Improving the short-term management of patients with dementia admitted to hospital

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Thesis awarded for the degree of Doctor of Philosophy

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December 2021

Copyright Statement

Abstract

Background: Approximately 25% of older in-patients in acute settings have dementia (Timmons et al., 2015). Patients with dementia are known to have poor health outcomes during acute hospital stays (Royal College of Psychiatrists, 2019). They also have negative experiences because of the focus of nursing staff on routines rather than the provision of person-centred care (Featherstone, Northcott, & Bridges, 2019).

Aims: The overarching aim of this research is to broaden current understanding of how to improve hospital care for people with dementia. This is divided into three sections. The first aim of the study was to identify factors that affected the length of hospital stay of patients with dementia. The second aim was to develop two support bundles from interviews with staff and carers. The interviews were grounded in a systems approach, which involved looking at the policies, equipment, human interactions and the hospital environment (E. Edwards, 1972; Hawkins, 1987; Zecevic, Salmoni, Lewko, & Vandervoort, 2007). The third aim of the study was to ascertain the acceptability of the developed falls and discharge bundles through an online survey of members of staff, carers and people with dementia.

Setting for the qualitative study: Six medical wards in one acute hospital.

Methods and Findings: This mixed-methods study comprised of three phases. The first phase of this study investigated the impact of administrative, demographical, and clinical factors on the hospital stay of patients. This was completed using an anonymised UK hospital dataset, which was retrieved electronically. The study extracted two samples (i.e. main (n=14,771) and dementia sub-samples (n=1,133)). Both samples involved people who had not been readmitted and whose length of hospital stay was greater than 24 hours. The findings reported the Incidence Rate Ratios (IRR), which indicate higher length of stay. The results from the main sample in the service evaluation indicated a higher IRR (longer length of stay) for: a) discharge to a care home (IRR: 2.442) b) falls without harm and falls with minor harm (IRR: 2.640 and 2.049) and c) category 1, 2 and 3 post-admission pressure sores (IRR: 2.079, 2.218 and 2.148). For the dementia sub-sample, there was a higher incidence rate ratio for: a) discharge to a care home (IRR: 2.443) b) falls without harm (IRR: 2.486). Based on these findings, the qualitative research (i.e.

second phase) which involved interviews with staff (n=20) and carers (n=32) explored how a systems based approach could help broaden current understanding on the reduction of falls and improving the discharge process. The first theme that emerged from the qualitative study was falls (this looked at issues such as the causes of falls and techniques used in the prevention of falls). The second theme was people in relation to falls. This theme revealed that family members, patient characteristics (e.g. frailty) and staff factors (e.g. teamwork) needed to be considered if falls are to be reduced. The third theme centred on the environment in relation to falls. This theme focused on topics such as: staffing levels, the transfer of patients between wards, dementia-friendly initiatives (e.g. colour schemes) and the use of mobility aids. The fourth theme was discharge planning. This theme for example, included making sure that appropriate funding arrangements had been discussed alongside the facilitation of preadmission visits to care homes by appropriate relatives. The fifth theme considered people in relation to discharge planning. This theme looked at factors such as the importance of teamwork and the involvement of family carers in the discharge process. The last theme focused on the environment in relation to discharge planning. This theme looked at subjects such as the use of medical equipment and meetings with hospital staff to discuss discharge arrangements. The final phase of the study involved an online survey to ascertain the acceptability of the falls (n=14 for hospital survey and n=38 for Join Dementia Research Survey) and discharge support bundles (n=3 for hospital survey and n=14 for Join Dementia Research Survey). The quantitative and qualitative findings from this phase indicated that staff, carers and people with dementia agreed with its contents. The bundle is now ready for evaluation in future work.

Conclusion: This thesis has made an original contribution to knowledge by demonstrating that a systems approach could help to improve the current operandi to dementia care in the acute setting. The online survey revealed that people with dementia, carers and staff found the contents of the falls and discharge support bundles as acceptable.

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Duah-Owusu White M, Vassallo M, Kelly F, Nyman S. Can a systems approach reduce adverse outcomes in patients with dementia in acute settings? (Innovative Practice). *Dementia*. 2020; 19(4):1280-1286. Doi: 10.1177/1471301217737690

Acknowledgements

I would like to thank the participants who took part in this study. This research would have been impossible without their cooperation. I would like to acknowledge the generosity of Dave Moore, Anton Parker, Leeanne Dove and Camilla Axtell who facilitated my receipt of the Royal Bournemouth and Christchurch hospitals NHS Foundation Trust dataset. The service evaluation component of this study would not have been possible without their contribution. I would like to thank James Grassom, Tim Hickish and Richard Gold for their assistance with my online survey

I would like to thank my supervisors: Dr. Samuel Nyman, Dr. Fiona Kelly and Professor Michael Vassallo. I am most grateful to them for their invaluable input. I would like to thank Bournemouth University and the Royal Bournemouth and Christchurch hospitals NHS Foundation Trust for funding my PhD.

Lastly, I would like to thank my husband Christopher Michael White for his support over the past 6 years. To my beautiful precious daughter (Charlotte Margaret Adwoa White), mummy loves you. I would like to dedicate this thesis to the memory of my late father, Mr. Kwame Duah-Owusu. I would also like to thank Michael Payne, Christopher Michael White and John Tittensor for their assistance with proof reading my work.

Author’s declaration

The initial research proposal was presented at the 45th Annual British Society of Gerontology Conference in Stirling (2016). None of the contents of this thesis has been submitted to any other University for a qualification.

Introduction

The research is a sequential mixed-methods study. The first phase of the research involved analysing a hospital dataset to determine the factors that affect the length of stay for people with dementia. The second phase of the study involved using a systems approach to ascertain how to reduce falls and improve the discharge planning process of patients with dementia. The third phase of the study involved an online survey to ascertain the acceptability of the newly developed falls and discharge support bundles.

This research is a match-funded study with the research ideas developed before my appointment as a doctoral student. The Royal Bournemouth and Christchurch NHS Foundation Trust and Bournemouth University funded the research. The aim of the research project was to improve dementia care in hospitals. The research aimed to address the findings of the Care Quality Commission (2016) which indicated that improvements were still required at the hospital. I decided to use a systems approach as a way of understanding how to improve patient care.

The initial plan was to collect quantitative data as well as interview patients, carers and hospital staff. However, I managed to obtain a dataset in my second year of appointment as a PhD student. I focused on carers and hospital staff interviews after the rejection of my first NHS ethics application. The first research committee recognised the difficulty in assessing the continuing capacity of patients in giving consent. My second research ethics application to the North West-Greater Manchester Central Research Ethics Committee was successful. In choosing to obtain the views of carers and staff, I obtained the most appropriate proxy information (Brandt et al., 2005). One of the benefits of using proxy information is that I did not have to handle complex ethical issues that arise from research on people who do not have the capacity to consent. The use of proxy information does not however preclude the inaccurate representation of patient symptoms by proxies (Brandt et al., 2005). Further research is therefore needed to ascertain whether patients agree with the views of proxies. The qualitative research used interviews as a method of data collection in order to obtain accounts of how to reduce falls and improve the discharge planning process of patients with dementia. The use of a systems approach enabled me to look at falls and discharge planning process from an interactional, instrumental, environmental and procedural level. The online survey asked participants to rate, explain their answers in regards to whether or not they agreed with the contents of the falls, and discharge support bundles.

My background

I grew up on a poultry farm in Ghana. I was the oldest daughter amongst four children. My father was an accountant and my mother is a poultry farmer. I trained to be a nurse in Ghana in 2007. In 2008, I travelled to Norway to pursue an MPhil in Health Promotion. My master's degree involved analysing the Ghana Demographic and Health Survey dataset. This enabled me to analyse the anonymised hospital dataset during the first phase of my PhD. My interest in dementia was developed whilst working as an Associate Practitioner on a surgical ward here in the UK. During my time on the ward, I met people living with dementia. I found the 'This is me' leaflet to be helpful in my practice on the ward. Although the use of the 'This is me' document allowed me to adopt a person-centred approach, I noticed that the highly pressurised acute setting required improvements. This PhD gave me an opportunity to contribute to this highly important subject matter.

Content of the thesis

Chapter 1 provides an overview of the situation of dementia through a presentation of the descriptive statistics. I provide a description of the pathophysiology of dementia, which was influenced by my attendance at the Living with Dementia workshop, organised by Alzheimer's research UK (ARUK) Southern Network on 14th January 2016. In addition, I have a clinical background and the project was based in an acute clinical environment. The project was seeking to improve the clinical environment for patients with dementia. I document that although dementia is a physiological condition, there are other models of dementia care. I review E.

Edwards (1972) Hawkins (1987) and Zecevic et al. (2007) models of how a systems approach works.

Chapter 2 provides an insight into the various issues that affect people with dementia in acute settings. Two separate approaches were used in the literature search. The first search strategy involves looking at systematic studies on dementia care. The second approach involves looking at a wide range of studies (e.g., empirical research and literature reviews) that have investigated dementia care issues in hospitals. The literature review combines the first and second search strategies into one narrative review. The literature review centres around the following topics: patient-carer-staff relationships, the physical ward environment, the ward atmosphere, hospital equipment, training, falls, end-of-life care, discharge planning, nutrition and pain. The gap in the literature that the current research is addressing is the use of a systems approach to broaden current understanding of how to reduce falls and improve discharge planning. A further gap in knowledge that is covered in this thesis includes the development of a support bundle for the improvement of patient care. I then introduce my research questions.

Chapter 3 discusses pragmatism as a philosophical approach to understanding the care provided to patients with dementia in acute settings. This philosophical approach enabled me to select the most appropriate research methods to answer my research questions. I highlight the integrity of the dataset provided to me by the hospital. I state the advantages and disadvantages of prospective and retrospective quantitative studies. I discuss the ethical requirements for the quantitative, qualitative and online studies. Ethical issues arising from the qualitative study is also discussed. The advantages and disadvantages of conducting an online survey is highlighted.

Chapter 4 identifies the quantitative study as a retrospective cross-sectional research. The rationale for the choice of variables included in the study is reviewed. The type of statistical tests used in the quantitative study is discussed. The findings report the Incidence Rate Ratios (IRR), which indicate longer hospital stays. The results from the main sample in the service evaluation indicates a higher incidence rate ratio for: a) discharge to a care home (IRR: 2.442) b) falls without harm and falls with minor harm (IRR: 2.640 and 2.049) and c) category 1, 2 and 3 post-admission pressure sores (IRR: 2.079, 2.218 and 2.148). For the dementia sub-sample, there is a higher incidence rate ratio for: a) discharge to a care home (IRR: 2.443) b) falls without harm (IRR: 2.486).

Chapter 5 presents the study design used for the qualitative research. The sample size and number of participants who took part in the study is identified. The procedure for the interview is highlighted. The themes generated from this aspect of the thesis are as follows: falls, people in relation to falls, the environment in relation to falls, discharge planning, people in relation to discharge planning, and the environment in relation to discharge planning. I demonstrate that a systems approach could be used to broaden current understanding of how to improve the care for patients with dementia in acute settings. I present the implications for policy and practice, contributions to knowledge as well as the strengths and limitations of the study.

Chapter 6 gives a description of the development of the falls and discharge bundles from the qualitative interviews and the literature review. I compare the falls and discharge support bundles with current policies. The relationship between the contents of the support bundles and the systems approach is highlighted.

Chapter 7 involves an assessment of whether or not people with dementia, their carers and hospital staff agreed with the contents of the support bundle. Quantitative and qualitative findings from this piece of research indicates that respondents agreed with its contents. I then discuss the findings from this research.

The concluding chapter ascertains whether the study's aims and objectives were met. A summary of previous chapters is outlined. A summary of the findings from the quantitative, qualitative and online studies is presented. The limitations and strengths of the current study are discussed. The implications for practice are also highlighted. The novel contribution of this thesis to scientific knowledge is that admission method is not associated with a patients' length of hospital stay. Discharge method (death) is, however, associated with the patients' length of hospital stay. Another novel contribution of this thesis to scientific knowledge is the fact that the qualitative study showed that a systems approach could help to broaden the current understanding of how to reduce falls and improve the discharge process. This is the first UK study to develop a falls and discharge support bundle. Findings from the online survey indicate that the falls and discharge support bundles were acceptable to staff, carers and people with dementia. This finding is important because it suggests that the introduction of these two bundles on acute wards could potentially improve patient care. Training of hospital staff should include the subject areas of the support bundle (e.g. relationship between sleep and falls) as this will give a broad understanding of how to reduce falls and improve the discharge process.

Chapter 1

I have highlighted the global and national prevalence rate of dementia. The impact of dementia on individuals, carers and society is presented. I discuss the different types of dementia. The description of the various types of dementia enables researchers to understand the difficulties faced by people with dementia. I then discuss the models of dementia care. I reviewed the use of a systems theory in this thesis.

1.1) The global and national (UK) prevalence rate of dementia

Dementia affects a large scale of the global population (43.8 million people) (Nichols et al., 2019). An extra 84.7 million people will be added to this figure by 2050 (Alzheimer's Disease International, 2015). Although, data from the Alzheimer's Disease International (2015) suggest an unprecedented rise in the number of people affected with dementia from the global south, the current estimate for Europe remains significant at 10.5 million (Alzheimer's Disease International, 2015). These European figures represent a 5% prevalence rate of Alzheimer’s disease (Niu, Álvarez-Álvarez, Guillén-Grima, & Aguinaga-Ontoso, 2017). The figures quoted for the UK are also substantial *(*885,000) (Wittenberg, Hu, Barraza-Araiza, & Rehill, 2019) .

1.2) The prevalence of dementia on acute wards

It has been documented that the prevalence rate of dementia differs on the various kinds of acute wards (Alzheimer’s Society, 2009; Timmons et al., 2015). After applying the Diagnostic and Statistical Manual of Mental Disorders, it was estimated that the prevalence of dementia was approximately 40% amongst older patients on an English acute hospital ward (Sampson, Blanchard, Jones, Tookman, & King, 2009). Similarly, Zekry et al. (2009) documents a 44% dementia prevalence rate on a geriatric ward in Switzerland. Findings from Reynish et al. (2017) research indicates that 38.5% of older people who were admitted on to medical wards in an acute setting had cognitive impairment. Briggs et al. (2017) reported a dementia prevalence rate of 38% among older people admitted into hospital. Timmons et al.

(2015) documented a lower prevalence rate of 25% amongst older patients in Irish hospitals. This figure is similar to a 21% dementia prevalence rate documented by Travers, Byrne, Pachana, Klein, and Gray (2014) amongst older patients who mainly stayed on medical and surgical wards in Australia. The authors derived this figure from extensive clinical assessments made by two separate physicians (Travers et al., 2014). Zuliani et al. (2012) reported a dementia prevalence rate of 8.6% amongst older people admitted into various hospital wards in Italy. A 2.6% dementia prevalence rate is recorded in China (F. Li, Wang, & Jia, 2013). Bharath et al. (2017) found that 56 out of 7469 (0.7%) of patients admitted into an Indian clinic had cognitive impairment. The authors attributed this very low prevalence rate to the cultural norms which influences clinical attendance (Bharath et al., 2017). Furthermore, an analysis of the medical records of patients by Gordon, Hu, Byrne, and Stott (2009) indicated that there were a lot of people with undiagnosed dementia. This assertion was attributed to the finding that only 20% of older people who were likely to have dementia as advised by the Diagnostic Statistical Manual of Mental Disorders guidelines, had an official diagnosis (Gordon et al., 2009). An extensive review of literature conducted by Mukadam and Sampson (2011) showed a 3%-63% prevalence rate of dementia amongst older people in acute settings.

1.3) Impact of dementia on individuals, carers and society

Dementia can result in poor social relationships and function (Singleton, Mukadam, Livingston, & Sommerlad, 2017). Poor relationships with family carers could be because of the behavioural symptoms of dementia and this can increase the risk of institutionalisation (H. B. Edwards et al., 2018). Dementia can also potentially impact upon the person’s dignity when an individual becomes dependent coupled with a loss of their sense of self (van Gennip, W. Pasman, Oosterveld-Vlug, Willems, & Onwuteaka-Philipsen, 2016). People with dementia sometimes expressed emotions such as anger towards the symptoms of dementia (Caddell & Clare, 2011). Other feelings towards the diagnosis of dementia include denial, grief and relief (Aminzadeh, Byszewski, Molnar, & Eisner, 2007). Family carers have been reported to experience the following: psychological problems (e.g. sadness), physical illness, financial pressures like job loss as a result of caring for the patient with dementia and reduced social activities (Kimura, Maffioletti, Santos, Baptista, & Dourado, 2015). In terms of the impact of dementia on society, it is a costly illness (Wimo et al., 2013).

People with dementia who have been admitted into acute settings may have a negative experience because nursing staff focus on routines rather than providing person-centred care (Featherstone et al., 2019). They also stay in hospital for a longer period when compared to people without dementia (Möllers, Stocker, Wei, Perna, & Brenner, 2019). Patients with dementia are also likely to experience poor outcomes such as falls (Härlein, Halfens, Dassen, & Lahmann, 2011). The current falls prevention interventions for patients with dementia are ineffective because of their short-term memory retention problems (Ayton et al., 2017). People with dementia may also experience untreated pain due to communication difficulties (Tsai, Jeong, & Hunter, 2018). Furthermore, patients with dementia may have nutritional issues because of swallowing difficulties and poor appetite (Hsiao et al., 2018).

From the above review, it is clear that the prevalence rate of dementia on the wards and amongst the general population is high. There are a number of people with undiagnosed dementia. The impact of dementia on the individual, family, society and hospital has been reviewed. Research into how to improve hospital care for patients with dementia is therefore necessary.

1.4) <u>The different types of dementia</u>

There are many lenses for understanding dementia. I have provided details of the different types of dementia because the research is being conducted in an acute setting where the use of a medical approach is dominant.

Although there are a wide range of causal factors for dementia, the main types are as follows: Alzheimer’s Disease, Vascular Dementia, Dementia with Lewy Bodies and Frontal Lobe Dementia (Alzheimer’s Research UK 2014).

Alzheimer’s disease is, however, regarded as the most frequently reported category of dementia that occurs in a population (American Psychiatric Association, 2013; Jacques & Jackson, 2000). This disease is characterised by a decrease of brain cells and the collection of amyloid plaques and tangles (American Psychiatric Association, 2013; Jacques & Jackson, 2000; World Health Organization, 1992). The presence of tangles alongside a reduction in the number of brain cells was observed in the biopsy of a homozygous twin who had a family history of dementia and showed symptoms that were consistent with Alzheimer’s disease (Kilpatrick, Burns, & Blumbergs, 1983). Adding on to previous work, Glenner and Wong (1984) used chromatography to extract amyloid beta protein from the post-mortem brain samples of people who had been diagnosed with Alzheimer’s disease. In order to assess the pathogenic role of amyloid beta in the progression of Alzheimer’s disease, Holmes et al. (2008) conducted a study involving people with Alzheimer’s disease who had been previously recruited to participate in a clinical trial designed to supress the build-up of amyloid in the brain. The authors questioned the pathogenic role of this protein because beta amyloid immunisation did not translate into clinical improvements (Holmes et al., 2008). Although research on the amyloid beta protein (Glenner & Wong, 1984; Hardy & Higgins, 1992; Kilpatrick et al., 1983) has gained a lot of attention, it has been documented that a significant amount of Apolipoprotein E occurs in samples obtained from people with a diagnosis of Alzheimer’s Disease (Saunders et al., 1993). Adding to the literature on Alzheimer’s Disease, Fox, Freeborough, and Rossor (1996) attempted to make a distinction between the amount of brain cells lost from the physiological process of ageing and that of Alzheimer’s disease. This study was carried out by comparing two MRI scans, which had been obtained over a minimum one-year interval period under a precise set of rules. The findings from this research indicated that people with Alzheimer’s disease had a higher amount of brain cell loss in comparison to their healthy colleagues (Fox et al., 1996). The main areas of the brain, which are affected in Alzheimer ’s disease, are: the hippocampus, the parietal and frontal lobes. These areas of the brain influence recent memory, orientation and self-control, respectively (Jacques & Jackson, 2000). Therefore, Alzheimer’s disease usually presents with learning and short-term memory impairments. These symptoms can occur with other difficulties (e.g. motor and visuospatial impairments) (American Psychiatric Association, 2013; J. C. Marshall, Gurd, & Kischka, 2012).

Vascular Dementia is cited to be the second predominant category of dementia that is widely reported in society (American Psychiatric Association, 2013; Jacques & Jackson, 2000; Thompson, 2006). This could for instance be caused by a decreased flow of blood to the brain generated from physiological processes such as the development of blood clots or thrombosis (Jacques & Jackson, 2000; World Health Organization, 1992). An examination of fifteen CT scans by Loizou, Kendall, and Marshall (1981) revealed a reduction in the density of the brain tissue of people who had been diagnosed with Binswanger's vascular dementia. There was evidence to suggest a diminished supply of blood to the brain tissue of the people who participated in the vascular aspect of the study (Loizou et al., 1981). Erkinjuntti et al. (1987) contribution to literature involved identifying the differences between the brain tissue of patients with Alzheimer's disease and those with Vascular Dementia using MRI and CT scans. Findings from this research revealed that MRI scans could detect structural malformation in the brain tissue of people who had a diagnosis of vascular dementia (Erkinjuntti et al., 1987). Further evidence of a decreased blood flow to the brain tissue of people with a diagnosis of vascular dementia is illustrated in Erkinjuntti, Haltia, Palo, Sulkava, and Paetau (1988) post-mortem study. In comparison to people with Alzheimer's Disease, the authors documented negligible amounts of plaques and tangles in people with vascular dementia (Erkinjuntti et al., 1988). This type of dementia usually occurs with strokes, and clinical deterioration can occur in any manner (i.e. step-wise or slow) (American Psychiatric Association, 2013; Thompson, 2006).

Lewy bodies can be identified as tiny patches on the brain tissue of people with this kind of dementia (Jacques & Jackson, 2000). Okazaki, Lipkin, and Aronson (1961) post-mortem brain examination of two people who appeared to have dementia revealed the presence of Lewy bodies. According to the authors, these Lewy bodies share several common features with those found in Parkinson's disease (Okazaki et al., 1961). The presence of Lewy bodies in the brain of people with dementia was also confirmed in Gibb, Esiri, and Lees (1985) post-mortem study. The post-mortem examinations by Gibb et al. (1985) showed pathological changes that were similar to Alzheimer's disease. A similar study by Sima, Clark, Sternberger, and Sternberger (1986), however, provided proof of the presence of Lewy bodies in three people who could not be pathologically defined as having Alzheimer’s disease. Following previous work on Lewy body dementia, Spillantini et al. (1997) post-mortem study sought to ascertain whether or not alpha synuclein was an integral element of Lewy bodies. The authors confirmed that alpha synuclein was not only linked to Parkinson’s disease but also to Dementia with Lewy bodies (Spillantini et al., 1997). In order to standardise the clinical diagnosis of Lewy body dementia, McKeith et al. (1996) collated findings from a global workshop. Following a review of the best available research evidence at this meeting, it was suggested that cognitive impairment in Lewy body dementia can possibly exist in the following clinical situations: the development of hallucinations which are mainly related to the sense of sight, and the occurrence of motor related problems which are usually documented in Parkinson’s disease (McKeith et al., 1996).

Frontal lobe dementia occurs when there is a reduction in the amount of cells located in the frontal and temporal aspects of the brain (American Psychiatric Association, 2013; Snowden, 2012; World Health Organization, 1992). This process occurs without the pathological collection of the plaques and tangles which are observed in Alzheimer’s Disease (World Health Organization, 1992). Pick’s disease is an example of this type of dementia (Jacques & Jackson, 2000). Holland, McBurney, Moossy, and Reinmuth (1985) interviewed the family of a man whose life history showed progressive speech difficulties and behavioural changes. Findings from the man’s autopsy revealed a loss in the amount of brain tissue, evidence of neurofibrillary tangles and the presence of Pick bodies as well as Pick cells (Holland et al., 1985). Similarly, Hansen, Deteresa, Tobias, Alford, and Terry (1988) post mortem examination of five people with a pathological diagnosis of Picks disease revealed a loss of frontal and temporal brain tissue. Neary, Snowden, Northen, and Goulding (1988) sought to document the disparities, which existed amongst people with Frontal Lobe Dementia and those with Alzheimer’s disease. The authors noted that people with Frontal Lobe Dementia had difficulties in maintaining social relationships and also experienced impairments in their personality (Neary et al., 1988).

1.5) Approaches to dementia care

The biomedical model views dementia as a disease that needs to be treated by medical officers (Cuijpers & van Lente, 2015). Although, the biomedical model has helped to broaden current understanding of dementia, it does not take into account the lived experience of people with the disease (Vernooij-Dassen et al., 2019). The medical model does not factor in the influence of the social environment on the individual with dementia (Bond, 1992). Also, the biomedical discourse can create a social environment which makes people with dementia feel devalued and diminish their sense of self (Beard & Fox, 2008).

From a psychological viewpoint, people with dementia can experience depersonalisation through the following interactions with their care givers: "*treachery, disempowerment, infantalisation, intimidation, labelling, stigmatisation, outpacing, invalidation, banishment, objectification*" (Kitwood, 1990, pp. 181-184). Another similar model is the humanistic approach to care, which is characterised by the following principles: "*insiderness, agency, uniqueness, togetherness, sense making, personal journey, sense of place and embodiment*" (Todres, Galvin, & Holloway, 2009, p. 70). Dehumanization on the other hand occurs through the following process: "*objectification, passivity, homogenisation, isolation, loss of meaning, loss of personal journey, dislocation, reductionist body*" (Todres et al., 2009, p. 70). The 'Progressively Lowered Stress Threshold Model' (Hall & Buckwalter, 1987), suggest that there is a reduction in the amount of stressful situations that a person with dementia can tolerate. Modifications, therefore, made in the care environment can help to minimise stressful situations which lead to anxiety and agitation (Hall & Buckwalter, 1987). It has been suggested that the individual's care environment interacts with biological factors in the 'Need-Driven Dementia-Compromised Behaviour Framework' (Algase et al., 1996). Meeting these needs at the physiological, physical, social and environmental levels helps to reduce the behavioural symptoms of dementia (Algase et al., 1996).

Dementia has been socially labelled as a condition that involves a loss in one's sense of self (Behuniak, 2011). There are differences in perception of self by the individual and society's expectations of how the individual's self has been altered as a result of dementia (Sabat & Harré, 1992). The narratives of people with dementia indicate that their identity and sense of self is preserved in the early stages of Alzheimer's (Beard, 2004). They are therefore aware of their condition (Clare, 2003). This makes them use a wide range of psychological techniques to maintain their sense of self (Clare, 2003). Maintaining one's sense of self involves hoping for the best outcome, compensating for the effects of the disease and integrating the changes that have been brought about as a result of the disease into one's sense of self (Clare, 2002). People with dementia can live a purposeful life despite threats to their sense of self (Beard, Knauss, & Moyer, 2009). Maintaining the individuals' sense of self can help practitioners to provide person-centred care (Kelly, 2010). Although psychosocial interventions are useful because they focus on strengths of the person instead of disabilities, they are too individualistic (Vernooij-Dassen et al., 2019).

A rights based approach can be helpful in anti-discriminatory dementia care practice (R. Bartlett & O'Connor, 2007). This can be achieved by respecting the views and opinions of the person with dementia (Brannelly, 2011). The adoption of a rights based approach ensures patient satisfaction with dementia care (Kelly & Innes, 2013). Although right based approach ensures the safety of patients with dementia from a theoretical perspective, staff training on the use of this approach did not improve the quality of care received by patients (Kinderman et al., 2018). Other scholars have argued for the need to incorporate an appreciative inquiry (strength-based) approach in the care of people with dementia (McCarthy, 2017). A limitation of appreciative inquiry is the difficulty in consistently evaluating the organisational changes, which have occurred because of the use of this method (Trajkovski, Schmied, Vickers, & Jackson, 2013).

1.6) Is a systems approach the way forward for the care of patients with dementia in hospital?

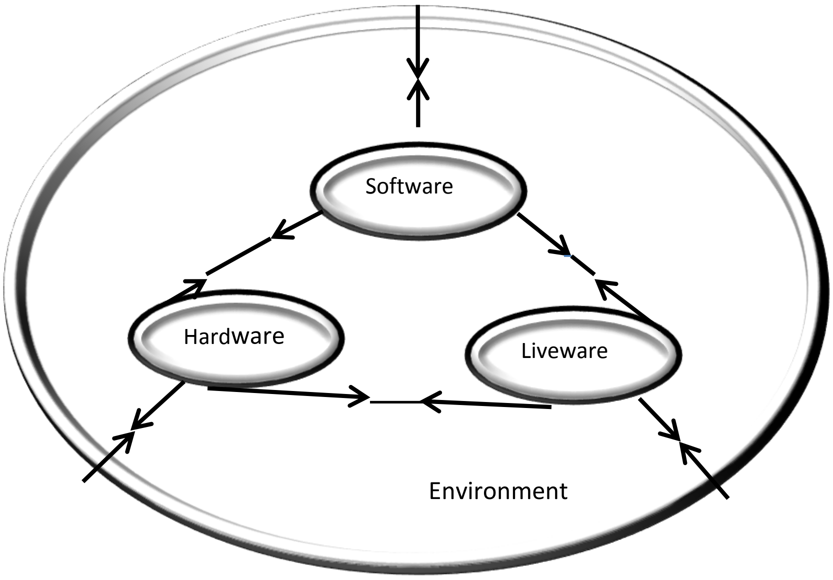
I have outlined three main perspectives in dementia care (biomedical, psychosocial and rights based approaches). Although the biomedical approach helps us to understand the symptoms that are presented with a diagnosis of dementia (Innes & Manthorpe, 2012), it is limited in its focus on pathology (Lyman, 1989). This overlooks the influence of the social environment on dementia (Lyman, 1989). Even though psychosocial perspectives helps to provide the necessary care given to people with dementia, it is too individualistic (Innes & Manthorpe, 2012). Rights based approaches helps to understand the influences of the macro system on the individual (Innes & Manthorpe, 2012). They are however limited because dementia theorist and policy makers do not always work together (Innes & Manthorpe, 2012). The next paragraph discusses the usefulness of a systems approach.

Vincent, Taylor-Adams, and Stanhope (1998), using Reason's (1990) model of how the elements of a system function, identified a wide range of factors necessary for the improvement of patient care. Improvements in the care of patients need to take place at multiple levels (national, regional, local and at the bedside of the patient) (Vincent et al., 1998). This multiple level perspective is important because inadequacies in the provision of care cannot be attributed to a specific event (Vincent, 2004). Lang et al. (2010) literature review shows the potential of systems theory to contribute towards the care of patients with dementia. The authors assert that this can be achieved using a multi-faceted approach (i.e. analysis of care at the ward, hospital, regional and national levels) (Lang et al., 2010). A systems approach overcomes the individualistic nature of psychosocial models by looking at the contextual and relational factors. A systems approach moves beyond the narrow focus on pathology, which is predominant in the biomedical model to embrace organisational influences on patient care. The most logical choice from a theoretical perspective for the current PhD was a systems approach because it looks at the micro and macro factors, which affect patient care.

1.7) A Review of Systems Theory:

E. Edwards (1972) pioneered and conceptualised the original systems model called SHEL (Software, Hardware, Environment and Liveware). A modified version of SHEL which was identified by Hawkins (1987) and Zecevic et al. (2007) is discussed. This section therefore reviews the original models that form the basis of this PhD.

Figure 1: E. Edwards (1972) SHEL (Software, Hardware, Environment & Liveware) Model

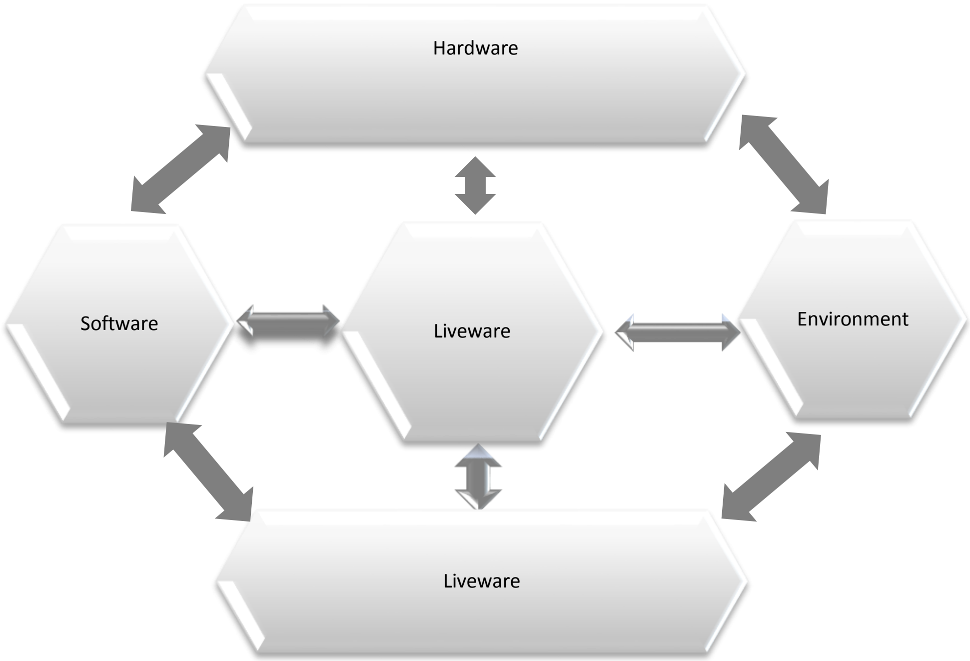


According to E. Edwards (1972), a system is made up of three principal items which are: hardware (equipment), software (policy) and the liveware (humans).

E. Edwards (1972) argues for the need to ensure that equipment has been developed with a detailed understanding of the human resources available, contextual factors and the institutional operational policies that are in place. Operational policies serve as a reference point for the human component of a system. An evaluation of the human component of the system is important because of the unique roles that each individual plays (E. Edwards, 1972).

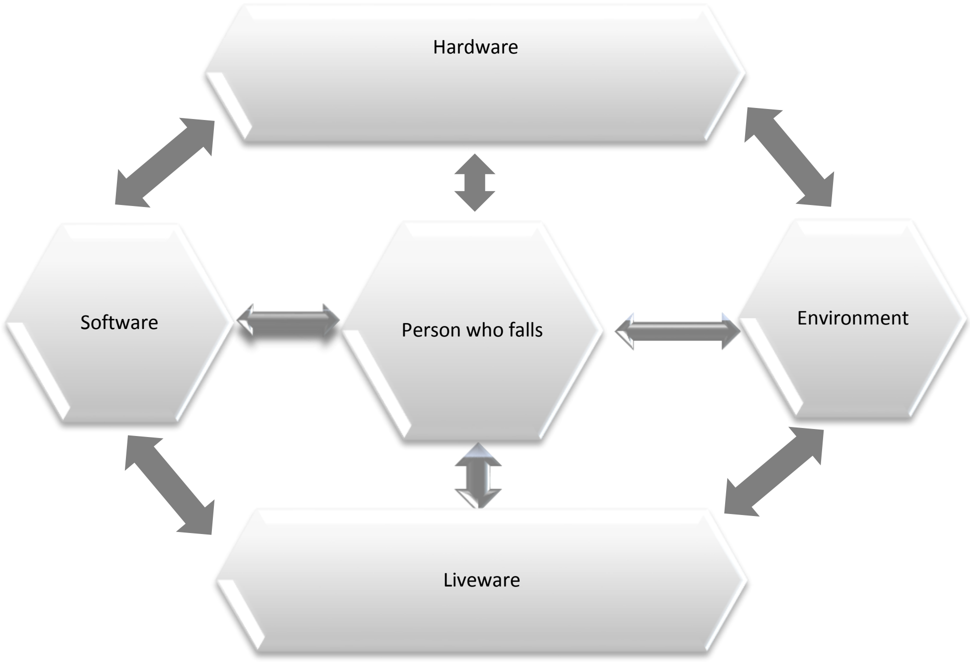
Howard (1972) highlights the difficulty for manufacturers to adequately fulfil every aspect of an organisation's demand (i.e. producing equipment that simultaneously meets both the funding and the human resource elements of an organisation). Stallibrass (1972) suggests that negative attitudes such as overconfidence on the part of humans, could create problems within a system.

Figure 2: Hawkins (1987) Representation of Human Interaction using E. Edwards (1972) SHEL model



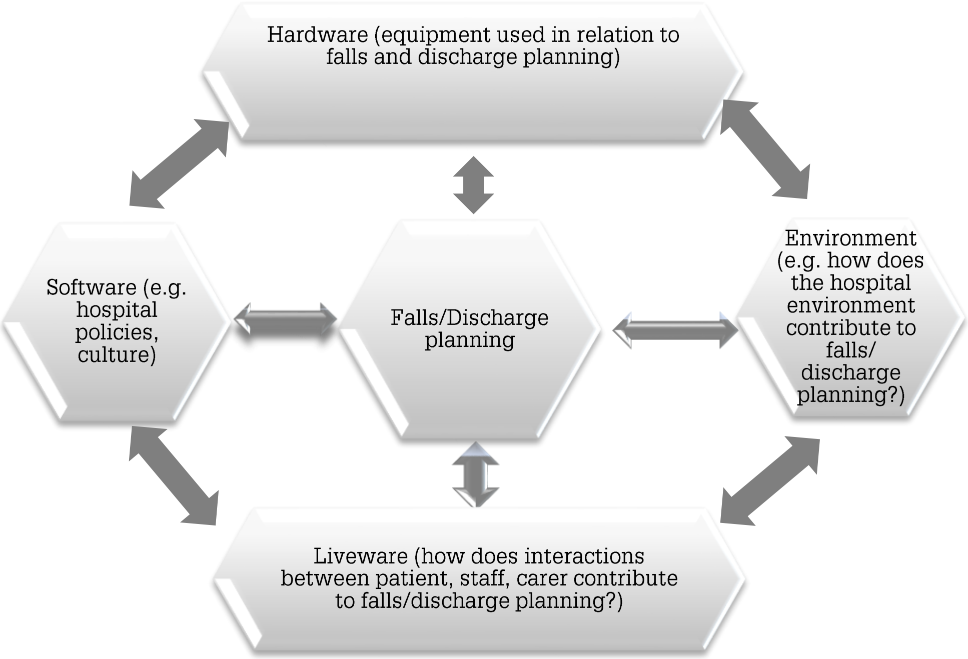
Hawkins (1987) places humans at the hub of E. Edwards (1972) model. It is clear from the diagram above that the liveware (human) aspects of SHEL connects with other liveware (humans), software (policy), environment and hardware (equipment). The interactions between humans and equipment are concerned with how the individual uses technology to meet workplace demands as well as how technology is designed to suit the features of the person operating it (Hawkins, 1987). According to Hawkins (1987) a less obvious but often intricate aspect of the system is the problems associated with the interaction between humans and software (operating policies). This for example involves the use of guidebooks to assist with the use of an equipment. The interaction between humans and the environment is also bidirectional (i.e. how people adjust to their workplace environment and how changes in the environment affect the activity of an individual) (Hawkins, 1987). Furthermore, there is a human-to-human interaction in a system. This involves elements such as group work, power relations and management (Hawkins, 1987). The hardware-environment interaction involves an assessment of the impact of prevailing environmental conditions on the optimal functioning of a piece of equipment and vice versa. (Hawkins, 1987).

Figure 3: **<u>Zecevic et al. (2007) FSHEL Framework which is adapted from E. Edwards (1972) SHEL Model and Hawkins (1987) Representation of Human Interaction</u>**



The F-SHEL (The person who is at risk of falls, Software, Hardware, Environment and Liveware) framework was used by Zecevic et al. (2007) to collect information about falls amongst older people. The characteristics of the person who is at risk of falls include details such as: the physical and the psychological state of an individual (Zecevic et al., 2007). The person who is susceptible to falls also interacts with other people (liveware). There is an interaction between the person who is at risk of falls and their home environment (e.g. light facilities) (Zecevic et al., 2007). According to Zecevic et al. (2007) items such as building regulations, reveal the interactions between the software and the person who falls. The interaction between the person who is at risk of falls and the hardware component of the model for example, involves the use of assistive technology (Zecevic et al., 2007).

Figure 4: **The current framework for this study is informed by Zecevic et al. (2007) work, Hawkins (1987) Frame work and E. Edwards (1972) SHEL Model.**



The current study used findings from the quantitative stage to inform data collection in the qualitative phase. The qualitative interview with staff and carers focused on how the hospital environment, policies (software), equipment (hardware) and human interactions (liveware) can broaden current understanding on how to reduce falls and improve the discharge planning process. To my knowledge, this is the first UK study to utilise a systems approach in the care of patients with dementia. An advantage of this approach is its multi-dimensional focus (i.e. policies, equipment, environment and interactions) (E. Edwards, 1972; Hawkins, 1987; Zecevic et al., 2007). A systems approach may however be viewed by some as a way out of the provision of negligent care as wider societal factors are blamed for mistakes (Clarkson, Dean, Ward, Komashie, & Bashford, 2018). Another potential disadvantage of using a systems approach is the inadequate support that it receives at the political level as a result of a lack of knowledge of this approach (El-Jardali, Adam, Ataya, Jamal, & Jaafar, 2014). Despite these disadvantages, a recent systematic review on the use of systems theory in health care has found this approach to be beneficial in the improvement of patient outcomes (e.g. readmissions) (Komashie et al., 2021). An association has also been found between nurses who embraced systems thinking and the provision of quality patient care (Moazez, Miri, Foroughameri, & Farokhzadian, 2020).

1.8) Summary

The prevalence of dementia in the acute setting was discussed. The impact of dementia on individuals, carers and society was identified. The different types of dementia were discussed because of the dominance of the medical approach. A systems approach to dementia care was selected for this thesis because of its multi-dimensional focus. I will move on to discuss the current literature regarding dementia care in acute settings in the next chapter.

Chapter 2

2.1) Literature Review

A literature review is a topic which addresses a set of research questions (Rowley & Slack, 2004). There are four types of literature reviews namely: narrative, systematic, meta-synthesis and meta-analysis (Cronin, Ryan, & Coughlan, 2008). Narrative reviews provide an in-depth understanding of a subject area whereas systematic reviews provide a meaningful record of published and unpublished research. Also, meta-synthesis and meta-analysis integrate qualitative and quantitative studies respectively (Cronin et al., 2008). This section of the thesis integrates narrative and systematic approaches to provide an understanding of the issues that affect people with dementia in hospital. The literature review therefore uses: primary research, systematic or narrative reviews and meta-analyses or synthesis.

