementia (Department of Health, 2009, Department of Health, 2012) and the lack of existing effective training programmes suitable for use in this setting, the authors were commissioned by the Yorkshire and the Humber Strategic Health Authority to develop a bespoke cascade training programme on dementia, suitable for use in acute hospitals across the region.

The Person-centred care training programme for acute hospitals (PCTAH)

The PCTAH is a cascade training programme, which was designed by the authors, specifically for acute hospital settings. The content was based on the knowledge gaps of acute hospital staff identified in the literature and discussions with nurse managers about staff training needs. The programme is comprised of two levels of training (Foundation and Intermediate), which is delivered over a total of 3.5 days. Foundation level training is a 3.5-hour programme delivered either as a half-day or a series of seven 30-minute modules covering person-centred care, types and impact of dementia, identification of and meeting people's emotional needs, effective communication, the impact of the physical environment, identifying and meeting physical health needs and redefining and supporting behaviours staff may describe as challenging. It is designed for all staff whom have contact with people with dementia within the hospital setting, including clinical, clerical and support staff. This flexible format supports a range of delivery approaches that can be adapted by each ward or staff group to maximise the practicability of dissemination of the training across the workforce. Intermediate level training provides learners with a more in-depth knowledge of each topic area covered at the Foundation level, through six half-day modules. It is designed for staff who have regular, direct clinical contact with people with dementia in the hospital setting and thus who need a greater depth of knowledge around care needs, delivery and support of this group.

In this study, participants who attended the PCTAH programme were the hospital's nominated peer facilitators, tasked with onward delivery of the Foundation level PCTAH programme to other staff. Therefore, they also received one additional train-the-trainer day where they had the opportunity to deliver sessions from the Foundation level PCTAH to peers and gain feedback on their delivery. The efficacy of this train-the-trainer day was not evaluated in this study. The training was

delivered between June and August 2012 to two cohorts of staff simultaneously i.e. both cohorts received Foundation level training and then both received Intermediate level training.

Study aims

This study aimed to assess the effectiveness of a bespoke training programme in person-centred dementia care for acute hospital staff. It aimed to answer the following questions; does the training programme improve:

- 1) staff attitudes towards people with dementia;
- 2) staff satisfaction about working with people with dementia;
- 3) staff feelings of caring efficacy in relation to people with dementia in an acute hospital setting.

Method

Participants

The participants were a convenience sample recruited from an NHS Trust in the North of England. Participants had been nominated by the Trust to become peer facilitators with responsibility for roll out of the PCTAH Foundation training across the Trust. Nominated staff held senior clinical roles across all areas of the Trust (e.g. medical, surgical and orthopaedic wards, accident and emergency).

Study design

This study employed a repeated measures design to capture the impact of the training on staff over a period of time. Measures were completed at baseline, which was immediately prior to commencing the training programme (T1) and repeated after completion of Foundation level training (T2: 4-6 weeks post-baseline), and Intermediate level training (T3: 3-4 months post-baseline).

Measures

Three validated measures administered in questionnaire format to staff were used, which assessed staff attitudes to people with dementia, their satisfaction in working with people with dementia and their feelings of caring efficacy in relation to dementia care.

The *Approaches to Dementia Questionnaire (ADQ)* (Lintern et al., 2000) is a validated 19-item scale designed to examine staff attitudes to people with dementia and to person-centred dementia care. It is comprised of two sub-scales of 'hope' for

individuals with dementia (eight questions) and 'recognition of personhood' (eleven questions). The ADQ questions are rated on a five-point Likert scale (strongly agree, agree, neither agree nor disagree, disagree, strongly disagree), with the total score ranging from 19-95 and a higher score indicating a more positive attitude. The average score per question for the full questionnaire and each sub-scale is used for analysis purposes. The ADQ has reported internal consistency of Cronbach's α =0.78 overall (α =0.73 for hope and α =0.74 for personhood subscales) (Schepers et al., 2012).

The *Staff Experience of Working with Demented Residents Scale (SEWDR)* (Åstrom et al., 1991) is a 21-item scale measuring staff satisfaction in their work environment and in their experiences of working with people with dementia. Each item is score on a five-point Likert scale (not at all, somewhat, a moderate amount, very much, extremely) with total scores ranging from 21-105 and a higher score indicating greater satisfaction. The average score per question is used for analysis purposes.

The *Caring Efficacy Scale (CES)* (Coates, 1997). This 30-item validated scale assesses staff beliefs about their own caring efficacy in terms of ability to express a caring attitude and develop caring relationships with the people they care for. It has reported high internal consistency and good construct validity (Coates, 1997). Each item is scored on a six-point Likert scale (strongly disagree, moderately disagree, slightly disagree, slightly agree, moderately agree, strongly agree) with possible scores ranging from 30-180 and a higher score indicating greater feelings of caring efficacy. The average score per question is used for analysis purposes.