2.2) Aim of the literature review

The objective of this literature review is to explore the views of patients, carers and staff in relation to acute hospital care. In addition, patient health outcomes are reviewed. This literature search focuses on people who are experiencing dementia or memory loss or cognitive impairment or confusion. Confusion has been added to the search term because of the potential for people with dementia to experience disorientation (World Health Organization, 1992). The literature review combined the first and second search strategies into one narrative review.

2.3) First literature search strategy

I used two literature search strategies. The first search strategy utilised the following databases: Academic Search Ultimate, MEDLINE Complete, CINAHL Complete, Complementary Index, APA PsycInfo, SocINDEX with Full Text, ScienceDirect, Education Source, Directory of Open Access Journals, Cochrane Database of Systematic Reviews, Library, Information Science & Technology Abstracts, Environment Complete, Supplemental Index, Hospitality & Tourism Complete, SPORTDiscus with Full Text, Communication Source, Emerald Insight, SwePub, Teacher Reference Center, Business Source Ultimate. The search strategy was as follows: ‘(dement* OR Alzheimer* OR cognitive impair* OR memory los* OR confus*) **AND** (hospital* OR acute * OR inpatient dement*) **AND** (car* OR experie* OR view* OR phenonmen*) **AND** (systematic review* or meta-analys*) **AND** (systems theor* or thinking* or framework* or organisa*)’. The search looked in all fields (i.e. both abstract and titles). This initial result produced 497 full text peer reviewed articles over a period of 14 years (January 2006- December 2020). The eligibility criterion for the included studies was that its focus should be in an acute setting. It should describe the experiences or outcomes of patients with dementia or cognitive impairment and/or patients in general. The research design for the included studies was that it should be a systematic, scoping or general literature review. The studies were synthesised by reviewing the background information of the research, results, strengths and limitations. The quality of the included studies was assessed using the AMSTAR checklist because of its focus on the methodological value of systematic reviews (Shea et al., 2017).

Figure 5: **The First Literature Search Strategy follows a systematic process**

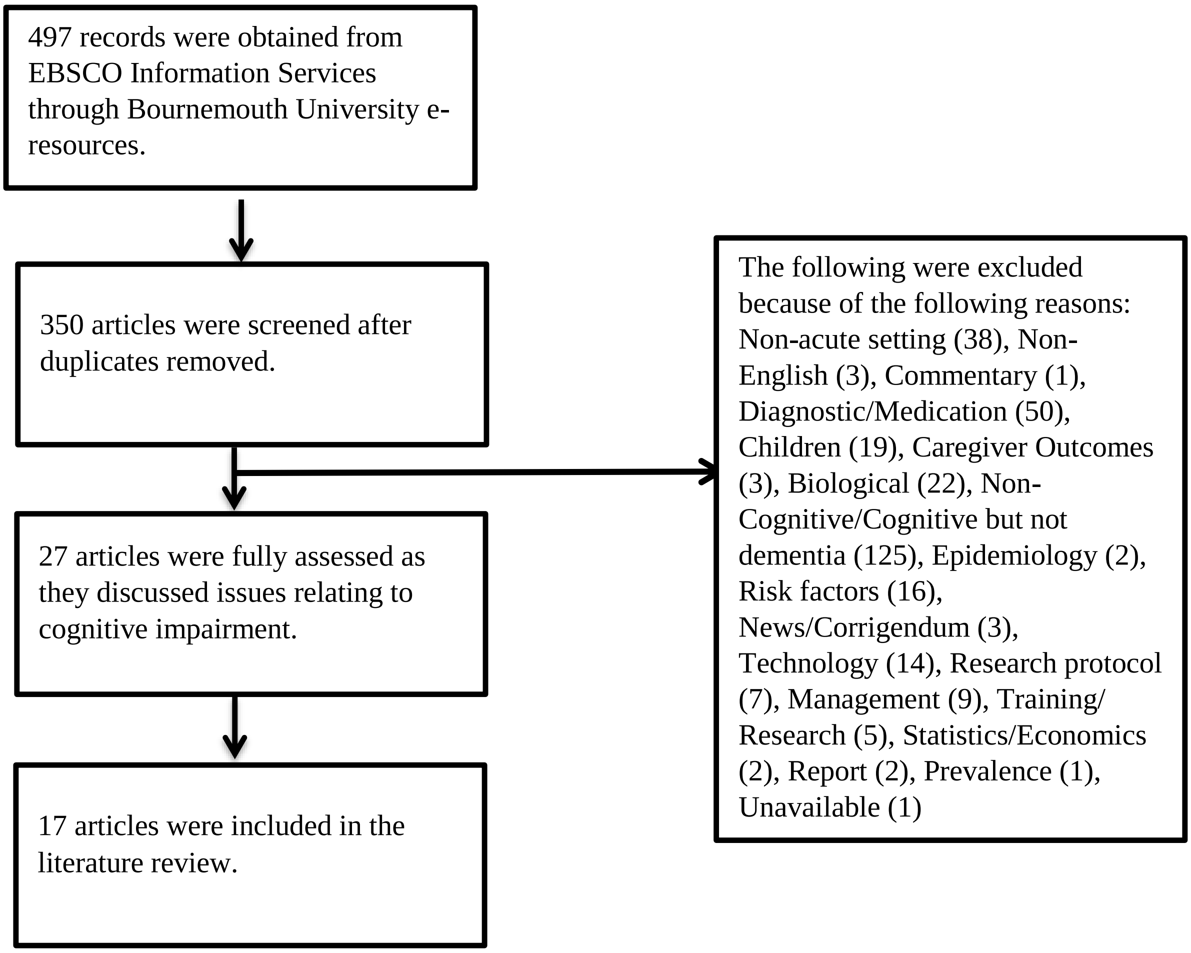


Table 1: Details of the 17 studies that were included in the literature review

Author	**Outcome/Purpose**	**Reason for exclusion or inclusion**	**Shea et al. (2017) scores on research methods**	**Ebell et al. (2004)** **3 categories of ranking research evidence with level 1 as the best, level 2 as limited and 3 as other**
A)Houghton, Murphy, Brooker, and Casey (2016)	Reviewed studies that assessed the views of staff in acute settings.	Included because it looks at environmental and human component of a hospital system.	6/16	3
B) Moonga and Likupe (2016)	Reviewed studies that appraised the views of staff.	Included because it looks at the human component, the hospital's environmental system as well as training (policy).	6/16	3
C)Azermai et al. (2012)	Reviewed clinical recommendations that are utilised in attending to the behavioural symptoms of dementia.	Included because it looks at the policy aspect of a hospital system.	6/16	3
D)Booth, Logan, Harwood, and Hood (2015)	Examined systematic studies that have probed into the avoidance of falls amongst people with cognitive impairment.	Included because it looks at the strategies (policies) used to avoid falls in hospitals and in the community setting.	Not Applicable	Not possible as it does not state if the systematic reviews are from Randomised Control Trials.

Author	**Outcome/Purpose**	**Reason for exclusion or inclusion**	**Shea et al. (2017) scores on research methods**	**Ebell et al. (2004)** **3 categories of ranking research evidence with level 1 as the best, level 2 as limited and 3 as other**
E) Røsvik and Rokstad (2020)	Reviewed studies that looked at staff training and the hospital environment.	Included because it looks at environmental and human components of a hospital system.	5/16	3
F) Diaz-Gil, Brooke, Kozlowska, Pendlebury, and Jackson (2020)	Reviewed studies that appraised surgical issues such as the management of pain and the use of restraint	Included because it looks at the human components of the hospital.	5/16	3
G) Reilly and Houghton (2019)	Reviewed studies that had evaluated the views of patients with dementia regarding the provision of hospital care	Included because it looks at the human and environmental components of the hospital	6/16	3
H) Chenoweth et al. (2019)	Examined the impact of person-centred care on the behavioural symptoms of dementia and quality of life	Included because it looks at the human component of the hospital system.	10/16	3

Author	Outcome/Purpose	Reason for exclusion or inclusion	Shea et al. (2017) scores on research methods	Ebell et al. (2004) 3 categories of ranking research evidence with level 1 as the best, level 2 as limited and 3 as other
I) Stockwell-Smith et al. (2020)	Reviewed studies that had successfully reduced hospital falls amongst people with cognitive impairment.	Included because it looks at patient outcomes	5/16	3
J) Turner, Eccles, Elvish, Simpson, and Keady (2017)	Reviewed studies that appraised the views of staff.	Included because it looks at the human component, the hospital's environmental system as well as training (policy).	4/16	3
K) Naef, Ernst, Bürgi, and Petry (2018)	Reviewed the views of people with dementia, their family carers and hospital staff.	Included because it looks at the human component, the hospital's environmental system as well as training (policy).	5/16	3
L) Stockwell-Smith et al. (2018)	Examined studies that looked at discharge planning for patients with dementia	Included because it looks at patient outcomes.	5/16	3

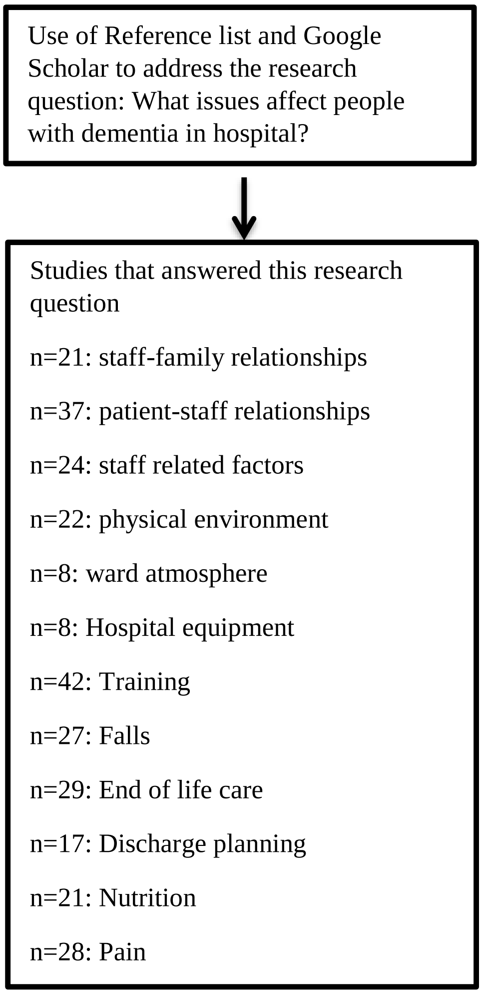
Author	**Outcome/Purpose**	**Reason for exclusion or inclusion**	**Shea et al. (2017) scores on research methods**	**Ebell et al. (2004)** **3 categories of ranking research evidence with level 1 as the best, level 2 as limited and 3 as other**
M) Dahlke et al. (2017)	Reviewed studies that focused on teamwork	Included because it looks at the human component of a hospital system.	5/16	3
N) Moehead, DeSouza, Walsh, and Pit (2020)	Reviewed studies that appraised the views of staff.	Included because it looks at the policy(training) aspect of the system	6/16	3
O) Yamaguchi, Greiner, Ryuno, and Fukuda (2019)	Reviewed studies that appraised the views of staff.	Included because it looks at the human component, the hospital's environmental system as well as training (policy).	4/16	3
P) D. Oliver et al. (2007)	Examined falls interventional studies amongst people with cognitive impairment who are in hospitals and care homes	Included because it looks at patient outcomes	7/16	3

Author	Outcome/Purpose	Reason for exclusion or inclusion	Shea et al. (2017) scores on research methods	Ebell et al. (2004) 3 categories of ranking research evidence with level 1 as the best, level 2 as limited and 3 as other
Q) Tsai et al. (2018)	Reviewed studies that investigated the assessment and management of pain amongst people with dementia	Included because it looks at patient outcomes	4/16	3

2.4) The Second Literature Search Strategy (Narrative Review)

The second literature search strategy (narrative) was conducted in order to contribute to our current understanding of care for people with dementia in the acute setting (Baumeister & Leary, 1997). The eligibility criteria for included studies was that the study should be concerned with either the care of patients with dementia or/and patients without dementia in hospital. The study design could be any of the following: audit, service evaluation, quantitative, qualitative, systematic review, literature review and randomised control trials. I used articles from reference lists and Google scholar. The papers were synthesised by reviewing the background information, findings, strengths and limitations of the included studies. The quantitative studies were assessed using a guideline for randomised and non-randomised research (Downs & Black, 1998). The qualitative studies were appraised using the 'Critical Appraisal Skills Programme checklist' (Critical Appraisal Skills Programme, 2018). These two appraisal tools were used for the literature review because of its ability to assess the methodological quality of quantitative and qualitative research papers.

Figure 6: Second Literature Search Strategy



Use of Reference list and Google Scholar to address the research question: What issues affect people with dementia in hospital?

Studies that answered this research question

n=21: staff-family relationships

n=37: patient-staff relationships

n=24: staff related factors

n=22: physical environment

n=8: ward atmosphere

n=8: Hospital equipment

n=42: Training

n=27: Falls

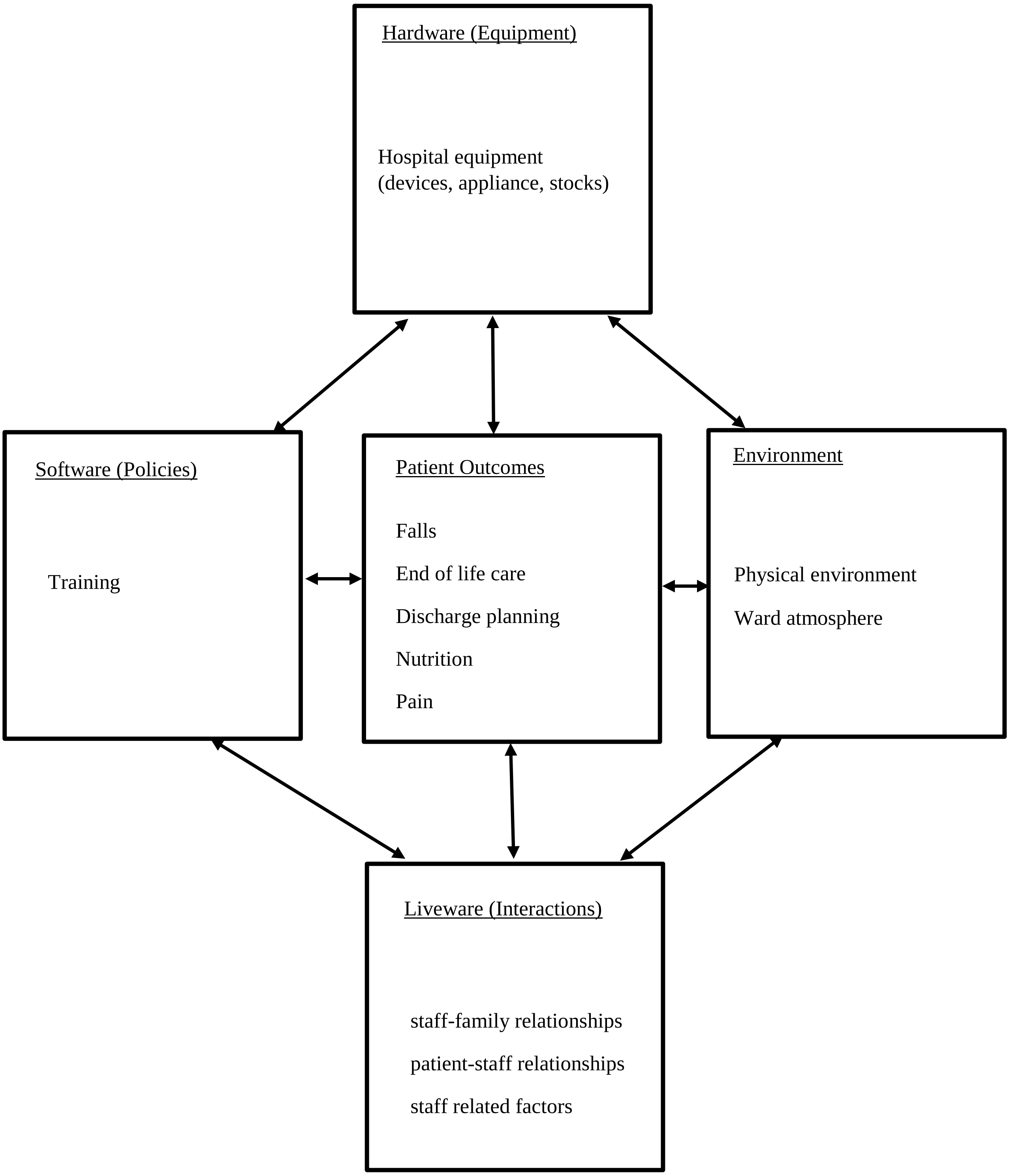
n=29: End of life care

n=17: Discharge planning

n=21: Nutrition

n=28: Pain

Figure 7: The relationship between the literature review and a systems approach generated from the work of Zecevic et al. (2007), Hawkins (1987) and E. Edwards (1972)



2.5) Advantages of using a systems approach to structure the literature review

The use of a systems approach in structuring my literature review enabled me to look at patient care from a multi-dimensional angle. I was also able to identify the most important issues that affect people with dementia whilst they are on admission in hospital.

2.6) Staff-family relationships

It is worthwhile to note that some admissions are because of relatives in need of respite care themselves (C. Eriksson & Saveman, 2002; Hunter, Parke, Babb, Forbes, & Strain, 2017). Although C. Eriksson and Saveman (2002) interviewed only 12 nurses regarding their experiences of caring for patients with dementia, their research participants had worked for an average of 15 years. In addition, even though this study was conducted on five different wards, the interviews took place in one acute hospital (C. Eriksson & Saveman, 2002). I scored this study 20/34 in terms of its quality using (Critical Appraisal Skills Programme, 2018). In addition, even though Hunter et al. (2017) interviewed 17 hospital staff, their study was limited by the fact that they recruited their participants from two hospitals. I scored their study 21/34 with regards to its quality (Critical Appraisal Skills Programme, 2018). The amount of stress that caregivers face has been found to be associated with the number of co-morbidities documented to be present in a patient with cognitive impairment (Dauphinot et al., 2016). This study was however limited by the absence of information on demographical factors and the period of care provided by family members (Dauphinot et al., 2016). A strength of this study is the fact that they analysed information on 1,300 people (Dauphinot et al., 2016). I rated this study as 14/27 (Downs & Black, 1998). Another source of stress for the caregiver is the impaired functional state of the person with dementia (Liu et al., 2017). This finding is however limited by the small sample size of 309 family carers and patients who were recruited into the study by the authors (Liu et al., 2017). The study was strengthened by the fact that participants were supported by nurses to complete the survey questions (Liu et al., 2017). I scored this study as 12/27 (Downs & Black, 1998). The stress experienced by family carers during hospitalisation of an individual with dementia can be emotionally exhausting and disempowering

(Bloomer, Digby, Tan, Crawford, & Williams, 2014). Two strengths of this study are as follows: A) recruited both young and old carers of patients with dementia into the study. B) It interviewed an adequate sample size of 20 family carers (Bloomer et al., 2014). I rated this study as 21/34 in terms of its quality (Critical Appraisal Skills Programme, 2018). Some family members require emotional support whilst their relative is on admission (Moyle, Bramble, Bauer, Smyth, & Beattie, 2016). Although this study interviewed 30 carers, they excluded the views of patients with dementia (Moyle et al., 2016). I gave this study a score of 20/34 in relation to its quality(Critical Appraisal Skills Programme, 2018). Other family members of people with dementia may not always act in the patient's best interest (Nolan, 2006). Although this study achieved saturation, the authors only interviewed seven participants (Nolan, 2006). I rated this study as 20/34 in regards to its quality. Despite this limitation (i.e. family carers not always acting in the interest of patients), family members may serve as a useful resource in the provision of hospital care (Baillie, Cox, & Merritt, 2012b; Digby, Moss, & Bloomer, 2012; Fitzpatrick, 2018; Hunter et al., 2017; Iecovich & Rabin, 2014; Krupic, Eisler, Sköldenberg, & Fatahi, 2016; Moyle, Borbasi, Wallis, Olorenshaw, & Gracia, 2011; Nolan, 2006; Scerri, Innes, & Scerri, 2015). Although Baillie et al. (2012b) conducted focus group interviews with 20 nursing students, they had worked in a wide range of hospitals. Nursing students in Baillie et al. (2012b) study stated that the inclusion of family members in the care of patients with dementia could help staff identify the patients' preferred meals and recreational activities. I rated the quality of this study as 19/34 (Critical Appraisal Skills Programme, 2018). Family members serve as advocates of the patient (Digby et al., 2012). This study sought to include the views of eight patients with dementia. It was however limited by the fact that many of the patients that the authors interviewed could not recollect the process involved in their transfer from an acute environment into a sub-acute setting (Digby et al., 2012). I gave this study a quality rating of 23/34 (Critical Appraisal Skills Programme, 2018). Family members can help hospital staff to understand the surgical needs of patients who have communication difficulties (Krupic et al., 2016).This study however recruited only 10 hospital staff. A strength of this study is that the researcher and the respondents had the same professional background. The researcher therefore had a pre-existing knowledge of the issues that hospital staff face when nursing patients with dementia (Krupic et al., 2016). I rated this study as 19/34 in terms of its quality

(Critical Appraisal Skills Programme, 2018). Staff may benefit from the expertise of family members who may also serve as the mouthpiece of the patient (K. de Vries, Drury-Ruddlesden, & Gaul, 2019). Family members may also help to close the gaps in the provision health care (K. de Vries et al., 2019). Even though this study interviewed 26 family carers, their views may be biased because they were all not happy with the care that their relatives had received on the wards (K. de Vries et al., 2019). I gave this study a score of 17/34 (Critical Appraisal Skills Programme, 2018). Staff may miss the opportunity to involve family carers in the care of the patient with dementia (Douglas-Dunbar & Gardiner, 2007). The concerns and needs of both the family members and the patient are therefore not always fully met (Douglas-Dunbar & Gardiner, 2007). This study however interviewed only nine family carers whose relatives had been discharged from hospital. As the patients were no longer under the care of the hospital, the respondents felt a greater freedom to be honest (Douglas-Dunbar & Gardiner, 2007). I rated this study as 16/34 (Critical Appraisal Skills Programme, 2018). Meeting the needs of the patient and family members could for example, involve helping the patient to adjust into their new environment and staff meeting the non-routine needs of patients (Tolson, Smith, & Knight, 1999). A major strength of this study is that it collected data from multiple sources: survey, audit and interviews (Tolson et al., 1999). However, it was limited by the fact that the 41 interviews with patients and their carers were only completed for people who had recovered from their illness (Tolson et al., 1999). Communication between staff and family members can be impeded by the use of complex medical terminologies (Simpson, Scothern, & Vincent, 1995). This study interviewed 41 carers who were randomly selected from a discharge list (Simpson et al., 1995). Family members experience of dissatisfaction with the care of people with cognitive impairment is likely to occur when the patient has behavioural symptoms, when the family member is psychologically unwell or stressed during admission (Whittamore, Goldberg, Bradshaw, & Harwood, 2014). Although 462 family carers took part in this study, they were not present with the patients 24/7 and may therefore not be able to give a comprehensive assessment of the quality of care that they receive on the wards (Whittamore et al., 2014). I rated this as 13/27 in terms of its quality (Downs & Black, 1998). In addition to the dissatisfaction that family carers experience in regards to dementia care, there is a non-uniformity in advice given on the use of non-pharmaceutical therapies for managing the behavioural and psychological symptoms of dementia (Azermai et al., 2012). Findings of this study were limited by the fact that the quality appraisal tool used in assessing the studies emphasised on how the guidelines were developed as opposed to its worth (Azermai et al., 2012). I scored the quality of this study as 6/16 (Shea et al., 2017). Sustained poor staff-family relationships because of family dissatisfaction with dementia care could potentially lead to negative outcomes identified in Jurgens, Clissett, Gladman, and Harwood (2012) 'cycle of discontent'. This cycle is a continuous circle where unfulfilled expectations or adverse incidents lead to suspiciousness. The suspicious family member begins to scrutinise patient care. Any form of confirmation of the family carer's suspicions, may lead to poor quality relationships such as confrontation (Jurgens et al., 2012). Although this study interviewed 35 carers from 12 different wards, the interviews were conducted in one hospital (Jurgens et al., 2012). I rated the quality of this paper as 22/34 (Critical Appraisal Skills Programme, 2018).

In summary, although family carers can be useful in the provision of care, they may be stressed. If carers want to engage in patient care, they need to be supported to do so. On the other hand, if they have a good reason for not getting involved their wishes need to be accommodated. Most of the studies reviewed under the staff-family relationships were qualitative. The studies reviewed were of good quality. However, majority of the studies had small sample sizes.

2.7) **Patient-staff relationships**

A recent quantitative study by Barker et al. (2016) in two hospitals showed that a considerable amount of patient-staff relationships could be classified as cordial or warm. In addition, poor relationships were less likely to be observed when patients were in the company of their visitors. Interestingly, Barker et al. (2016) observed that poor patient-staff relationships did not have any association with cognitive impairment in acute hospital settings. Although this study observed 133 patients, it was limited by the fact that it was conducted in only two hospitals (Barker et al., 2016). I rated this study as 11/27 (Downs & Black, 1998). Similarly, Nilsson, Lindkvist, Rasmussen, and Edvardsson (2012) documented that the majority of staff had a positive attitude when working with people affected by cognitive impairment. Poor patient-staff attitudes were likely to occur in stressful situations, when staff were not experienced and not qualified (Nilsson et al., 2012). Although this study recruited 391 staff, the study is limited by the use of a convenient sample, which makes it difficult to generalise to other populations (Nilsson et al., 2012). I gave this study a rating of 9/27 (Downs & Black, 1998).

It is important to establish a very good patient-staff rapport through: the use of good communication strategies (Ashton & Manthorpe, 2017; Baillie et al., 2012b; Clissett, Porock, Harwood, & Gladman, 2013, 2014; Krupic et al., 2016; Nolan, 2006; Scerri et al., 2015) and the provision of person-centred care (Ashton & Manthorpe, 2017; Baillie et al., 2012b; Clissett et al., 2013; Edvardsson, Sandman, & Rasmussen, 2012; Krupic et al., 2016; Pinkert et al., 2018; Scerri et al., 2015). Although Ashton and Manthorpe (2017) sought to include the views of an under-researched group in their study, they only interviewed 12 cleaners and porters. Findings from their study indicated staff had to be patient and kind when communicating with people with dementia (Ashton & Manthorpe, 2017). I rated the quality of their study as 21/34 (Critical Appraisal Skills Programme, 2018). A major strength of Clissett et al. (2013) study is that they conducted both interviews and observations on 29 patients. Their study was however limited by the fact that staff could have changed their approach to caring for patients with cognitive impairment when the researchers were watching them. Findings from their study indicated that the adoption of a friendly attitude by staff could help them establish rapport with patients (Clissett et al., 2013). I scored this study as 20/34 (Critical Appraisal Skills Programme, 2018). Being able to establish rapport with patients requires staff to be empathetic and sensitive (Clissett et al., 2014). Although Clissett et al. (2014) used non-participant observations in addition to interviewing 34 family carers, their research took place in only one hospital. I rated the quality of this study as 20/34 (Critical Appraisal Skills Programme, 2018). Staff in Scerri et al. (2015) study used both verbal and non-verbal communication skills such as smiling and asking questions when they are unclear about the patient’s needs. Although the authors interviewed 33 hospital staff and 10 family members, they excluded the views of people with dementia (Scerri et al., 2015). I scored the quality of this paper as 19/34 (Critical Appraisal Skills Programme, 2018). Staff can deliberately use compliments to engage the patient in conversations (Edvardsson et al., 2012). This study completed 36 hours of participant observations, which were carried out by two researchers. The study was however limited by the fact that all the observations were conducted in one hospital (Edvardsson et al., 2012). This study was rated as 19/34 (Critical Appraisal Skills Programme, 2018). Another way of engaging patients in conversations is to obtain their life story (Pinkert et al., 2018). This study performed a secondary analysis of data collected from 46 nurses in Austria and 22 hospital staff from Germany. A strength of this study is that the researchers involved in the secondary analysis of the qualitative dataset took part in the primary research (Pinkert et al., 2018). I rated this study as 20/34 (Critical Appraisal Skills Programme, 2018). Person-centred care can be achieved by recognising the person as an individual, including the views of people with dementia in decision-making processes and offering a supportive environment (Brooker, 2003). The adoption of person-centred approaches has been documented to be beneficial to patients (Tay et al., 2018). This quantitative study compared 170 people who were admitted onto a ward that had adopted a person-centred approach to 60 patients who were provided with usual care. The findings of this study were however limited by the fact that patients on the specialist ward and those on the usual care wards were remarkably different in terms of their baseline characteristics (Tay et al., 2018). I rated this study as 12/27 (Downs & Black, 1998). A systematic study involving 12 research papers revealed that the use of person-centred approaches in the provision of dementia care enhances the quality of life of those involved (Chenoweth et al., 2019). Findings from this study were limited by the differences in the follow-up period from the time the intervention took place until the measurement of the outcome variable (Chenoweth et al., 2019). I rated the quality of this study as 10/16 (Shea et al., 2017). Other staff adopt a familial method (treat patient as members of their family) when providing hospital care (Thomas, 2008). This case study involved interviews with hospital staff and observations in two hospitals (Thomas, 2008). I rated this study as 12/34 in terms of its quality (Critical Appraisal Skills Programme, 2018). Patients with dementia may have communication difficulties (C. Eriksson & Saveman, 2002; Krupic et al., 2016). Staff must therefore use good communication techniques like: allowing the person with dementia to talk without interruptions, respecting their views and making sure that conversations are taking place within the right atmosphere in order to avoid distraction (Adams & Gardiner, 2005). Bad communication strategies on the other hand include negative attitudes like: treating the person with contempt, ignoring their contributions to a conversation, using complex terminologies and making decisions for the person as opposed to a participatory decision-making process (Adams & Gardiner, 2005). Communicating and understanding people with dementia who have incoherent speech may involve staff interpretation of their behaviour in order to unravel and meet the unspoken needs of patients (Berg, Hallberg, & Norberg, 1998; Handley, Bunn, & Goodman, 2019). Berg et al. (1998) study interviewed 13 participants. A strength of this study is that interviewers had a similar professional background to the respondents and were therefore empathetic. The authors stated that a problem with interviews is that the interviewees may try to present themselves in the best possible light to the researcher (Berg et al., 1998). I rated the quality of this study as 18/34 (Critical Appraisal Skills Programme, 2018). A strength of Handley et al. (2019) study is that they collected their data from multiple sources: interviews, documentary analysis, observations and the use of questionnaires. Their study was conducted in two hospitals. Their study was however limited by the fact that only two family carers and four patients with dementia participated in their interviews (Handley et al., 2019). I scored this study as 21/34 (Critical Appraisal Skills Programme, 2018). Communication difficulties means that the wishes and preferences of patients are not always met (Ekman & Norberg, 1988; J.-J. Wang, Hsieh, & Wang, 2013). Although Ekman and Norberg (1988) interviewed 21 hospital staff their study took place in one clinic. I rated this study as 14/34(Critical Appraisal Skills Programme, 2018). Even though J.-J. Wang et al. (2013) interviewed 15 nurses, they did not have lengthy work place experience. I rated the quality of this paper as 20/34 (Critical Appraisal Skills Programme, 2018). Relationships in a care setting have been documented to be a complex event which are guided by values such as: empathy, patience and respect (Rundqvist & Severinsson, 1999). This study interviewed only six hospital staff but they had a minimum work experience of 3 years. The authors ruled out carrying observations on patients with dementia because it was felt that the presence of the researcher could make them more confused and insecure (Rundqvist & Severinsson, 1999). I scored the quality of this paper as 21/34 (Critical Appraisal Skills Programme, 2018).

Difficulties in the provision of care (Baillie, Cox, & Merritt, 2012a; Clissett et al., 2014; Houghton et al., 2016; Moyle et al., 2011; Nolan, 2007; Pinkert et al., 2018) and staff preoccupation with meeting the physical needs of patients with dementia (Cowdell, 2010a, 2010b) mean that the relational or psychological aspects of care are minimally addressed in hospital (Baillie et al., 2012a; Cowdell, 2010a, 2010b). Some of the difficulties that the 20 nursing students who had worked in different hospitals in Baillie et al. (2012a) study faced were: the best way of assisting patients to eat when they were refusing their meals and the most appropriate method used to handle delusions. I rated the quality of this study as 18/34 (Critical Appraisal Skills Programme, 2018). Houghton et al. (2016) reviewed findings from nine qualitative studies that were mainly of good quality. Findings from their study revealed that other difficulties related to patient care were the inappropriate hospital environment and an inadequate staffing levels (Houghton et al., 2016). I rated the quality of this study as 6/16 (Shea et al., 2017). Moyle et al. (2011) study involved 13 hospital staff in a single hospital. Their findings indicated that staff found it difficult to manage aggressive behaviour and had to prioritise patient care based on the severity of their illness. This implies that acutely-ill patients may be prioritised over patients with dementia (Moyle et al., 2011). I scored the quality of this study as 19/34 (Critical Appraisal Skills Programme, 2018). Nolan (2007) interviewed seven nurses who worked in one hospital. Findings from their research indicated that staff found it difficult to manage patients who wander as they have to constantly watch them whilst attending to the needs of other patients (Nolan, 2007). I rated the quality of this paper as17/34 (Critical Appraisal Skills Programme, 2018). Staff found it difficult to meet the emotional needs of the patient who was for example insisting on going back home when he/she was not medically fit for discharge (Cowdell, 2010a). This finding was based on 125 hours of participant observation in one hospital and 18 interviews with hospital staff and one patient (Cowdell, 2010a). I scored the quality of this study as17/34 (Critical Appraisal Skills Programme, 2018). A poor psychosocial ward atmosphere can translate into the behavioural symptoms of dementia (Edvardsson et al., 2012).

There is a lack of stimulation on the general wards for patients with dementia or cognitive impairment (Clissett et al., 2013; Moyle et al., 2016; Spencer, Foster, Whittamore, Goldberg, & Harwood, 2013). Although Spencer et al. (2013) interviewed 40 carers, their participants were from one hospital. It is worth noting that even though patients with dementia may enjoy recreational activities on the ward, they may forget the fact that they have participated in such activities (Spencer et al., 2013). I rated the quality of this study as 19/34 (Critical Appraisal Skills Programme, 2018). Also, the use of therapeutic lies (untruthful practice) has been documented to occur in difficult clinical situations and this is particularly so when an individual is showing the behavioural symptoms of dementia (Turner, Eccles, Keady, Simpson, & Elvish, 2017). This study interviewed 12 hospital staff members who worked for two different hospitals. This study was limited by the fact that some members of the multidisciplinary group were inadequately represented due to the difficulties that the authors faced whilst recruiting their participants (Turner, Eccles, Keady, et al., 2017). I rated the quality of this study as 20/34 (Critical Appraisal Skills Programme, 2018). When faced with difficulties, staff may resort to the use of restraint (Hunter et al., 2017; Iecovich & Rabin, 2014; Moyle et al., 2011; Pinkert et al., 2018), one-to-one nursing (Moyle et al., 2011), use inappropriate behaviour, and rely on other patients to help with the care of people with cognitive impairment (Clissett et al., 2014). Although Iecovich and Rabin (2014) surveyed 265 nurses who worked in two hospitals, they were not selected on a random basis. The authors defined the use of restraint as chemical (e.g. medication) or physical (e.g. lap belt) (Iecovich & Rabin, 2014). I rated the quality of this paper as 9/27 (Downs & Black, 1998). Another example of the use of restraint involves staff strapping the patient to a chair or sedating them (Thomas, 2008). Restraining patients will never be required amongst people with dementia if patient needs are assessed regularly (Cotter, 2005).

Staff have reported variations in the type of clinical care received by people with dementia (Ashton & Manthorpe, 2017; Nilsson, Rasmussen, & Edvardsson, 2013). A strength of Nilsson et al. (2013) study is that it collected data from multiple sources:110 hours of participatory observations, digitally recorded interviews (1 patient, 1 family member, 9 hospital staff) and 100 informal interviews which were recorded in the field notes of the researcher. The informal interviews involved patients, hospital staff and family members. This study was however conducted in only one hospital in Sweden (Nilsson et al., 2013). I scored this study as 18/34

(Critical Appraisal Skills Programme, 2018). Surgical wards have for example, been documented to have a lower completion of important admission assessment records when compared to specialist wards for older people (R. Souza et al., 2014). This study involved a clinical audit of 7,934 patients with dementia who were admitted into 206 UK hospitals. A weakness of this study was that its reliability was affected by the researchers' reliance on staff documentation of admission assessment in patients' case notes. This therefore implies that any unrecorded admission assessments were missed (R. Souza et al., 2014). I rated the quality of this study as 10/27 (Downs & Black, 1998) Another example of variations in the quality of care involve situations where medical interventions (lung function test) are missed for people with dementia who had a diagnosis of obstructive lung disease because they are unable to complete such tests (Frohnhofen, Heuer, Willschrei, & Falkenhahn, 2011). This study involved 1,424 patients with obstructive lung disease. The total number of patients with dementia and obstructive lung disease in this study was 740. This study took place in one hospital (Frohnhofen et al., 2011). I scored this study as 9/27 (Downs & Black, 1998).

In summary, research on patient-staff relationships shows difficulties in communication. Staff responses in stressful situations are sometimes inappropriate. Further research is needed on how to transform practice and improve patient-staff relationships. Most of the studies reviewed under patient-staff relationships were qualitative in nature. Majority of the studies took place in a single hospital, which implies that the findings may not be generalised to other hospitals. The quality of the studies included in this aspect of the literature review was good.

2.8) Staff related factors

A review by Bridges et al. (2013) showed that even though nurses working on acute wards were passionate about providing quality positive relationships, they often face setbacks from organisational factors such as inadequate staffing levels. The authors reviewed 16 qualitative studies, which were conducted in developed countries (Bridges et al., 2013). Furthermore, the impact of time constraints on the type of hospital care received by patients with dementia is evidenced by the findings of qualitative studies by Byers and France's (2008), Krupic et al. (2016), Nilsson, Rasmussen, and Edvardsson (2016), C. Eriksson and Saveman (2002) and Pinkert et al. (2018). Byers and France (2008) achieved saturation in their study despite having a small sample size of nine nurses. Staff in their study indicated that a lower patient to hospital staff ratio would enable them have more time to adequately address the needs of patients with dementia (Byers & France, 2008). I rated the quality of this study 19/34 (Critical Appraisal Skills Programme, 2018). Even though Nilsson et al. (2016) interviewed 13 nurses who worked in one hospital, their research yielded rich information. Their findings indicated that staff who are hard pressed for time could sometimes continue to carry out nursing procedures such as wound dressing despite resistance from patients with cognitive impairment (Nilsson et al., 2016). I scored the quality of this study as 18/34 (Critical Appraisal Skills Programme, 2018). The findings from the Byers and France (2008) and Nilsson et al. (2016) studies indicated that staff experienced work-related frustration together with guilt as a result of the gap between ideal and actual care provided to patients. This affected their personal ethical framework and their professional code of conduct, as they sometimes have to act against the patient's wishes (Nilsson et al., 2016). The discrepancy between the quality of care that staff report to give to their patients and the actual care provided is highlighted by Innes, Kelly, Scerri, and Abela (2016). This study was however limited by its small sample size of 69 staff and 16 patients as well as the possibility of non-response bias of the survey (Innes et al., 2016).

There were occasions where staff carried work-related frustration and guilt to their homes (Byers & France, 2008; McPherson, Hiskey, & Alderson, 2016). McPherson et al. (2016) study is limited by the possibility of the occurrence of selection bias and the fact that the 10 hospital staff they interviewed were Caucasian. I rated the quality of this study 22/34 (Critical Appraisal Skills Programme, 2018). When compared to non-clinical nursing jobs, working in an acute setting has been found to be associated with higher levels of occupational stress and exhaustion (McHugh, Kutney-Lee, Cimiotti, Sloane, & Aiken, 2011). The authors analysed data on 68,724 nurses. Their findings were however limited by the fact that the hospitals, which participated in their survey, were situated in densely populated communities (McHugh et al., 2011).

I rated this study as 11/27 (Downs & Black, 1998). Nursing assistants have been reported to be more stressed than registered nurses (Chatzigianni, Tsounis, Markopoulos, & Sarafis, 2018). This piece of quantitative research comprised of a small sample size of 157 nurses who worked in a single hospital in Greece. The authors suggested that the use of longitudinal and qualitative research designs could help to broaden the current understanding of stress amongst hospital workers (Chatzigianni et al., 2018). I scored the quality of this study as 10/27 (Downs & Black, 1998). Higher levels of stress have also been associated with lower degrees of empathy (Àstrom, Nilsson, Norberg, & Winblad, 1990; H. Wilkinson, Whittington, Perry, & Eames, 2017). Àstrom et al. (1990) quantitative study was focused on 60 hospital staff. Their findings indicated that stress amongst hospital staff could lead to a poor patient experience (Àstrom et al., 1990). I rated this study as 8/27 (Downs & Black, 1998). H. Wilkinson et al. (2017) systematic review excluded qualitative and mixed-methods studies. Their study reviewed research that were conducted in developed countries. They also reviewed studies that had published their findings in English. The authors suggested that hospital staff should be encouraged to be empathetic if the stress that they encounter at their workplace cannot be minimised (H. Wilkinson et al., 2017). I rated the quality of this study as 7/16 (Shea et al., 2017). Berg, Hansson, and Hallberg (1994) found that the combined use of supervision and the provision of a personalised nursing care plan decreased occupational stress and exhaustion. This study involved a comparison of 19 nurses on an experimental hospital ward with 20 nurses on a control ward. Both nurses on the control and experimental wards were similar in age, gender and training. The supervision of nurses in this study encouraged reflective practice. The provision of a personalised nursing care plan enabled hospital staff to meet the needs of patients. The findings of this research were limited by the fact that the respondents of the questionnaire study may give answers that they feel are acceptable to the researcher (Berg et al., 1994). I rated the quality of this study as 10/27 (Downs & Black, 1998). This same intervention (i.e. supervision and the use of personalised care plan) has been found to increase in-job satisfaction, improve patient care documentation (Hallberg, Hansson, & Axelsson, 1993), enhance patient-staff relationships (Hallberg & Norberg, 1993) and improve teamwork (Berg & Hansson, 2000). Hallberg et al. (1993) study involved a comparison of 19 nurses from an experimental ward with 20 nurses from a control ward. Their findings were limited by the fact that their research was the first intervention study to use a particular type of job satisfaction questionnaire, which had been developed in Sweden. The wards included in their study were also affected by political changes that occurred during the intervention period. They however concluded that the hospital management team was responsible for ensuring that hospital staff were properly supervised and encouraged to adopt personalised care plans (Hallberg et al., 1993). I scored the quality of this study as 10/27 (Downs & Black, 1998). Hallberg and Norberg (1993) developed their own instruments for measuring strain and emotional reactions amongst nurses. The authors argued that their intervention (i.e. supervised practice and personalised care plan) on 19 nurses from an experimental ward and 19 nurses on a control ward could have made staff more empathetic. Staff ability to empathise with patients therefore enhanced the quality of patient-staff relationships. Their study was however limited by the poor retention of staff at the workplace. It is important to note that patients on the two wards may have experienced the impact of dementia at varying levels (Hallberg & Norberg, 1993). I rated the quality of this study as 10/27 (Downs & Black, 1998). Berg and Hansson (2000) mixed-methods study involved distributing questionnaires and conducting interviews with 13 nurses. Their findings indicated that nurses felt comfortable sharing their experiences of patient care with each other. This feeling was attributed to the effect of the intervention (i.e. supervised practice and personalised care plan) on hospital staff. The study was however limited by the fact that the interviews may have been superficial. Despite this limitation, the researchers felt that the information generated from the interviews were sufficient (Berg & Hansson, 2000). There is the added benefit of the ability of clinical supervision of medical doctors to enhance patient safety on surgical wards (Snowdon, Hau, Leggat, & Taylor, 2016). This systematic review involved 32 primary studies. Findings from the review were limited by the fact that there was no primary study that had investigated the impact of the supervision on patient care amongst allied health professionals. None of the primary studies reviewed in this research were randomised control trials. The authors suggested that on-call supervision could be used for competent trainee surgeons (Snowdon et al., 2016). I rated this study as 10/16 in terms of its quality (Shea et al., 2017). Supervised practice does not however have an impact on the experiences of patients (Snowdon, Leggat, & Taylor, 2017). This systematic review comprised of 17 primary studies. According to the authors, only two of the studies reviewed employed a randomised control trial approach. Another limitation of this systematic review is the possibility of observer bias in the two studies that measured patient care through observation. Despite these limitations, supervised practice can encourage staff to use the best available evidence when working with patients (Snowdon et al., 2017). I scored the quality of this study as 8/16 (Shea et al., 2017).

Some staff were able to adequately respond to the emotional component of their work. This was done for example by obtaining support from other staff members and practicing self-care (McPherson et al., 2016). The findings from this study were, however, obtained from one hospital trust which limits its generalisability and transferability (McPherson et al., 2016). Obtaining support from other members of the multi-disciplinary team may not always be feasible due to silo working practices (Pinkert et al., 2018). Access to the wider multidisciplinary team by hospital staff can affect their ability to care for people with dementia (Helm, Balzer, Behncke, Eisemann, & Köpke, 2018). This study distributed questionnaires to 192 medical officers who worked in eight hospitals. The authors developed the questionnaire used in their study from a systematic review. A limitation of this study is that medical officers working in a particular hospital could have responded to the questionnaire in a similar way, which may have led to the cluster effect. The cluster effect phenomena could not be adjusted for in the findings because the authors collected their data anonymously. Another limitation of this study is the possibility of selection bias resulting from the fact that the authors recruited their participants through gatekeepers. The authors concluded that encouraging teamwork could increase the competence of staff who work with patients with dementia (Helm et al., 2018). I rated the quality of this study as 9/27 (Downs & Black, 1998). A review of 34 studies concluded that teamwork could be fostered using good communication techniques and the training of staff. Findings from this research is limited by its focus on English studies (Dahlke et al., 2017). I scored the quality of this study as 5/16 (Shea et al., 2017).

Summary: From the review, it is evident that staff face setbacks such as time constraints and inadequate staffing levels. This creates gaps in the provision of care (e.g. reduced ability of staff to meet the needs of patients in a holistic manner). Further research is needed on how to improve patient care. The review on staff factors looked at a wide range of research: qualitative, quantitative (observational and interventional), mixed-methods and systematic reviews.

2.9) Physical environment

Poor architectural designs of buildings can create navigational problems for people with dementia (Marquardt, 2011). This literature review revealed that navigational problems arising from poorly designed buildings cannot be enhanced simply through the use of dementia-friendly principles like colour schemes and signage (Marquardt, 2011). In addition, a systematic review of 14 studies concluded that environmental challenges in the acute settings can cause confusion amongst people with dementia (Turner, Eccles, Elvish, et al., 2017). Findings from this review were limited by the fact that the studies were conducted in developed countries. Also, most of the staff views were from nurses as opposed to other members of the multi-disciplinary team (Turner, Eccles, Elvish, et al., 2017). I rated the quality of this study as 4/16 (Shea et al., 2017). There are wide ranges of problems with the physical hospital environment for people with dementia and their carers. This includes: difficulties in parking, inadequate signage, insufficient outdoor waiting areas and the unnecessary movement of patients between wards (Xidous, Grey, Kennelly, McHale, & O’Neill, 2019). This study involved the distribution of questionnaires to 95 patients with and without dementia and their family members. The authors also conducted 12 interviews with patients and their family members. The authors estimated that the number of people with dementia who participated in their study was approximately 35%. Findings from this research were limited by the fact that the questionnaire that the authors used had not been validated. The researchers could not confirm the number of research participants who had an actual diagnosis of dementia because of patient confidentiality issues. The authors conclude that whilst it is important to make the hospital environment fit for purpose, it is also necessary to ensure that people can access them by for example good transport links (Xidous et al., 2019). Staff in Hynninen, Saarnio, and Isola’s (2015) and Iecovich and Rabin (2014) studies which were based at a hospital in Finland and Israel respectively stated that they placed patients with dementia close to the nurses' station so that they could monitor them. Hynninen, Saarnio, and Isola (2015) qualitative study comprised of interviews with19 nurses and nine doctors. Staff felt that it was their responsibility to create a safe hospital environment for patients with dementia (Hynninen et al., 2015). I rated the quality of this study as 19/34 (Critical Appraisal Skills Programme, 2018). Another dimension of the hospital environment is that the proximity of the individual's bed space in relation to the toilets has been documented to be a source of unpleasant odour by patients with dementia in the Digby and Bloomer (2014) study. This study involved seven patients with dementia and four family carers in one sub-acute setting. Most participants in this study felt that the quality of care that they received was more important than issues related to hospital environment such as navigation. This study is however limited by its small sample size of family carers (Digby & Bloomer, 2014). I rated the quality of this study as 20/34 (Critical Appraisal Skills Programme, 2018). Health care staff on the other hand, felt that toilets which were far away from the patient's bedside spaces could potentially create navigation problems for people with dementia (Borbasi, Jones, Lockwood, & Emden, 2006). They were also concerned about the safety of people who wandered due to the inappropriate linear physical layout of the ward environment as opposed to a circular design (Borbasi et al., 2006). Although this study interviewed 25 hospital staff in 3 hospitals, their views may not be representative of staff in other acute settings (Borbasi et al., 2006). I rated the quality of this study as 20/34 (Critical Appraisal Skills Programme, 2018). Difficulties in navigating through an unfamiliar hospital environment (Fukuda, Shimizu, & Seto, 2015), alongside changes to one's normal routines (Porock, Clissett, Harwood, & Gladman, 2015) could result in adverse outcomes such as falls (Fukuda et al., 2015) or the presentation of the behavioural symptoms of dementia (Fukuda et al., 2015; Porock et al., 2015). Fukuda et al. (2015) conducted focus group interviews with 50 nurses who worked in six different hospitals. Findings from their research indicated that the behavioural symptoms of dementia because of being in an unfamiliar hospital environment might affect the patient's relationship with other patients as well as their family members. Their study was however limited by the fact that the hospitals that participated in their research were small in nature. In addition, there could have been the possibility of selection bias as the researchers relied on gatekeepers to select their participants. Furthermore, there could have been recall bias as participants may not have accurately remembered their previous care experiences (Fukuda et al., 2015). I scored the quality of this research as 19/34 (Critical Appraisal Skills Programme, 2018). Porock et al. (2015) conducted 72 hours of non-participant observations as well as 35 interviews with family members and 4 interviews with co-patients. Their study was however conducted in two hospitals within a single trust. They conclude that the exacerbation of the behavioural symptoms of dementia because of changes in the patient’s routine and being placed in a new hospital environment has an impact on the following relationships: patient-staff, patient-family carers as well as patient-other patients. They therefore recommended further training for hospital staff who care for patients with dementia. The findings are however limited by the small number of co-patients who took part in the study. Also, the authors had to depend on observations as opposed to interviews because patients with dementia may not always be able to recollect their experiences on the ward due to memory difficulties (Porock et al., 2015). I rated the quality of this study as 19/34 (Critical Appraisal Skills Programme, 2018). The use of a wide-range of hospital staff contributes to the patient’s confusion in an unfamiliar hospital environment (C. Eriksson & Saveman, 2002; Nilsson et al., 2013).

It is therefore important to have hospitals, which have been designed to be dementia-friendly (Hunter et al., 2017). Using the environmental audit tool, the dementia care map as well as soliciting the views of staff, researchers in the Innes et al. (2016) study indicated that dementia-friendly principles need to be embedded in the physical and psychosocial ward environments. Sixty-nine hospital staff and 16 patients were recruited into this study. The findings from this mixed-methods research were however limited by the fact that the researchers in this study observed a small number of patients using the Dementia Care Mapping tool. The response rate from the survey was also poor (47% at Time 1 and 46% at Time 2) (Innes et al., 2016). A dementia-friendly design could for example be achieved by ensuring that there is a calm atmosphere, encouraging the use of the patient’s memorabilia, as well as providing a suitable and sufficient lightning system (Scerri et al., 2015). Two examples of how to transform hospital wards to meet the needs of people with dementia have been given by Bray et al. (2015) case studies. The first example involves the use of financial resources to renovate a ward (e.g. colour coding), whereas the second example, simply centres on decreasing the movement of patients between wards (Bray et al., 2015). The use of blue and red colour schemes as well as the labelling of the patient's bed space with numbers has been found to help patients to identify their hospital beds and wardrobes (Motzek, Bueter, & Marquardt, 2016). This study involving 42 patients with dementia had the following limitations: the possibility of selection bias, the inability of the researchers to ascertain the impact of medication and co-morbidities on navigational processes (Motzek et al., 2016). Also, a case study of Bradford Teaching Hospital showed that it was necessary to have an environment that encourages independence and purposeful activity (Waller, 2012). In addition to engaging people with dementia in purposeful activity, a review of the literature indicated that taking the patient's histories can help identify their personal needs and enable staff to provide person-centred care (Fitzpatrick, 2018). A case study of three hospitals indicated that dementia-friendly environments must enhance dignity, decrease anxiety, alleviate confusion and minimise falls (Mendes & Palmer, 2018). It should also make patients with dementia feel safe, be free from clutter, foster socialisation and have respectful staff (Hung et al., 2017). This study interviewed and video recorded five participants with dementia. The researchers also conducted participant observations on the patients. The findings of this study were limited by its small sample size and the exclusion of people who could not communicate in English. Recall bias was however eliminated from this study because participants were encouraged to give their views on current events taking place in their environment (i.e. what is happening now as opposed to what has previously occurred) (Hung et al., 2017). I rated the quality of this study as 22/34 (Critical Appraisal Skills Programme, 2018). A literature review by another author has suggested that dementia-friendly environments make use of contrasting colours, avoid shiny floors, have a good signage system and minimise the amount of noise generated from the use of hospital equipment (Andrews, 2013). Furthermore, it has been suggested that a dementia-friendly environment feels like being at home through the use of artwork and also, promotes the use of person-centred approaches (Brooke & Semlyen, 2019). Although the use of artwork, enhanced communication between patients and staff, some patients found the artwork which for example contained a photo of a dog, frightening (Brooke & Semlyen, 2019). Also, despite the fact that the creation of a dementia-friendly environment helped to reduce some of the behavioural symptoms of dementia, it was felt that staff shortages could undermine any changes made to the environment (Brooke & Semlyen, 2019). This study conducted focus group discussions with 38 hospital staff. The limitations of this research includes the absence of the views of people with dementia and the inability of the researchers to compare the previous and present views of staff regarding the environmental changes that were made in the hospital (Brooke & Semlyen, 2019). I scored the quality of this study as19/34 (Critical Appraisal Skills Programme, 2018). The use of staff to provide patients with dementia with meaningful activities (e.g. singing and reminiscence therapy) has been researched by Brooke and Herring (2016). Findings of this initiative revealed good family experiences of patient care and a reduction in the proportion of falls that resulted in injury. This initiative was carried out at The Royal Berkshire hospital and was implemented by 5 health care assistants (Brooke & Herring, 2016).

Summary: From the review, dementia-friendly principles must be incorporated into the physical and psychosocial ward environment. This could for example be achieved by improving the ward layout and encouraging purposeful activity. Studies reviewed in this section included: literature reviews, case studies, qualitative and mixed-methods research.

2.10) Ward atmosphere

In addition to the navigational challenges that people with dementia face in hospitals, there is an issue of how an individual ward atmosphere and culture impacts on hospital care (Baillie et al., 2012a; Moyle et al., 2011). The environment in the acute setting is busy and noisy for patients with dementia or cognitive impairment (Hunter et al., 2017; Nilsson et al., 2013) and highly pressurised for staff (Hunter et al., 2017). This means that staff have to balance the needs of other patients with those of people with cognitive impairment (Clissett et al., 2014). Norman's (2006) observations of 8 patients, who were believed to be experiencing dementia, revealed that tensions existed in hospitals because of the different perceptions that nurses and patients have regarding the use of the ward. Whereas nurses viewed it as a workspace, patients saw it as a residential setting (Norman, 2006). A major limitation of this observational research is that the researcher could have inadvertently influenced the behaviour of research participants because they knew that they were being watched (Norman, 2006). I rated the quality of this study as 18/34 (Critical Appraisal Skills Programme, 2018). Furthermore, the physical layout of the UK bay system is designed to be communal. This type of environment lends itself to a wide range of issues relating to: dignity, privacy (Goldberg, Whittamore, Pollock, Harwood, & Gladman, 2014) and the imposing presence of the multi-disciplinary team simultaneously on a ward (Goldberg et al., 2014; Nolan, 2007). However, it has been noted that this type of communal environment fosters patient-patient interactions (Goldberg et al., 2014). This study involved 360 hours of non-participant observations on 60 patients with cognitive impairment. Findings from this research were limited by the fact that hospital staff could have changed their behaviours because the researchers were watching them. In addition, the research observations took place in public places as opposed to private settings like the toilet (Goldberg et al., 2014).

Summary: from the review, it is clear that the ward atmosphere can be chaotic. It is necessary to design hospital wards, which work for people with dementia (Houghton et al., 2016). Also, the hospital wards serve different purposes for the various stakeholders (person with dementia, carer and staff) (Norman, 2006). Therefore, the various stakeholders have different concerns in relation to how the physical environment can work for them. All the studies reviewed in this section were qualitative in nature.

2.11) Hospital Equipment (devices, appliance, stocks)

A systematic review of 30 studies indicated that staff have mixed feelings regarding the benefits of technological advancement (e.g. monitors, mobility devices, fluid pumps) and whether they actually improve the provision of health care. This systematic review could not conduct a meta-analysis because the primary studies were heterogeneous (Zhang, Barriball, & While, 2014). I rated the quality of this study as 6/16 (Shea et al., 2017). A qualitative study at a hospital located in Finland which involved 28 nurses and physicians on a surgical unit indicated that when patients with dementia are confused, they may not be able to fully appreciate the rationale for catheterisation or aseptic wound dressing (Hynninen et al., 2015). Therefore, patients could for example, remove medical devices like inflated catheters etc. (Hynninen et al., 2015).

Furthermore, research on the ability of patients to use medical equipment like call bells in hospital has been investigated by Chadwick and Hearn (2013). According to the authors, in order for equipment like call bells to be helpful, patients have to be able to memorise the rationale for their use. The authors also looked at whether call bells were within the reach of patients. A total of 223 beds were included in this study. Findings from this study indicated that 94 out of the 223 beds did not have their call bells within the patients reach (Chadwick & Hearn, 2013). I scored this study as 10/27 (Downs & Black, 1998).

The importance of UK hospital clothing in helping to protect the self-esteem of a patient is identified by Matiti and Trorey (2008) study. Participants in this study expressed their concern about the inappropriate exposure of their bodies as a result of poorly designed hospital clothing (Matiti & Trorey, 2008). A limitation of this study is that the findings may not be transferable to other settings as the research was conducted in three hospitals with a lack of ethnic diversity. The authors however interviewed 102 patients (Matiti & Trorey, 2008). I rated the quality of this study as 17/34 (Critical Appraisal Skills Programme, 2018). Iltanen-Tähkävuori, Wikberg, and Topo (2011) explored the use of jumpsuits for people with dementia in Finland. The authors were interested in people who were likely to remove their clothing in public places. This study involved interviews with designers, patients, family carers and staff who work with people with dementia. Although, it is argued that jumpsuits may help to protect the patient’s dignity by making it difficult for the patients to undress themselves, there are reservations about their use. The reservations centred around certain hospital clothing that may label a patient both to staff and potentially the public as incontinent or belittle them in some way (Iltanen-Tähkävuori et al., 2011). I scored the quality of this study as 14/34 (Critical Appraisal Skills Programme, 2018).

A study by Varnam (2011) sought to provide suggestions on how patients with dementia can be safely mobilised in a hospital. Findings from the study indicated that the use of voice and touch were useful but this was not always comprehensive. This study involved 14 hospital staff who used diaries to record the success or failure of the interventions (i.e. sight, voice, touch and equipment) that they used in mobilising patients. The findings is however limited by the fact that staff could not try some of the interventions due to time constraints (Varnam, 2011). A literature review by Warren (2016) indicates that staff need to consider practical difficulties encountered when using manual handling aids or equipment on patients who are unable to fully cooperate with staff by for example, assisting them to change position in a bed.

Findings from a clinical trial did not provide support for the potential of hospital equipment, like very low-beds to reduce the falls prevalence rate amongst people with dementia. This finding was unexpected given the fact that patients who are nursed in low beds are unlikely to sustain fractures if they fall. Patients are also unlikely to self-mobilise from low beds, as they will need help to stand up (T.P. Haines, Bell, & Varghese, 2010). A possible explanation for this finding was the over-reliance on a piece of equipment without reference to good health and safety practice on the ward. This study involved 11,099 admissions over a 6-month period. The findings of the study were however limited by the fact that the authors relied on hospital staff to report fall. This reliance on hospital staff may have introduced errors into this research because of inconsistencies in staff documentation of falls (T.P. Haines et al., 2010). I rated the quality of this study as 14/27 (Downs & Black, 1998).

Summary: It is important that hospital equipment is not only fit for purpose but also well designed and able to adequately meet the needs of all stakeholders (person with dementia, staff and carer). I examined a wide range of literature regarding the use of hospital equipment: a systematic review, qualitative studies, quantitative studies, an interventional study and a literature review.

2.12) Training

There are concerns about the adequacy and coverage of dementia training in hospitals (Timmons et al., 2016). This study was an audit of 35 hospitals in Ireland. The study involved a review of 660 patient medical records, 35 interviews with senior managers and 76 interviews with ward managers. Findings from this study were limited by the fact that the researchers relied on staff documentation of hospital care in the medical notes of patients. This implied that the auditors might have missed important patient care activities such as discharge planning due to incomplete documentation (Timmons et al., 2016). I rated the quality of this study as 9/27 (Downs & Black, 1998). A systematic review of 7 studies indicated that inadequate training in person-centred care could result in the delivery of task focused dementia care (Reilly & Houghton, 2019). I rated the quality of this study as 6/16 (Shea et al., 2017). Leung and Todd's (2010) literature review call for the need to address gaps in knowledge on dementia care and to embrace organisational and environmental changes. After reviewing 66 papers, Naef et al. (2018) concluded that there was the need to provide further dementia training for hospital staff as well as staffing dementia units with specialists. A strength of their study is that they looked at reports in German and English. Their findings were limited by the fact that majority of the papers they reviewed were from developed nations (Naef et al., 2018). I rated the quality of this study as 5/16 (Shea et al., 2017). A literature review indicated that deficits in staff knowledge on dementia care may make patients feel unwelcome on the ward and also result in poor quality care (M. Marshall, 1999). In addition, with difficult patient care scenarios, staff do not consistently provide person-centred care. This highlights the need for further dementia care education (Fessey, 2007). This mixed-methods study analysed data from 49 nurses. A limitation of this study is that staff responses to a vignette may be different from their observed practice (Fessey, 2007). Staff who reported that they had insufficient training on dementia (Ashton & Manthorpe, 2017; Baillie et al., 2012a; Fukuda et al., 2015; Gandesha, Souza, Chaplin, & Hood, 2012; McPhail, Traynor, Wikstrom, Brown, & Quinn, 2009; Moonga & Likupe, 2016) also felt they were unable to adequately manage confusion leaving them feeling pressurised at their workplace (A. Griffiths, Knight, Harwood, & Gladman, 2014). The issue of feeling under pressure is further compounded by an inadequate support from senior staff (A. Griffiths et al., 2014) and an inappropriate practical resolution of ethical dilemmas (e.g. giving the patient medication against their stated preference) (C. Eriksson & Saveman, 2002; Moonga & Likupe, 2016). Gandesha et al. (2012) audit involved 210 hospitals and adopted a mixed-methods approach. The audit involved a review of the patients' medical records and the distribution of a hospital staff questionnaire. The authors analysed data from 1,779 hospital staff. Their findings indicated that the number of medical officers who felt that they had sufficient training on dementia were higher than nursing staff. A limitation of this study is that the authors excluded data obtained from non-medical and nursing staff in their analysis (Gandesha et al., 2012). McPhail et al. (2009) provided training for 28 hospital staff who felt that their knowledge on dementia care was inadequate. Findings from their interventional study indicated that staff were able to identify the physiological and environmental factors, which contribute to the behavioural symptoms of dementia following their training. Staff who attended this training were well equipped to manage aggression. The findings were limited by the fact that the study was conducted in a small hospital (McPhail et al., 2009). Moonga and Likupe (2016) systematic review examined 14 primary studies. Findings from their review indicated that inadequate dementia training could make hospital staff unsure of how to address the ethical issues that they encounter in their practice. Their findings were limited by the fact that the majority of primary studies that the authors reviewed on dementia care occurred on medical wards (Moonga & Likupe, 2016). I rated the quality of this study as 6/16 (Shea et al., 2017). A. Griffiths et al. (2014) interviewed 60 hospital staff (medical officers, nurses and allied health professionals). Their findings indicated that inadequate staff training on how to care for patients with cognitive impairments could result in poor practice on the wards. Their research was strengthened by the fact that a wide range of health care professionals took part in their study. The study was limited by the fact that the interviews took place in a single hospital without a liaison psychiatric facility (A. Griffiths et al., 2014). I rated the quality of this study as 18/34 (Critical Appraisal Skills Programme, 2018) .

Normann, Asplund, and Norberg (1999) using a vignette technique showed that nurses with a post-basic qualification were more likely to adopt person-centred approaches when compared with their colleagues who have general training. This quantitative study involved 261 nurses who worked in 40 institutions. The authors attributed their findings to the fact that post-basic education offered the participants in their study an opportunity to familiarise themselves with an up-to-date literature on dementia care (Normann et al., 1999). I rated the quality of this study as 9/27 (Downs & Black, 1998). Pei-Chao, Mei-Hui, and Li-Chan (2012) reported that even though Taiwanese staff had adequate knowledge on the provision of care for patients with dementia, they could not identify the differences between dementia and delirium. This study involved 124 nurses who worked in one hospital. The authors also found that people with a longer working experience were more likely to have an increased knowledge about dementia care. A limitation of this study is that findings from this research may not be transferred to other settings as data were collected from one hospital (Pei-Chao et al., 2012). I rated the quality of this study as 8/27 (Downs & Black, 1998).

Kang, Moyle, and Venturato (2011) noticed that there were differences in staff attitudes on dementia care in the various hospital wards. They were found to be more positive in their approach on medical wards as opposed to surgical wards. This finding was attributed to the fact that staff on medical wards were likely to have completed some form of training in geriatrics. Their study involved 100 nurses who worked in two hospitals. The limitations of the study includes the following: small sample size, response bias and the use of a convenience sample (Kang et al., 2011). I rated the quality of this study as 6/27 (Downs & Black, 1998). Other studies by Spencer, Foster, Whittamore, Goldberg, and Harwood (2014), McPhail et al. (2009), Surr, Smith, Crossland, and Robins (2016), Elvish et al. (2014), Galvin et al. (2010), J. L. Palmer et al. (2014) and Jack-Waugh, Ritchie, and MacRae (2018) showed that training improved the knowledge and or attitudes of staff who care for people with dementia. Spencer et al. (2014) interviewed 22 hospital staff after they had introduced mental health nurses onto acute wards and provided staff with training on person-centred care. Their findings indicated that the training of staff enhanced their confidence, increased their ability to provide person-centred care and assisted them to cope with stressful situations. The ability of staff to provide person-centred care and involve family members in dementia care was hindered by a lack of time in the acute setting. It was also felt that senior hospital staff did not promote the provision of person-centred care at the bedside of patients (Spencer et al., 2014). I rated the quality of this study as 14/34 (Critical Appraisal Skills Programme, 2018). Surr et al. (2016) provided person-centred care professional course for 41 staff who were predominantly senior nurses. Although the authors found that their training enabled staff to adopt a positive approach in dementia care, their study was limited by its small sample size. In addition, the authors could not determine if the positive attitudes observed in staff after their training improved the bedside experience of patients (Surr et al., 2016). I rated the quality of this study as 8/27 (Downs & Black, 1998). Elvish et al. (2014) study involved 72 hospital staff who were trained on dementia care on four consecutive occasions. The authors noted small increases in staff confidence and knowledge on dementia following training. Findings from this study were limited by the fact that the authors developed their own questionnaire, which has not been validated (Elvish et al., 2014). I rated the quality of this study as 9/27 (Downs & Black, 1998). Galvin et al. (2010) provided 7 hour training for 540 hospital staff. They found that the long-term knowledge and confidence of staff in dementia care was not maintained in one out of the four hospitals that participated in their study. This mixed-methods interventional study was limited by the fact that the authors lost 159 hospital staff in a 4 months follow up period due to these reasons: insufficient contact details and staff resignations (Galvin et al., 2010). Although J. L. Palmer et al. (2014) trained 355 hospital staff only 88 people responded to their 3 months follow up survey. Although staff attitude, confidence and knowledge had improved, the researchers were also unable to determine if their training had enhanced dementia care on the wards (J. L. Palmer et al., 2014). I rated the quality of this study as 8/27 (Downs & Black, 1998). Although 430 hospital staff completed the dementia champion training in Jack-Waugh et al. (2018) study, a total of 84 people withdrew from the study mainly due to sickness. Findings from this study indicated that the knowledge, attitudes and confidence of staff improved following their attendance at the training sessions. The study was limited by the fact that the authors could not determine the ability of the training session to change the bedside practice. Also, the authors developed their own un-validated self-efficacy questionnaire (Jack-Waugh et al., 2018). I rated the quality of this study as 8/27

(Downs & Black, 1998). A review of 29 studies showed that training of staff alongside the development of effective team-based approaches helped to improve patient and staff outcomes (e.g. nurses' confidence and the welfare of patients) (Yamaguchi et al., 2019). Findings from this study is limited by the inclusion of papers which focused on developed countries (Yamaguchi et al., 2019). I rated the quality of this study as 4/16 (Shea et al., 2017). Although a total of 113 people enrolled on the dementia champion training session in Banks et al. (2014) study, nine people withdrew from the course. Strategies that were found to be useful in this mixed-methods study included: the use of the butterfly symbol system as a way of identifying patients with dementia and the use of the 'This is me' document to obtain the biographical data about the patient. Staff were also provided with continuing professional development placements, which were outside the acute setting in order to challenge stereotypical views on dementia (Banks et al., 2014). A limitation of this study is that researchers could not assess the influence of the study on the patient's bedside experience (Banks et al., 2014). Information from 20 respondents who participated in an online qualitative survey as well as a focus group discussion involving 6 junior doctors at a UK hospital revealed that the receipt of a dementia champions training improved the quality of interactions between doctors and patients with dementia as well as their family carers (I. Wilkinson, Coates, Merrick, & Lee, 2016). Despite the positive feedback obtained from the dementia champions training programme, staff had concerns about their ability to deliver quality care under short time constraints. Also, even though this research was conducted in two different hospitals, the findings were limited in terms of its transferability to other hospitals because of its small sample size (26 people) (I. Wilkinson et al., 2016). I scored the quality of this study as 15/34 (Critical Appraisal Skills Programme, 2018). Røsvik and Rokstad (2020) systematic review of 27 studies showed that training of hospital staff helped to improve their competence on dementia care. Their findings were limited by the exclusion of non-English studies (Røsvik & Rokstad, 2020). I rated the quality of this study as 5/16 (Shea et al., 2017). Chater and Hughes (2013) conducted focus group interviews with four nurses and three health care assistants. Their findings indicated that hospital staff felt that dementia-training programmes should incorporate the input of the person with dementia, peer learning and the views of a specialist. I rated the quality of this study as 16/34 (Critical Appraisal Skills Programme, 2018). A practical gerontological knowledge base that is multi-dimensional in nature is believed to be vital in the provision of care for people with dementia (Hunter et al., 2017). A mixed-methods study involving 798 hospital staff and 240 family carers recruited from 21 hospitals found that staff training on the use of good communication strategies enhanced staff and family carers' confidence in dementia care. The findings from this study were limited by the fact that one of the methods used by the authors to evaluate the success of their intervention involved the screening of hospital incident reporting systems which may contain errors as staff may for example, not record every fall (Luxford et al., 2015).

A study involving 7 patients who allowed researchers to video them in order to train 50 hospital staff about reflexive practice found that this method of education encouraged empathy, stimulated reflective practice, enhanced affective education, improved group learning and support (Hung, Phinney, Chaudhury, & Rodney, 2018). I rated the quality of this study19/34 (Critical Appraisal Skills Programme, 2018). A mixed-methods study involving the training of 310 hospital staff in the form of one day's workshop has been found to encourage the use of empathy, foster teamwork, and adopt a person-centred approach to hospital care. These findings were based on 297 staff who participated in a survey (i.e. immediately after the workshop) and 24 hospital workers who attended focus group interviews (i.e. one year after the workshop). This study was limited by the collection of data after the staff had received their training as opposed to comparing their pre and post-training views (Hung, Son, & Hung, 2019). Other authors have found that the education of staff on dementia care reduces the use of sedatives, creates better communication channels between staff and carers, as well as increases the number of referrals made to the pain and dementia assessment teams. The findings from this audit were limited by its small sample size (i.e. the review of 10 medical records a month before the receipt of a 2 hour training on dementia care and the examination of 10 patient charts 2 months after the training) (Wesson & Chapman, 2010). A mixed-methods study revealed that the benefits of a dementia champion training included an improvement in the safety of health care services and the effective management of stressful situations amongst patients with dementia. This study was however limited by the poor response rate of 18% and a small number of people (34) who took part in the research (Mayrhofer, Goodman, & Smeeton, 2016). A systematic review of 46 studies found that web-based training programmes could encourage critical thinking and the adoption of person-centred approaches (Moehead et al., 2020). A limitation of this study is that some of the excluded studies could have made significant contributions towards the understanding of barriers associated with the delivery of web based dementia education programmes (Moehead et al., 2020). I rated the quality of this study as 6/16 (Shea et al., 2017) .

Summary: there are wide ranges of dementia training programmes for staff. The best method for training hospital staff is to provide programmes that embrace person-centred approaches. However, more research is needed to identify the most effective training approach. I reviewed a wide range of studies on staff training: literature reviews, mixed-methods, interventional, qualitative, quantitative, systematic review and a case note audit. Some of the studies had large sample sizes whilst others were small in nature. Findings from the literature review indicates that researchers find it difficult to determine the impact of staff training on the patient's bedside experience and outcomes.

2.13) Falls

Findings from a mixed-methods study involving 63 family carers indicated that falls constituted a major unnecessary reason for hospital admission amongst people with dementia (Benner, Steiner, & Pierce, 2018). A dataset containing information on 235,612 older people revealed that people with dementia were mainly admitted to hospitals because they had sustained a fall. A limitation of this study is that the researchers relied on clinical coders to identify a diagnosis of dementia (Harvey, Mitchell, Brodaty, Draper, & Close, 2016b). I rated the quality of this study as 11/27 (Downs & Black, 1998). A study involving 44,143 people who had sustained a hip fracture found an increased mortality rate and shorter hospital stays for patients with dementia. The shorter hospital stays were linked to the possibility of patients being returned to the nursing home where they were residing. This means that they do not have to wait in hospital for a nursing home placement. The findings were limited by the fact that people with undiagnosed dementia may be missed when using a hospital dataset (Scandol, Toson, & Close, 2013). I rated the quality of this study as 12/27 (Downs & Black, 1998). In contrast, Tadokoro, Sasaki, Wakutani, Takao, and Abe (2018) study found that people with dementia who sustained falls had prolonged hospital stays when compared to other patients who were for example admitted for infection. Their study involved 16,764 patients with and without dementia. The study is limited by the fact that the authors collected data from the medical records of patients which could contain errors (Tadokoro et al., 2018). I scored the quality of this study as 10/27 (Downs & Black, 1998).

Approximately 24 % of orthopaedic patients have dementia (Scandol et al., 2013). Similarly, Harvey, Mitchell, Brodaty, Draper, and Close (2016a) reports a 21% dementia prevalence rate amongst orthopaedic patients. The authors analysed information on 171,278 people who had experienced a fall. The use of a hospital dataset implied that the authors had to rely on clinical coders to identify a diagnosis of dementia. This process is subject to errors and therefore a limitation of this study (Harvey et al., 2016a). I rated the quality of this study as 14/27 (Downs & Black, 1998). A previous study has indicated that people with cognitive impairment have documented a higher falls prevalence rate of 13% when compared to a 4% falls prevalence rate amongst their peers who do not have cognitive impairment (Härlein et al., 2011). This study analysed information on 9,061 older patients who had been admitted into 37 hospitals. The study was limited by the fact that factors such as the use of psychotropic medication which could result in falls had not been documented in the hospital dataset that the researchers analysed (Härlein et al., 2011). I scored the quality of this study as 12/27 (Downs & Black, 1998). The falls prevalence rate amongst people with dementia (55%) has been recorded to be higher than people without cognitive impairment (25%) (Allali et al., 2017). This study involved 2,496 older people who resided in seven countries. The findings were limited by the fact that patients with dementia may not always be able to remember their history of falls (Allali et al., 2017). I rated the quality of this study as 14/27 (Downs & Black, 1998). Researchers have found a relationship between recurrent falls and dementia or cognitive impairment (Chen, Van Nguyen, Shen, & Chan, 2011). This study compared 339 patients who had experienced falls with 69 patients without falls. A limitation of this study is its reliance on incident reporting systems and the medical records of patients which can contain errors (Chen et al., 2011). I scored the quality of this study as 9/27 (Downs & Black, 1998). Other studies have found an association between dementia and falls or fracture (Brand & Sundararajan, 2010; Sharma et al., 2018). Brand and Sundararajan (2010) study involved 25,809 episodes of falls and fractures. A limitation of this study is that the dataset was originally designed to be used for funding patient care instead of assessing patient outcomes. Also there could have been errors in the dataset due to the inaccurate coding of the diagnosis of patients (Brand & Sundararajan, 2010). I rated the quality of this study as 10/27 (Downs & Black, 1998). Sharma et al. (2018) research involved 8,036 patients with dementia who were recruited over a 2.5 years period. The authors reported a falls prevalence rate of 31% amongst these patients. The limitations of this study are as follows: 1) the authors did not have information on the type of fractures that usually occurred amongst patients with dementia from their dataset 2) the researchers could not determine the full impact of medication (e.g. different types of antipsychotics) on falls (Sharma et al., 2018). I scored the quality of this study as 12/27 (Downs & Black, 1998).

Also, dementia or dementia with kidney disease has been documented to be significant predictors of hip fractures (Harvey et al., 2018; Maravic, Ostertag, Urena, & Cohen-Solal, 2016; H.-K. Wang et al., 2014). Harvey et al. (2018) research involved 24,500 people who had experienced a fracture. Their findings indicated that people with dementia were likely to experience two hip fractures over a 3-year period. A limitation of this study is that the dataset did not allow the researchers to distinguish between the different types of hip fractures. Also, the researchers could not assess the impact of medications that improves the structure of bones on the occurrence of a 2nd hip fracture (Harvey et al., 2018). I rated the quality of this study as 11/27 (Downs & Black, 1998). Maravic et al. (2016) study involved 660,434 patients with dementia. The authors concluded that patients with dementia and kidney disease as well as those with only dementia are susceptible to hip fractures. A limitation of this study is that the authors could not assess the severity of dementia from the dataset. Also, the authors did not have details of the bone density of participants as well as the type of medication that had been prescribed to patients in their dataset (Maravic et al., 2016). I scored the quality of this study as 11/27

(Downs & Black, 1998). H.-K. Wang et al. (2014) compared 1,408 patients with dementia to 7,040 patients without dementia. Their participants were matched in terms of their age and gender. Their findings indicated that the presence of osteoporosis in patients with dementia made them susceptible to hip fractures. Their findings were limited by the absence of information such as the educational status of patients in their dataset. The educational status variable could therefore not be controlled for in their analysis. Also, the authors did not have information on treatment regimen that had been provided for patients with osteoporosis (H.-K. Wang et al., 2014). I rated the quality of this study as 13/27 (Downs & Black, 1998). Although dementia was associated with hip fractures in Harvey et al. (2016a) study, people with dementia were less likely to receive support from the rehabilitation team. This finding was based on a comparison of 47,066 patients with dementia to 181,562 patients without dementia. Limitations of this study includes an under diagnosis of dementia in medical records and the possibility of underrating receipt of rehabilitation (Harvey et al., 2016a). I rated the quality of this study as 13/27 (Downs & Black, 1998).

Risk factors for the prevalence of falls in people with dementia include visual problems, mobility difficulties and incontinence (Lim, Mamun, & Lim, 2014). Data on 298 people with and without dementia who had experienced a fall were analysed in this study. Findings from this study is limited by the fact that the authors identified a diagnosis of dementia through the patients' medical record when they could have conducted their own assessments through a geriatrician (Lim et al., 2014). I rated the quality of this study as10/27 (Downs & Black, 1998). Falls are also likely to be documented in situations where the individual is trying to mobilise and especially at night (Nakagawa et al., 2002). According to the authors, the two major reasons for the increased occurrence of falls at night-time could be inadequate staffing levels and the sundown syndrome (heightened confusion during the evening and night hours). This study involved 61 patients who were admitted into a dementia unit. The findings from this study is limited by the authors' reliance on staff documentation of falls through the incident reporting forms which may not be accurate (Nakagawa et al., 2002). I scored the quality of this study as 10/27 (Downs & Black, 1998). Apart from the environmental causes of falls, the physiological state (e.g. urinary tract infection) of individuals could increase the risk of falls (S. Eriksson, Strandberg, Gustafson, & Lundin-Olsson, 2009). This study involved 191 patients with dementia. Although this study relied on staff documentation of falls through the incident reporting forms, the researchers also reviewed the medical records of patients to identify falls that had not been recorded on these forms. A major limitation of this study includes staff variations in assessing the factors that contribute to falls (S. Eriksson et al., 2009). I rated the quality of this study as 9/27 (Downs & Black, 1998). Mossello et al. (2018) analysed data on 372 patients with dementia who had experienced a fall. Their findings revealed that risk factors for falls could be the side effect of medications. The authors suggested that patients with dementia who are on insulin therapy might forget to monitor their blood sugar levels, which could lead to hypoglycaemia and subsequently falls. A limitation of this study is that some of the falls history of patients with severe dementia may have been missed due to memory problems (Mossello et al., 2018). I scored the quality of this study as 9/27 (Downs & Black, 1998).

Booth et al. (2015) state that the quality of the current available evidence for the minimisation of falls amongst people with cognitive impairment is inadequate. This finding was based on an analysis of seven systematic reviews. A limitation of this study is that the authors may not have included all the relevant literature in their analysis. The authors could not find enough systematic reviews that had solely addressed the reduction of falls amongst people with cognitive impairment (Booth et al., 2015). The reduction of falls through multi-factorial assessments has been documented to be ineffective amongst people with cognitive impairment (Shaw et al., 2003). This randomised control trial involved 274 patients with cognitive impairments who had experienced a fall. The study compared an intervention group (130 patients) with a control group (144 patients). The intervention focused on stability, environmental factors, medication review and a diagnosis of cardiovascular disease. Findings from this study were limited by its small sample size (Shaw et al., 2003). I scored the quality of this study as 17/27 (Downs & Black, 1998). A systematic review involving 43 studies documented that multi-factorial interventions in hospital settings were fairly successful (D. Oliver et al., 2007). A limitation of this study is the heterogeneity of the included studies, which were not adjusted for in the analysis (D. Oliver et al., 2007). I rated the quality of this study as 7/16 (Shea et al., 2017). A systematic review of 10 studies, however, found that the use of the following strategies were helpful in the prevention of falls amongst patients with cognitive impairment: thorough management of delirium, conducting falls risk assessment and a review of patients' medication (Stockwell-Smith et al., 2020). I rated this study as 5/16 (Shea et al., 2017). A study involving 96 hospital staff who worked in 6 hospitals found that memory and communication difficulties amongst people with dementia mean that they might find it difficult to retain nursing staff instructions on how to minimise falls (Ayton et al., 2017). I rated the quality of this study as 16/34 (Critical Appraisal Skills Programme, 2018). The 16 hospital staff interviewed in Grealish et al. (2019) research felt that keeping the patient with cognitive impairment in close proximity to the nurses station and staff observation of patients alongside the use of technology (e.g. movement alarms) were effective ways of preventing falls. They were, however, not always able to translate falls prevention policies into practice (Grealish et al., 2019). I scored the quality of this study as 21/34 (Critical Appraisal Skills Programme, 2018). It is therefore necessary to use a multi-faceted approach which looks at the physiological, psychological, behavioural and environmental causes of falls amongst people with dementia (Chaâbane, 2007).