Data collection

Staff attending the PCTAH programme were sent an information leaflet about the study prior to attending training. Those who consented to participate were given a questionnaire pack by the PCTAH trainer on arrival at the training and were asked to complete the T1 questionnaires and demographic information prior to the training commencing. Follow-up questionnaires at T2 and T3 were sent out by post with a pre-paid envelope for their return. Participants who did not return their questionnaires after two weeks were sent a reminder letter and a further copy of the questionnaires.

Data analysis

Analysis was conducted using SPSS-PC software (Version 20.0 for Windows, US Illinois). Descriptive statistics were used to describe participant characteristics and previous exposure to dementia training and education. A repeated method one way ANOVA (Field, 2013) was carried out on each of the scales (ADQ, SEWDR, CES) to establish whether there were significant differences between the responses on the questionnaires between T1, T2 and T3.

Ethical approval

Ethical approval for the study was granted by the Humanities, Social and Health Sciences Research Panel at the University of [Institution name].

Results

Participant Characteristics

All staff who attended the PCTAH programme were invited to participate in the study (n=42). Forty-one staff consented to take part and completed baseline measures. One participant withdrew from the study after T2. 41 (100)% of participants were female and the majority were nurses (n=35, 90%) and educated to Advanced Diploma level or higher (n=29, 82.1%). The largest proportion of participants had been working in acute hospital care for 20 or more years (n=16, 39%), while 12 participants (29.3%) had been working in the setting for five years or less. The majority of participants (n=17, 46.3%) had not received any prior dementia training or education, and where they had this was usually half a day or less in duration (41.5%). The overall sample comprised two training cohorts, and due to an issue with the administration of the questionnaires, the SEWDR was only delivered to one cohort (n=22) at baseline. Participant characteristics are described in table 1

[Insert Table 1]

There were missing data on the ADQ, CES and SEWDR at T2 and T3 (Table 2). All data was missing at random (MAR) therefore the EM (expectation-maximization) method was used to estimate the missing values.

Staff attitudes towards people with dementia (ADQ)

A repeated measures ANOVA was conducted to ascertain whether there were significant differences in staff attitudes towards people with dementia at time 1, time 2 and time 3). The data violated assumptions of Mauchly's test of sphericity ($p=.05$) meaning that there is an increased probability of a Type II error. Since the estimate of sphericity was $.0.75$ the adjusted greenhouse-geisser (Geisser and Greenhouse, 1958) F ratio was used to make the F-value more conservative. There was a significant main effect of time on the ADQ overall score (Lintern et al., 2000) $F(1.74,69.52)=44.43$, $p<.0001$, $\eta^2=.53$. Post hoc pairwise comparisons were conducted to investigate whether differences between the means occurred between T1 and T2, T2 and T3, or T1 and T3. The comparisons indicated that there was a significant difference between the average score, which was lower at T1 ($M=4.21$, $SD=.29$) than T2 ($M=4.43$, $SD=.26$), $p=.002$. There was also significant difference between T1 and T3 ($M=4.57$, $SD=.21$), $p<.001$ and between T2 and T3 ($p<.001$), suggesting improvements in attitude over time (see Table 2)

A further repeated measures ANOVA was conducted on the ADQ subscale related to hope. There was a significant main effect of time on the ADQ Hope score

$F(2,80)=30.30$, $p=.00$, $\eta^2 = .43$. Post hoc pairwise comparisons were carried out to investigate the differences between the means, which indicated that there was a significant difference between the average score at T1 ($M=3.85$, $SD=.36$) and T2 ($M=4.14$, $SD=.41$), $p=.000$. There was a significant difference between T1 and T3 ($M=4.23$, $SD=.48$), $p=.000$, indicating an increase over time. There was not a significant difference between T2 and T3, $p=.08$.

In the final repeated ANOVA carried out on the Personhood subscale of the ADQ the data violated Mauchly's test of Sphericity ($p<.05$), meaning that there is an increased probability of a Type II error. Since the estimate of sphericity was <0.75 the adjusted greenhouse-geisser (Geisser and Greenhouse, 1958) F ratio was used to make the F-value more conservative. There was a significant main effect of time on the ADQ Personhood score $F(1.68,67.04)=31.93$, $p<.001$ $\eta^2 = .44$. Post hoc pairwise comparisons looking at the differences between the means indicated that there was no significant difference between the average score at T1 ($M=4.48$, $SD=.34$) and T2 ($M=4.58$, $SD=.23$), $p=.10$. There were however significant differences between time 2 and time 3 ($M=4.80$, $SD=.12$), $p<.001$, and between T1 and T3, $p<.001$, suggestive of an increase in recognition of personhood over time.