Summary: Falls are common amongst people with dementia. The key risk factors for falls on the wards amongst patients with dementia is an exposure to an environmental hazard as well as the medical condition of the patient. Most of the research reviewed under falls were quantitative in nature and relied on data obtained from the medical records of patients or the incident reporting system. The sample size for the quantitative studies were large. The findings from this literature review indicates that further research is required on how to effectively reduce falls amongst people with dementia.

2.14) <u>End-of-life care</u>

Based on a literature review, end-of-life care was defined as the delivery of quality services to people who have been diagnosed with an impending or near future death

(Izumi, Nagae, Sakurai, & Imamura, 2012). Another literature review stated that a significant amount of people with dementia (100,000) in the UK pass away on an annual basis (Bayer, 2006). A study involving 136 family carers of people with advanced dementia found that the majority of them preferred Do-Not-Resuscitate (DNR) measures. These measures were however not likely to be used when the carers were older and when the diagnosis of dementia had been in place for a period that was longer than 2 years (Peixoto, da Silveira, Zimmermann, & de M. Gomes, 2018). A limitation of this study was that decisions of carers was based on hypothetical situations rather than reality (Peixoto et al., 2018). I rated the quality of this study as 9/27 (Downs & Black, 1998). This finding contradicts results of an earlier study involving 89 family carers who reported a mixed response to whether or not resuscitation was needed at the end-of-life stage (Livingston et al., 2010). A strength of this study is that the authors managed to reach theoretical saturation. Despite this strength, the findings were limited by the exclusion of carers of people with undiagnosed dementia (Livingston et al., 2010). I scored the quality of this study as 20/34 (Critical Appraisal Skills Programme, 2018). The electronic record of 322 deceased patients who participated in an end-of-life intervention which was implemented by nurses and physicians showed that most patients and their family members preferred DNR measures (Jennings et al., 2019). This study was, however, limited by its focus on one medical centre (Jennings et al., 2019). I rated the quality of this study as 8/27 (Downs & Black, 1998). An earlier study (i.e. survey involving 514 physicians, 676 gerontologist and 218 family members) found similar results to the findings of the above study. Findings from this earlier survey showed that family members believed that hospice care was the most suitable regime for people with dementia who are at the end-of-life stage (Luchins & Hanrahan, 1993). As the researchers focused on patients with dementia who had medical complications at the end-of-life stage, their findings may not be transferable to patients who do not have these types of complications (Luchins & Hanrahan, 1993). I scored the quality of this study as 8/27 (Downs & Black, 1998).

Despite the preference for hospice care, 118 patients with dementia and pneumonia or hip fractures who were compared with 98 patients without cognitive impairment received similar levels of sub-optimal end-of-life care (e.g. invasive medical procedures) (R. S. Morrison & Siu, 2000b). Findings from this study were limited by its focus on a single hospital and its reliance on medical records (e.g. staff may not document their conversations with carers regarding the provision of good quality end-of-life care) (R. S. Morrison & Siu, 2000b). I rated the quality of this study as 9/27 (Downs & Black, 1998). The provision of poor quality service at the end-of-life stage for people with dementia may for example involve a decrease in the number of referrals made to the end-of-life team, a reduction in the amount of end-of-life medication given and an increased estimation of blood gases (Sampson, Gould, Lee, & Blanchard, 2006). This review of the patient’s medical records compared 65 dead patients without dementia with 35 dead patients with dementia. Findings from the study may be limited by the possible exclusion of patients with undiagnosed dementia (Sampson et al., 2006). I scored the quality of this study as 10/27 (Downs & Black, 1998). Other researchers have reported incomplete medical assessments and the unnecessary use of antipsychotics at the dementia end-of-life stage (O’Shea et al., 2015). This study was an audit of 660 medical records of people with dementia. Findings from the study were limited by its small sample size and the inability of the researchers to assess if the bespoke needs of patients with dementia who are on the end-of-life pathway have been met (O’Shea et al., 2015). It has been documented that people with dementia who are at the end-of-life stage receive inadequate pain relief, anti-emetics (Lloyd-Williams, 1996) and the poor management of their palliative symptoms (Moon, McDermott, & Kissane, 2018). Lloyd-Williams (1996) audit was limited by its small sample size of 17 dead patients who had dementia whilst Moon et al. (2018) systematic review was limited by its focus on Western countries. I rated the systematic review as 4/16 (Shea et al., 2017). A case note analysis of 18 patients with dementia who were compared to 32 patients without dementia found that staff did not routinely refer patients with dementia to the end-of-life care team and were less likely to involve their relatives in their care (Afzal, Buhagiar, Flood, & Cosgrave, 2010). This study was limited by its focus on one hospital, a small sample size and the possibility of the medical notes of patients containing errors (Afzal et al., 2010). I rated the quality of this study as 10/27 (Downs & Black, 1998). When compared to patients with cancer (n=51,609 deaths), patients with dementia (n=16,428 deaths) were provided with an inadequate palliative care (Martinsson, Lundström, & Sundelöf, 2018). A limitation of this study was with the use of a national dataset, which did not have relevant end-of-life information such as the use of DNR measures (Martinsson et al., 2018). I scored the quality of this study as 15/27 (Downs & Black, 1998). Other researchers have however, found that patients with dementia were less likely to receive active and invasive treatment at the end-of-life stage (Richardson, Sullivan, Hill, & Yu, 2007). This study compared 31, 654 dead patients with dementia with 62,446 dead patients without dementia. Although this study had a large sample size, it was limited by the lack of relevant end-of-life information such as the presence of advanced decisions (Richardson et al., 2007). I scored the quality of this study as 14/27 (Downs & Black, 1998). Similarly, an increased level of active and invasive treatment was not documented by Morin, Beaussant, Aubry, Fastbom, and Johnell (2016) in their research which involved people with dementia and cancer. This study compared 26,782 dead people who had dementia with 26,782 dead people who had been diagnosed with cancer but not dementia. Although the researchers had a large sample size, their findings were limited by the absence of information on the severity of dementia and the exclusion of people with undiagnosed dementia (Morin et al., 2016). I rated the quality of this study as 14/27 (Downs & Black, 1998). People with dementia who are at the end-of-life stage have been reported to have bed sores, be physiologically unstable and experience significant discomfort (Aminoff & Adunsky, 2005). The study involved 71 patients with dementia and was limited by the differences in views on what constitutes suffering at the end-of-life stage (Aminoff & Adunsky, 2005). I scored the quality of this study as 7/27 (Downs & Black, 1998). Other end-of-life symptoms that have been reported in a recent study are weakness and changes in one’s appetite (Pinzon et al., 2013). This survey involved the family carers of 310 dead dementia patients who were compared to 931 dead patients who did not have dementia. Findings from this research were limited by the authors’ acceptance of the family member’s declaration of a dementia diagnosis rather than on the researchers’ reliance on laboratory tests that had been conducted when the patient was alive (Pinzon et al., 2013). I rated the quality of this study as 10/27 (Downs & Black, 1998).

It is, however, possible that staff and family carers’ poor understanding of the trajectory of dementia may contribute to the type of end-of-stage care that they receive (Thuné-Boyle et al., 2010). This study involved interviews with 20 family members of people with dementia and 21 staff from hospitals and nursing homes. The findings were limited by a lack of cultural diversity (Thuné-Boyle et al., 2010). I scored the quality of this study as 19/34 (Critical Appraisal Skills Programme, 2018). A qualitative study involving 58 hospital and community staff found that the palliative symptoms of dementia may be difficult to resolve because of the communication difficulties they experience (T. Ryan, Gardiner, Bellamy, Gott, & Ingleton, 2012). I rated the quality of this study as 20/34 (Critical Appraisal Skills Programme, 2018). Champion's (2017) study which involved surveying 67 staff showed that they needed more training in order to competently recognise and refer people with dementia to the end-of-life team. I scored the quality of this study as 5/27 (Downs & Black, 1998). Furthermore, a mixed-methods study of 662 physicians and General Practitioners (GP) using vignettes found that the type of treatment given to people with dementia who are at the end-of-life stage was dependent on the setting (i.e. acute and non-acute) and the country where care is delivered (Parsons et al., 2014). The findings of this study were limited by the low response rate and the lack of information about how the psychosocial working conditions of doctors affect their management of end-of-life care (Parsons et al., 2014).

A literature review stated that it was essential therefore to involve whenever possible family carers and specialists in the care of patients with dementia (Birch & Stokoe, 2010). A study involving 5 health care professionals stated that it was important to rely on the experiential knowledge of staff in order to meet the multi-faceted needs of patients in a holistic manner (A. Bartlett & Clarke, 2012). I rated the quality of this study as 16/34 (Critical Appraisal Skills Programme, 2018). A literature review found that quality end-of-life care could be provided through the adoption of person-centred principles such as knowing the individual (Carvajal et al., 2019). Another method to potentially improve end-of-life care for dementia patients is the utilisation of simple guidelines around feeding, agitation, medication and usual care (N. Davies et al., 2018). This study involved development and implementation of the end-of-life guidelines through feedback obtained from interviews, focus groups and previous literature. Findings of this research were limited by the fact that the guidelines are only appropriate for patients who do not wish to be resuscitated (N. Davies et al., 2018). I rated the quality of this study as 20/34 (Critical Appraisal Skills Programme, 2018). A mixed-methods research found that staff training improved end-of-life care (Selman et al., 2016).

Summary: Most of the studies reviewed under this section were either quantitative or qualitative. The main issues that people with dementia face at the end-of-life stage face is whether they have to be resuscitated or not. The literature review provided mixed results (i.e. some authors stated people with dementia receive sub-optimal care (e.g. invasive procedures) whilst others have documented receipt of appropriate care).

2.15) Discharge planning

A study which used a Delphi approach to obtain the views of 24 hospital staff concluded that discharge planning ensures continuity of care between the hospital and home (Yam et al., 2012). It is also important because it helps to reduce rehospitalisation and improve the quality of care provided to patients (Yam et al., 2012). Staff face a wide range of difficulties when they initiate the discharge planning process due to shortages of placements in residential facilities (Kable, Chenoweth, Pond, & Hullick, 2015). This study involved focus group interviews with 33 staff who were recruited from a hospital, nursing home and a GP practice. Findings from this study were limited because the interviews excluded the views of specialist physicians who were too busy to participate in the study. Also the participants who took part in this study were from one particular region of Australia (Kable et al., 2015). I rated the quality of this study as 19/34 (Critical Appraisal Skills Programme, 2018). Problems with the discharge planning process can be attributed to a breakdown in communication between family carers and staff alongside the failure of staff to include family members in the discharge process (M. Bauer, Fitzgerald, & Koch, 2011; M. Bauer, Fitzgerald, Koch, & King, 2011). M. Bauer, Fitzgerald, and Koch (2011) study involved 25 family carers of patients with dementia who were admitted into three hospitals. The findings were limited by the fact that most of the people recruited into this study were unhappy with the discharge process (M. Bauer, Fitzgerald, & Koch, 2011). I scored the quality of this study as 19/34 (Critical Appraisal Skills Programme, 2018). M. Bauer, Fitzgerald, Koch, et al. (2011) also interviewed 25 family carers who were not satisfied with the discharge process that they had experienced. Their study involved discharges from the following hospitals: private, public and rural (M. Bauer, Fitzgerald, Koch, et al., 2011). I rated the quality of this study as 14/34 (Critical Appraisal Skills Programme, 2018). Family members may not be adequately informed about hospital decisions regarding the placement of the person with dementia in a residential setting (Emmett, Poole, Bond, & Hughes, 2014). A strength of this study is that it obtained data from multiple sources: 29 interviews with patients with dementia, 28 interviews with family carers, 35 interviews with hospital staff, focus group interviews with 22 hospital staff, 3 family carers and 2 volunteers as well as non-participant observations in 2 hospitals. I rated the quality of this study as 20/34 (Critical Appraisal Skills Programme, 2018). A review of 15 studies also suggested that family members might not be adequately prepared for the discharge process. The authors suggested the need for hospital staff to have discharge planning meetings with family members and also introduce the use of family journals which serves to facilitate the communication process between family members and staff (Stockwell-Smith et al., 2018). I scored the quality of this study as 5/16 (Shea et al., 2017).

Another problem with discharges includes the amount of time involved in making assessments as to whether the person should be discharged home or to a care home (Gage et al., 2015). This quantitative study involved 109 patients with dementia and their family carers. A limitation with the study is that the authors mainly recruited people who had stayed in hospital for a long period of time (Gage et al., 2015). I scored the quality of this study as 9/27 (Downs & Black, 1998). There are variations in the staff assessment of the patients' capacity when making decisions regarding their discharge into a residential setting or to their homes (Emmett, Poole, Bond, & Hughes, 2013). This study had a large sample size, which comprised of 92 interviews with patients, carers and hospital staff. The authors conducted focus group discussions with 22 hospital staff, 3 family carers and 2 volunteers. The authors also reviewed the medical records of patients and conducted observations (Emmett et al., 2013). I scored the quality of this study as 20/34 (Critical Appraisal

Skills Programme, 2018). A literature review indicated the need to respect the decisional capacity of the patient when making arrangements for discharge planning (Brindle & Holmes, 2004). Fluctuations in an individual's capacity to consent can create difficulties for staff who are making best interest decisions for the patient in relation to their discharge destination (Poole et al., 2014). This type of situation makes it essential to involve family carers in dementia care. This study involved: ethnographic observations, the review of 29 medical records, 92 interviews with patients, carers and hospital staff as well as focus group discussions with 3 carers, 22 hospital staff and 2 volunteers. The study was however limited by the lack of cultural diversity amongst its participants (Poole et al., 2014). I rated the quality of this study 21/34 (Critical Appraisal Skills Programme, 2018).

Cognitive impairment (delirium superimposed on dementia) has been associated with poor patient adherence to discharge recommendations (Han et al., 2011). This study involved 115 patients who had been discharged from the emergency department of a single hospital. The findings from this study were limited by the use of a convenience sample and its insufficient sample size. The authors could not control for all possible confounders in their analysis (Han et al., 2011). I scored the quality of this study as 11/27 (Downs & Black, 1998). A Japanese hospital has a policy whereby patients without a discharge plan already in place are not admitted (Fukuda et al., 2015). Another hospital policy in Canada was concerned about the safety of patients who had been discharged into the community (Hunter et al., 2017). A nursing intervention which involved ensuring that there was continuity of care between the hospital and the community documented improved health outcomes (i.e. decreased rehospitalisation) for patients with cognitive impairment (Naylor et al., 2016). This study was conducted in three hospitals and involved 388 patients with cognitive impairment and their family carers. Findings from this study was limited because it did not have sufficient power to identify clinically important differences between discharge interventions carried out by registered nurses and those with a master's degree (Naylor et al., 2016). I rated the quality of this study as 10/27 (Downs & Black, 1998). Despite the fact that hospitals have discharge policies, people with dementia who have been discharged into a sub-acute setting have stated that they need more time to adjust to their new environment (Digby et al., 2012).

Summary: From the literature review, some of key issues that delays discharge planning is the shortage of social care facilities and the time needed by staff to assess the patient's most appropriate discharge destination. Furthermore, effective discharge planning requires the use of good communication techniques between hospital staff and the patient as well as their carers. Hospital policies also affect the discharge planning process. I reviewed the following studies: quantitative, qualitative and literature review. Whereas the qualitative studies had adequate sample sizes, the quantitative studies had a small number of participants.

2.16) Nutrition

A problem with hospital mealtimes is that nurses may not always be able to assist the patient to eat as a result of the prioritisation of nursing tasks such as drug rounds over mealtimes (Ullrich, McCutcheon, & Parker, 2014). This study involved non-participant observations as well as group discussions amongst 24 hospital staff and 21 staff members from a nursing home. The findings of this study may not be generalised to other settings as the research was conducted in a single hospital and one nursing home (Ullrich et al., 2014). I rated the quality of this study as 17/34 (Critical Appraisal Skills Programme, 2018). Problems related to feeding include no desire to participate in meals and the inability of an individual to concentrate on eating (Correia, Morillo, Jacob Filho, & Mansur, 2010). This study involved 50 patients with dementia and their carers who had been admitted into a single hospital (Correia et al., 2010). I rated the quality of this study as 8/27 (Downs & Black, 1998). Another problem to consider is how the poor oral health of people with dementia can for example cause choking (Kobayashi et al., 2017). This descriptive quantitative study involved 92 patients with dementia who had a dental problem (Kobayashi et al., 2017). I rated this study as 7/27 (Downs & Black, 1998). Approximately 36% of people with dementia and swallowing difficulties were reported to have aspirated water (Rösler et al., 2015). This study involved 161 patients with dementia who were compared to 30 people without dementia in a single hospital (Rösler et al., 2015). I scored the quality of this study as 10/27 (Downs & Black, 1998). It has been suggested that difficulties in swallowing and loss of appetite amongst people with advanced dementia can have an effect on their nutritional status (Hsiao et al., 2018). This study involved 345 patients with dementia. A limitation of this study was that majority of the patients included in the study had mild dementia (Hsiao et al., 2018). I rated the quality of this study as 9/27 (Downs & Black, 1998). Feeding difficulties may make hospital staff initiate artificial nutrition which is associated with the risk of aspiration pneumonia (Sampson, Candy, & Jones, 2009). I scored the quality of this study as 9/16 (Shea et al., 2017). People with dementia and swallowing difficulties who have been put on nasogastric or gastrostomy tubes have a higher risk of aspiration pneumonia when compared to their peers in the oral uptake group (Cintra, de Rezende, de Moraes, Cunha, & da Gama Torres, 2014). This study compared 36 people who were taking food orally with 31 patients who were either on gastrostomy or nasogastric tubes. A limitation of this study is that the authors included patients with a diagnosis of stroke and dementia in their sample (Cintra et al., 2014). I rated the quality of this study as 11/27 (Downs & Black, 1998). Another disadvantage faced by people on artificial nutrition when compared to those who eat in the expected usual manner is the possibility of early mortality (Ticinesi et al., 2016). This study involved 184 patients with dementia who had a poor nutritional status. Findings from this study were limited by its small sample size and the authors' inability to control for the effect of the use of psychotropic medication which is a possible confounder of mortality (Ticinesi et al., 2016). I scored the quality of this study as 13/27 (Downs & Black, 1998). Takayama et al. (2017) found artificial nutrition to be beneficial in terms of survival rate of people with dementia. This study comprised of 108 patients with dementia and 44 patients with schizophrenia. The author recruited patients with dementia from nine psychiatric hospitals because the Japanese manage the behavioural symptoms of dementia on these wards. Findings from this study were limited by the absence of information such as the quality of life of patients with dementia who are on artificial nutrition. In addition, patients with dementia who are being managed in psychiatric hospitals may be significantly different from those living in the community (Takayama et al., 2017). I rated the quality of this study as 10/27 (Downs & Black, 1998). Takenoshita et al. (2017) found that tube feeding prolongs life, reduces the use of antibiotics and the occurrence of pneumonia. The authors recruited 52 patients with dementia and 6 patients without dementia who had been admitted into nine psychiatric hospitals. The findings were limited by the authors' inability to analyse the laboratory results of patients prior to the initiation of artificial nutrition. Also, the authors excluded people who were too ill for artificial nutrition from their analysis (Takenoshita et al., 2017). I scored the quality of this study as 11/27 (Downs & Black, 1998).

A wide range of factors, which may influence decisions related to the provision of nutritional support for people with cognitive impairment, includes: the legal framework, financial compensation by the state and the cultural background of the physician (Aita, Takahashi, Miyata, Kai, & Finucane, 2007). The authors interviewed 30 physicians. The findings were limited by the absence of views of family carers regarding the initiation of artificial nutrition in people with cognitive impairment (Aita et al., 2007). I rated the quality of this study as 19/34 (Critical Appraisal Skills Programme, 2018). Another factor that affects the decision to withdraw the administration of artificial nutrition and hydration is whether the person is in a care home, hospital or the patient’s own home (Chambaere, Loodts, Deliens, & Cohen, 2014). This study distributed questionnaires to 6,927 physicians who cared for patients who were dead. The findings indicated that the number of end-of-life patients who had their nutritional support withheld was higher in care homes than in hospitals. Limitations of this study include the possibility of non-response bias and the physicians omission of important information when recalling events related to end-of-life care (Chambaere et al., 2014). I scored the quality of this study as 10/27 (Downs & Black, 1998). Disagreements between nurses, physicians and patients regarding decisions concerning the provision of nutritional support for patients can lead to negative feelings such as anger amongst staff (Bryon, de CasterlÉ, & Gastmans, 2012). This study involved 21 hospital staff who worked in nine hospitals. The findings were limited by the absence of the views of family members regarding their involvement in decisions related to the provision of nutritional support for their loved ones (Bryon, de CasterlÉ, et al., 2012). I rated the quality of this study as 19/34 (Critical Appraisal Skills Programme, 2018). Any conflicting views between the nurse, relatives and physician may be resolved covertly or overtly by the nurse (nurses may for example openly criticise decisions of the physician or encourage family members to object to inappropriate medical decisions) (Bryon, Gastmans, & de Casterlé, 2010). The authors interviewed 21 hospital staff who were based in nine hospitals. A limitation of this study includes gender bias (i.e. inadequate number of males). In addition, a single person conducted the interviews and analysis (Bryon et al., 2010). I scored the quality of this study as 21/34 (Critical Appraisal Skills Programme, 2018). It is therefore necessary for nurses and other professionals involved in the care of patients with dementia to work in partnership (Bryon, Gastmans, & de Casterlé, 2012). This study involved 21 nurses who were employed by nine hospitals. A limitation of this study was that the authors focused on nurses and excluded the views of physicians (Bryon, Gastmans, et al., 2012). I rated the quality of this study as 18/34 (Critical Appraisal Skills Programme, 2018).

A literature review indicated that the following strategies could be employed when providing meals for people with dementia: the use of prompts to enable them to eat their meal, making them aware that they have been served with food and the minimisation of upsetting or stressful situations when meals are served (Archibald, 2006). Other strategies that have been found to be beneficial at mealtimes includes assisting patients with feeding, encouraging the patient to take snacks and the use of music to improve the atmosphere of the ward (A. Wong, Burford, Wyles, Mundy, & Sainsbury, 2008). This study was conducted in four stages. The first stage, which comprised of the control group, had 23 patients. The second, third and fourth stages had 40, 7 and 28 patients respectively. A limitation of this study is the possibility of staff changing their behaviours to suit the researchers requirements (A. Wong et al., 2008). I scored the quality of this study as 11/27 (Downs & Black, 1998). Allen, Methven, and Gosney (2014) found that the use of glass beakers enhanced the intake of dietary supplement when compared to the use of straws in containers. The study recruited 31 and 14 people with cognitive impairment from care homes and hospitals respectively. The total number of care homes and hospitals that participated in the study were eight and three respectively. The findings of this study were limited its small sample size and the possibility of staff facilitating the fluid intake of participants who were using glass beakers as they were not blinded to the study (Allen et al., 2014). I rated the quality of this study as11/27 (Downs & Black, 1998).

Summary: People with dementia experience complex nutritional issues for example, the impact of swallowing difficulties on the patients' diet. There are ethical dilemmas and tensions amongst staff regarding the initiation of artificial nutrition. Strategies to improve the nutritional status of people with dementia has been discussed. I looked at the following types of research: quantitative, qualitative, one systematic review and a literature review. Most of the studies reviewed had adequate sample sizes. Some of the studies reviewed were conducted in more than one hospital.

2.17) Pain

The International Association for the Study of Pain (2019) has described pain as "*An aversive sensory and emotional experience typically caused by, or resembling that caused by, actual or potential tissue injury."* It could be Nociceptive (injury to organs), neuropathic (impaired nerves) or central non-nociceptive (interference with how pain is processed in the body) (K. Phillips & Clauw, 2011). The prevalence rate of self-reported pain amongst patients with dementia has been reported to be 27% by Sampson et al. (2015). The authors also found an association between pain and the behavioural symptoms of dementia. This study involved 230 patients with dementia who had been admitted into two UK hospitals. A strength of this study is that researchers collected data from multiple sources: interviews with family carers, medical records and observations. A limitation of this study is that the researchers could not control for all the possible confounding factors (e.g. the relationship between mood and pain) (Sampson et al., 2015). I scored the quality of this study as 9/27 (Downs & Black, 1998).

A review of 14 studies concluded that the assessment and management of pain amongst people with dementia was inadequate (Tsai et al., 2018). Findings from this review were limited by its focus on studies published in English and the exclusion of studies that did not clearly define its sample as having a diagnosis of dementia (Tsai et al., 2018). I rated the quality of this paper as 4/16 (Shea et al., 2017). It has been suggested that people with dementia experience untreated peri-operative pain after sustaining a hip fracture because of communication difficulties with ward staff (R. S. Morrison & Siu, 2000a). This study compared 38 patients with dementia to 59 people without dementia. A limitation of this study is that it was carried out in a single hospital. In addition, it is possible that the patients were in pain because of their refusal to take pain medication. This was however unlikely as the authors could not evidence this from their treatment charts or interviews (R. S. Morrison & Siu, 2000a). I rated the quality of this study as 9/27 (Downs & Black, 1998). Untreated peri-operative pain is further evidenced in Green, Bernoth & Nielsen's (2016) pilot study where people with dementia were less likely to receive as-required analgesia for a fracture. This study involved a comparison of 10 people without dementia to 10 patients with dementia. Findings from this study were limited by: the small number of people recruited into the study, the research being conducted in a single hospital and the exclusion of some type of analgesics from the researchers analysis (Green et al., 2016). I scored the quality of this study as 10/27 (Downs & Black, 1998). A case study of 4 patients with dementia revealed that they may be unable to give an accurate report about the side-effects of their prescribed pain relief (A. S. Kelley, Siegler, & Reid, 2008).

The ability of people with dementia to recognise and tolerate pain may be altered (Oosterman et al., 2014). This study compared 26 people with dementia in a UK hospital to 13 patients without dementia who resided in the Netherlands. Findings from this research were limited by the small number of people recruited into the study as well as the researchers inability to control for the influence of culture on the expression of pain (Oosterman et al., 2014). I rated the quality of this study as 9/27 (Downs & Black, 1998). A literature review indicated that alterations in the perception of pain does not affect people with mild dementia as they are able to report pain (Thuathail & Welford, 2011). Although the use of pain rating scales helps to monitor and manage pain, it is not widely used amongst staff in 17 hospitals based in Finland (Rantala, Kankkunen, Kvist, & Hartikainen, 2012). This mixed-methods study involved 333 hospital staff. Findings were limited by the use of a newly developed questionnaire and the absence of the views of patients with dementia regarding the management of their pain (Rantala et al., 2012).

According to Dowding et al. (2016), Lichtner et al. (2016), Lichtner, Dowding, and Closs (2015) there are differences in the management of pain amongst people with dementia who have been admitted into medical and surgical wards. Dowding et al. (2016) interviewed 52 hospital staff and 4 family carers. They also observed 31 patients and reviewed their medical records. Findings from their study indicated that in addition to the differences in the management of pain on the various wards, there were multiple staff involved in the management of pain. A multidisciplinary approach to the management of pain sometimes resulted in fragmented care on the wards as staff documentation and communication regarding the management of pain was poor. A strength of their study is that they conducted their study in 4 hospitals (Dowding et al., 2016). I scored the quality of this study as 19/34 (Critical Appraisal Skills Programme, 2018). Lichtner et al. (2016) in addition, observed 31 patients and conducted interviews with 52 hospital staff and 4 family carers. Findings from their research indicated that a trial-and-error approach was adopted on non-surgical wards for the management of pain. A strength of this study is that the researcher's observations on the ward allowed them to collect information regarding the patient's journey. The small number of carers who participated in the research limited this study (Lichtner et al., 2016). I rated the quality of this study as 20/34 (Critical Appraisal Skills Programme, 2018). Lichtner et al. (2015) conducted 170 hours of non-participant observations on 31 patients and interviewed 52 hospital staff and 4 family carers. Findings from their study indicated that in addition to the dissimilarities present in the management of pain on various wards, the four hospitals included in their study also used different pain assessment tools. A limitation of their study is that the three out of the four hospitals studied used paper based systems. Their findings may therefore not be transferrable to hospitals, which use electronic systems. Their findings also excluded the views of patients with dementia regarding how they self-rate their pain (Lichtner et al., 2015). I scored the quality of this study as 20/34 (Critical Appraisal Skills Programme, 2018). Inconsistencies in the surgical management of pain amongst people with dementia has also been documented by Diaz-Gil et al. (2020) who systematically reviewed eight studies. A strength of their research is that it reviewed studies that had been conducted in seven different countries. Their findings were limited by the fact that 5 out of the 8 articles reviewed focused on hip fracture as opposed to general surgical operations (Diaz-Gil et al., 2020). I rated the quality of this study as 5/16 (Shea et al., 2017). Whereas analgesics were administered to 93% the people who had been admitted on to surgical wards, only 36% of people on medical wards received similar medication (Mehta, Siegler, Henderson, & Reid, 2010). The authors reviewed the medical records of 100 patients with cognitive impairment and pain during hospitalisation. The findings of the study were limited by its use of a convenient small sample size (Mehta et al., 2010). I rated the quality of this study as 8/27 (Downs & Black, 1998). A major factor that may impede the effective management of pain amongst people with dementia is the inability of staff to adequately assess pain due to cognitive decline (Rantala, Kankkunen, Kvist, & Hartikainen, 2014). This mixed-methods study involved the distribution of questionnaires to 331 hospital staff who worked in 17 hospitals. A limitation of this study was the use of a newly developed questionnaire (Rantala et al., 2014).

Difficulties in the assessment of pain implies that nurses have to sometimes rely on their own professional opinion (Dowding et al., 2016). The lack of certainty around the assessment of pain amongst people with cognitive impairment alongside inadequate pain rating scales means that nurses have to rely on their experiential knowledge (Fry, Chenoweth, & Arendts, 2016). This study involved focus group discussions with 80 hospital staff who worked in four hospitals. Findings from this study were limited by the fact that some participants in focus group interviews may be more dominant. Therefore, the views of silent participants may be lost (Fry et al., 2016). I scored the quality of this study as 18/34 (Critical Appraisal Skills Programme, 2018). Nurses have to sometimes identify the non-verbal symptoms of pain amongst their patients (Brorson, Plymoth, Örmon, & Bolmsjö, 2014). This study involved seven hospital staff who worked in a hospital. Findings of this study were limited by its small sample size and the possibility of recall bias as participants could not always recollect previous events (Brorson et al., 2014). I rated the quality of this study as 19/34 (Critical Appraisal Skills Programme, 2017). Self-reporting pain using the number scoring system may be inappropriate for people with dementia who may have communication difficulties (Lichtner et al., 2015). In addition to the challenges present in the assessment of pain amongst people with dementia, hospital staff may have inadequate knowledge about the side-effects of some analgesics (Rantala, Hartikainen, Kvist, & Kankkunen, 2015). This study involved 267 hospital staff who worked in 17 hospitals. A limitation of this study is the poor response rate of 54%. The authors indicated that non-respondents may either have an in-depth understanding or inadequate knowledge about the side effects of analgesics (Rantala et al., 2015). I scored the quality of this study as 9/27 (Downs & Black, 1998).

Other barriers to the optimal relief of pain amongst people with dementia who are at the end-of-life stage include difficulties in obtaining a prescription at a Swedish hospital and the receipt of active treatment (e.g. patients on antibiotics) instead of receiving palliative care (Brorson et al., 2014). A major consequences of poor pain management is the possibility of giving an overdose of pain relief (A. S. Kelley et al., 2008). Barriers in the management of pain occurred when patients declined pain relief, when staff reported poor multi-disciplinary relationships and when staff could not keep up-to-date their continuing professional development (De Witt Jansen et al., 2017). This study involved 6 staff from 2 hospitals, 6 staff from 3 hospices and 12 staff from 10 nursing homes. Findings from this study were limited by the possibility of self-selection bias as the people who participated in the study may be different from those who declined to be interviewed (De Witt Jansen et al., 2017). I rated the quality of this study as 22/34 (Critical Appraisal Skills Programme, 2018). Another barrier in the management of pain as reported by Fry, Arendts, and Chenoweth (2017) include the limited use of pain assessment tools amongst people with cognitive impairment. This focus group study involved 36 hospital staff who worked in three hospitals. There was the potential of agreement bias to have occurred in this research because the researcher knew the respondents. In addition, the interviews were conducted in the afternoons, which made it difficult for some staff members (i.e. night staff) to participate (Fry et al., 2017). I scored the quality of this study as 20/34 (Critical Appraisal Skills Programme, 2018). Despite these barriers, family members serve as an important resource for the assessment and management of pain amongst people with cognitive impairment or dementia (Fry et al., 2017; Fry, Chenoweth, MacGregor, & Arendts, 2015; Lichtner et al., 2016). Fry et al. (2015) conducted focus group interviews with 80 hospital staff who worked in four hospitals. Findings from their study indicated that although family members are important in the management of pain they may sometimes interfere with medical decisions. This study however excluded the views of family carers regarding the management of pain. Also the views of inexperienced nurses were excluded from the research (Fry et al., 2015). I rated the quality of this study as 21/34 (Critical Appraisal Skills Programme, 2018). Findings from a literature review indicated that in order to properly address the pain that is experienced by people with dementia, it is necessary to train hospital staff and introduce specialist pain teams to aid in the assessment and management of pain (Achterberg et al., 2013).

Summary: Some people with dementia are able to report their pain whilst others are not able to do so because of communication difficulties. In order to manage pain, staff have to rely on their professional opinion, experiential knowledge and patient non-verbal communication of pain. Barriers to management of pain are discussed. Some of the studies reviewed under pain had adequate sample sizes whilst others were small in nature.

2.18) Conclusion from the literature review

In this chapter, I have outlined the main issues that affect people with dementia in hospitals. The quality of the studies reviewed in this literature search was good. The studies reviewed were mainly quantitative and qualitative. Most of the studies reviewed, focused on issues, which the researchers thought, were important in the provision of dementia care. I suggest that the main issues affecting people with dementia in a hospital setting are as follows: patient-carer-staff relationships, the physical ward environment, the ward atmosphere, hospital equipment, training, falls, end-of-life care, discharge planning, nutrition and pain. I have identified that the type and quality of patient-carer-staff interactions has an impact on the well-being of the various stakeholders (i.e. person with dementia, carer and staff). Therefore, it is important to strive to improve these interactions in hospital. I have highlighted the different factors in the ward atmosphere and environment that affect people with dementia. An example of this is the navigational challenges created by poor architecture (Marquardt, 2011). I have described how patient care is affected by the use of hospital equipment. An example of this is how the use of clothing can undermine or uphold an individual’s dignity. I have outlined the need to provide adequate dementia care training for healthcare staff.

2.19) Gaps in current knowledge

From the literature review, it is clear that the issues (e.g. falls, malnutrition etc.) affecting patients with dementia in acute settings have been extensively researched. Strategies for reducing these adverse outcomes is, however, limited. The aim of the quantitative phase of the PhD was to identify specific outcomes that affected length of hospital stay amongst patients with dementia at a local hospital. This was followed by a qualitative research which sought the views of staff and carers on how to reduce falls and improve the discharge planning process using a systems framework (environment, equipment, policy and interactions) (E. Edwards, 1972; Hawkins, 1987; Zecevic et al., 2007). The research focused on falls and discharge planning because these factors had the highest incidence rate ratios at the quantitative stage of the study. To my knowledge, this is the first attempt in the UK to explore how a systems based approach can be used to help reduce falls and improve discharge planning in a hospital setting. In addition, this is the first study to ascertain the acceptability of a falls and discharge bundle through an online survey of staff, carers and people with dementia.

2.20) Aims of the study

The issues covered in the literature review influence the experience of patients with dementia on the wards. One method of evaluating patient experience is by looking at the factors that influences the length of hospital stay. Furthermore, previous research has revealed that the length of hospital stay for patients with dementia was longer than people without dementia (Möllers et al., 2019). This finding could be due to reasons such as co-morbidities and the behavioural symptoms of dementia (Möllers et al., 2019). Also a Freedom of Information request from 73 NHS Trusts, showed that the period of hospitalisation for older patients with dementia was doubled (Boaden, 2016). The aim of the service evaluation was, therefore, to identify health outcomes that affect the length of hospital stay amongst people with dementia at a local hospital. The qualitative study focused on falls and discharge planning because the quantitative analysis indicated that they had the highest incidence rate ratios. The aim of the qualitative aspect of the study was to explore how a systems based approach can be used to help understand the factors that contribute towards the reduction of falls and the improvement of the discharge planning process amongst people with dementia in hospital. The aim of the online survey was to ascertain the acceptability of the falls and discharge bundles amongst people with dementia, their carers and staff.

2.21) Objectives of the study

To generate knowledge on the factors that affect the length of hospital stay amongst patients with dementia.

To gather information on how a systems based approach can be used to help reduce falls and improve the discharge planning process amongst patients with dementia in hospital.

To ascertain the acceptability of the falls and discharge support bundles through an online survey involving people with dementia, carers and staff.

2.22) Research Question

How might a systems approach contribute to reducing falls and improving discharge planning amongst patients with dementia?

Chapter 3

This section provides details about the philosophical underpinning of this research. I discuss the mixed-methods approach. The advantages and disadvantages of prospective and retrospective research is highlighted. The integrity of the dataset that was utilised in the phase 1 of the research is discussed. I present the ethical requirements for the quantitative, qualitative and online studies. Ethical issues in the qualitative study are documented. The advantages and disadvantages of online surveys are highlighted. The strengths and limitations of the study design are documented.

3.1) Research Philosophy

Philosophy can be simply defined as the knowledge and questions that we have concerning the world (M. Williams & May, 1996). A positivist philosophical approach which is associated with quantitative research is based on the assumption that sociological knowledge can be derived from scientific principles (Bryman, 1988). A phenomenological philosophical approach which is linked with qualitative research is based on how an individual interprets their subjective reality (Bryman, 1988). Proctor (1998) argues for the use of a realist philosophical approach because of its three dimensional focus: subjective, objective and the organisational factors, which influences an event. The epistemological approach of the current study is embedded in pragmatism (what works best) (Denscombe, 2010). The origins of a pragmatic approach can be traced to Dewey’s (1903) work on logic because it finds solutions to problems (Poradzisz & Florczak, 2019). According to Dewey (1903) there are four stages in the scientific process. In the first stage, people do not recognise the problem and therefore do not engage in reflection. The second stage is called the empiric stage whereby people gather facts in an unstructured format. The third stage is named the speculative stage in which people begin to make hypotheses. The final stage involves experimentation and reflection (Dewey, 1903).“*The pragmatic method is primarily a method of settling metaphysical disputes that otherwise might be interminable. Is the world one or many?—fated or free?—material or spiritual?—here are notions either of which may or may not hold good of the world; and disputes over such notions are unending. The pragmatic method in* *such cases is to try to interpret each notion by tracing its respective practical consequences"* (James, 1907, pp. 35-36). A pragmatic approach gives the researcher the ability to choose the best approach needed to address the research question (Cherryholmes, 1992). Pragmatists are concerned about the consequences that occurs with the acceptance or dismissal of an approach (Rorty, 2000). The current research employed the most appropriate data collection methods (quantitative, qualitative and online approaches) to address the research aims and overall goal. The first study identified the factors that affect the hospital stay for people with dementia and patients in general. Findings from the first study informed the second stage as the factors (falls and discharge planning) which had the highest incidence ratios were selected for the qualitative interviews. Two support bundles were developed from the interviews with staff and carers. An online survey involving people with dementia, their carers and hospital staff was conducted to ascertain to the acceptability of the developed falls and discharge bundles.

3.2) Mixed-methods

Mixed-methods study is a research approach that uses both qualitative and quantitative data to answer research questions (Fetters, Curry, & Creswell, 2013). The main types of mixed-methods research are as follows: explanatory sequential, exploratory sequential and the convergent approach (Fetters et al., 2013).The sequential mixed-methods approach uses one stage to inform the other, whereas the convergent design implements quantitative and qualitative approaches simultaneously (Schoonenboom & Johnson, 2017). According to Kroll and Morris (2009) the challenges in the use of a mixed-methods approach are as follows: (A) requires researcher to have knowledge of both quantitative and qualitative approaches (B) Expensive (C) Labour intensive. Tariq and Woodman (2013) identified the following strengths of a mixed-methods approach: (A) Findings from one stage of a study could complement the results of another aspect of the same study (B) Findings from an aspect of the study can be used to develop another stage of the study. Another strength of a mixed-methods study is that variations in the findings of quantitative and qualitative studies could help to generate new knowledge. Also, the results of both qualitative and quantitative data can be converged (Tariq & Woodman, 2013) .

I used a sequential mixed-methods approach because I wanted to follow up the results of the quantitative data with two studies (i.e. qualitative and online research). An advantage of using a quantitative approach is that it enables the researcher to measure the occurrence of a phenomenon (McCusker & Gunaydin, 2015). The service evaluation was therefore able to identify the factors that affect the patients' length of hospital stay using a large sample size. Qualitative research on the other hand enables researchers to understand a research phenomenon (McCusker & Gunaydin, 2015). Although the service evaluation enabled me to identify the factors that affect the patients' length of hospital stay, the views of staff and carers regarding these issues was missing. The qualitative study helped to provide an in-depth understanding of the main issues that affect people with dementia in hospital. The qualitative research was however limited by the absence of the views of patients with dementia. A thematic approach was used in the analysis of the qualitative data because it helped me to identify patterns in the transcripts that addressed the research question (Braun & Clarke, 2006). A grounded theory approach was deemed an inappropriate method for my data analysis because it focuses on the development of theory from an interview dataset (Corbin & Strauss, 2008). Furthermore, I could still have used this in my analysis of the qualitative data. However, thematic analysis was the most appropriate choice because I was not seeking to develop a new theory but rather address the key issues (i.e. falls and discharge) that emerged from my quantitative analysis. Content analysis was considered unsuitable for the research because it uses numbers to represent the codes generated from a qualitative dataset (Marks & Yardley, 2004). Narrative analysis was viewed as an inappropriate method because of its focus on the whole story as opposed to thematic analysis which uses sections of the transcripts (Greenhalgh, Russell, & Swinglehurst, 2005). Discourse analysis was also considered to be inappropriate because it focuses on analysing the construction of language within a particular context (Crowe, 2005). Findings from the qualitative stage informed the online survey as respondents were asked whether they agreed or disagreed with the issues that emerged from the interviews.

3.3) Prospective versus Retrospective approaches in research on dementia

Prospective research which involves the observation of people enables the researcher to validate the diagnosis of dementia through the use of experts such as: Geriatricians (Timmons et al., 2015; Travers et al., 2014), Neuropsychologist (Zekry et al., 2009), Psychiatrist (Timmons et al., 2015) as well as Neuropsychological tests (Timmons et al., 2015; Travers et al., 2014; Zekry et al., 2009). However, the prospective researcher may end up with a biased sample size as in the case of Travers et al. (2014) who was not available to recruit patients continuously. Hospitals clearly run a day and night system (Travers et al., 2014).

In terms of retrospective research which involves the examination of the medical records of people with dementia, there is the possibility of excluding people with undiagnosed dementia in statistical analysis as hospital codes are given to people who have been formally identified as living with dementia (Tropea, LoGiudice, Liew, Gorelik, & Brand, 2016). Confirmation of a diagnosis of dementia may be problematic for clinicians (Cummings et al., 2011). This is because some of the symptoms of dementia such as confusion share similar features with other curable illnesses. In addition, a poor performance on a neuropsychological test may be caused by other acute illnesses such as stroke (Cummings et al., 2011). The clinical coding team, therefore, need to thoroughly review the hospital records of patients with dementia before assigning them a code (Cummings et al., 2011). Natalwala, Potluri, Uppal, and Heun (2008) argue that although the retrospective researchers are unable to validate a diagnosis of dementia by reviewing the medical records of patients, it can be assumed that a diagnosis of dementia having been made in an acute hospital setting is true. In addition, neurological assessments of the severity of dementia may not be reflected in the International Classification of Diseases codes, which have been assigned to patients (Hu, Liao, Chang, Wu, & Chen, 2012).

This study used a retrospective research method for the quantitative study because it analysed patient information recorded in a hospital dataset. The research used an existing dataset because of its cost-effectiveness, time-efficiency and its ability to address the research aim (the identification of the health outcomes, which affect the hospital stay of people with dementia at a local hospital).

3.4) Ethical requirement for the quantitative study

According to the NHS Confidentiality Code of Practice (2003), researchers should ideally use anonymised patient information. The quantitative study is considered as a service evaluation because it met the following Health Research Authority (2016) requirements: the study used routinely collected anonymised data, the study looked at the factors that affect patients length of stay at a local hospital, and information used in the analysis had not been randomised.

Ethical Approval for the quantitative aspect of the study was obtained from Bournemouth University. The main ethical issue for using a de-identified hospital dataset is that patient information was collected for medical purposes as opposed to being used for a PhD study. As the first aspect of this study was a service evaluation, it contributed to patient care by identifying the factors that affect the length of stay of patients with dementia. Following up the quantitative service evaluation with the qualitative research enabled me to seek the views of carers and staff regarding falls and discharge planning. The findings from the qualitative research and the online survey adds to current knowledge on patient care.

3.5) The Integrity of the Dataset

The dataset was obtained from the Royal Bournemouth and Christchurch NHS Hospital Foundation Trust Information Technology Department. The dataset comprised of 35,792 emergency admissions with a recorded discharge date between 01/01/2016 and 31/12/2016. I extracted two samples (i.e. main (n=14,771) and dementia sub-samples (n=1,133)). Both samples involved people who had not been readmitted and whose length of hospital stay was greater than 24 hours. Some of the information (including the diagnosis of patients) that was available in the dataset forms part of the details presented to the Secondary Uses Service of the NHS Digital Department. The International Classification of Diseases (ICD) codes that are sent to the NHS Digital Department are entered into the hospital system by competent clinical coders who use the patients' discharge summaries and national coding rules. This information is, therefore, subject to rigorous standard NHS data quality assessments and retrieved from the hospital's patient management system called CAMIS. The other clinical variables (e.g. Waterlow scores) do not form part of the submissions to the NHS Digital Department. They were retrieved anonymously from the following hospital electronic records: Vital Pac, Electronic Nursing Assessment and Datix (software used in reporting issues related to the safety of patients in hospital).

3.6) Ethical requirement for the qualitative study

Having contacted the hospital's research and development office I applied for my first NHS ethical approval. I proposed interviewing five patients, five carers and five staff. My first application was rejected because of the following reasons: (A) The committee highlighted that the study was not clear on how to exclude participants who had not consented to take part in the research. (B) The committee felt that it would be more appropriate to conduct a pilot study and use the results from this to inform further research. (C) Findings from the service evaluation were not presented to the ethics committee. (D) The inclusion and exclusion criteria for the study was not specific. (E) The study did not specify the method for crosschecking the accuracy of the transcripts. (F) The study was focused on the concerns of patients, carers and staff rather than the quality factors that affect their experiences. (G) The Consultee Information Sheet and the Declaration Forms mentioned consent instead of advice or opinion. (H) The research committee recognised the difficulty in assessing the continuing capacity of patients in giving consent.

My second application to the North West-Greater Manchester Central Research Ethics Committee focused on carers of patients with dementia and hospital staff. I proposed interviewing 20 carers and 20 staff. The application for the carer and staff interviews was approved. After interviewing 20 carers and 20 staff I amended the ethics application to enable me interview an additional 20 carers. The request for further fieldwork was arranged because the carer interviews yielded insightful information regarding the topic. I however managed to interview 32 carers in total. I did not interview patients because the first ethics committee recognised the difficulty in assessing the continuing capacity of patients in giving consent.

3.7) Ethical issues arising from the qualitative study

A) Purpose.

Creswell (2009) emphasises the importance for research not to create disadvantages for participants. The main aim of this study was to explore how a systems based approach can be used to help with the reduction of falls and the improvement of the discharge planning process by conducting interviews with hospital staff and carers of people with dementia. The research was designed with an aim of not compromising patient care.

B) Informed consent.

Creswell (2009) notes that obtaining informed consent from participants ensures that their rights are upheld throughout the research process. P. Oliver (2010) states that the process of informed consent involves presenting information about the main ideas of the research project so that the participants can easily understand it. It is important that the essence of the research is not lost in the process of simplifying the research ideas (P. Oliver, 2010). In addition, research participants should not be patronised in this process. Furthermore, it is important for participants to know that they can withdraw from the study at any time (prior to the anonymisation of the transcripts) (P. Oliver, 2010). Although research may not always have immediate short-term benefits, it could potentially boost the self-esteem of participants. In addition, the informed consent process should take into account the potential disadvantages that participants can encounter in research (P. Oliver, 2010).

Therefore, I placed posters on the ward. Staff and carers of people with dementia on the ward were informed about the study. I gave a flyer (miniature poster) and participant information sheet to staff and carers so that they could read it prior to the commencement of the study. This enabled staff/carers to have an idea of the entire research project. In addition, this gave them some time to weigh the advantages and disadvantages of participating in the research project or otherwise.

I passed the participant information sheet onto hospital staff and carers of people with dementia who had volunteered to take part in the research. I addressed any questions that they had. Once the consent form was signed, I found out the most convenient time to conduct the interview in a quiet room on the ward

C) Inclusion and Exclusion criteria.

The inclusion criteria were as follows:

a) Staff (nursing, medical, allied healthcare professionals, support staff) - those who had worked with people who have dementia and were able and willing to provide informed consent.

b) Carers of people with dementia (paid or unpaid) - those who visited the ward once a week and were able and willing to give informed consent.

The exclusion criteria were as follows:

a) Staff (nursing, medical, allied healthcare professionals, support staff)

-Staff who had not worked with people who have dementia

-Staff who were unable or unwilling to provide informed consent.

b) Carers of people with dementia

- People who did not visit the patients once a week on the ward.

- People who were unable or unwilling to provide informed consent.

D) The impact of the researcher on the environment.

P. Oliver (2010) states that the presence of the researcher could have an impact on the behaviour of participants, as they are likely to be conscious that there is a visitor on the ward. It is important to maintain the equilibrium of the research setting and this can be achieved by demystifying the research process (P. Oliver, 2010). I achieved this by ensuring that the posters, flyers and participant information were written in plain English. Also, the researcher can familiarise themselves with the research setting (P. Oliver, 2010). I tried to maintain the equilibrium of the ward by conducting interviews when it was convenient for staff/carers. In addition, I was friendly, warm and flexible so that staff and carers could easily approach me. Interviews were conducted at an appropriate time and place (quiet room on the ward) so that they did not affect patient care and safety.

E) Recruitment of research participants.

The Nuremberg Code forms the elementary blocks for the expected code of ethics which need to be adhered to when working with humans in research. It mandates the need for research to be devoid from any form of coercion. In addition, it is important for research participants to be able to give informed consent. There is the need for researchers to give enough time to participants so they can make a well-informed decision (Nuremberg Code, 1949). Therefore, I put the following measures in place: 1) The process of passing the participant information sheet onto staff and carers as well as answering their questions ensured that they understood the purpose of the research project. In addition, the participant information sheet makes it clear that the research participants are free to withdraw from the study at any time (prior to the anonymisation of the transcripts). 2) The retention of a copy of the signed written consent form by the hospital staff and carers reinforced the principles of voluntary participation.

F) Advantages and disadvantages of participating in the research.

I made it clear in the staff and carers' participant information sheet that there were no perceived benefits in terms of current care on the ward. However, the possible use of the findings in conferences and scientific journals should hopefully broaden the current knowledge on how to improve acute hospital care for people with dementia. P. Oliver (2010) states that although there may not be visible benefits of research to participants, seeking their views on for example, how to improve patient care may make participants feel valued. P. Oliver (2010) mentions that although researchers do not intend to inflict any form of psychological damage, participants can have an emotional reaction during the interview process. These can for example, arise when participants remember memories that may be upsetting (P. Oliver, 2010). These situations may be minimised by giving the participant a summary of the topics that will be discussed during the interview or simply giving the option of providing answers for questions they are comfortable with (P. Oliver, 2010). The participant information sheet and interview guide state that the research can be discontinued or halted until the staff/carers are ready to resume at any point in time should the staff/carers feel uncomfortable. Drawing on P. Oliver (2010), participants were made aware of the fact that they are not required to answer all questions.

G) Confidentiality.

The Department of Health (2013) reviewed and published a document on how to utilise the “Caldicott Principles” in regards to confidential information. It suggests the need to separate confidential data which have multi-purpose usages (The Department of Health, 2013). Data (please refer to interview guide) gathered from the interviews were kept in a locked cabinet and room at the Royal Bournemouth and Christchurch hospital, only accessible to me.

I transcribed the audio recordings. The audio recordings were immediately deleted once the accuracy of the transcripts had been confirmed. The anonymised transcripts were stored on a password protected Bournemouth University computer with no reference to staff/carers' details. Staff and carers were informed that if they shared anything that indicates any form of harm, I had to inform the safeguarding team.

H) Conflict of Interest.

Bournemouth University as well as the Royal Bournemouth and Christchurch Hospitals NHS Foundation Trust funded this research. According to P. Oliver (2010), it is possible that there can be conflict of interest issues between the researcher and the organisation sponsoring the project. These situations arise when the researcher and the funding organisation have different objectives (P. Oliver, 2010). Therefore, a possible method for mitigating against these differences is to allow the funding organisation to be involved in the determination of the research questions (P. Oliver, 2010). However, the researcher has the right to utilise appropriate data collection methods and publish unbiased findings which may not have been anticipated by the funders (P. Oliver, 2010). In such situations, it is reasonable for the researcher to give the funding organisations an opportunity to make a public statement prior to the publication of the results if they are in disagreement with them (P. Oliver, 2010). Also, it is important to declare the sources of funding, so that readers have the widest understanding of the entire research (P. Oliver, 2010).

I had three supervisors. Professor Vassallo was employed by the hospital where the research was conducted. Dr Nyman and Dr Kelly were independent from the NHS Trust (i.e. the research location). Therefore, with four members involved (including me), research bias will be minimised. Research bias was minimised by having my supervisors review the codes and findings of the research. I stated the origins of my funding in my publication.

I) Accuracy of Transcripts.

Hagens, Dobrow, and Chafe (2009) examined the strengths and weaknesses associated with an inspection of the accuracy of interview transcripts by participants.

The authors used a three-stage process: a professional first transcribed the audio recording, the researcher crosschecked this and finally by the participants. The authors argued that the examination of transcripts by participants could potentially enhance the findings of a study by for example, amending errors that could not be identified by the transcription services or the researcher. However, the researcher must be aware of weaknesses such as the potential for losing important information and additional data protection risks generated by postage or electronic mails (Hagens et al., 2009).

Following the ethical requirements to ensure that the interview transcripts are accurate, I loosely followed the three major steps described by Hagens et al. (2009). I transcribed the audio recordings. The supervisory team to ensure accuracy crosschecked a sub-set of the transcripts of those who consented. Staff/carers were given an opportunity to comment on their own transcripts if they wished to do so. This information was included on the consent form.

3.8) Online Survey

A survey has been described as a process of obtaining information (Sue & Ritter, 2016). The information obtained from surveys can either be exploratory, descriptive in nature or explanatory (Sue & Ritter, 2016). There are currently two types of internet survey: probability online surveys and non-probability based methods (Couper, 2000). Whereas participants in a non-probability survey may not have an equal chance of being selected for the research, probability surveys use a sampling framework and therefore researchers are able to account for non-response rates (Couper, 2000).

There are various problems associated with surveys. These include concepts such as the total survey error which seeks to describe statistical faults within a sample (Toepoel, 2016). Problems such as recall bias, the possibility of respondents to under-report sensitive issues (Blattman, Jamison, Koroknay-Palicz, Rodrigues, & Sheridan, 2016) and poorly designed questionnaires which can introduce measurement errors into a survey (Toepoel, 2016). Another problem with online surveys is when those who do not respond have distinctly different characteristics in comparison to those who do respond (Toepoel, 2016). Some people may also not complete online surveys because the link to the research is misdirected to spam folders (Weaver, Beebe, & Rockwood, 2019). One method of assessing non-respondent bias is to compare people who reluctantly took part in the research to those who readily agreed to take part in the study (T. P. Johnson & Wislar, 2012). This approach is built on the premise that reluctant participants are likely to have similar characteristics as non-respondents (T. P. Johnson & Wislar, 2012). Another weakness with online surveys is that participants who have access to internet may be significantly different from those without internet access (Toepoel, 2016). An inadequate sample size could also result in a sampling error (Toepoel, 2016).

An advantage of online research is that it is fast and cost effective when compared to other methods of data collection (Sue & Ritter, 2016). It is faster to design because of the availability of survey builders (McInroy, 2016). It is also easier to recruit online participants when compared to other modes of recruitment (McInroy, 2016). Participants in online surveys can remain anonymous and therefore more likely to give honest responses to sensitive questions (Teitcher et al., 2015).

The types of questions that are not suitable for surveys include: questions that address several issues at once, those that are unclear and those that provide clues as to how to answer the question (K. Kelley, Clark, Brown, & Sitzia, 2003; Sinkowitz-Cochran, 2013). Questions asked in surveys can be open or closed in construction and they need to be selected based on the research question (Sinkowitz-Cochran, 2013). Numerical rating scales which are commonly used for close ended questions in medical research should be analysed using the frequency of the variable rather than its mean (Sullivan & Artino, 2013). A problem with using visual rating scales as opposed to numerical ones is that they may have higher levels of missing data

(Couper, Tourangeau, Conrad, & Singer, 2006). Additionally, respondents may take a longer time to complete these visual scales (Couper et al., 2006). It is however possible to estimate the mean value of variables presented on a visual rating scale (Klimek et al., 2017). The third type of scale used in close ended questions is the semantic differential rating scale which has been used to successfully describe sexual violence (e.g. whether a person who has experienced sexual violence is a survivor or a victim) (Papendick & Bohner, 2017).

It is also necessary for questionnaires to be valid (i.e. respondents need to understand the aim of the questions asked in a survey) and also reliable (i.e. yield similar responses when it is re-administered after short period of time) (Jenn, 2006). Statistical tests for calculating reliability include measures such as the coefficient alpha and omega (Deng & Chan, 2017). Factor analysis can be used to estimate the construct validity of measuring instruments (A. C. d. Souza, Alexandre, & Guirardello, 2017).

3.9) Ethical requirement for the online survey

As advised by Bournemouth University and the research facilitator of the University Hospital Dorset NHS Foundation Trust, I submitted a non-substantial no study-wide review, which required an amendment of the initial ethics application to the Health Research Authority. As the online survey was anonymous, I could not ascertain the severity or diagnosis of dementia amongst people affected with the disease. I could also not verify the background details of carers and hospital staff. The main ethical issue with my online survey is my inability to mitigate against any stress that my research questions could have caused participants.

3.10) Strengths and limitations of the study design

Although the quantitative study involved a large number of people (n=14,771 for the main sample and n=1,133 for the dementia sample), it was limited by the absence of the influence of non-routine variables (e.g. sleep) on the length of hospital stay. However, I was able to address the first aim of the study, which was to identify the factors that affected the length of hospital stay of patients with dementia. Although the qualitative study interviewed a large number of people (n=52), it was limited by the absence of the views of people with dementia regarding issues that affect them in hospital. I managed to achieve the second aim of the research, which was to develop two support bundles from interviews with staff and carers. Although the online survey included the views of people who identified themselves as having a diagnosis of dementia, I could not verify their diagnosis. The third aim of the study was met by ascertaining the acceptability of the developed falls and discharge support bundles amongst staff, people with dementia and their carers.

3.11) Summary

This chapter presented the philosophical underpinning of mixed-methods research, which is pragmatism. The chapter then justifies the use of a mixed-methods approach by listing its advantages and disadvantages. The quantitative study was identified as a retrospective research. The ethical dilemmas present in the quantitative, qualitative and online survey are highlighted. The benefits and drawbacks of online surveys were highlighted. The next chapters discuss the analysis of the quantitative, qualitative and online studies.

Chapter 4

4.1) Phase 1 (Quantitative)

The aim of this chapter (Phase 1) of the thesis is to describe a retrospective cross sectional study of 14,771 people who had stayed in hospital for more than 24 hours and not been readmitted. Another sample of 1,133 people with dementia, who had not been readmitted and had stayed in hospital for more than 24 hours, was extracted. These two samples were analysed separately. The two samples were obtained from 35,792 emergency admissions with a recorded discharge date between 01/01/2016 and 31/12/2016. The prevalence rate of dementia in the sample was 5.4% (1,950 out of 35,792). The hospital dataset forms a part of the details submitted to Secondary Uses Service of the NHS Digital Department.

4.2) Study design

The study is a retrospective cross-sectional study of patients who were admitted into hospital between 01/01/2016 and 31/12/2016. This research was cross-sectional in nature because it sought to document the factors (i.e. demographic, administrative and clinical variables) that affect the patients' length of hospital stay. Cross-sectional studies offer researchers the ability to look at a wide range of variables (Levin, 2006). Also, it does not require a huge amount of financial resources for its implementation (Levin, 2006). The results obtained from cross-sectional studies may, however, not indicate causality (Levin, 2006).

4.3) Rationale for the choice of the variables included in the analysis

Dependent Variable

A. Increased length of stay

A systematic review of 52 studies indicated that the length of hospital stay for patients with dementia was longer than those without dementia (Möllers et al., 2019). This was attributed to reasons such as co-morbidities and the behavioural symptoms of dementia (Möllers et al., 2019). Answers obtained from 73 NHS

Trusts, following a Freedom of Information request showed that the period of hospitalisation for older patients with dementia was doubled (Boaden, 2016). This variable was chosen as a dependent variable because of previous research has indicated that there are differences in the length of hospital stay for people with and without dementia.

Demographical Independent Variables

B. Age

Whilst some researchers have found an association between older age and length of stay (Aminzadeh & Dalziel, 2002), others have found younger age to be associated with prolonged hospital stay (Marfil-Garza et al., 2018). This study will investigate if there is a relationship between age and hospital length of stay.

C. Gender

Previous research has found an association between prolonged hospital stay and being a male medical patient (Barba et al., 2015) and a female emergency unit patient (Vetrano et al., 2014). This study will ascertain if there are differences in length of hospital stay in relation to gender.

Administrative Independent variables

D. Type of residence

A previous study has found that placements in a nursing home increased the length of hospital stay for patients (Toh, Lim, Yap, & Tang, 2017). Also, feedback obtained from a Freedom of Information request indicated that the discharge destination after hospitalisation for approximately 7.7% people with dementia had changed from home to a care home (Boaden, 2016). This study will assess if there are differences in length of stay for admissions and discharges to care homes.

E. Admission Day

Kasteridis et al. (2015) study found that people with dementia who were admitted on Wednesday and Thursday were likely to spend an additional 4-5 days in hospital if they were going to be discharged into an institution. Findings from another study indicated a non-significant difference in the length of stay for patients who were admitted on public and non-public holidays (Dagar, Sahin, Yilmaz, & Durak, 2016). This study will investigate whether there are differences in length of stay for the various admission days.

Clinical Independent Variables

F. Dementia

A systematic review found that a diagnosis of dementia is associated with longer lengths of hospital stay (Möllers et al., 2019). Dementia in the present study was defined using International Classification of Diseases (ICD) codes. The study will therefore ascertain if there are differences in length of stay for patients in general and those with dementia.

G. The National Early Warning Signal (NEWS)

The NICE (2007) guideline mandates hospitals to monitor the physiological measurements of patients in acute settings. The values produced from these physiological measurements are categorised into three risk groups: low, medium and high. These risk groups indicate stable and unstable physiological measurement (NICE, 2007). Findings from a previous study has documented a relationship between high early warning signal scores and prolonged length of hospital stay (Groarke et al., 2008). This study will ascertain if there are differences length of stay in terms of the severity of illness.

H. Falls

Royal College of Physicians (2015) stated that a dementia diagnosis in addition to being in a new hospital environment can make one vulnerable to falls. Furthermore, the feedback provided by 38 NHS Trusts upon receipt of a Freedom of Information request, indicated that approximately 30% of documented falls occurred amongst older patients with dementia (Boaden, 2016). Also, a previous study has documented an association between in-patient hospital fall with prolonged hospital stay (Dunne, Gaboury, & Ashe, 2014). This study will find out if there are differences in the length of stay for falls on the ward.

I. Nutrition

The Alzheimer's Society (2013a) identifies a wide range of reasons why people with dementia may have inadequate nutrition. These reasons include: difficulties in expressing hunger and the stress generated from using cutlery as a result of co-ordination problems (Alzheimer's Society, 2013a). Goldberg et al. (2012) found that older people with cognitive impairment are likely to be susceptible to malnourishment. The relationship between malnourishment in the form of Malnutrition Universal Screening Tool (MUST) scores have been documented to be associated with a prolonged hospital stay (Stratton, King, Stroud, Jackson, & Elia, 2006). This study will determine if there are differences in length of stay for the malnutrition scores.

J. Pressure Sores

According to the Alzheimer's Society (2013b) people living with dementia are prone to developing bedsores because of factors such as: difficulties in movement, a reduction in blood flow and inadequate nutrition. Furthermore, an association between prolonged hospital stay and the experience of pressure sores has been documented in a previous study (Theisen, Drabik, & Stock, 2012). This study will seek to find out if there are differences in length of stay with the development of pressure sores.

K. Waterlow score (susceptibility to pressure sores)

Sampson, Blanchard, et al. (2009) established that there was an increased possibility of acquiring pressure sores in older patients with dementia. An association between Waterlow scores and prolonged hospital stay has been documented by a previous research (J. W. Wang et al., 2019). This study will establish if there are any differences in length of stay for the various Waterlow sores.

4.4) <u>Which statistical test and why?</u>

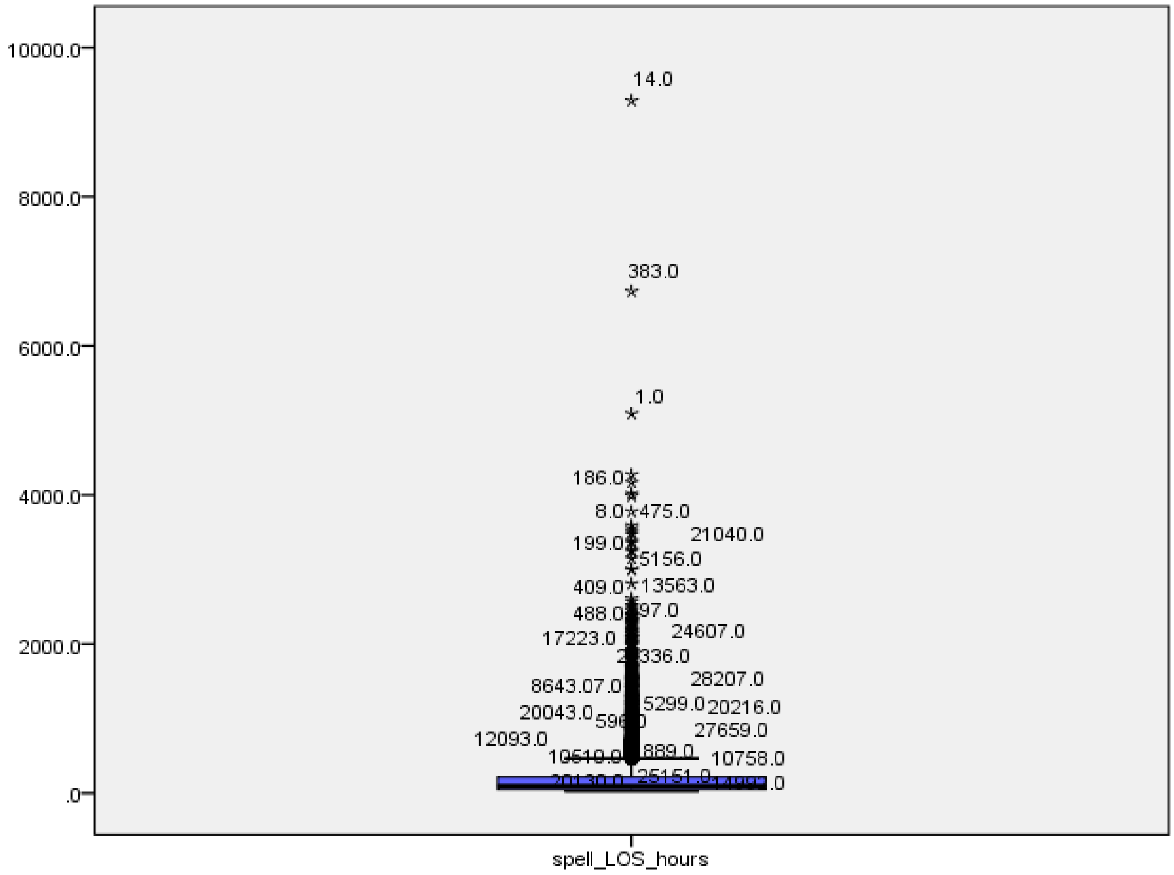
The anonymised information was analysed using SPSS 19. A normality test for the dependent variable was conducted. I first conducted bivariate statistics and then followed them up with multivariate analysis in order to identify which variables predicted patients' length of stay. This approach enabled me to meet one of my research objectives (i.e. to generate knowledge on the factors that affect the length of hospital stay amongst patients with dementia). The rationale for selecting a main sample was to ascertain if a diagnosis of dementia predicted length of hospital stay. I was also able to establish whether the factors that predicted length of stay in the main sample were similar to the dementia sub-sample. As the dependent variable was continuous and skewed, I used the following non-parametric tests: Mann-Whitney Test (two groups), Spearman's Test (continuous variable) and Kruskal Wallis Test (three or more groups) (Field, 2005). I only used the variables that showed significant associations ($p<.05$) in the Negative Binomial Regression model. The Negative Binomial Regression model was used because previous authors have suggested that it is the most appropriate test for continuous data which are skewed (Carter & Potts, 2014; Kasteridis et al., 2015). The One-Sample Kolmogorov-Smirnov Test for length of stay in both the main and dementia sub-sample were significant for Poisson, which demonstrates that the data does not follow a Poisson distribution. In the main sample, a negative binomial regression was chosen because the variance for hospital length of stay (97,245.106) was greater than the mean (202.539). In the dementia sub-sample, a negative binomial regression was chosen because the variance for hospital length of stay (220,287.735) was greater than the mean (344.936). This phenomenon is known as over dispersion. Therefore, a Negative Binomial Regression is the most appropriate statistical technique used for this type of situation (Trentino et al., 2013).

4.5) Screening the dataset

1) Checking for missing data

There were no missing values in the dataset for the following variables: Age, Gender, Admission method, Discharge method, Admission from a care home, Discharge to a care home, Admission day, Admission is a bank holiday, Dementia spell, Dementia history, Falls and Pressure sores. The missing values in the dataset were systematic as opposed to random missing values. The ward (REOBS) had highest missing values. The missing MUST scores on admission, which was 12,341 (34.5%), missing Waterlow scores on admission was 12,408 (34.7%) and the missing data for the first early warning signal were 13,450 (37.6%). I therefore used the exclude pairwise option (this was completed so that the details that are available are included in the analysis).

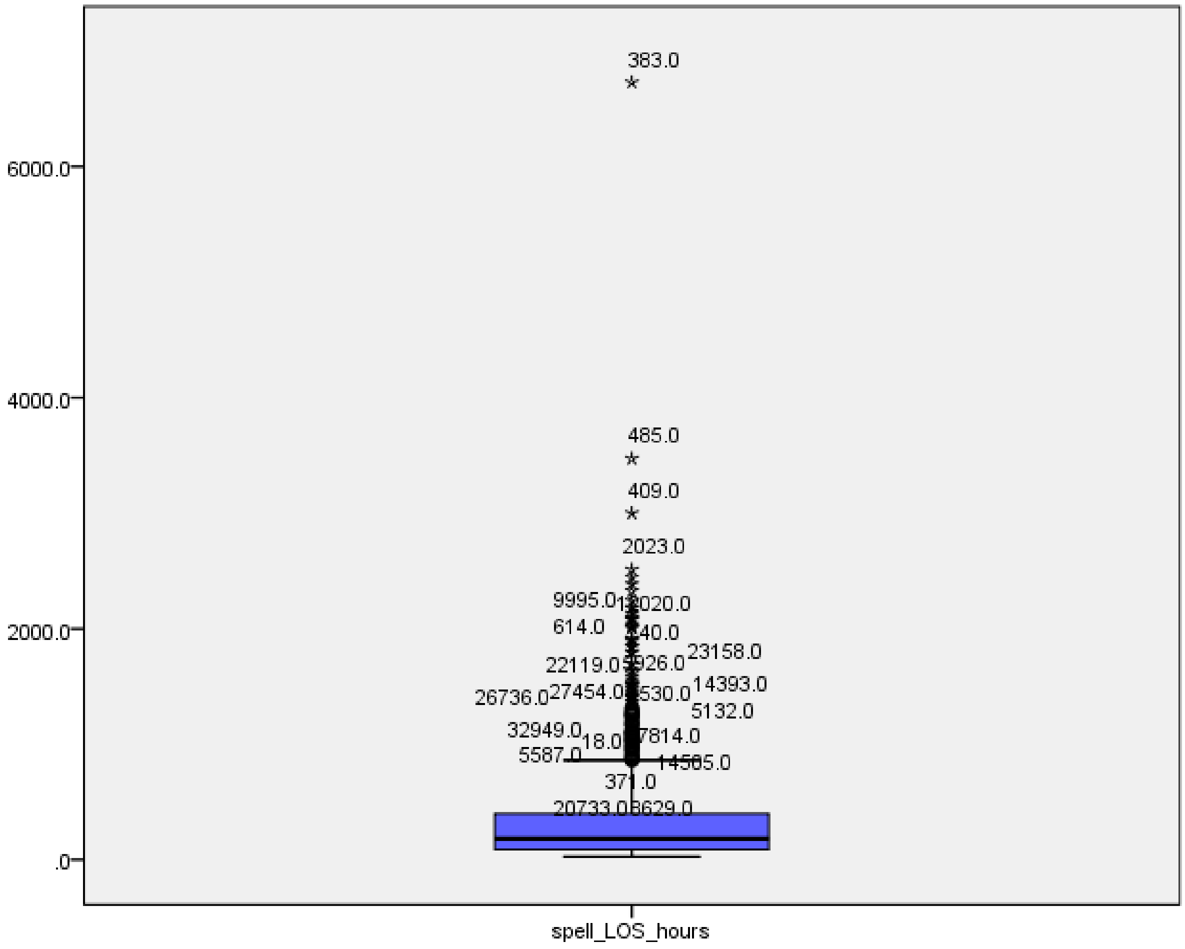
2) **Figure 8:** Checking for outliers in the main sample



Box plot showing the distribution of length of hospital stay

The box plot shows the number of outliers in the main sample. As the data forms part of the submissions made to Secondary Uses Service, the outliers were considered as genuine. In the main sample, the five percent trimmed mean was 155.106 when compared to a mean of 202.539. The Kolmogorov-Smirnov test (Statistic=.285, df =14,771, Sig. =000) was significant. This means that the data does not follow a normal distribution.

3) **Figure 9: Checking for outliers in the sub-sample**

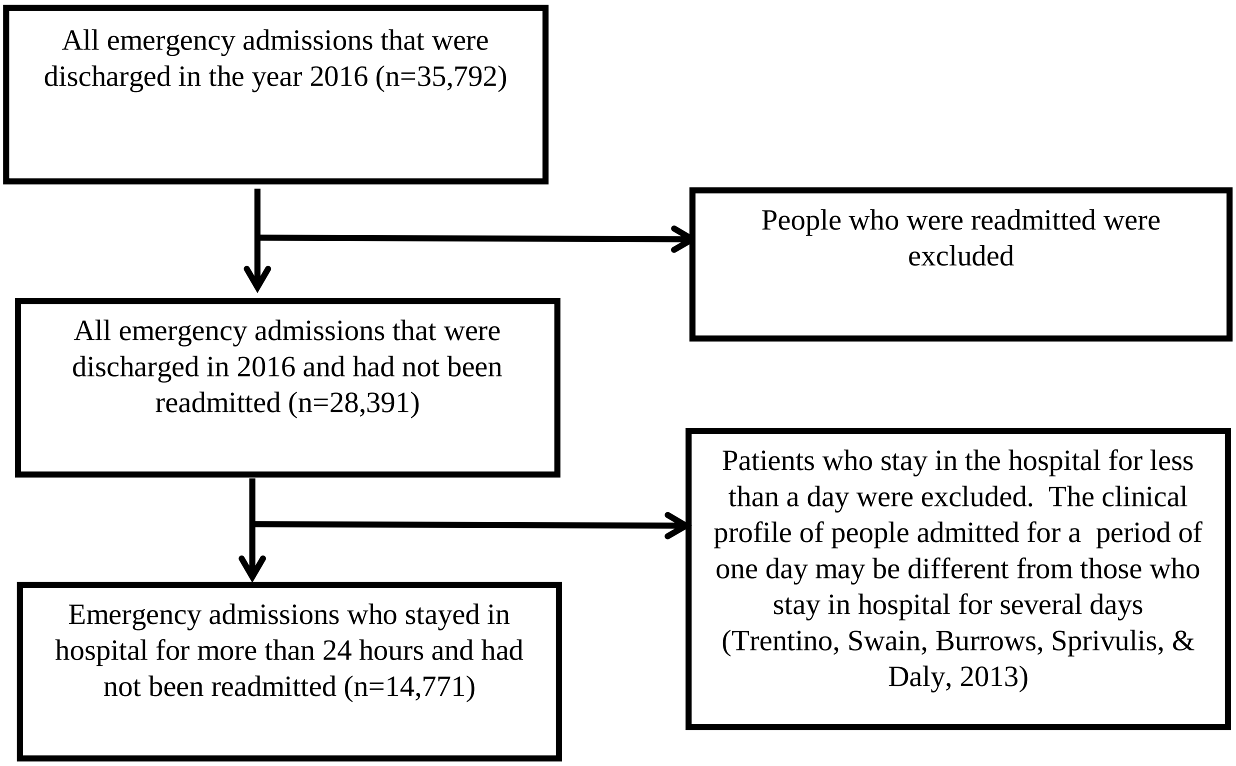


Box plot showing the distribution of length of hospital stay

The box plot shows the number of outliers in the dementia sub-sample. As the data forms part of the submissions made to Secondary Uses Service, the outliers were considered as genuine. In the dementia sample, the five percent trimmed mean was 277.412 when compared to a mean of 344.936. The Kolmogorov-Smirnov test

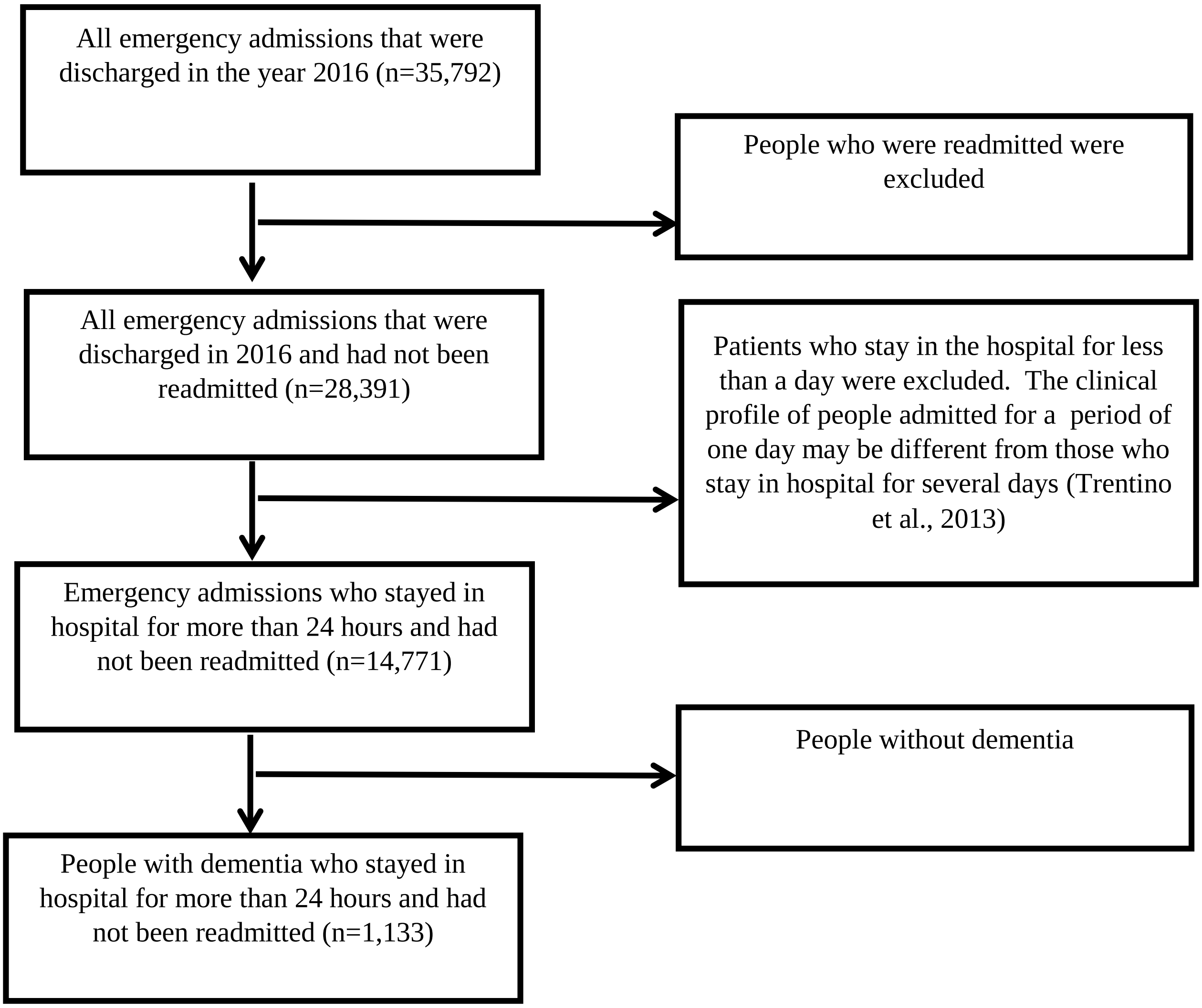
(Statistic=.248, df =1,133, Sig. = .000) was significant. This means that the data does not follow a normal distribution.

Figure 10: **The selection of patients in the main sample**



There was a total of 35,792 emergency admissions between 1st January 2016 and 31 December 2016. I then extracted a sub-sample of 28,391 participants that had not been readmitted. A final sample of 14,771 people who had stayed in hospital for more than 24 hours and not been readmitted was extracted from the dataset.