[Insert Table 2]

Staff satisfaction with their experiences of working with people with dementia

Staff satisfaction was measured using the *Staff Experience of Working with Demented Residents Scale (SEWDR)* (Åstrom et al., 1991). A repeated measures ANOVA was conducted. The data violated assumptions of Mauchly's test of Sphericity ($p<.05$), meaning that there is an increased probability of a Type II error. Since the estimate of sphericity was >0.75 the Huynh-Feldt F statistic (Huynh and Feldt, 1976) was used to correct a violation of Sphericity. There was a significant main effect of time on the SEWDR (Åstrom et al., 1991) $F(1.22,48.97)=32.06$, $p<.001$, $\eta^2 = .45$. Post hoc pairwise comparisons examining differences between the means indicated that there were significant differences between the average score at T1 ($M=2.43$, $SD=.46$) and T2 ($M=2.63$, $SD=.33$), $p<.001$, T2 and T3 ($M=2.77$, $SD=.26$), $p<.001$. There were also a significant differences between T1 and T3, $p<.001$; indicating an increase in satisfaction over time.

Staff feelings of caring efficacy

Feelings of caring efficacy were measured using the *Caring Efficacy Scale (CES)* (Coates, 1997). A repeated ANOVA was carried out. The data violated assumptions of Mauchly's test of Sphericity ($p<.05$), meaning that there is an increased probability of a Type II error. Since the estimate of sphericity was >0.75 the adjusted Huynh-

Feldt F statistic (Huynh and Feldt, 1976) was used. There was a significant main effect of time on the CES $F(1.38, 54.99)=35.79$, $p<.001$ $\eta^2 = .47$. Post hoc pairwise comparisons examining the differences between the means scores at different time points indicated that there was no significant difference between the average score at T1 ($M=5.14$, $SD=.43$) and T2 ($M=5.25$, $SD=.33$), $p=.21$. There were however significant differences between T2 and T3 ($M=5.51$, $SD=.25$), $p<.001$, and between T1 and T3, $p<.001$ suggesting increased feelings of efficacy over time.

Discussion

The results demonstrate that the PCTAH training programme incorporating both the Foundation and Intermediate levels is effective in improving staff attitudes towards people with dementia and increasing feelings of caring efficacy and satisfaction in working with this group. This supports findings from previous studies (Banks et al., 2014, Elvish et al., 2013, Galvin et al., 2012) which have demonstrated similar results.

With regard to the development of more person-centred attitudes towards dementia the results of the ADQ (Lintern et al., 2000) revealed a significant positive change in attitude following completion of the Foundation level training (T1:T2) and a further significant positive change after completion of Intermediate training compared to post-Foundation training (T2:T3), in addition to a significant positive change after completion of the programme as a whole, compared to baseline (T1:T3). There was also a significant positive change in the sub-scale of sense of hope for people living with dementia after completion of the Foundation training (T1:T2). This indicates that for our study participants the Foundation programme of learning was sufficient to facilitate a change in attitude towards people living with dementia and in particular in producing a greater sense of hope in staff with respect to this group of patients. This is significant since Foundation training, as undertaken by participants of this study, is aimed at the entire acute care workforce, many of whom will only access Foundation level training due to working in non-direct care roles. Since our study sample is not representative of the entire acute care workforce it will be interesting to undertake further research to examine if this finding is replicated with participants samples from other areas of the acute workforce. .

A further significant positive change in overall attitudes towards people with dementia was observed after completion of the intermediate training compared with those held after completion of Foundation training (T2:T3). However, a significant positive change in attitudes on the sub-scale of personhood was only found after completion of Intermediate training compared to both post-Foundation training (T2:T3) and baseline (T1:T3). This latter finding suggests that the greater depth of knowledge achieved through completion of the Intermediate training is required for staff to achieve the greatest degree of positive attitude change and in particular to

see people living with dementia as persons as measured in the personhood subscale.

The similar finding in relation to caring efficacy as measured using the CES (Coates 1997) of no change in perceptions of caring efficacy after completion of the Foundation training (T1:T2), but significant positive change found between completion of Foundation training and post-Intermediate training (T2:T3) and completion of the whole programme compared to baseline (T1:T3) again suggests that a greater depth of knowledge is required around person-centred dementia care, for staff to feel they have efficacy in providing care for this group. Staff feelings of satisfaction about working with people with dementia as measured by the SEWDR (Åstrom et al., 1991) were only significantly improved following completion of the whole programme (T1:T3). This again indicates that the greater depth of knowledge offered by Intermediate level training seems essential in improving staff feelings of satisfaction regarding provision of care to people with dementia in acute hospital settings. No previous studies have explored the effects of training of differing length or depth on attitudes, satisfaction or feelings of caring efficacy within acute hospital staff. This study demonstrates this may be an important factor in the efficacy of any training programme.