Figure 11: **The selection of patients in the dementia sub-sample**

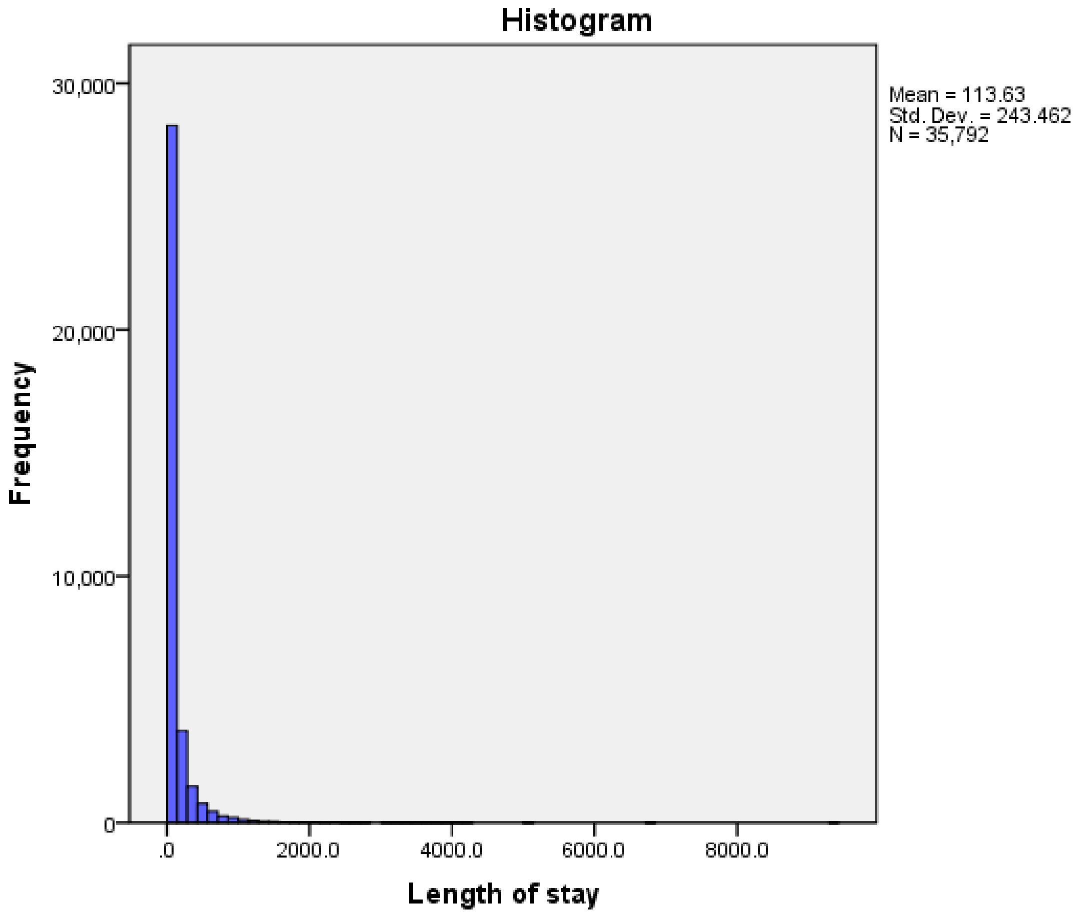


There was a total of 35,792 emergency admissions between 1st January 2016 and 31 December 2016. I then extracted a sub-sample of 28,391 participants that had not been readmitted. A sample of 14,771 people who had stayed in hospital for more than 24 hours and not been readmitted was extracted from the dataset. A final sample of 1,133 people with dementia, who had not been readmitted and had stayed in hospital for more than 24 hours, was extracted.

4.6) The dependent variable

The dependent variable was length of stay. The minimum length of stay in hours was 0.0 and the maximum length of stay in hours was 9,289 for n=35,792. The mean length of stay was 113.6 hours (median=29, Mode=2, Std. Deviation=243.4) for n=35,792. In the main sample (n=14,771), the mean length of stay was 202.5 hours (median=98, mode=25, Std. Deviation=311.8). In the dementia sub-sample (n=1,133), the mean length of stay was 344.9 hours (median=181, mode=25, Std. Deviation=469.3)

Figure 12: **Assessing for the normality of the dependent variable (hours)**



The mean length of stay was 113.63 hours with a positive skew. The Kolmogorov-Smirnov statistic was significant (statistic=.320, df=35,792, Sig=.000). This means that the data does not follow the normal distribution curve.

The independent variables in the dataset were: demographical, administrative and clinical.

4.7) **Findings of the demographic data**

The demographic details of participants were included in the analysis to give background information on the sample. The minimum age in the sample was 14 and the maximum age was 106. The mean age of the participants for n=35,792 was 62.9 (median=68, mode=85, Std. Deviation=22.1). The mean age of the participants for n=14,771 was 69.5 (median=75, mode=85, Std. Deviation=19.8). The mean age of the participants for n=1,133 was 85.5 (median=86, mode=87, Std. Deviation=7.2). Sex was originally coded as 1=Male and 2=Female (NHS Digital Data Dictionary, 2017c). For n=35,792, the total number of males=17,246 (48.2%) and the total number of females=18,546 (51.8%). For n=14,771, the total number of males=7,162 (48.5%) and the number of females=7,609 (51.5%). For n=1,133 the total number of males=460 (40.6%) and the number of females=673(59.4%). The prevalence rate of dementia in the sample was 5.4% (1,950 out of 35,792).

Objective 1: To assess the relationship between age and length of hospital stay.
The non-parametric correlation was used to assess the relationship between age and length of stay. Results from the main sample indicated a medium correlation between age and length of hospital stay (n=14,771, r=.322, p=.000). Results from the dementia sub-sample showed a very weak correlation between age and length of stay (n=1,133, r=.072, p=.015). This means that older age is associated with higher length of stay.

Objective 2: To investigate whether males and females have the same length of stay.
The non-parametric (Mann-Whitney) test was used to examine the differences in length of stay for males and females. Results from the main sample (n= 14,771, U=26,896,146, p=.175, z=-1.358) and the dementia sub-sample (n=1,133, U=153,033.5, p=.745, z=-.325) showed no significant differences between males and females in regards to their length of stay

4.8) Findings of the administrative variables

Admission method was originally coded as 21=attendance at an Emergency Unit (A&E), 22=Referral from a Medical Practitioner (MP), 24=Referral from a consultant and 28=Admitted from for example, another hospital (NHS Digital Data Dictionary, 2017a). For n=35,792, A&E admissions=21,597 (60.3%), MP admissions=11,797 (33%), Admissions from consultant=436 (1.2%) Admissions from another hospital=1,962 (5.5%). For n=14,771, A&E admissions=8,383 (56.8%), MP admissions=5,273 (35.7%), Admissions from consultant=159 (1.1%), Admissions from another hospital=956 (6.5%). For n=1,133, A&E admissions=706 (62.3%), MP admissions=400 (35.3%), Admissions from consultant=2 (0.2%), Admissions from another hospital=25 (2.2%).

Objective 3: To examine whether there are differences in length of stay for the various admission methods. Results from the Kruskal-Wallis statistical test showed no significant differences in the length of stay for the various admission groups in the main sample (n=14,771, χ=6.113, p=.106) and the dementia sub-sample (n=1,133, χ=5.250, p=.154).

Discharge method was originally coded as 1=Discharge is based on clinical advice, 2=Self discharge 3=Discharged by an institution such as a court and 4=Death (NHS Digital Data Dictionary, 2017b). For n=35,792, clinical advice discharge=33,816 (94.5%), self-discharge =447 (1.2%), discharged by an institution such as a court=13 (.0%) and died=1,516 (4.2%). For n=14,771, clinical advice discharge=13,674 (92.6%), self-discharge=129 (0.9%), discharged by an institution such as a court=1 (.0%) and died=967(6.5%). For n=1,133, clinical advice discharge=984 (86.8%), self-discharge=2 (0.2%) and died=147 (13%).

Objective 4: To determine if there are significant differences in the length of stay for the various discharge methods. Results from the Kruskal- Wallis test showed a significant difference in length of stay for the various discharge methods in the main sample (n=14,771, χ =352.003, p=.000) and the dementia sub-sample (n=1,133, χ =11.866, p=.003). For the main sample, death as a method of discharge recorded a higher median length of stay (210 hours) when compared to discharge based on clinical advice (96 hours), Self-discharge (63 hours) and Discharge by an Institution (55 hours). For the dementia sub-sample, death as a discharge method recorded a higher median length of stay (234 hours) when compared to discharge based on clinical advice (167.5 hours), and self discharge (144 hours).

For n=35,792, admission from a care home was coded as Yes (2,860 or 8%) and No (32, 932 or 92%). For n=14,771, admissions from care home=1, 412 (9.6%) and not admitted from a care home=13,359 (90.4%). For n=1,133, admissions from care home=416 (36.7%) and not admitted from a care home=717 (63.3%). This information was based on the patients' postcode details, which indicated that it was a registered care home.

Objective 5: To assess whether there is a significant difference in length of stay for admissions from a care home. Results from the Mann-Whitney test showed that there were significant differences in length of stay for admission from a care home in the main sample (n=14,771,U=8,297,403.5, p=.000, z=-7.442) and the dementia sub-sample (U=111,724.5, p=.000, z=-7.047). For the main sample, the median length of stay for people who were not admitted from a care home was shorter (97 hours) than those admitted from a care home (124.5 hours). In contrast, for the dementia sub-sample, the median length of stay for people who were not admitted from a care home was longer (221 hours) than those admitted from a care home (135.5 hours).

For n=35,792, discharge to a care home was coded as Yes (3,069 or 8.6%) and No (32, 723 or 91.4%). For n=14,771, discharges to a care home=1,572 (10.6%) and not discharged to a care home=13,199 (89.4%). For n=1,133, discharges to a care home=458 (40.4%) and not discharged to a care home=675 (59.6%).

Objective 6: To investigate whether there are significant differences in the length of stay of patients who are discharged to a care home. Results from the Mann-Whitney Test showed that there were significant differences in length of stay for people discharged to a care home in the main sample (n=14,771, U=8,318,857.5, p=.000 z=-12.862) and the dementia sub-sample (n=1,133, U=133,349.5, p=.000 z=-3.927). For the main sample, the median length of stay value for those discharged to a care home was 141 hours when compared to those who were not discharged to a care home (96 hours). In contrast, for the dementia sub-sample, the median length of stay for those discharged to a care home was shorter (144 hours) than those who were not discharged to a care home (205 hours).

Admission Day was automatically recoded as follows: 1=Friday 2=Monday, 3=Saturday, 4=Sunday 5=Thursday, 6=Tuesday, 7=Wednesday. For n=35,792, there were the following admissions: Friday=5,514 (15.4%), Monday=5,477 (15.3%), Saturday=4,421 (12.4%), Sunday=4,411 (12.3%), Thursday=5,470 (15.3), Tuesday= 5,350 (14.9 %) and Wednesday=5,149 (14.4%). For n=14,771, there were the following admissions: Friday=2,152 (14.6%), Monday=2,291(15.5%), Saturday=1,860 (12.6%), Sunday=1,914 (13%), Thursday=2,199 (14.9%), Tuesday=2,227 (15.1%), Wednesday=2,128 (14.4%). For n=1,133, there were the following admissions: Friday=161 (14.2%), Monday=155 (13.7%), Saturday=166 (14.7%), Sunday=192 (16.9%), Thursday=170 (15%), Tuesday=155 (13.7%), Wednesday=134 (11.8%).

Objective 7: To determine if there is a significant difference in the length of stay for the various admission days. The Kruskal- Wallis test showed a significant difference in length of stay for the various admission days in the main sample (n=14,771, χ=19.2, p=.004) but not in the dementia sub-sample (n=1,133, χ =4.856, p=.562). For the main sample, the highest median for length of stay was Thursday (113 hours) when compared to Friday (107 hours), Saturday (101 hours), Wednesday (97 hours), Sunday (95 hours), Monday (94 hours) and Tuesday (86 hours).

For n=35,792, Admission is a bank holiday was coded as 0=Not a bank holiday (35,099 or 98.1%) and 1=Bank holiday (693 or 1.9%). For n=14,771, admissions on a bank holiday=294 (2%) and not admitted on a bank holiday=14,477 (98%). For n=1,133, admissions on a bank holiday=28 (2.5%) and not admitted on a bank holiday=1,105 (97.5%).

Objective 8: To ascertain whether there are significant differences in length of stay for admissions on a bank holiday. The Mann-Whitney Tests did not show any significant differences in length of stay for admissions on a bank holiday in the main sample (n=14,771, U=2,088,643.5, p=.585, z=-.545) and the dementia sub-sample (n=1,133, U= 15,275.5, p=.909, z=-.114).

4.9) Findings of the clinical variables

The dataset (n=35,792) had dementia spell coded as 0 =No Dementia Spell (33,842 or 94.6%) and 1=Has Dementia Spell (1,950 or 5.4%). For n=35,792, dementia history was coded as 0=No dementia history (33,730 or 94.2%) and 1=Has Dementia (2,062 or 5.8%). For n=14,771, dementia spell=1,133 (7.7%) and no dementia spell=13,638 (92.3%). For n=14,771, dementia history=1,182 (8%) and no dementia history=13,589 (92%). The ICD codes that were used is as follows: “F00(Alzheimer’s disease), F01(Multi-infarct Dementia or Vascular Dementia), F02 (Dementia due to other causes such as Picks disease), F03 (Dementia with an unnamed aetiology), G301 (Alzheimer’s Disease with an onset in older people) and G308 (Other types of Alzheimer’s disease)” (World Health Organisation, 2010). Dementia spell was defined as the presence or absence of dementia coding applied to a specific spell. Dementia history was defined as the presence or absence of dementia coding applied to a specific spell or to any previous spell in the Trust.

Objective 9: To evaluate whether there are significant differences in length of stay for people with dementia. In the main sample, the Mann-Whitney test showed that there were significant differences in length of stay for dementia spell (n=14,771, U=5,368,991.0, p=.000, z=-17.09) and dementia history (n=14,771, U=5,628,709.0, p=.000, z=-17.08). In the main sample, the median length of stay for people with dementia spell was 181 hours compared to 96 hours for those without dementia spell. In the main sample, the median length of stay for people with dementia history was 178 hours compared to 95 hours for people without dementia history.

The dataset had information on the first Early Warning Signals of patients. I recoded this variable into the three groups made mention of in Fogg, Meredith, Bridges, Gould, and Griffiths (2017) study: Low Early Warning Signal Group (0→0, 1→0, 2→0, 3→0, 4→0), Medium Early Warning Signal Group (5→1,6→1), High Early Warning Signal (7→2, 8→2, 9→2, 10→2, 11→2, 12→2, 13→2, 14→2, 15→2, 16→2). For n=35,792, Low Early Warning Signal=19,864 (55.5%), Medium Early Warning Signal=1,489 (4.2%), High Early Warning Signal=989 (2.8%), Missing data=13,450 (37.6%). For n=14,771, Low Early Warning Signal=10,843 (73.4%), Medium Early Warning Signal=1,043 (7.1%), High Early Warning Signal=680 (4.6%), Missing data=2,205 (14.9%). For n=1,133, Low Early Warning Signal=808 (71.3%), Medium Early Warning Signal=106 (9.4%), High Early Warning Signal=61 (5.4%), Missing data=158 (13.9%).

Objective 10: To assess whether there are significant differences in the length of stay for the various early warning signals. Results from the Kruskal- Wallis test showed a significant difference in length of stay for the various early warning signal in the main sample (n=14,771, χ=170.1, p=.000) but not in the dementia sub-sample (n=1,133, χ=.562, p=.755). In the main sample, the high early warning signal had the greatest median length of stay value (144 hours) when compared to the medium (141 hours) and low (94 hours) early warning signals.

The dataset had facts relating to the occurrence of falls without injury on the wards and the frequency with which they occurred. I recoded this variable into two groups: No falls (0→0) and fall without Harm (1→1, 2→1, 3→1, 4→1, 5→1, 6→1, 7→1, 8→1, 9→1). The falls without harm included the following people who fell from 1 up to 9 times. For n=35,792, No falls without harm=35,123 (98.1%) and Falls without harm=669 (1.9%). For n=14,771, No falls without harm=14,279 (96.7%) and Falls without harm=492 (3.3%). For n=1,133, No falls without harm=1,023 (90.3%) and Falls without harm=110 (9.7%).

Objective 11: To determine whether there is a significant difference in length of stay for falls without injury. Results from the Mann-Whitney test showed that there were significant differences in length of stay for falls without injury in the main sample (n=14,771, U= 1,234,809.5, p=.000, z=-24.495) and the dementia sub-sample (n=1,133, U= 24,117.5 p=.000, z=-9.858). In the main sample, the median length of stay for people who had a falls without injury was 449 hours when compared to those without falls (96 hours). In the dementia sub-sample, the median length of stay for people who had falls without injury was 549.5 hours compared to those without falls (162 hours).

I had data on falls, which occurred with minor harm variable and the frequency with which they occurred. This variable was coded as follows: No falls (0→0) and falls with minor injury (1→1, 2→1, 3→1, 4→1, 5→1, 9→1). The falls with minor harm included the following people who fell from 1 up to 9 times. For n=35,792, No falls with minor harm=35,413 (98.9%) and Falls with minor harm=379 (1.1%). For n=14,771, No falls with minor harm=14,498 (98.2%) and Falls with minor harm=273 (1.8%). For n=1,133, No falls with minor harm=1,088 (96%) and Falls with minor harm=45 (4%).

Objective 12: To examine whether there are significant differences in length of stay for falls with minor injury. Results from the Mann-Whitney test showed that there were significant differences in length of stay for falls with minor injury in the main sample (n=14,771, U= 568,673.5, p=.000, z=-20.205) and the dementia sub-sample (U=9,828.5, p=.000, z=-6.812). In the main sample, the median length of stay for falls with minor harm was 524 hours compared to 97 hours for those without falls. In the dementia sub-sample, the median length of stay for falls with minor harm was 598 hours compared to 171 hours of people without falls.

As the dataset with 35,792 records had 19 falls, which occurred with, moderate harm and 16 falls, which occurred with major harm. I added these two variables. For n=14,771, No falls with moderate and major harm=14,750 (99.9%) and Falls with moderate and moderate harm=21(0.1%). For n=1,133, No falls with moderate and major harm=1,128 (99.6%) and Falls with moderate and major harm=5 (0.4%).

Objective 13: To investigate whether there are significant differences in length of stay for falls with moderate and major harm. The Mann-Whitney test showed that there was a significant difference in length of stay for falls with moderate and major harm in the main sample (n=14,771, U=89,895.0, p=.001, z=-3.328) but not in the dementia sub-sample (n=1,133, U=2,143.0, p=.354, z=-.927). In the main sample, the median length of stay for people who fell and sustained a moderate and major injury was 283 hours compared to a median stay of 98 hours of people who did not fall.

The dataset had documentation regarding the MUST scores of patients on admission. I recoded this in the same manner as Fogg et al. (2017) study. Low MUST score Group (0→0), Moderate MUST score Group (1→1), and High MUST score Group (2→2, 3→2, 4→2, 5→2, 6→2). For n=35,792, Low MUST score Group=19, 911(55.6%), Moderate MUST score Group=1,131 (3.2%) and High MUST score Group=2,409 (6.7%), Missing data=12,341 (34.5%). For n=14,771, Low MUST score Group=12,147 (82.2%), Moderate MUST score Group=671 (4.5%) and High MUST score Group=1,629 (11%), Missing data=324 (2.2%). For n=1,133, Low MUST score Group=816 (72%), Moderate MUST score Group=44 (3.9%), High MUST score Group=261 (23%), Missing data=12 (1.1%).

Objective 14: To examine whether there are significant differences in the length of stay for the various MUST scores. The Kruskal-Wallis test showed a significant difference in length of stay for the various MUST scores in the main sample (n=14,771, χ=302.6, p=.000) and the dementia sub-sample (n=1,133, χ =6.045, p=.049). In the main sample, the high MUST score had the greatest median length of stay value (172 hours) when compared to the moderate (106 hours) and low (95 hours) MUST scores. In the dementia sub-sample, the high MUST score had the greatest median length of stay value (226 hours) when compared to the moderate (149 hours) and low (171.5 hours) MUST scores.

The dataset had details about the type of pressure sores that patients presented on admission into the hospital and the frequency with which they occurred. This variable was coded as follows: No category 1 pre-admission pressure sore (0→0) and people with a category 1 pre-admission pressure sore (1→1, 2→1, 3→1, 4→1, 5→1, 6→1). The people with category 1 pre-admission pressure sores had sustained from 1 up to 6 pressure sores. For n=35,792, No category 1 pre-admission pressure sores=35,153 (98.2%) and category 1 pre-admission pressure sores=639 (1.8%). For n=14,771, No category 1 pre-admission pressure sores=14,310 (96.9%) and category 1 pre-admission pressure sores=461 (3.1%). For n=1,133, No category 1 pre-admission pressure sores=1,038 (91.6%) and category 1 pre-admission pressure sores=95 (8.4%).

Objective 15: To determine whether there are significant differences in length of stay for category 1 pre-admission pressure sores. The Mann-Whitney test showed that there were significant differences in length of stay for category 1 pre-admission pressure sore in the main sample (n=14,771, U=1,863,749.0, p=.000, z=-15.921) and the dementia sub-sample (n=1,133,U=42,454.0, p=.025, z=-2.244). In the main sample, the median length of stay for people with category 1 pre-admission pressure sores was 239 hours compared to 97 hours for those without pressure sores. In the dementia sub-sample, the median length of stay for people with category 1 pre-admission pressure sores was 222 hours compared to 172.5 hours for people without pressure sores.

There was information on patients who presented at the hospital with category 2 pre-admission pressure sores and the frequency with which they occurred. I recoded this variable as follows: No category 2 pre-admission pressure sore (0→0) and people with a category 2 pre-admission pressure sore (1→1, 2→1, 3→1, 4→1, 5→1, 6→1). The people with category 2 pre-admission pressure sores had sustained from 1 up to 6 pressure sores. For n=35,792, No category 2 pre-admission pressure sores=34,743 (97.1%) and category 2 pre-admission pressure sores=1,049 (2.9%). For n=14,771, No category 2 pre-admission pressure sores=14,061 (95.2%) and category 2 pre-admission pressure sores=710 (4.8%). For n=1,133, No category 2 pre-admission pressure sores=1,030 (90.9%) and category 2 pre-admission pressure sores=103 (9.1%).

Objective 16: To ascertain whether there are significant differences in length of stay for category 2 pre-admission pressure sores. The Mann-Whitney test showed that there were significant differences in length of stay for category 2 pre-admission pressure sore in the main sample (n=14,771, U=2,775,753.0, p=.000, z=-19.989) but not the dementia sub-sample (n=1,133, U=47,821.0, p=.099, z=-1.650). In the main sample, the median length of stay for people with category 2 pre-admission pressure sores was 248.5 hours compared to 96 hours for those without pressure sores.

Information on patients' category 3 pre-admission pressure sores was also made available in the dataset alongside the frequency with which they occurred. This variable was recoded as follows: No category 3 pre-admission pressure sore (0→0) and people with a category 3 pre-admission pressure sore (1→1, 2→1, 3→1, 4→1). The people with category 3 pre-admission pressure sores had sustained from 1 up to 4 pressure sores. For n=35,792, No category 3 pre-admission pressure sores=35,474 (99.1%) and category 3 pre-admission pressure sores=318 (0.9%). For n=14,771, No category 3 pre-admission pressure sores=14,555 (98.5%) and category 3 pre-admission pressure sores=216 (1.5%). For n=1,133, No category 3 pre-admission pressure sores=1,107 (97.7%) and category 3 pre-admission pressure sore=26 (2.3%).

<u>Objective 17</u>: To investigate whether there are significant differences in length of stay for category 3 pre-admission pressure sores. The Mann-Whitney test showed that there were significant differences in length of stay for category 3 pre-admission pressure sore in the main sample (n=14,771, U=692,468.5, p=.000, z=-14.137) and the dementia sub-sample (n=1,133, U=10,376.0, p=.015, z=-2.435). In the main sample, the median length of stay for people with category 3 pre-admission pressure sores was 357.5 hours compared to 97 hours for those without pressure sores. In the dementia sub-sample, the median length of stay for people with category 3 pre-admission pressure sores was 279.5 hours compared to 178 hours for people without pressure sores.

The dataset had figures regarding the presence of category 4 pre-admission pressure sores amongst patients alongside the frequency with which they occurred. This variable was recoded as follows: No category 4 pre-admission pressure sore (0→0) and people with a category 4 pre-admission pressure sore (1→1, 2→1, 3→1, 4→1). The people with category 4 pre-admission pressure sores had sustained from 1 up to 4 pressure sores. For n=35,792, No category 4 pre-admission pressure sore=35,690

(99.7%) and category 4 pre-admission pressure sore=102 (0.3%). For n=14,771, No category 4 pre-admission pressure sore=14,708 (99.6%) and category 4 pre-admission pressure sore=63 (0.4%). For n=1,133, No category 4 pre-admission pressure sore=1,123 (99.1%) and category 4 pre-admission pressure sores=10 (0.9%).

<u>Objective 18</u>: To determine whether there are significant differences in length of stay for category 4 pre-admission pressure sores. The Mann-Whitney test showed that there were significant differences in length of stay for category 4 pre-admission pressure sore in the main sample (n=14,771, U=229,751.5, p=.000, z=-6.915) but not in the dementia sub-sample (n=1,133, U=4,523.0, p=.289, z=-1.060). In the main sample, the median length of stay for people with category 4 pre-admission pressure sores was 308 hours compared to 98 hours for those without pressure sores.

There was information on un-stageable pre-admission pressure sores alongside the frequency with which they occurred. This variable was recoded as follows: No un-stageable pre-admission pressure sore (0→0) and people with un-stageable pre-admission pressure sore (1→1, 2→1, 3→1, 4→1). The people with un-stageable pre-admission pressure sores had sustained from 1 up to 4 pressure sores. For n=35,792, No un-stageable pre-admission pressure sore=35,732 (99.8%) and un-stageable pre-admission pressure sore=60 (0.2%). For n=14,771, No un-stageable pre-admission pressure sores=14,726 (99.7%) and un-stageable pre-admission pressure sore=45 (0.3%). For n=1,133, No un-stageable pre-admission pressure sores=1,130 (99.7%) and un-stageable pre-admission pressure sores=3 (0.3%).

<u>Objective 19</u>: To examine whether there are significant differences in length of stay for un-stageable pre-admission pressure sores. The Mann-Whitney test showed that there were significant differences in length of stay for un-stageable pre-admission pressure sore in the main sample (n=14,771, U=183,292.0, p=.000, z=-5.183) but not in the dementia sub-sample (n=1,133, U=1,214.5, p=.396, z=-.849). In the main sample, the median length of stay for people with un-stageable pre-admission pressure sores was 237 hours compared to 98 hours for those without pressure sores.

The dataset also documented information regarding the development of category 1 post-admission pressure sores and the frequency with which they occurred. This variable was recoded as follows: No category 1 post-admission pressure sore (0→0) and people with category 1 post-admission pressure sore (1→1, 2→1, 3→1, 4→1, 5→1, 6→1). The people with category 1 post-admission pressure sores had sustained from 1 up to 6 pressure sores. For n=35,792, No category 1 post-admission pressure sore=35,340 (98.7%) and category 1 post-admission pressure sore=452 (1.3%). For n=14,771, No category 1 post-admission pressure sore=14,421 (97.6%) and category 1 post-admission pressure sore=350 (2.4%). For n=1,133, No category 1 post-admission pressure sore=1,075 (94.9%) and category 1 post-admission pressure sore=58 (5.1%).

Objective 20: To investigate whether there are significant differences in length of stay for category 1 post-admission pressure sores. The Mann-Whitney test showed that there were significant differences in length of stay for category 1 post-admission pressure sore in the main sample (n=14,771, U= 784,170.0, p=.000, z=-22.069) and the dementia sub-sample (n=1,133, U=16,831.5, p=.000, z=-5.909). In the main sample, the median length of stay for people with category 1 post-admission pressure sores was 453 hours compared to 97 hours for those without pressure sores. In the dementia sub-sample, the median length of stay for people with category 1 post-admission pressure sores was 547.5 hours compared to 171 hours for people without pressure sores.

There were also figures on category 2 post-admission pressure sores and the frequency with which they occurred. This variable was recoded as follows: No category 2 post-admission pressure sore (0→0) and people with a category 2 post-admission pressure sore (1→1, 2→1, 3→1, 4→1, 5→1). The people with category 2 post-admission pressure sores had sustained from 1 up to 5 pressure sores. For n=35,792, No category 2 post-admission pressure sore=35,227 (98.4%) and category 2 post-admission pressure sore=565 (1.6%). For n=14,771, No category 2 post-admission pressure sore=14,345 (97.1%) and category 2 post-admission pressure sore=426 (2.9%). For n=1,133, No category 2 post-admission pressure sore=1,053 (92.9%) and category 2 post-admission pressure sore=80 (7.1%).

Objective 21: To investigate whether there are significant differences in length of stay for category 2 post-admission pressure sores. The Mann-Whitney test showed that there were significant differences in length of stay for category 2 post-admission pressure sore in the main sample (n=14,771, U=866,840.0, p=.000, z=-25.235) and the dementia sub-sample (n=1,133, U=25,481.5, p=.000, z=-5.897). In the main sample, the median length of stay for people with category 2 post-admission pressure sores was 526 hours compared to 96 hours for those without pressure sores. In the dementia sub-sample, the median length of stay for people with category 2 post-admission pressure sores was 459 hours compared to 168 hours for people without pressure sores.

The dataset had details on the number of people with category 3 post-admission pressure sores and the frequency with which they occurred. This variable was recoded as follows: No category 3 post-admission pressure sore (0→0) and people with a category 3 post-admission pressure sore (1→1, 2→1, 3→1). The people with category 3 post-admission pressure sores had sustained from 1 up to 3 pressure sores. For n=35,792, No category 3 post-admission pressure sore=35,680 (99.7%) and category 3 post-admission pressure sores=112 (0.3%). For n=14,771, No category 3 post-admission pressure sores=14,689 (99.4%) and category 3 post-admission pressure sores=82 (0.6%). For n=1,133, No category 3 post-admission pressure sores=1,123 (99.1%) and category 3 post-admission pressure sores=10 (0.9%).

Objective 22: To evaluate whether there are significant differences in length of stay for category 3 post-admission pressure sores. The Mann-Whitney test showed that there were significant differences in length of stay for category 3 post-admission pressure sore in the main sample (n=14,771, U=130,963.5, p=.000, z=-12.239) and the dementia sub-sample (n=1,133, U=2,598.0, p=.003, z=-2.929). In the main sample, the median length of stay for people with category 3 post-admission pressure sores was 677.5 hours compared to 98 hours for those without pressure sores. In the dementia sub-sample, the median length of stay for people with category 3 post-admission pressure sores was 544 hours compared to 179 hours for people without pressure sores.

The dataset documented the number of people with category 4 post-admission pressure sores and the frequency with which they occurred. This variable was recoded as follows: No category 4 post-admission pressure sore (0→0) and people with a category 4 post-admission pressure sore (1→1, 2→1, 3→1). The people with category 4 post-admission pressure sores had sustained from 1 up to 3 pressure sores. For n=35,792, No category 4 post-admission pressure sore=35,767 (99.9%) and category 4 post-admission pressure sores=25 (0.1%). For n=14,771, No category 4 post-admission pressure sores=14,749 (99.9%) and category 4 post-admission pressure sores=22 (0.1%). For n=1,133, No category 4 post-admission pressure sores=1,128 (99.6%) and category 4 post-admission pressure sores=5 (0.4%).

<u>Objective 23</u>: To evaluate whether there are significant differences in length of stay for category 4 post-admission pressure sores. The Mann-Whitney test showed that there were significant differences in length of stay for category 4 post-admission pressure sore in the main sample (n=14,771, U=30,801.0, p=.000, z=-6.577) and the dementia sub-sample (n=1,133, U=1,252.5, p=.032, z=-2.147). In the main sample, the median length of stay for people with category 4 post-admission pressure sores was 802 hours compared to 98 hours for those without pressure sores. In the dementia sub-sample, the median length of stay for people with category 4 post-admission pressure sores was 835 hours compared to 180 hours for people without pressure sores.

There was information on post-admission pressure sores that were un-stageable and the frequency with which they occurred. The re-coding of this variable was done as follows: No un-stageable post-admission pressure sores (0→0) and people with un-stageable post-admission pressure sores (1→1, 2→1, 3→1). The people with un-stageable post-admission pressure sores had sustained from 1 up to 3 pressure sores. For n=35,792, No un-stageable post-admission pressure sores=35,738 (99.8%) and un-stageable post-admission pressure sores=54 (0.2%). For n=14,771, No un-stageable post-admission pressure sores=14,725 (99.7%) and un-stageable post-admission pressure sores=46 (0.3%). For n=1,133, No un-stageable post-admission pressure sores=1,129 (99.6%) and un-stageable post-admission pressure sores=4 (0.4%).

Objective 24: To evaluate whether there are significant differences in length of stay for un-stageable post-admission pressure sores. The Mann-Whitney test showed that there were significant differences in length of stay for un-stageable post-admission pressure sore in the main sample (n=14,771, U=106,966.5, p=.000, z=-8.024) and the dementia sub-sample (n=1,133, U=848.5, p=.031, z=-2.158). In the main sample, the median length of stay for people with un-stageable post-admission pressure sores was 418.5 hours compared to 98 hours for those without pressure sores. In the dementia sub-sample, the median length of stay for people with un-stageable post-admission pressure sores was 503 hours compared to 180 hours for people without pressure sores.

The dataset had information on Waterlow score on admission. The minimum Waterlow score on admission was 2 and the maximum score was 50. These were coded into the following categories: Scores from 2-10 (Low risk Waterlow score group)=0 Scores from 11 to 15 (Medium risk Waterlow score Group)=1 and Scores above 15 (High risk Waterlow score Group)=2. This coding is similar to Webster, Gavin, Nicholas, Coleman, and Gardner (2010) categories. However, I combined the high and very high risk categories into one group. For n=35,792, Low risk Waterlow score group=8,833 (24.7%), Medium risk Waterlow=5,126 (14.3%), High risk Waterlow score=9, 425 (26.3%) and Missing values=12,408 (34.7%). For n=14,771, Low risk Waterlow score group=5,082 (34.4%), Medium risk Waterlow score group=3,091 (20.9%), High risk Waterlow score=6,276 (42.5%) and Missing values=322 (2.2%). For n=1,133, Low risk Waterlow score group=66 (5.8%), Medium risk Waterlow score group=179 (15.8%), High risk Waterlow score=878 (77.5%) and Missing values=10 (0.9%).

Objective 25: To assess whether there is a significant difference in the length of stay for the various Waterlow scores. Results from the Kruskal-Wallis test showed a significant difference in length of stay for the various Waterlow scores in the main sample (n=14,771, χ=1440.3, p=.000) but not in the dementia sub-sample (n=1,133, χ=.172, p=.917). In the main sample, the high Waterlow score had the greatest median length of stay value (145 hours) when compared to the medium (100 hours) and low (67 hours) Waterlow scores.

4.10) Introduction to the subsequent tables

The first three tables comprise of the descriptive statistics for original dataset, main and dementia sub-samples. I then provide the results from the Mann-Whitney, Spearman and Kruskal-Wallis statistical tests. Results from the Negative Binomial Regression test is then presented. The reference groups for the negative binomial regression model are as follows: Discharge based on clinical advice, Low MUST score Group, Low Early Warning Signal Group and Low risk Waterlow scores.

Table 2: Descriptive statistics

Variable	**n=35,792(%)**	**n=14,771(%)**	**n=1,133(%)**
Discharge age	Mean=62.9	Mean=69.5	Mean=85.5
Gender			
Male	17,246 (48.2%)	7,162 (48.5%)	460 (40.6%)
Female	18,546 (51.8%)	7,609 (51.5%)	673(59.4%)
Admission methods			
Attendance at Emergency unit	21,597 (60.3%)	8,383 (56.8%)	706 (62.3%)
Referral from a medical practitioner	11, 797 (33%)	5,273 (35.7%)	400 (35.3%)
Referral from a consultant	436 (1.2%)	159 (1.1%)	2 (0.2%)
Other (e.g. hospital)	1,962 (5.5%)	956 (6.5%)	25 (2.2%)
Discharge methods			
Based on clinical advice	33,816 (94.5%)	13,674 (92.6%)	984 (86.8%)
Self-discharge	447 (1.2%)	129 (0.9%)	2 (0.2%)
Discharged by institution (e.g. court)	13 (.0%)	1 (.0%)	-
Death	1,516 (4.2%)	967(6.5%)	147 (13%)
Admissions from a care home			
Yes	2,860 (8%)	1, 412 (9.6%)	416 (36.7%)
No	32, 932 (92%)	13,359 (90.4%)	717 (63.3%)
Discharges to a care home			
Yes	3,069 (8.6%)	1,572 (10.6%)	458 (40.4%)
No	32, 723 (91.4%)	13,199 (89.4%)	675 (59.6%)
Admission day			
Friday	5,514 (15.4%)	2,152 (14.6%)	161 (14.2%)
Monday	5,477 (15.3%)	2,291(15.5%)	155 (13.7%)
Saturday	4,421 (12.4%)	1,860 (12.6%)	166 (14.7%)
Sunday	4,411 (12.3%)	1,914 (13%)	192 (16.9%)
Thursday	5,470 (15.3)	2,199 (14.9%)	170 (15%)
Tuesday	5,350 (14.9 %)	2,227 (15.1%)	155 (13.7%)
Wednesday	5,149 (14.4%)	2,128 (14.4%)	134 (11.8%)
Admission is a bank holiday			
Yes	693 (1.9%)	294 (2%)	28 (2.5%)
No	35,099 (98.1%)	14,477 (98%)	1,105 (97.5%)
Dementia Spell			
Yes	1,950 (5.4%)	1,133 (7.7%)	-
No	33,842 (94.6%)	13,638 (92.3%)	-
Dementia History			
Yes	2,062 (5.8%)	1,182 (8%)	-
No	33,730 (94.2%)	13,589 (92%)	-
First Early Warning Signal			
High(>6)	989 (2.8%)	680 (4.6%)	61 (5.4%)
Medium(5-6)	1,489 (4.2%)	1,043 (7.1%)	106 (9.4%)
Low(0-4)	19,864 (55.5%)	10,843 (73.4%)	808 (71.3%)
Missing	13,450 (37.6%)	2,205 (14.9%)	158 (13.9%)

Variable	**n=35,792(%)**	**n=14,771(%)**	**n=1,133(%)**
Falls without harm			
Yes	669 (1.9%)	492 (3.3%)	110 (9.7%)
No	35,123 (98.1%)	14,279 (96.7%)	1, 023(90.3%)
Falls with minor harm			
Yes	379 (1.1%)	273 (1.8%)	45 (4%)
No	35,413 (98.9%)	14,498 (98.2%)	1,088 (96%)
Falls major and moderate			
Yes	35(0.1%)	21(0.1%)	5 (0.4%)
No	35,757(99.9%)	14,750 (99.9%)	1,128 (99.6%)
MUST scores			
High(>1)	2,409 (6.7%)	1,629 (11%)	261 (23%)
Medium (1)	1,131 (3.2%)	671 (4.5%)	44 (3.9%)
Low (0)	19, 911(55.6%)	12,147 (82.2%)	816 (72%)
Missing	12,341 (34.5%)	324 (2.2%)	12 (1.1%)
Category 1 preadmission pressure sores			
Yes	639 (1.8%)	461 (3.1%)	95 (8.4%)
No	35,153 (98.2%)	14,310 (96.9%)	1,038 (91.6%)
Category 2 preadmission pressure sores			
Yes	1,049 (2.9%)	710 (4.8%)	103 (9.1%)
No	34,743 (97.1%)	14,061 (95.2%)	1,030 (90.9%)
Category 3 preadmission pressure sores			
Yes	318 (0.9%)	216 (1.5%)	26 (2.3%)
No	35,474 (99.1%)	14,555 (98.5%)	1,107 (97.7%)
Category 4 preadmission pressure sores			
Yes	102 (0.3%)	63 (0.4%)	10 (0.9%)
No	35,690 (99.7%)	14,708 (99.6%)	1,123 (99.1%)
Un-stageable preadmission pressure sores			
Yes	60 (0.2%)	45 (0.3%)	3 (0.3%)
No	35,732 (99.8%)	14,726 (99.7%)	1,130 (99.7)

Variable	**n=35,792(%)**	**n=14,771(%)**	**n=1,133(%)**
Category 1 Postadmission pressure sores			
Yes	452 (1.3%)	350 (2.4%)	58 (5.1%)
No	35,340 (98.7%)	14,421 (97.6%)	1,075 (94.9%)
Category 2 Postadmission pressure sores			
Yes	565 (1.6%)	426 (2.9%)	80 (7.1%)
No	35,227 (98.4%)	14,345 (97.1%)	1,053 (92.9%)
Category 3 Postadmission pressure sores			
Yes	112 (0.3%)	82 (0.6%)	10 (0.9%)
No	35,680 (99.7%)	14,689 (99.4%)	1,123 (99.1%)
Category 4 Postadmission pressure sores			
Yes	25 (0.1%)	22 (0.1%)	5 (0.4%)
No	35,767 (99.9%)	14,749 (99.9%)	1,128 (99.6%)
Un-stageable Postadmission pressure sores			
Yes	54 (0.2%)	46 (0.3%)	4 (0.4%)
No	35,738 (99.8%)	14,725 (99.7%)	1,129 (99.6%)
Waterlow scores			
High (>15)	9, 425 (26.3%)	6,276 (42.5%)	878 (77.5%)
Medium (11-15)	5,126 (14.3%)	3,091 (20.9%)	179 (15.8%)
Low (0-10)	8,833 (24.7%)	5,082 (34.4%)	66 (5.8%)
Missing	12,408 (34.7%)	322 (2.2%)	10 (0.9%)

Table 3: Bivariate statistics with length of stay as the dependent variable (n=14,771)

Variable	U or χ or rho value/p value/Z value
Age	.322/.000
Gender	26,896,146/.175/-1.358
Admission methods	6.113/.106
Discharge methods	352.0/.000
Admissions from a care home	8,297,403.5/.000/-7.442
Discharge to a care home	8,318,857.5/.000/-12.862
Admission Day	19.2/.004
Admission is a bank holiday	2,088,643.5/.585/-.545
Dementia Spell	5,368,991.0/.000/-17.09
Dementia History	5,628,709.0/.000/-17.08
First Early Warning Signal	170.1/.000
Falls without harm	1,234,809.5/.000/-24.495
Falls with minor harm	568,673.5/.000/-20.205
Falls major and moderate	89,895.0/.001/-3.328
MUST scores	302.6/.000
Category 1 Preadmission pressure sores	1,863,749.0/.000/-15.921
Category 2 Preadmission pressure sores	2,775,753.0/.000/-19.989
Category 3 Preadmission pressure sores	692,468.5/.000/-14.137
Category 4 Preadmission pressure sores	229,751.5/.000/-6.915
Un-stageable Preadmission pressure sores	183,292.0/.000/-5.183
Category 1 Postadmission pressure sores	784,170.0/.000/-22.069
Category 2 Postadmission pressure sores	866,840.0/.000/-25.235
Category 3 Postadmission pressure sores	130,963.5/.000/-12.239
Category 4 Postadmission pressure sores	30,801.0/.000/-6.577
Unstageable Postadmission pressure sores	106,966.5/.000/-8.024
Waterlow scores	1,440.3/.000

Table 4: Bivariate statistics with length of stay as the dependent variable (n=1,133)

Variable	U or χ or rho value/p value/Z value
Age	.072/.015
Gender	153,033.5/.745/-.325
Admission methods	5.250/.154
Discharge methods	11.866/.003
Admissions from a care home	111,724.5/.000/-7.047
Discharge to a care home	133,349.5/.000/-3.927
Admission Day	4.856/.562
Admission is a bank holiday	15,275.5/.909/-.114
First Early Warning Signal	.562/.755
Falls without harm	24,117.5/.000/-9.858
Falls with minor harm	9,828.5/.000/-6.812
Falls major and moderate	2,143.0/.354/-.927
MUST scores	6.045/.049
Category 1 Preadmission pressure sores/	42,454.0/.025/-2.244
Category 2 Preadmission pressure sores/	47,821.0/.099/-1.650
Category 3 Preadmission pressure sores	10,376.0/.015/-2.435
Category 4 Preadmission pressure sores	4,523.0/.289/-1.060
Unstageable Preadmission pressure sores	1,214.5/.396/-.849
Category 1 Postadmission pressure sores	16,831.5/.000/-5.909
Category 2 Postadmission pressure sores	25,481.5/.000/-5.897
Category 3 Postadmission pressure sores	2,598.0/.003/-2.929
Category 4 Postadmission pressure sores	1,252.5/.032/-2.147
Unstageable Postadmission pressure sores	848.5/.031/-2.158
Waterlow scores	.172/.917

Table 5: Main sample: Negative Binomial Regression with length of stay as the dependent variable

Variable	IRR/ p value	95% Confidence Interval	
		Lower	**Upper**
Discharge Age	1.008/.000	1.007	1.009
Death as a Discharge cause	1.238/.000	1.142	1.341
Self-discharge	.850/.079	.709	1.019
Admissions from a care home	.347/.000	.296	.407
Discharges to a care home	2.442/.000	2.097	2.843
Admission Day			
Wednesday	.995/.884	.932	1.062
Tuesday	.972/.382	.911	1.036
Thursday	1.032/.335	.968	1.101
Sunday	.955/.181	.893	1.022
Saturday	1.002/.951	.936	1.072
Monday	1.026/.438	.962	1.094
Dementia Spell	1.380/.040	1.015	1.876
Dementia History	.876/.389	.647	1.184
High First Early Warning Signal	1.080/.057	.998	1.169
Medium First Early Warning Signal	1.056/.096	.990	1.127
Falls without harm	2.640/.000	2.387	2.920
Falls with minor harm	2.049/.000	1.788	2.348
Falls major and moderate	1.157/.538	.727	1.842

Variable	**IRR/ p value**	**95% Confidence Interval**	
		Lower	**Upper**
High MUST scores	1.281/.000	1.209	1.357
Medium MUST scores	1.071/.104	.986	1.163
Category 1 Preadmission pressure sores	1.251/.000	1.126	1.390
Category 2 Preadmission pressure sores	1.350/.000	1.237	1.473
Category 3 Preadmission pressure sores	1.550/.000	1.331	1.804
Category 4 Preadmission pressure sores	1.601/.001	1.203	2.131
Unstageable Preadmission pressure sores	1.099/.547	.808	1.496
Category 1 Postadmission pressure sores	2.079/.000	1.845	2.343
Category 2 Postadmission pressure sores/	2.218/.000	1.985	2.479
Category 3 Postadmission pressure sores/	2.148/.000	1.680	2.746
Category 4 Postadmission pressure sores/	1.861/.020	1.101	3.145
Un-stageable Postadmission pressure sores	1.644/.006	1.154	2.343

Variable	**IRR/ p value**	**95% Confidence Interval**	
		Lower	**Upper**
High Waterlow scores	1.418/.000	1.349	1.492
Medium Waterlow scores	1.232/.000	1.169	1.298

Negative binomial regression was conducted to examine the impact of a number of independent factors on length of hospital stay. The model was statistically significant χ^2 (df=32, N=14,771) =4,526.86, p=0.000. The strongest predictor of hospital stay was falls without harm with an IRR of 2.640. This showed that participants who experienced falls without harm were 2.6 times more likely to stay in hospital for a longer period than those who did not experience falls without harm.

Table 6: Dementia sub-sample: Negative Binomial Regression with length of stay as the dependent variable

Variable	**IRR/ p value**	**95% Confidence Interval**	
		Lower	**Upper**
Discharge Age	1.000/.992	.992	1.008
Death as a Discharge cause	1.228/.028	1.022	1.476
Self-discharge	.541/.390	.134	2.193
Admissions from a care home	.252/.000	.182	.349
Discharges to a care home	2.443/.000	1.778	3.357
Falls without harm	2.486/.000	2.029	3.045
Falls with minor harm	1.750/.000	1.284	2.384
High MUST scores	1.163/.037	1.009	1.340
Medium MUST scores	.945/.721	.694	1.287
Category 1 Preadmission pressure sores/	1.189/.113	.960	1.474
Category 3 Preadmission pressure sores	.978/.916	.652	1.467

Variable	IRR/ p value	95% Confidence Interval	
		Lower	**Upper**
Category 1 Postadmission pressure sores/	1.787/.000	1.363	2.342
Category 2 Postadmission pressure sores/	1.621/.000	1.275	2.060
Category 3 Postadmission pressure sores/	.966/.915	.508	1.837
Category 4 Postadmission pressure sores/	1.641/.279	.669	4.028
Unstageable Postadmission pressure sores	1.814/.242	.669	4.916

Negative binomial regression was conducted to examine the impact of a number of independent factors on length of hospital stay in the dementia sub-sample. The model was statistically significant χ^2 (df=16, N=1,133) =361.362, p=0.000. The strongest predictor of hospital stay was falls without harm with an IRR of 2.486. This showed that participants who experienced falls without harm were 2.5 times more likely to stay in hospital for a longer period than those who did not experience falls without harm.

The results from the two multivariate regression analysis indicated a higher incidence rate ratio in the main sample for: a) discharge to a care home (IRR: 2.442) b) falls without harm and falls with minor harm (IRR: 2.640 and 2.049) and c) category 1, 2 and 3 post-admission pressure sores (IRR: 2.079, 2.218 and 2.148). For the dementia sub-sample, there was a higher incidence rate ratio for: a) discharge to a care home (IRR: 2.443) b) falls without harm (IRR: 2.486).

4.11) Discussion

The aim of the service evaluation was to identify health outcomes that affect length of hospital stay amongst people with dementia at a local hospital. Furthermore, the research objective was to generate knowledge of the factors that affect the length of hospital stay amongst patients with dementia. The key variables that affected length of hospital stay from the multivariate analysis in the main sample and dementia sub-sample were falls and discharge to a care home.

A previous research has found older age to be associated with length of stay (Aminzadeh & Dalziel, 2002). In contrast, another study found younger age to be associated with prolonged hospital stay (Marfil-Garza et al., 2018). The findings for the main sample were consistent with that of previous researchers but this was not the case in the dementia sample. Although the median age for the dementia subsample (86 years, n=1,133) was higher than that of the main sample (75 years, n=14,771), there was no association between age and length of stay for the dementia subsample in the regression analysis. A possible explanation for these findings could be due to the sample size (i.e. sample size of 14,771 for the main sample was larger than the sample size of 1,133 for the dementia sub-sample).

Death was found to be a predictor of length of stay in the main and dementia sub-samples. This could be explained by the fact that chronic co-morbidity has been found to be associated with length of hospital stay and mortality (Librero, Peiró, & Ordiñana, 1999). It is therefore possible that people who died in hospital had greater co-morbidities. In addition, there is the possibility that patients who are unwell and likely to die are not discharged but kept in hospital.

Admissions and discharges to a care home from hospital were found to predict length of hospital stay in the main and dementia sub-samples. Gaugler, Duval, Anderson, and Kane (2007) found that people who were admitted to care homes were likely to need help with self-care activities and have cognitive impairment. Kable et al. (2015) reported that social care provision is generally inadequate when compared to the demands placed on it. Long waiting lists for social care provision may increase length of hospital stay (Kable et al., 2015). Admissions from a care home was associated with decreased length of stay because of the possibility that people admitted from care homes do not have to wait for a care package as care is already in place. If they are on the other hand moving from their homes to care homes, they may have to wait in hospital for a longer period.

S. Connolly and O'Shea (2015) document a relationship between dementia and hospital length of stay. This is consistent with the finding on dementia spell but not dementia history in the regression analysis. It is possible that people with a dementia history may be coming from a care home and therefore discharge is easier because a care package is already in place. Those with dementia spells may need complex care packages to be arranged and therefore their discharge is delayed.

Falls without harm and those that occurred with minor harm predicted length of hospital stay in the main and dementia sub-sample. Dunne et al. (2014) revealed that hospital falls with and without harm were associated with length of hospital stay. Experiencing injurious hospital falls has been associated with poor end results like death and placement in a nursing home (Murray, Cameron, & Cumming, 2007). Liddle and Gilleard (1995) report poor psychological outcomes amongst patients and family members who have experienced falls. Zecevic et al. (2012) found that there were financial implications of falls, which occurred in hospitals.

High MUST scores were shown to predict hospital length of stay in the main and dementia sub-samples. People who are malnourished are more likely to need help with their self-care activities (Oliveira, Fogaça, & Leandro-Merhi, 2009). They are also likely to have other co-morbidities and incontinence (Saka, Kaya, Ozturk, Erten, & Karan, 2010). Previous researchers have found an association between malnutrition and length of hospital stay (Stratton et al., 2006) as well as death (Henderson, Moore, Lee, & Witham, 2008). Malnourished individuals are likely to stay in hospital for longer periods because they are poorly.

Category 1 and 2 post-admission pressure sores predicted length of stay in the main and dementia sub-sample. Pressure sores have been found to be associated with admissions from a care home, along with incontinence, limited mobility and malnutrition (Baumgarten et al., 2006). Other predictors of pressure sores are limited sensitivity to pain, dehydration and skin conditions in the affected area (Nonnemacher et al., 2009). Theisen et al. (2012) indicated a relationship between pressure sores and the length of hospital stay. It is therefore possible that people with pressure sores are more poorly than those without pressure sores. They therefore stay in hospital for a longer period. It is worth noting that the risk of developing pressure sores was found to predict length of stay in the main sample but not in the dementia sub-sample. This may be because of differences in sample size instead of true differences.

4.12) Contribution to knowledge

Most of the variables used in the quantitative aspect of the study have been investigated in previous research. I will discuss the findings, as this was the focus of the service evaluation. I will then list the novel findings of the quantitative study. Previous studies have examined the relationship between age and length of stay (Aminzadeh & Dalziel, 2002; Marfil-Garza et al., 2018). Whilst one of the studies focused on analysing data from previous research (Aminzadeh & Dalziel, 2002), the other study analysed a dataset comprising of 85,904 admissions (Marfil-Garza et al., 2018). The present research is the first UK study to document a significant and non-significant relationship between age and length of hospital stay amongst a main and dementia sample. This could be because of the sample size. The relationship between discharges to care homes and longer length of hospital stay has been documented in previous literature (Toh et al., 2017). This study involved 353 patients with short and prolonged hospital stays who had been admitted into a hospital in Singapore (Toh et al., 2017). The finding between discharge to a care home and prolonged hospital stays could be because of the fact that patients may have to wait for a care home placement. The relationship between discharge to a care home and prolonged hospital stay confirms the work of Toh et al. (2017) who used a smaller sample size when compared to the present research. The possible link between admissions from a care home and longer hospital stay has been documented in previous literature (Dwyer, Gabbe, Stoelwinder, & Lowthian, 2014). Findings of this study focused on analysing 83 primary studies (Dwyer et al., 2014). Only four out of the 83 studies reviewed by Dwyer et al. (2014) focused on cognitive impairment. This study therefore adds to the limited literature on admission from a care home and decreased length of hospital stay. The non-significant relationship between length of hospital stay and admission on a bank holiday has been documented in previous literature (Dagar et al., 2016). This study comprised of 6,353 patients who attended a hospital in Turkey (Dagar et al., 2016). This is the first UK study to find a non-significant relationship between admission on a bank holiday and length of hospital stay in a main and dementia sub-sample. The hospital must therefore continue to monitor this so that there remains a non-significant relationship between the length of hospital stay for patients admitted on a bank holiday and those admitted on a normal working day. People with dementia have a prolonged hospital stay when compared to those without dementia (Möllers et al., 2019). This finding was based on 52 primary studies (Möllers et al., 2019). In addition, only three out of the 52 studies reviewed by Möllers et al. (2019) focused on the UK. Findings of this study adds to the limited UK literature on the relationship between having a diagnosis of dementia and being at risk of prolonged hospital stay. The relationship between higher early warning signal and prolonged hospital stay has been documented in previous literature (Groarke et al., 2008). This finding was however based on 225 admissions (Groarke et al., 2008). This study is the first UK study to find a non-significant relationship between early warning signals and long hospital stays in the multivariate analysis. Previous research has documented the relationship between falls and longer hospital stays (Dunne et al., 2014). This study used information on 622 patients with and without falls (Dunne et al., 2014). This study once again uses a large sample size when compared to previous findings on the length of hospital stay and falls. The relationship between prolonged hospital stay and malnutrition has been documented in previous literature (Stratton et al., 2006). The number of people recruited into this previous study was 150 (Stratton et al., 2006). This small sample size limitation was improved upon by the current study. People with pressure sores are likely to stay in hospital for a longer period of time (Theisen et al., 2012). This previous study was based on a sample size of 3,198 (Theisen et al., 2012). Once again, the sample size of this research (i.e. main sample) is larger than the previous study. Previous literature has documented that Waterlow scores can predict prolonged hospital stay (J. W. Wang et al., 2019). This finding was based on a sample of 834 patients (J. W. Wang et al., 2019). The authors of this study used a smaller sample size when compared to this study (i.e. main sample).

A novel finding of the service evaluation is that admission method (attendance at an emergency unit, referral from a medical practitioner, referral from a consultant and admission from for example, another hospital) was not significantly associated with extending the length of stay. Discharge method (i.e. death) was however associated with the patients' length of stay.

4.13) Strengths of this study

A major strength of this study is the large sample size. Some of the information in the dataset forms part of the details presented to the Secondary Uses Service of the NHS Digital Department. This information is, therefore, subject to rigorous standard NHS data quality assessments. As patient information in the dataset was anonymous, this study maintained robust ethical standards.

4.14) Limitations of this study

I was unable to independently verify the accuracy of the variables included in the dataset. It is possible that the clinical coders who entered patient details in the dataset missed patients with undiagnosed dementia. Furthermore, contextual information such as the lead up to a fall were missed out in the dataset. I should have found out if there were differences in the length of stay for patients who reported mild, moderate and intense pain on the ward. A previous research has documented an association between the quick management of pain and the shortening of patient hospital stays (Sokoloff, Daoust, Paquet, & Chauny, 2014).

4.15) Future Research

Future researchers should look at the ability of the use of non-routine clinical data such as sleep to predict length of hospital stay. Researchers should look at involving the patient and carers on how to reduce some of the factors that prolongs the patient’s hospital stay.

4.16) Implications for policy/practice

Staff need to be aware of the factors that prolong patient hospital stays through their online training. Policy makers need to support research that is aimed at reducing patient length of hospital stays. A systems approach to the reduction of falls and the improvement of discharge planning could help to complement the current strategies that are used on the wards.

4.17) Conclusion

The key variables that affected length of hospital stay amongst patients with dementia, which could be changed, were falls and discharge to a care home. The next chapter therefore seeks to gather information on how to reduce falls and improve the discharge planning process using a systems approach.

Chapter 5

5.1) Phase 2 (Qualitative)

The results from the service evaluation indicated a higher incidence rate ratio for: a) discharge to a care home b) falls without harm and falls with minor harm and c) category 1, 2 and 3 post-admission pressure sores. For the dementia sub-sample, there was a higher incidence rate ratio for: a) discharge to a care home b) falls without harm. The research question was how might a systems approach contribute to reducing falls and improving the discharge planning process amongst patients with dementia? The qualitative study therefore focussed on falls and discharge planning.

5.2) Study design

A qualitative methodology was used to explore the views of carers and staff in relation to how to reduce falls and improve the discharge planning process. A semi-structured interview guide was used to guide conversations between hospital staff and me. I also interviewed family carers. The aim of the interviews was to ascertain if a systems approach could facilitate the reduction of falls and improve the discharge planning process. The average time for the interviews was approximately 20 minutes. The interviews were conducted in one acute hospital. My first supervisor listened to three of the interviews in order to crosscheck the accuracy of the transcripts.

5.3) Sample size

According to Morse (1995), qualitative researchers do not utilise statistical tests to inform their decisions on how to obtain an optimal sample size. Therefore, the notion of saturation in qualitative data occurs when the information gathered from a sample gives a holistic and detailed view of the phenomenon under study (Morse, 1995). Starks and Trinidad (2007) define saturation at a point where the information gathered on a particular topic adequately addresses a theory. Guest, Namey, and Chen (2020) define saturation as a level during qualitative data analysis where data generated from a study has adequately addressed the research questions. In order to achieve saturation, Morse (1995) recommends the following: the use of a sample which has attributes that are comparable, the inclusion of an in-depth holistic documentation of the phenomenon being studied and a description of recurring as well as contrasting views of participants. The decision to stop interviewing after obtaining information from 52 participants was due to data saturation. I reached data saturation because there were no new information being generated from the interviews. In addition, the interviews had provided sufficient information on how a systems approach could be used to help reduce falls and improve discharge planning. I also stopped interviewing due to limited resources.

5.4) Setting

The interviews took place on six medical wards at the Royal Bournemouth hospital (United Kingdom). This hospital provides both inpatient and outpatient services. It has 723 beds and serves a community of 550,000 people (Care Quality Comission, 2018).

5.5) Participants

I used a convenience sampling strategy to interview staff and carers of patients who had been admitted from 14th October 2019 to 14th January 2020. The total number of staff who participated in the interviews was 20. They comprised of 1 male staff and 19 female staff. This sample reflects the demographical details of staff who work on the ward (i.e. mainly female).There were three staff nurses, six healthcare assistants, three dementia and delirium specialist nurses, one Occupational therapist, one specialist nurse in Parkinson’s disease, one discharge co-ordinator, four deputy sisters and one Assistant practitioner. The minimum and maximum duration of employment was 4 months and 23 years respectively. The following people were approached but refused to be interviewed: one Occupational therapist, one domestic assistant, three doctors and one dementia support worker. A total of 32 carers were interviewed. This comprised of 11 males and 21 females.13 carers were approached but refused to take part in the interviews. Some of the reasons for their refusal included: lack of time, family member did not see himself as a carer because his mum had been living independently and a carer had engaged in a difficult conversation with a social worker.

5.6) Ethics

I obtained ethical approvals from North West-Greater Manchester Central Research Ethics Committee, the Health Research Authority and the Royal Bournemouth and Christchurch Hospitals NHS Foundation Trust gave their Confirmation of Continued Capacity and Capability.

5.7) Procedure

I obtained confirmation from carers and staff that they had read the participant information sheet (Appendix 4 and 5). I obtained written consent from carers and staff who agreed to participate in the study after reading the information sheet (Appendix 6 and 7). A semi-structured interview guide (Appendix 8 and 9) was used to facilitate conversations between carers and staff as well as me. The interviews were recorded on a digital device. I conducted a verbatim transcription of the interviews. In order to ensure anonymity, staff respondents are numbered one through to number 20. Similarly, carer respondents are numbered one through to 32. References to respondents in this chapter are by numbers.

5.8) Analysis

The transcripts were thematically analysed by looking for patterns in the dataset (Marks & Yardley, 2004). A code has been defined by Marks and Yardley (2004) as a method of grouping the data for analysis. In addition, data were initially inductively coded by relying on the dataset rather than the use of theory. Once the codes had been generated, I deductively grouped them under a systems framework. I therefore used a mixture of inductive and deductive coding. Furthermore, each code was exclusive which meant that meaningful utterance were put into one group

(Marks & Yardley, 2004). The data were analysed using Ritchie, Spencer, and O'Connor's (2003) approach on how to analyse qualitative data using four steps:

A. Familiarisation and indexing: I conducted 52 interviews and transcribed the data verbatim. I was therefore familiar with the contents of the interviews. I read the transcripts several times to ensure that I was conversant with the data.

B. Labelling the transcripts: The transcripts were imported into Nvivo 11. I assigned labels to the raw data. This was completed in an inductive manner. All the labels were listed in Nvivo 11. I constantly compared the codes. I then merged and separated the codes as I went through the transcripts.

C. Sorting the transcripts: Text with similar features in the transcripts were collated together using Nvivo 11. The text with similar contents was then grouped into themes.

D. Summarising the findings: This was completed after exporting text from Nvivo 11 into Microsoft Word in order to identify the most important phenomena (staff and carers' experiences of caring for patients with dementia).

5.9) **Themes**

I will first discuss the interviews with staff and then move on to present the views of carers. Four underlying themes were identified in the staff and carer interviews. These are as follows: People, Falls, Discharge Planning and the Environment.

Figure 13: Themes

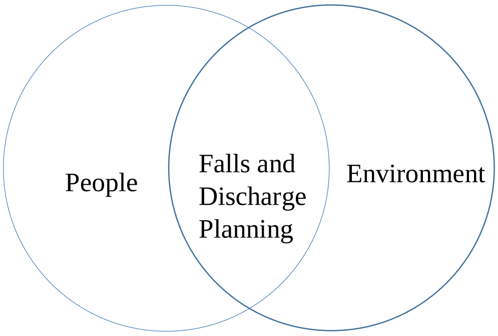


Table 7: Themes for staff interviews

	Overarching themes	Themes	Sub-themes
Staff experiences of falls	Falls		Causes of falls among patients with dementia
			Falls prevention measures
			Difficulties in falls prevention
			Consequences of falls
	People in relation to falls	Carer factor	Working with families
		Patient factor	Diagnosis
			Inadequate understanding of medical procedures
		Staff factor	Nursing
			Teamwork
	The environment in relation to falls	Policies	Large caseloads
			Transfer between wards
			Training
		Physical environment	
		Hospital equipment	

	Overarching themes	Themes	Sub-themes
Staff experiences of discharge planning	Discharge planning		Efficient discharge process
			Discharge assessment
			Difficulties with discharge
			Delayed discharge
			Poor discharge practice
			Liaising with community teams
			Nursing and Residential Home Costs
	People in relation to discharge planning	Carer factor	Working with families
			People without families
		Patient factor	The physiological state of patients
			Understanding your patient
		Staff factor	Attitudes on policy
			Teamwork

	Overarching themes	Themes	Sub-themes
Staff experiences of discharge planning	Environment in relation to discharge planning	Policies	Documentation
			Property checklist
		Hospital equipment	

5.10) **Overarching Theme 1: Falls**

This theme explored the perception of staff regarding hospital falls amongst people with dementia. It looks at how staff prevent falls in the acute setting. It also describes what happens to a patient following a fall.

Causes of falls among patients with dementia

Staff reported that falls resulted from instability of the foot, tiredness, postural hypotension, sleep deprivation and the side effects of medication. This view is illustrated with the following quote:

Everybody on an older persons ward would be on a medication that will put them at high risk of falls; I would imagine (Staff 11).

Poor visibility at night-time also contributed to falls. Staff stated:

Sometimes the most of the falls are at night-time. They feel confused, they are sleepy and they feel they need to go to the loo. They get up go to the toilet. The light is off and they fall (Staff 15).

Falls prevention measures

The main methods used to prevent falls on the ward was observation and one-to-one nursing. Eleven participants spoke about how this method was used on the wards. This is supported by the following quote:

Often with patients that are risk of falls, they are often in bays where there is always a member of staff in the bay. They are called our obs bays. So they are quite important in trying to reduce falls. Also, if some patients are at very high risk they might benefit from a 1:1. Although, that can be difficult to find (Staff 13).

Other methods used for the prevention of falls involved looking at the environmental hazards for falls. This for example included making sure that the bed space had adequate lighting and was free from clutter to prevent falls. This was expressed as follows:

But I think it is just making sure, like the Kings Funded a lot of projects about environment and colour and layouts things to help reduce falls. So I think it is trying to adopt those kinds of, those kinds of policies really into. And also obviously stuff like making sure things are clear and free of clutter. The cleaners are aware of the importance of keeping things clear as well so that they can encourage people to do it as well (Staff 19).

It is clear from the interviews that promoting the use of appropriate patient footwear also contributed to the reduction of falls. Encouraging mobility was seen as a falls prevention measure. However, staff needed to balance the positive benefit of the freedom of mobility with the increased risk of a hospital acquired infection. In addition, one participant stated that there were occasions when people were confined to beds or recliner chairs due to their risks of falls. Staff stated the following:

Because some people get to such a risk that actually they are better off being nursed in bed or a recliner chair (Staff 7).

The training of staff was seen to be important tool for the reduction of falls. Training the staff equips them with the knowledge required to identify falls risk and mobilise patients safely. Staff said the following:

I suppose just making sure everyone is trained. That they are aware of what is a falls risk. And that's just even around the bed space. Making sure things are kept out of the way. There are not wires hanging. Making sure, the staff know the patient really well. So they know they need two people to transfer or mobilise. I think that is the way of doing it. So training staff is a big one I would say. We do have falls training. I think it is every two years (Staff 18).

In order to reduce falls, staff have to complete online risk assessment forms or have the falls risk assessment team come on to the wards to identify and address the risk of falls. The falls risk assessment administration for patients needed to be completed within 24 hours of admission. Good handover was also seen as an important method of preventing falls, as staff were made aware of the high falls risk patients. Other falls prevention measures include monitoring patients' blood pressure readings, using low beds and ensuring that staff are patient facing especially when they are writing their notes at the nursing stations. Staff states the following:

And at night things like putting desks when they do their writing at the entrance of the bays. They can look at look at patients rather than turn their backs to them to do writing (Staff 8).

Difficulties in falls prevention

The ability of patients to walk around varied depending on what time of the day it was. Whilst some were able to walk in the mornings and were exhausted in the afternoon, others were fine in the afternoon and unable to do anything in the morning. The physical movement of patients was sometimes unpredictable. These unpredictable movements could result in falls. Staff states the following:

And then in one second, she just she can move, and in one second she stand up and went to the bed. In one second, she could fall. I was sitting in there, juice to the other lady. So maybe those things. If there was other person that could be more close to them. Or if she fall, the floor that I said will help (Staff 10).

A response from one of the participants indicated a lack of low beds in the hospital. This was thought to have been because of the hospital's decision to rent low beds instead of buying them. Staff responded as follows:

We have to hire in the low beds as well. So people, wards are very reluctant to hire in those beds. Because obviously they are quite expensive. A charity did fundraise for the beds. But the decision was made not to buy them. Just to use the money to hire them (Staff 11).

Patient memory loss made it difficult at times to prevent falls. This was because of the fact that patients sometimes simply forgot how to use their call bells when they needed help.

Because a lot of our patients with dementia, they do not remember to ring the bell. They do not remember that they cannot walk. They cannot remember that they should not climb out of bed. And with the best will in the world. You cannot keep an eye on all of them all the time (Staff 7).

There were instances where the prioritisation of patient falls risk was difficult because several patients needed help simultaneously. One staff reported that the prioritisation of the reduction of falls on the various wards differed. Some wards focused on falls because they admitted many older patients who were at risk of falls. Staff stated the following:

I think there is probably some areas where falls are not high priority because perhaps they are like more surgical or more sort of younger people throughout the Trust. It probably means that the environment is not as conducive to how it is on sort of these older person's wards (Staff 19).

Participants indicated that despite the fact that patients were monitored some falls were inevitable. Staff stated:

There is not an awful lot you can do, really. They get up, they fall. We watch them 24 hours and they still fall (Staff 17).

Consequences of falls

Staffs were mandated to report falls, which had occurred in the acute settings. The administration following a fall was extensive, as it required staff to report all aspects of care received by the patient on the ward. It was also necessary for staff to reassess the risk of a patient following a fall. Staff express this view as follows:

They've also got the post falls management plan as well which does say that you need to reassess the risk (Staff 11).

A member of staff stated that falls on the ward could generate feelings such as fear in patients and increase the length of their hospital admission. A quote from a member of staff is as follows:

Once they are on the ward and they have had a fall, then they have aggression, they have fear all coming in. Cos they do not know why they have fallen (Staff 14).

It was also necessary to inform the patients' relatives about the occurrence of falls. Staff reported that they felt 'bad' and 'terrible' after the occurrence of falls. The view of a member of staff is expressed as follows:

And you always feel bad that you turn your back look after one in there somebody opposite get up and fall. And then you then feel terrible as a nurse. But you cannot be everywhere all the time. And I think sometimes, the expectations are that because they are in a safe place they will not fall. We cannot. We feel terrible when they do fall (Staff 8).

Summary

The causes of falls could be medical or environmental. Staff reported a wide range of techniques used in the prevention of falls. This included: observation, one-to-one nursing, environmental interventions, promoting mobility, completing risk assessment and using the information obtained through handovers. Although staff used multifactorial interventions to reduce falls, some falls were inevitable. Staff faced difficulties with the prevention of falls. This included issues such as poor patient balance and the inability of patients to retain information on falls prevention strategies. Staff had to complete hospital paperwork following a fall. They also had to inform relatives about the fall and manage their own negative emotions following a fall on their watch.

5.11) Overarching Theme 2: People in relation to falls

This theme looked at the role of carers in preventing falls in the acute setting. It also described staff perceptions about patients with dementia in hospital as well as exploring the responsibilities of staff.

Carer factor

Working with families

Seven staff members stated that involving families in the care of patients enables staff to know more about the patient. It can also bring a measure of contentment and approachability to the patient. This may help to reduce negative behaviour such as agitation. Family involvement in patient care can settle the patient and avoid isolation. Staff stated:

So it helps if you get to know the family. And find out how they use. What techniques they use. They can tell you more what time of the day their relative can be more active or more sleepy. When they eat when they do not like eating. And how. We have certain patients. That if their relatives are in they are much calmer. So sometimes, it pays to ask the family, would you like to come in during the day and stay. And help feed. Because then they are not likely to get up during feed times looking for the family member. The family member is there. Therefore, it enables them to sit in a chair. The family member is there. We also do invite them to stay. There is a John's campaign that offers them tokens for meals for the relatives. So it is interaction with the dementia on the ward. Still with the family. So they do not feel isolated that they have come into a strange place with dementia. They have some clarity of the family coming in with them. And so there some home life still there even though they are ill (Staff 14).

Families can help staff to identify the needs of the patient. They also complement the care given to patients during their hospital admission. Families can help to explain medical processes and procedures to the patient. They provide staff with medical information regarding a patient's health such as their past medical history alongside relevant family medical detail. Involving family members in hospital care also contributed to a gradual acceptance of the deterioration of the patient's health. This is highlighted in the following staff interview extract:

The mobility decrease very quick sometimes. Then if the patient. The family see the patient everyday they can see if they going I mean the mobility is going down or is the same or is you know is not improving when they are living with dementia. Normally the mobility is reduced when they are living with dementia. Because of the, you know affecting some parts of the brain. The mobility is affected as well. Then if the family are involved. The carers. They can see. That the state of the patient. Then they can tell, they can pass to the community, the GP, whatever. This patient is going to fall. Or he needs more help. Or is does not have enough support. Then they can do something (Staff 15).

A situation was referred to where a family member felt the need to pay a carer to be with their relative in hospital in order to reduce falls because the hospital staff could not provide one-to-one nursing care for the patient. Families can help to reduce falls by identifying the patients' risk factors to staff. Other methods used by family members to reduce falls include assisting the patient with mobilisation. Staff provided families with advice on how to manage their relatives care at home. This is illustrated in the following staff interview:

But obviously if the person has got a relative. A wife or husband then we definitely get them involved. We highlight on our visit that the risk in the environment. We have to highlight and recommend for example like removing rugs (Staff 18).

Patient factor

Diagnosis

Previous research has found an association between having a diagnosis of dementia and the prevalence of falls (Brand & Sundararajan, 2010). Two members of staff described dementia as a sad and horrible disease, which affects the mood of people involved. This is highlighted by a comment from a member of staff:

Cos dementia can be, is a very, very horrible disease. If I can use a better word. It affects people in a lot of ways. Their mood swings. How they are feeling. Basically their day-to-day life really (Staff 5).

Staff 11 spoke about their involvement in giving patients a diagnosis of dementia. Staff indicated that nursing patients with dementia involved meeting their psychological and physical needs. Staff considered the receipt of a dementia diagnosis as a 'label of disability'. Staff refer to this *labelling* as follows:

Well the dementia is increased. I think that our awareness of dementia has increased. So people before were just senile. So now I do not know if it is good or bad they have a label now of dementia. Is good some ways if they have Alzheimer's because they can get treatment. And for the general public to understand people with Alzheimer's or vascular dementia. So it is a better awareness and understanding. But it does give people a label of disability (Staff 7).

Inadequate understanding of medical procedures

Some people with dementia may find it difficult to retain and follow information related to the prevention of falls (Burgon et al., 2019). Therefore, patients do not always understand the reason why they are subject to certain medical procedures. For example, the use of chest drains. This lack of understanding made a patient to fidget with and almost pull out their chest drains. Another patient walked away from his catheter bag, which was attached to his bed. This resulted in the catheter being stretched out. Staff stated:

I was over there in bed one and the person in bed four got up out of his chair. His catheter was in a bag. His catheter was on the leg bag it was on the night bag attached to his bed. He just walked and walked away from it. I managed to run to him (Staff 1).

Staff described nursing patients with dementia as challenging, complex, hard and trying. A member of staff explained that patients could sometimes refuse the provision of personal care. Staff referred to the principle of walking away from a tense situation and returning later:

Patient could be refused medication, could be refused to be washed. So we just need to explain to them why we need do it. If they still refuse or it really, upset them. Comeback again, leave them, come back. We do not want to upset them too much. If they, if, we have to work on their best areas (Staff 9).

Staff factor

Nursing

Furthermore, communication difficulties can increase a person's risk of falls because of the inability to understand and process information (Chaâbane, 2007). A member of staff stated that patients were unable to articulate their needs. Another member of staff felt that patients could verbalise their needs even though they may be confused. It was also necessary to communicate with patients very slowly and be especially aware of their body language. Staff in the following quote illustrate this:

My experience with dementia patients is you have to give them time. I have learned not to give them difficult questions. I have learned to speak to them, to speak to them very slowly. Explain, and wait and listen for the answers. The answers might not be verbal, they might be visual. And you can see by the body language what they are trying to say. It is a complex way of looking after patients (Staff 16).

It was also felt to be very important for patients to have undisturbed sleep at night. Staff felt that patients were often prone to falls at night-time as they were confused after suddenly waking up. Staff highlights this:

Especially at night-time is when the falls are more they are increase. Because they are more confused. And they cannot. You know they are sleeping and suddenly they need to go to the toilet. Suddenly they are not proper, you know. They cannot walk. They are a bit wobbly and they fall (Staff 15).

Teamwork

Reducing falls on the ward involved bringing to the attention of staff the environmental hazards the wards presented as well as placing the findings of mobility assessments on boards, which were located behind the patients' beds. Supporting new members of staff by giving them a detailed handover helped to address the needs of patients. Other elements of a good handover involved staff identification of patients who were at risk of a fall and the circulation of instructions regarding the safe mobilisation of patients on the wards. Staff felt that it was necessary to obtain help from their direct line manager when they were faced with difficulties in the reduction of falls. Staff contacted the falls resource team to help them with the reduction and management of falls. A team-based approach was used to detect people who were at risk of falls. Staff had to rely on other staff members to observe patients who were susceptible to falls. Staff states:

Yes, the whole team again works together and we identify anyone that is someone we think is a falls risk. We try to put them in observation bays here. And if necessary, we request more staff so that the individual can be specialised. Have a 1:1 carer with them to try to prevent falls from happening (Staff 3).

A member of staff felt that hospital volunteers contributed towards patient care through their one-to-one conversations with the patients. A member of staff stated that keeping patients occupied also reduced falls. Staff quotes:

Volunteers as well. They come to talk to their people. It does not matter they have dementia or not. But, especially people they are more anxious. If you sit down with *them. Talk to them. Have a cup of tea with them. They settle, you know. They need some time, attention (Staff 15).*

Summary

Working with families helped to reduce falls because it resulted in the patients being more settled. Family members also assisted patients with mobilisation. Staff described a diagnosis of dementia as horrible. Patients were at times uncooperative and resistant when ward staff endeavoured to apply medical procedures. This finding implies that patients may be uncooperative towards falls prevention measures. Complexities with communication made it difficult for staff to attend to the needs of patients, which include the risk of falls. Waking up during the night to use the toilet could make patients vulnerable to falls. A team-based approach to the reduction of falls involved good handovers, reliance on volunteers and the use of the falls resource team.

5.12) Overarching Theme 3: The environment in relation to falls

This theme looked at some aspects of the policies governing patient care. In addition, the physical environment of the hospital alongside equipment used by patients is discussed.

Policies

Large caseloads

High staffing levels have been associated with a lower falls rate (Dunton, Gajewski, Taunton, & Moore, 2004). The dementia and delirium team struggled with large caseloads of patients. This made it impossible for staff to deliver bespoke services to all the patients with dementia who have been admitted into hospital. The total number of staff employed within the dementia and delirium team was felt to be inadequate. Staff states:

We see around 80-90 new patients a month. And our support workers will have about between sort of 40 and 50 patients on their caseload at any one time. We have *only got two at the moment that can actually go out and both of those are part-time. We are not spending as much time as we would like with individual patients. Obviously, they are the higher-level patients. That is not everybody living with dementia (Staff 11).*

According to six employees, the number of staff present in the acute settings is inadequate. Furthermore, the staffing levels are reduced at night-time. It was also recognised that there were recruitment issues that were hindering the reaching of adequate staffing levels. Staff noted the following:

Today we were out for a special but they could not cover. So that has obviously made us a bit thinner on the ground (Staff 8).

Transfer between wards

As part of hospital procedures, patients were moved from assessment units to short and long stay wards. This, according to staff, results in the hospital experience of patients with dementia to be even more unsettling. Staff reported the following:

Often they go to A&E, ward 26, ward 24 then come here. But you know sometimes if there is pressure in the night that is what they have to do. But I think that unsettles them again. Especially if it is in the middle of the night (Staff 7).

They are moved, before they come to us, they are moved through a couple of wards as well. So again arriving in somewhere new. Takes a while for them to settle with us. And then they do settle and then of course they are moved again. So I think it is hard in hospital with dementia (Staff 8).

Training

Online colour codes (Red: out of date, Yellow: out of date soon, Green: in date) on BEAT (Bournemouth Education and Training) were used to notify staff about their training needs. Staff training included the following: manual handling, falls champions and dementia education. Staff also provided training to care agencies and their fellow colleagues. Staff trained family members on how use special equipment, mobilise patients and how to assist a patient who has fallen. Staff stated the following:

The family must be trained too. We do it here. Because they want to be part and they are part (Staff 10).

Being able to teach family how to do falls recovery. So being able to get up from the floor. So even if the patient has forgotten how to do it. The family if they are there are able to safely help them get up (Staff 19).

Physical environment

Insufficient space around the patient's bedside environment makes it difficult to accommodate the various items of hospital equipment that are available to patients. In order to create more room near the patient's bed space, one ward discarded the use of patient lockers. Staff felt that some narrow toilets in the hospital environment made it difficult to help the patient. Staff noted the following:

Also, some of the toilets are really narrow. They are just too narrow. You cannot get round to the side to help the patient up. The one that you can help the patient in is too far down the corridor (Staff 1).

The lack of day rooms on the ward discouraged social activities. Other staff felt that there needed to be quiet spaces. There was also a lack of observation side rooms on some of the wards for patients with dementia who were at risk of falling and needed to be isolated. Staff stated the following:

The layout of the wards is really good for people who are at risk of falls. You have your two observation bays. On ward X and Y, they do not have observation side rooms. That poses a risk for anyone that needs to be isolated because there is no way to see them from the communal area. That would be a change that I would make if that was my wards. Neither of them have got observation side rooms. Other than that, I think that the environment is quite good for falls reduction (Staff 11).

Staff suggested the use of warmer colours on the walls, adequate lighting and the use of calendar clocks. The doors in the hospital have different colours to enhance their visibility. Other staff suggested the use of bright coloured toilet seats and handles to make toilet facilities visible. Staff stated the following:

They are looking at you know making things colour coordinated. So that things are clear. So for people who have got poor eyesight. Having bright coloured toilets, handlebars, and things so that they can sit down (Staff 19).

Staff felt that the orientation boards in the hospital contained too much information and proved confusing for patients. It was felt that the acute environment was unfamiliar to patients. Staff therefore suggested the placement of familiar things such as photographs in the patients' bed space. Patient unfamiliarity with the location of the toilet in a hospital environment can worsen their incontinence. It was therefore necessary to try to place patients with dementia near toilet facilities. Staff noted the following:

To a certain extent, you can, you can go for a dementia-friendly environment such as we talking about before. Colour, nearest to facilities, toilet, and bathroom. That type of thing, chairs, and alarms. There all kinds of things you can put in place to support the ability to reduce falls (Staff 20).

A member of staff felt that the flooring in the hospital needed to be cushioned, similar to that used in care homes. Another member of staff felt that the hard flooring in hospitals could not be helped. Staff stated that the flooring in the hospital looked like steps, which confused the patients. The flooring for the dementia garden has different linings to help with navigation. This garden was however limited in its use when the weather was in inclement. Staff in the following illustrate this:

We have the petal garden (the dementia garden). But unfortunately when it is raining or is weather like today. You cannot really engage people out in the garden. So taking people away and having time away from that really hectic, busy environment. I think would help (Staff 12).

Nursing interventions include orientating the patient to the hospital environment. It was also felt that the acute hospital was an inappropriate environment for patients with dementia. Staff expressed the following:

It is very difficult for people here in this environment because it is the wrong environment for dementia people to be in, really (Staff 7).