In addition to the length and depth of training there is one other potential factor which may have contributed to these results. Embedding knowledge and skills learnt within training into practice often takes time and, therefore, increased feelings of caring efficacy and satisfaction with caring for people with dementia may also have a relationship with length of time since commencement of a programme of training. The effects of length and depth of training alongside time since training completion and opportunities to embed learning in practice, therefore, require further exploration in future studies.

Limitations of the study

The limitations of this study include the sample size and representativeness. This was a convenience sample of staff nominated to become peer facilitators of the PCTAH training programme within the hospital and were, therefore, largely senior nurses and from a single NHS Trust. Therefore, whilst participants were based in a variety of departments/wards across the Trust, they may not be representative of the wider acute hospital staff population. This may impact on the generalisability of the study findings. In future studies it is recommended that a larger and appropriately powered sample is recruited from a more diverse range of acute hospital settings. In addition the follow-up period for the study may have been too short. Previous studies have suggested the benefits of dementia training may reduce over time (Moniz-Cook et al., 2000), whilst others have shown no immediate results of training on person-centred care, but have observed significant change over a longer follow-up period (Chenoweth et al., 2009). Follow-up over a longer period after completion of the training programme would help establish if and what the impact of time on efficacy of

dementia training is within this staff population. This study did not measure impact on participants' practice; therefore, no conclusions can be drawn about whether changes in attitudes, satisfaction with working with people with dementia, or perceptions of caring efficacy also impact on care delivered and the patient experience.

Implications for practice and conclusion

The results indicate that Foundation level PCTAH training can improve person-centred attitudes of staff towards people with dementia and increase a sense of hope for this group. However, more in-depth knowledge of dementia care appears to be required, as gained through Intermediate level training, in order for staff to feel greater caring efficacy and satisfaction at working with people with dementia. This suggests Foundation level training may be adequate for awareness raising and supporting a more positive attitude towards people with dementia, within the acute care workforce. However, the findings indicate that the greater depth and breadth of knowledge offered by the Intermediate level training is needed to have an impact on staff feelings of caring efficacy and satisfaction. The impact of time since commencement of training is not fully understood in the evidence base and may play a role in the results in this study and, therefore, more research is required in order to understand this potential effect.

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Table 1: Participant demographics

Participant demographics	n = 41 (%)
Female	41 (100)
Role	
Nurse	35 (85.4)
Other	6 (14.6)
Highest educational qualification	
Vocational course/secondary or high school level equivalent	2 (4.9)
Vocational course/University certificate or diploma equivalent	4 (9.8)
Advanced Diploma/Degree or equivalent	22 (53.7)
Postgraduate qualification	7 (17.1)
Other	1 (2.4)
Years working in acute care	
0-5 years	12 (29.3)
6-10 years	6 (14.6)
11-15 years	3 (7.3)
16-20 years	4 (9.8)
20+ years	16 (39)
Previous dementia training/education	
None	17 (41.5)
1-2 hours	7 (17.1)
Half day	7 (17.1)
Full day	2 (4.9)
Longer short course	6 (14.6)
Accredited module or component of	1 (2.4)

Table 2: Mean scores on staff attitude, feeling and caring efficacy scales and within subjects ANOVA

	Time 1					Time 2					Time 3					ANOVA (<i>time</i>)		
	N	Mean	SE	95% CI		N	Mean	SE	95% CI		N	Mean	SE	95% CI		F	<i>p</i>	ηp^2
				Low	High				Low	High				Low	High			
ADQ (Average)	41	4.21	.05	4.12	4.30	22	4.43	.04	4.35	4.52	12	4.57	.03	4.51	4.64	44.43	.00	.53
ADQ(hope)	41	3.85	.06	3.74	3.97	22	4.14	.07	4.01	4.27	12	4.23	.07	4.10	4.40	30.30	.00	.43
ADQ (Personhood)	41	4.48	.05	4.34	4.58	22	4.58	.04	4.51	4.65	12	4.80	.02	4.76	4.84	31.93	.00	.44
CES	41	5.14	.07	5.01	5.28	22	5.25	.05	5.41	5.35	12	5.51	.04	5.43	5.85	35.79	.00	.47
SEWDR	22	2.43	.07	2.28	2.57	21	2.63	.05	2.52	2.74	11	2.77	.04	2.70	2.85	32.06	.00	.45

ADQ= *Approaches to Dementia Questionnaire* (Lintern et al., 2000), CES= *Caring Efficacy Scale* (Coates, 1997), SEWDR= *Staff Experience of Working with Demented Residents Scale* (Åstrom et al., 1991)