Hospital equipment

Having the right mobility aids, the use of low beds, bed levers and commodes could reduce falls. The unsafe use of certain equipment such as slide sheets left under the bed sheet obviously contributed to falls. Staff reported the following:

Obviously if you have gone to sit at the edge of the bed and you have a slippy sheet underneath you gonna fall forward. Appropriate use of slide sheet I think is one thing (Staff 8).

Being familiar with the patient enabled staff to understand their movement pattern and made them aware of the type of walking aids that they use. Staff stated:

Our patients are here a long time so we are quite familiar with what their aids are (their walking aids) (Staff 8).

Forgetfulness associated with dementia alongside the patient’s inability to request for nursing assistance have been named as causative factors for falls (Struksnes, Bachrach-Lindström, Hall-Lord, Slaasletten, & Johansson, 2011). Patients sometimes forget to use their mobility aids. There are occasions when patients’ use furniture as an aid to walking. A member of staff felt that the use of brightly coloured equipment could help patients remember to use their mobility aids. Staff stated the following:

Brighter coloured equipment might help patient take it with them rather than leave it behind (Staff 6).

Summary

In terms of policies around staffing levels, some staff felt that these have been unable to be fulfilled because of recruitment and retention issues. The hospital protocols sometimes resulted in the transfer of patients between wards. Staff had to ensure an up-to-date knowledge base for themselves, family carers and care agencies.

Regarding the physical environment, staff stated that there was not enough room around the patients’ bed space. The hospital did not have an indoor area for activities. There was an insufficient number of observation side rooms in some of the wards. Staff suggested dementia-friendly initiatives such as the use of colour schemes, family photographs around the bedside and appropriate flooring. Such initiatives can help to reduce falls by orientating the patient to their environment.

The most appropriate hospital equipment must be used in the provision of patient care. Staff mentioned that patients sometimes forgot to use their mobility aids.

5.13) Overall summary on falls

The interviews identified the causes of falls. Some of the strategies used in the reduction of falls included one-to-one observation and the elimination of environmental hazards. Despite staff interventions to reduce falls, patients still experienced falls. This was for example due to the inability of patients to retain information on falls prevention strategies. Staff had to follow the hospital's procedures on how to report falls. In relation to the people factor, working with families helped to reduce falls because it resulted in the patients being more settled. It was also important to use a team-based approach to the reduction of falls. In terms of policies around staffing levels, staff stated that there were recruitment and retention issues. Patients experienced ward transfers because of the hospital's protocols. Staff suggested the use of dementia-friendly initiatives such as the use of colour schemes. Such initiatives were helpful because it orientated the patient to their environment. It was important to use the most appropriate hospital equipment in the provision of patient care to reduce falls.

5.14) Overarching Theme 4: Discharge

This theme illustrates staff perceptions of delayed and efficient discharge. Discharge planning is important in reducing the patients' length of hospital stay. Liaising with community teams was thought to be an important component of discharge. Poor discharge practices, staff home visits as well as nursing and residential home care cost are also discussed.

Efficient discharge process

Staff described efficient discharge planning as well organised and quick. Efficient discharge planning needed to be started as soon as after admission. Complex case reviews were also conducted for patients who had remained in hospital for a long time. In order to reduce length of hospital stay for patients, staff supplied outreach support services for patients with delirium. The views of staff are presented:

So we provide outreach service for people with delirium so that they do not have to stay in hospital any longer than they need to once we have fixed all of their physical problems (Staff 11).

As soon as they get into hospital, we start planning the discharge. So that actually we have done as much as we can in preparation for when they are medically fit and able to go home (Staff 3).

Discharge assessment

Staff had to make decisions as to whether the patient could stay at home with a care package or needed to be in a nursing home. Staff used care diaries and behaviour charts to document the amount of care that a patient required during their hospital admission in order to make decisions regarding their discharge destination. Decisions regarding the location of patients on discharge were also arrived at after staff simulated care packages on the ward. Staff stated the following:

You can simulate if the patient are wanting to go home with packages of care and that type of thing. We will try to simulate that package of care prior to discharge. So that we have, we gain a bit of understanding around their ability to cope with that. So wherever possible we will simulate a discharge package in the environment prior to leaving hospital (Staff 20).

Staff met with family or lasting power of attorney in order to discuss discharge destination decisions. This enabled staff to assess the viability of an individual patient's preferred discharge destination. These decisions were affected by the deterioration of the patient whilst they were in hospital.

Because usually when people come back into hospital, their needs change again (Staff 7).

Difficulties with discharge

Staff described discharge planning as a complex process, which required considerable navigation. This was because the patient could potentially become sick whilst awaiting a discharge destination decision. A patient may also change their mind regarding their preferred discharge location. In addition, patients did not always adequately assess the risk associated with a particular discharge destination. Staff therefore supported them to understand these risks through multi-disciplinary team meetings. Staff also faced difficulties in discharge planning when a patient did not have the capacity to consent to a particular discharge destination. In situations where staff and patient could not reach a consensus in regards to their discharge location, interim measures were put in place. The emphasis is always on making every effort to move the patient out of the acute setting. Staff mentioned the following:

Clearly you gonna want to try to agree a discharge that is the optimum for the patient to their preferred wishes. If you cannot do that then quite often, we end up with an interim solution with the view to long term being determined outside the acute hospital (Staff 20).

Discharge destination decisions could also be affected by the assessments that staff make during their home visits. In terms of care home placements, relatives did not always choose the care homes that had been suggested by staff. This could be due to financial constraints or the care home being inappropriate for a particular patient. It was also felt that family carers preferred to keep their relatives in hospital for a longer period because it reduced costs associated with care home placements. There were also instances where care homes would not accept patients because they could not manage their specific needs. Staff state the following:

They come and assess them and then they will say whether they think that their particular care home can manage their type of dementia. Not all care homes can. If it is too far they will not take them (Staff 17).

Sometimes the families do not want them discharged. The people want to go but the families do not want them to go. They treat the place like a nursing home. I have seen that quite a lot here. We have had people here and the family especially if they *are self-funding. They will try to use excuses to keep them in hospital so that they do not have to pay (Staff 2).*

Delayed discharge

Discharges were delayed in situations where the delivery of hospital equipment was not possible because the patient's home was unoccupied during their hospital stay. In addition, discharges were delayed because of their complexity. This was especially so when a patient had to wait for the following: telecare, sensors, door alarms, care packages, hospital beds, special hoists and specialised equipment. Staff felt that the delivery of equipment in Hampshire took longer than those made in Dorset. Staff stated that equipment could be delivered the next day if patients lived in Dorset. However, staff arrangements to visit the patient at home to make the necessary assessment and take measurements could also cause delay. Delayed discharges could result in increased hospital acquired infections or the unnecessary occupation of a bed space. Staff stated the following:

So that we are trying to prevent delay discharges in hospital because that is not great for the person because they are in an unfamiliar environment. And it will only make things worse. They are more likely to pick up bugs than arrived in the hospital. Obviously, it has a knock on effect then because the bed is being taken by someone who does not need hospital anymore but could be given to someone else coming in that does urgently need a bed. There is obviously the cost implication as well (Staff 3).

Poor discharge practice

There were instances where the transport booked to take the patient to their home did not arrive. Staff sometimes neglected to include in a patient's belongings to take home on discharge a Zimmer frame that they had used and become familiar with whilst in hospital. Below are the views from staff.

The other day I discharged a patient. I did everything by the book. I did all the checklist. I checked everything. I done everything by the book. I had spoken to the discharge lounge. I said this patient is going to home at 2pm. He needs to be home at 5pm. Yeah. How clear again. She said yes A… (Name) I said listen I do not do this very often. I have done it. And I come back the following day. It was touch and go meter. The transport did not come. I said why did it not come. I said here is my evidence. I had to show them (Staff 16).

There have been cases where someone has left the ward, pop in the ambulance, they are gone but we have always managed to get the Zimmer taken to them privately, in a private ambulance (Staff 8).

The non-arrival of booked transport inevitably affects the patient's experience of hospital discharge. On top of the transport that does not arrive, patients could experience stress when staff forgot to put the patients' equipment in the ambulance.

Liaising with community teams

For discharge to be effective, staff felt that it was necessary to liaise with other services to adequately assess the patient's needs prior to discharge. This included contacting the Community Mental Health Teams as well as the Intermediate Care Service for Dementia to support the discharge of a patient. Patients are also discharged so that assessments could be completed in their own home environment. Liaising with these community teams could significantly improve the discharge process making it quicker and more efficient. Staff state the following:

What we will do is try and we all recognise that coming into an acute hospital is not beneficial for this group of patients. So therefore, you want to do the interventions that you need to do very quickly. Actually you can get community services to support that intervention carry it on out in the community. Then to a certain extent, you can turn them around really quickly. Get them back into their own environment. And the *community services will deliver treatment or interventions that are required. So we work really closely with our community service colleagues (Staff 20).*

We might get other services involved like CMHT (Community Mental Health Team) or ICSD (Intermediate Care Service for Dementia) and any other services that might be able to support them on discharge if they meet that criteria as well (Staff 12).

Home visits were made by the Occupational Therapist. They conducted these visits to ensure that discharges to the home environment were viable. Patients were then assessed in their homes after discharge to ensure that they had settled in well. Another reason for conducting home visits was to train carers and offer advice. Family members were asked to remove things like rugs in their living room to avoid falls. In addition, home visits were conducted in order to take the measurement for hospital equipment that would be required for the home. Staff refers to this:

I obviously have to do the visits. Measure for the equipment. Make sure it is the appropriate equipment. Try it here on the ward first. And then order the equipment (Staff 18).

Involving the community teams ensures that a patient’s needs are met and this further improves the discharge process. This can potentially reduce hospital length of stay. Staff visit to patients’ homes makes the transition from hospital to home smoother.

Nursing and Residential Home Costs

There were costs associated with discharge into a residential or nursing home. According to staff, the costs associated with a nursing home placement could be very high. Staff refers to this:

That is middle of the road. That is middle of the road. You go to somewhere like BUPA and it is through the roof. Mine was only a small private one. You go to the *bigger places and stuff like that you are talking £2,000 plus a week. So you can sort of see the family side of it. But then a lot of them they are doing it as a financial thing because they do not want to spend the money. And you see it. I have seen that. I have seen that so many times. And then on the other hand you get a lot of people that want to go home and the family is saying because they are not ready but you can but do your best (Staff 2).*

According to a member of staff, family carers often do not have an understanding of the funding streams, which may or may not be available to them.

We quite often find that they do not understand how social services funding work. So somebody who has never had a package of care before. It is very difficult for them to just go straight to placement. But we do a lot of communication with the carers and families. To try to educate them on how processes normally work. And how, talking about funding streams work as well (Staff 11).

Summary

Staff had to determine if patients were to be discharged into a care home or go back to their own home with a care package in place. Discharge decisions were affected by hospital acquired infections alongside a patient's preferred discharge destination, staff home visits, cost of social care and the capacity of care homes to cater for the patient's needs. It was also thought necessary to involve community teams in discharge planning. Some of the discharges were completed quickly, others were delayed. The delays in the discharge process could be due to reasons such as provision of a care package and the delivery of special equipment. There were occasions when transport was not available and patients had returned home but left some of their belongings behind.

5.15) Overarching Theme 5: People in relation to discharge planning

This theme examined the role of carers in regards to discharge decisions. Staff views about the patient discharge planning process are explored. The role of staff in discharge planning is also described.

Carer factor

Working with families

Involving family members in discharge decisions has been found to improve their satisfaction with the process (Bull, Hansen, & Gross, 2000; Carole Cox, 1996; Hahn-Goldberg, Jeffs, Troup, Kubba, & Okrainec, 2018). It is therefore good practice for families to be involved wherever possible in best interest decisions. They help to ensure continuity of care when patients are discharged. They also bridge the gaps when a care package does not cover what is required. They also help to make decisions regarding the discharge destination of the patient. Staff refers to the support given to families during the discharge planning as follows:

I have supported difficult conversation with families when we are planning discharge. Obviously, it can be quite a stressful time for them when they are having to make some major decisions (Staff 20).

However, the difficulties with the dynamics of staff-family carer relationships was also highlighted. Staff stated the following:

And some, and to be fair sometimes the families can be very difficult. They can really make it difficult. (Staff 16).

Four staff members mentioned that carers might be under stress because of demands of caring for a patient. This often resulted in staff having to offer support to carers as well as individual patients. Staff stated:

The relatives may be particularly stressed under a lot of carer strain. They may view things very differently to other people (Staff 12).

People without families

Staff felt that it was especially important to support people who were without family or a close network of support. Staff also referred to patients who also had close family members who were contending with a dementia diagnosis as well. Staff highlighted the following:

But of course, a lot of people have not got relatives. Or they also have relatives with dementia (Staff 7).

Lack of family support was believed to be linked to frequent rehospitalisations. For patients without family or any support network, staff had to liaise with care agencies or involve the Independent Mental Capacity Advocates in the discharge decision-making processes. Staff refer to this process:

Obviously if people are living on their own, you begin to speak to care agencies (Staff 18).

If the patients live on their own, staff endeavour to let the relevant agencies know.

Patient factor

The physiological state of patients

People with complex discharges have multiple conditions, lack support from family members and experience functional decline (Nardi et al., 2007). Staff recognised the fact that people with dementia may have other illnesses and be on a range of different medications.

Although the patient has dementia, they might also have other ailment like they might be diabetic, might have epilepsy. They might have different things. They might be on warfarin (Staff 16).

Staff have different approaches to addressing the capacity of a patient in relation to their discharge planning destination (Emmett et al., 2013). The ability of patients to engage in conversations varied from time to time. As did their capacity to consent to treatment. Staff highlighted this difficulty:

It is very fluctuating. One day one behaviour the next minute different behaviour. It is all ever changing really. Some days they can seem to understand and you can have a very good conversation. The next time it all goes off in a tangent. So very variable I think. It is not consistent. It is very difficult to say with capacity and things. One minute they appear to have capacity and then the next minute it gets a bit lost somewhere on the way. Very varied. I do not think anyone is the same (Staff 8).

Understanding your patient

Spending time getting to know the patient as an individual was clearly invaluable. Staff stated that this patient-centred approach enabled them to appreciate the patient's idiosyncrasies especially around their use of the toilet facilities and their mealtime preferences. Staff said the following:

She was one of the ladies that would only eat finger food. There is no point putting a dinner in front of her. She would not let you feed her and she could not use a knife and fork. So everything was picked up. So we can pass that information on. To help the next place they go to. To give them a little bit of an insight on some of the things we have picked up on (Staff 17).

Staff also expressed insight and empathy in identifying the patient's rationale behind inappropriate behaviour. This is expressed in the quote below from staff:

So for dementia you need to understand them. You not angry with them. Why you doing this? Why you hit me? I do not think that is appropriate. They think, they might be feeling a little bit scared of danger. They might be thinking that I am going to kill them. You need to reassure them. I think that it is very important (Staff 9).

Staff factor

Attitudes on policy

Staff were initially unconvinced in the use of a behaviour management tool (allows staff to document the behaviour of patients and how it was managed) which they thought involved tick box methodology. However, with experience of its use, staff testified to its value in relation to monitoring the behaviour of patients. Staff explains this as follows:

We said we are just writing all these out but nothing is being collaborated together. It just seemed as if you do tick boxing and writing the reasons. So now they have decided, we are still trialling it. Obviously, it is a fairly recent thing on the ward. They have the second volume of the book of the discharge, dependency book has been changed and we use it on delirium patient and patients with discharge. You just tick if they are screaming, shouting. At periods of time in the day. And then you can see each day, if there is a pattern. So then we can say. That time of the day, they do not like getting dressed, they do not like getting washed. Or that time of the day, this is normal. So let us see how we can intervene (Staff 14).

A member of staff felt that hospital policies were far more beneficial to staff who were inexperienced compared to experienced staff. Staff states:

I think it is probably helpful for people that do not know how to work with people with dementia. I have been here for a long time working with people with dementia for a long time so I am not sure it teaches me a great deal more than what I already know (Staff 3).

Teamwork

Teamwork involved using the multi-disciplinary team to provide patient care. This process involved supporting and helping each other with patient care. Multi-disciplinary team meetings for discharge were held on a daily basis during the weekdays. A member of staff felt that it was necessary to have good working relationships with the discharge service manager in order to bring to her attention complex discharges. Discharge planning workers co-ordinate discharges on the wards. The discharge planner, occupational therapist and social workers are responsible for drawing up care packages using the care diaries, which have been provided by nursing staff. Doctors declared patients as medically fit for discharge. The physiotherapist and occupational therapist are also involved in discharge planning and mobility assessments. The occupational therapist assessed how the patients could be supported in their home environment with the aid of equipment. Other staff involved in discharge planning were the ward hostesses who may have an idea about the patient's nutritional intake. Health care assistants were involved in the provision of personal care. Pharmacists were also involved in supplying patients with their discharge medication. Best interest meetings for discharge planning involved the multi-disciplinary team and the patient's advocate or family members. This is supported by the following quote from staff:

To get to the best optimal outcome. So you gonna use all your experts, so you going to want your carer there, a family, use local authorities workers, we will use Dorset advocacy, an advocate, an IMCA if we feel the patient is not befriended and not supported. It seems to be a best interest decision with an independent person who is advocating for the patient. We do use our dementia and delirium team experts. We will use the site liaison if we feel that is appropriate also. So basically, you make sure you have the right professionals in the room to enable an effective decision to be made (Staff 20).

The dementia and delirium team provided recreational therapy (e.g. games, music etc.) for patients and de-escalated distressed behaviours. Staff quotes:

When we have the dementia team come and support them with activities, they are more settled. They get restless because they are probably bored. Trying to look for something. If somebody. I think by having more, by the dementia team doing their work, reduces the agitation. Yeah it does. Because I think, it is when you have somebody with you, you are not constantly wanting to get up all the time (Staff 8).

Summary

Where possible, family carers were involved in the discharge planning process. Working with families had its own challenges. However, it was noted that some patients also had no families. The co-morbidities of patients and their fluctuating capacity affected discharge decisions. It was necessary for staff to understand a patient prior to discharging them. Staff initially expressed negative attitudes towards the use of a behavioural chart. They, however, found it to be a useful tool. A team-based approach was used in discharge planning. The dementia and delirium team contributed positively towards the care of patients with dementia.

5.16) Overarching Theme 6: Environment in relation to discharge planning

This theme focused on the protocols and policies that guide patient care. The use of equipment in discharge planning is also discussed.

Policies

Documentation

Staff documented activities related to patient health in care diaries and behavioural charts. This enabled staff to have an idea on the level of care required particularly when patients were discharged home. Staff used Datix (NHS incident reporting system) to report the incidence of falls. The Learning Event Report Notification form was used to document successful events and mistakes. Transfer letters to care homes included information on the patient’s mobility and continence status. Other documentation used by the Occupational Therapist included manual handling care plans and forms that carers complete after receiving training from hospital staff. A recent audit by the dementia team found that the ‘*This Is Me’* document for delivering person-centred care is not routinely used on the wards. Staff stated the following:

At the moment, there is not anything really apart from your care plan document. And there is like a tiny little space in there to write about cognition. It is not really enough for somebody with dementia. We have just done a recent audit on 'This Is Me' and there was only three across the whole of older person's medicine. So that is something that we are working on to improve the documentation. But hopefully your study will help us support that (Staff 11).

The various forms for documenting patient care allows staff to accurately assess the level of care that is required by patients with dementia. The '*This is Me'* document enables staff to know the patient and plan their discharge effectively.

Property checklist

Staff were mandated to update the property checklist of patients on a daily basis. This process ensured the availability of the patient's personal items. This was particularly important when patients were being transferred between wards. Staff stated the following:

We do property checklist every day. Check they have the stick, if it is their own stick. Check Zimmer's are nearby as much as we can. We have a lot of wandering patients who would take each other's Zimmer (Staff 8).

Ensuring that a patient has their properties with them facilitates discharge planning and reduces patient stress.

Hospital equipment

It was thought to be necessary to have a patient discharged with mobility aids that they had become used to in hospitals on their return to their homes. This ensures patient familiarity with hospital equipment. Staff stated the following:

They get the equipment and the equipment they get home is not the same as what we use in here. So then you have another scenario the dementia patient has been in the ward. Used equipment here and then they go home and it is a different type of equipment. That they not got used to. Hence, something happens at home and they are re-brought back in. We have recently now had therapy get equipment that they have when they go home. So we have got equipment now on this ward, regarding patients what they will be using when they are at home (Staff 14).

Telecare (remote care packages for those living alone) was believed to support a discharged patient in their home. The hospital Occupational Therapist supplied patients with the right equipment in their homes and on the wards. As part of hospital discharge planning, staff had to visit patients in their homes to ensure that there was enough space for incoming hospital equipment. Staff stated that the next day delivery of hospital equipment to a patient's home if they resided in Dorset was possible. Staff states:

Although normally it is quite quick to get equipment sent home. So you can get a next day delivery. It is a bit different from Hampshire. Hampshire works differently. Sometimes there is delays and things in Hampshire region as opposed to Dorset (Staff 3).

Summary

Staff had different methods for recording activities depending on the specific intervention. Completing the property checklist of a patient was important in ensuring an efficient discharge process. It was believed that patients could be supported to live in their own homes through the installation of telecare devices. The delivery of hospital equipment to people's homes was processed efficiently and in a consistent manner, especially for residents in Dorset.

5.17) Overall summary on discharge planning

Staff assessed patients' discharge destination whilst they were in hospital. Staff sometimes involved community teams in discharge planning. Discharges were sometimes delayed because of the need to ensure that care packages were in place. In addition, patients had to wait for the delivery of special equipment. In relation to the people factor, it was necessary to involve family carers in the discharge planning process despite the challenges associated with their involvement in patient care. Some patients also had no families. It was also important to use a team-based approach in discharge planning. In regards to policies, it was necessary to complete the property checklist for a patient. Staff felt that patients could be supported to live in their own homes through the installation of telecare devices.

Table 8: Themes for carer interviews

	Overarching themes	Themes	Sub-themes
Carers experiences of falls	Falls		Falls in hospital
			Falls prevention measures
	People in relation to falls	Patient factor	Consequences of admission
			Reliance on others
			Nutrition
			Sleep
		Staff factor	Communication
			Inadequate care
			Volunteers
	The environment in relation to falls	Policies	Transfer between wards
			Staff changeover
			Staffing
			Training
		Physical Environment	

	Overarching themes	Themes	Sub-themes
Carers experiences of discharge planning	Discharge planning		Nursing and Care Package Costs
			Delayed discharge
			Discharge assessment
			Discharge decision
			Efficient discharge
			Liaising with the community
			Visiting a care home
	People in relation to discharge planning	Carer factor	Coping
			Experience at home
		Patient factor	Co-morbidities
			Understanding the patient

	Overarching themes	Themes	Sub-themes
Carers experiences of discharge planning	The environment in relation to discharge planning	Policies	Dementia ward and nurses
			Concerns
			Documentation
			Meetings
			Property
			Suggestions
		Hospital Equipment	

5.18) Overarching Theme 1: Falls

This theme looks at the views of carers regarding falls amongst people with dementia. It explores the experiences of carers in relation to falls in the hospital. The carers highlight useful falls prevention strategies.

Falls in hospital

The carers also referred to medical falls. Three patients fell because they were unstable on their feet. One had Parkinson's disease, another had cerebella ataxia and the last one had a stroke. A previous fall at home was believed to have been caused by a urine infection and delirium. This particular patient had multiple co-morbidities like sub-arachnoid haemorrhage, postural hypotension, knee replacement and stroke. A carer stated that her husband could not walk far because he had pain in his knees. A carer felt that her mother's delirium and blood pressure issues resulted in her susceptibility to falls. Another carer stated that her relative had fallen in a care home because of a urine infection, which affected her balance. Carer stated the following:

It was a fall that brought her into the hospital. She fell. She was in a care home. And she fell in the care home. And an ambulance brought her into the hospital. And they found that she had a really bad urine infection, which made her unsteady and fall (Carer 24).

One carer observed a hospital fall. According to her, another patient on the ward fell because staff were not available to attend to his toileting needs. Another carer referred to a hospital fall that did not result in any injuries. A carer spoke of a falling patient on the ward who was caught by those around them. Another carer spoke of their relative's multiple falls on the ward. A carer was suspicious that her relative had sustained a fall in hospital because she observed an injury during his admission. Another carer mentioned a similar incident. The staff confirmed this later. Carer stated the following:

He had been mobile. And he had gone to bed under his own steam. So I think he found it very confusing that people were expecting him to stay in bed. And they told me afterwards he was probably looking for the loo. But of course, he fell over. Because he had not realised, he could not walk very well. They rang me to tell me that he had fallen. The second time he fell which was actually on this ward. I did not find out until I went in that day. I found a bruise on his elbow. And one of the staff told me he tried to get out of bed again and he bruised his elbow. But they said they had not been able to check him over because he would not have let them (Carer 21).

Falls prevention measures

Six carers stated that members of staff could reduce falls through observation. One participant stated that her father had been given medication to stabilise his blood pressure. The staff also supervised her father during mobilisation. Four participants believed that the appropriate use of bed rails could reduce falls. Carer mentions the following:

Because there are people here, that are watching them. And they have the bedsides that come up. They have very supportive chairs (Carer 17).

Summary

Carers reported falls in the hospital. Falls could be accidental or medical in nature. Ward staff telephoned a family member regarding a fall in a hospital on the first occasion. On the second occasion, staff did not follow the same procedure. Falls prevention measures highlighted included: observation, use of medication, supervision and the appropriate use of bed rails.

5.19) Overarching Theme 2: People in relation to falls

This theme looks at the experiences of carers in relation to the prevention of falls. Carers' views about patients with dementia in hospital are reviewed. The role of staff in hospital is explored.

Patient factor

Consequences of admission

Previous literature has found frailty to be associated with the prevalence of sustaining a fall (O. J. de Vries, Peeters, Lips, & Deeg, 2013). Seven carers reported that the process of hospitalisation caused a deterioration in the physical health of the patient. One patient became frailer during hospitalisation whilst another experienced delusions. A carer felt that her dad was going to lose weight in hospital. Another carer felt that his dad had lost his ability to stand because staff relied on a hoist instead of standing aids. A carer stated that he worried about whether or not the needs of his wife were understood and met by staff who had competing pressures. Carers state the following quote:

When I go back home, I do worry about my wife. Because I know in the house, I know what she wants. I told you of course. We live together. I help her. I am sure *here they help as well. But it is a lot of people. Sometimes I do not know if the nurses have all the time to concentrate on a person with dementia (Carer 18).*

And it is always a worry because we do not want my father to go in to hospital even when he is really poorly. We only bring him if we have to. Because we know he's gonna go downhill when he is here. He's gonna lose weight. They will deal with the medical things. But all the other things will suffer (Carer 3).

Reliance on others

Four carers spoke of how patients with dementia forgot to use their mobility aids. This, according to a carer, would inevitably lead to falls. Another carer felt that her husband's forgetfulness made the use of a wheelchair more appropriate rather than his usual mobility aid. Carer stated the following:

But with a person with dementia, you try to get them to walk with a Zimmer frame. You can show them how to walk with a Zimmer frame. Do a couple of steps. Then that is it. They forget what else to do. How to walk. That is what I found now at the stage he is with the dementia (Carer 15).

A carer spoke of how a patient was asked to wait for supervision to ensure their safe mobilisation.

We have, we have eventually have to but partly due to her frailty and her lack of reducing strength. She does not move around by herself anymore at home. She does not have, she sometimes would like to but we discourage her. She understands when we talk to her about it. She cannot have access to her walker to try to move around. So she has to wait in her chair or a bed if it is first thing in the morning. For her carer to come and to help with the transfer into a wheelchair or commode (Carer 11).

Nutrition

A 45% prevalence rate of malnutrition has been documented to occur amongst people who have fallen in hospital (J. D. Bauer, Isenring, Torma, Horsley, & Martineau, 2007). Five carers assisted their relatives at meal times. Two of the carers felt that hospital staff were too busy to provide nutritional care for patients with dementia. One carer said how the patient was not interested in meal times whilst another spoke of a patient’s diminished appetite. A carer stated that his mother found the food more edible if tomato sauce is added. In addition, he said that his mother was not concerned about her nutrition because she was not afraid of dying. Another carer who said that his wife’s default answer was ‘yes’ ran the risk of being served food that she actually disliked. Carer highlighted the following:

Then the second one is, if they come with the food. You must know if J…has got any allergies. I.e. they come round and say, would J… like a cheese? She cannot stand cheese but because she does not understand what you are saying, she could say yes to everything and mean no (Carer 14).

The link between nutrition and falls has been explained earlier.

Sleep

Experiencing sound sleep has been associated with a lower risk of falls (Eshkoor, Hamid, Nudin, & Mun, 2013). Four carers stated that their relatives slept during the day and remained awake at night. This made it impossible for carers to interact with patients during normal visiting hours. Carers stated the following:

All he seems, all he seem to do is sleep. Which at home he was much more awake. Although he would sleep a couple of hours in the morning, he was sleeping at night. Here he seems to be sleeping all day. And being awake half the night which I cannot keep him awake when I come which makes it difficult for the staff (Carer 7).

You do not know if it is night or day. You are trying to get into a routine where they sleep at night and wake during the day. He's out of that routine now completely. He slept all day yesterday. He did have some medication to help him sleep (Carer 19).

The relationship between sleep and falls has been explained above.

Staff factor

Communication

Three carers found it difficult to communicate with their relatives (i.e. patients). They were therefore not sure of the patient's needs. This situation was compounded by a carer's own nervous disposition and associated stress. A carer felt that staff had listened to her concerns. However, another carer felt that communication with the staff regarding the care provided for the patient was inadequate. Furthermore, another carer highlighted his concern that information was not passed to various staff during handovers. Staff were sometimes unavailable to provide information to patients and carers during visiting hours. Carers stated the following:

Lack of information. There is not a lot of information. On some occasions, there is no one on the ward depending on what time you are visiting (Carer 3).

Communication is zilch. Because you have to repeat yourself every time. I know they do it. They change shift all the time. But the communication is not there. The feedback is not getting to the people who is coming on for it to work. I know its shift swap. Its different shift. But I have told them many, many times. And I am fed up of repeating myself that L… (Name) cannot do anything for herself. She cannot cough it up or nothing. And I do not get told anything in the way of her care, care or anything (Carer 31).

It is important that a patient’s needs are met through effective communication. For example if patients want to visit the toilet and carers and staff do not understand this need, patients may mobilise themselves and fall.

Inadequate care

Staff reported a higher prevalence rate of falls amongst patients who had received inadequate nursing care on the ward (Sochalski, 2001). A carer felt that the services of a hairdresser and chiropodist would be a helpful addition. One carer felt that her husband received inadequate personal care on the ward. According to her, she was not sure if staff maintained his oral and intimate hygiene. Another carer mentioned that patients who had soiled themselves were sometimes left unattended. Carer stated the following:

> *A gentleman was in side room 2. I think it was. I did not know, apparently, he is deaf, stone deaf which is weird because I had a conversation with him and he answered my questions. Very strange. Anyway, he was backing out of the room using the wheeled trolley they have by the bed. And he had pooed everywhere in the bed and all over himself. And he was backing out of the room wanting someone to help him but no one was coming to help him. And he was calling and shouting. So he could have had a fall and I had to assist him and wave several times to get someone to come down. Eventually they did (Carer 25).*

This carer stated that inaccurate food and drink charts were passed on to the doctors. The carer also mentioned that staff were sometimes not present on the ward. Another carer stated that his mother was not being mobilised on the ward but was rather confined to a bed or chair. A carer mentioned that she was not involved in discharge decisions. She felt it was unwise because her husband had forgotten about the resources that he already had at home. This resulted in duplication and delay. Another carer stated that pertinent patient information was mislaid when her Dad was transferred to a different ward. This particular patient was found eating a normal diet when he was supposed to be on a special diet because of his swallowing difficulties. This carer also stated that her father had lost weight in hospital because staff were not assisting him at meal times. In addition, nursing staff placed an incontinence pad on her continent father. Carer highlighted the following:

But they might not know on one ward what they capable of. Because they have seen them for the 24 hours or whatever. They know o yeah he is ok to walk to the toilet on his own or he is not. They move him to another ward. One example, my Dad is fine to go to the toilet. He has never had a problem at home going to the toilet. But when they moved him from the onto from the ward X to this ward Y. Suddenly they put paper pants on him assuming that he can't, that he's incontinent and he can't go to the toilet. But that is not the case. What has confused him was why he had paper pants on. So they are not looking at the whole person (Carer 3).

The connection between inadequate care and falls has been explained above.

Volunteers

The use of volunteers on the wards to observe at risk patients has been reported to reduce falls (Giles et al., 2006). A carer felt that volunteers could be used to assist patients at meal times. Another carer's mother did not want to interact with hospital volunteers because they were unfamiliar to her and she had no interest in developing new relationships. Carers highlighted the following:

Maybe it could just be somebody sitting in their little desk in the middle ward or one side and making sure that they are comfortable, they are eating. I know there are volunteers that do things like that (Carer 3).

Even when she has had, volunteers or people come to sit and talk to her and break up the day. She is not really willing to engage. She treats, she thinks of them as what do I want to talk to you for. I do not know you, you are a busy body (Carer 6).

The use of volunteers in the reduction of falls has been explained above

Summary

Patient characteristics such as frailty can make them susceptible to falls. Patients with dementia had to rely on others to meet their needs. Having an unmet need could lead to falls, if the patient was for example trying to self-mobilise to the toilet. It was necessary to ensure that patients were well nourished and had adequate sleep to reduce falls. Effective communication between carers, staff and the patient is necessary to reduce falls. Patients who received inadequate care on the ward could be at risk of falls (e.g. a patient could slip in their own urine). Volunteers can be effectively used on the wards to reduce high risk falls patient’s.

5.20) Overarching Theme 3: The environment in relation to falls

This theme looked at the policies that assist with the care of patients. The contribution of the environment towards the prevention of falls is also discussed.

Policies

Transfer between wards

Patients who are disorientated may fall as they wander round trying to find their bearings (Wynaden, Tohotoa, Heslop, & Al Omari, 2016). Three carers said that transfer between wards could unsettle the patient and cause agitation as well as disorientation. Furthermore, ward transfers result in the patient having to encounter new staff and another unfamiliar ward environment. One carer reflecting on this subject stated that such transfers were inevitable because patients were moved between wards depending on the needs of the hospital (i.e. whether they are staying in hospital for a short or long period). Another carer spoke of the hospital staff not informing him and explaining the reason behind a particular ward transfer. This is illustrated by the following quote from a carer:

The latest scenario of it L… (Name) got moved. They have my phone number, they have my mobile phone number. But they never told me. And I have been in this ward X two days now and not one of them has come up to me and told me that why she was moved from Ward Y to Ward X (Carer 31).

The link between falls and disorientation has been highlighted above.

Staff changeover

Effective staff communication is necessary to reduce the risk of falls during patient ward transfer and staff changeovers (Toye et al., 2019). A carer spoke about their relative's agitation when there were routine changes of staff at the end of a shift. Another carer said that their relative found it very difficult to develop any relationship with staff because of the large number of staff working different shift patterns on the ward. Carers stated the following:

When the staff change a lot and the other patients in the ward change a lot. It throws him completely and he then becomes agitated (Carer 1).

It just seems so busy here. I do not know who anybody is. My mum certainly does not know who anybody is (Carer 13).

Patients are not familiar with staff. There are multiple staff from nurses to occupational therapist etc. It is an incredibly disorientating environment to patients. Patients may not even have the awareness they can ask for help and consequently fall in the process of trying to meet their own needs.

Staffing

Eight carers stated that more staff were needed on the ward. Two carers felt that the staffing levels were adequate. A carer stated that there was inconsistency in the care provided on a dementia ward because it was really about which staff were on duty at any particular time. Another carer recognised the pressures and difficulties faced by staff when managing the behavioural symptoms of dementia on the ward. This is illustrated by the following quotes from carers:

There is too many patients and not enough nurses. They need more nurses. End of story. That will solve all the problems (Carer 14).

They do help a lot. But at the end of the day, they are just human beings. And they can only do what they can do. Because when they have so many, six in a ward to look after. I do not know how many staff are on duty there. Whatever. The staff are good. They do try to help. When you have people wandering round not knowing what they are doing or how to cope. You have only get two of them going and you have only x amount of staff. It does make it difficult (Carer 7).

Patients who are vulnerable to falls need constant observation. The variance of changing patients means that any one week may be different from another. Therefore, on a ward, there may be several patients who are vulnerable to falls on any given week and then none on another. There needs to be a flexibility in staffing levels to accommodate these variations.

Training

Two carers felt that staff were not adequately trained around dementia care. Another carer spoke about the time he spent training staff to the idiosyncrasies of his father's use of a standing aid. Carers stated the following:

I do not get any particular feeling that any of them are tremendously well trained in dealing with patients with dementia (Carer 25).

Well, it is difficult isn't it, because I am not sure whether the nurses are very very good but some of them may not be trained within the dementia area do you understand? I do not know how to express it but then again you cannot have. I am sure they do have some sort of training with dementia but it is possible they could do more with more training but they all do very very well. I think that is the only thing I can think of more training might be necessary in the dementia patient (Carer 26).

Training of staff on dementia care, will keep them up-to-date with the best practice on falls prevention amongst people with dementia.

Physical Environment

Patients on the ward are susceptible to falls when they do not request assistance and this is especially so when staff appear to be preoccupied with the care of other patients (Carroll, Dykes, & Hurley, 2010). Three carers said that the ward environment needs to be less busy and noisy. Staff had a role to play in creating a more peaceful atmosphere. The carer said that sometimes patients screaming at night-time disturbed the other patients on the ward. Carer expressed the following:

If they can make the environment a bit more peaceful, a bit more tranquil particularly at night-time. That will be good. You do see signs on the ward that try to encourage that in the staff. But on a dementia ward, particularly you can have someone screaming all night. Which affect all the rest of the patients. There is nowhere else to put that person. I am not suggesting that you will put the patient somewhere else. I am not suggesting there is anything else you can do (Carer 25).

A carer said that helping patients become familiar with the hospital ward would mean keeping ward transfers to a minimum. Two carers stated that displaying the date, time and weather on the wards was useful for patient orientation. This is illustrated by the following quote from a carer:

I like the way the that the date, time and the weather is very clearly shown (Carer

20)

A carer suggested that the environment could be improved by the use of colour on the wards along with appropriate art. Another suggested the use of colour codes to differentiate the various bays. According to a participant, the hospital wards would resemble a ‘prison cell’ if the colourful doors were removed. The hospital environment could also benefit from having direct daylight. Another carer said that the usual odours associated with hospital were absent because the cleaners were doing a good job. A carer said that sustaining a fall on the hard hospital floor could result in a serious injury. Alternative flooring such as the use of carpets was discussed but in conclusion believed to be unhygienic. The carer therefore suggested the use of crash mats. Carer stated the following:

Well you have very hard floors here. Which obviously if anybody is elderly and they fall on these floors, they going to hurt themselves. I do not know what the solution to that is. Because carpets are obviously, going to be unhygienic and you cannot have that in a hospital environment. But maybe a crash mat might be ok if somebody is say in a single room (Carer 21).

A noisy environment could add to the effect of patients’ disorientation and make them susceptible falls. The use of colour schemes can help the patient to successfully navigate their environment.

Summary

The transfer of a patient between wards could result in disorientation and subsequently increase their risk of falls. When there is a shift change patients are disadvantaged because they are unfamiliar with staff and have to begin patient-staff relationships all over again. This coupled with inadequate staff ratios have an impact on the successful prevention of falls. The hospital environment was unfamiliar and often unsuitable. Hard flooring (i.e. no carpets) and the absence of colour codes to differentiate the various bays contributes to falls.

5.21) Overall summary on falls

Carers reported that falls could be accidental or medical. Carers identified falls reduction measures such as the use of one-to-one observation and the review of patients' medication. A patient factor, which increases susceptibility to falls, is frailty. Other patient factors necessary to reduce falls include the maintenance adequate nutrition and sleep. It was important to ensure good communication channels between carers, staff and patients in order to reduce falls. Volunteers could be employed to reduce falls. Ward transfers could result in disorientation and subsequently increase the risk of falls. It was also necessary to use colour codes to differentiate the various hospital bays. In terms of policies, carers stated that inadequate staff ratios could have an impact on the reduction of falls.

5.22) Overarching Theme 4: Discharge

According to carers, costs associated with nursing home placement and care packages was high. Issues around difficult and delayed discharges are discussed. Hospital staff assessed and visited patients in their homes. Carers made mention of instances when discharge was efficient. Furthermore, carers highlighted the challenges and opportunities of engaging with social services.

Discharge

Nursing and Care Package Costs

Two carers stated that costs for nursing home placements and packages of care were expensive. A carer put down the high cost to extensive training that staff received in the nursing homes. Carers stated the following:

They are trying to say that we need help in the house. But I am not very keen on that because several people who live in our block have had help and they say it is dreadfully expensive. And I do not think I… (Name) is hurt enough to spend a great deal of money on something that is not totally necessary (Carer 9).

It is very expensive. But then the argument is that people in these homes have had to do a lot of exams and courses and things. They are highly qualified than someone who is just looking after someone who is at the end of their life and a normal death (Carer 15).

If the patient is being discharged home, there needs to be a care package in place. There is the need to decide if the care package is funded privately, by the social services or the NHS. If patients are being discharged into a nursing home or residential care, the necessary funding arrangements need to be discussed.

Delayed discharge

A carer spoke of how their relative had to wait several hours for his discharge medication. Another carer referred to his or her relative's long wait for an ambulance to take him home because he used a wheelchair. A carer stated that discharge was delayed by a few days because a patient required a hospital bed. Another carer spoke of the delayed discharge because they had to wait for a social services care package to be in place. Carer stated the following:

Well, it is fine except for social services, which I am going to write to the MP about. Because, I mean the hospital have done everything. They have got us a hospital bed, they have got us a sensor mat so that if he gets out of bed I hear him. They are doing everything they can. The people we are waiting for is social services to help with the care for three times a day (Carer 30).

There were communication problems with social services. Because the patient is in hospital, the carer can engage with staff face-to-face. Social services on the other hand is more remote. It is often by telephone and they may not be immediately available. A carer was therefore not satisfied with her engagement with social services.

A carer spoke of how they became anxious after receiving a telephone call from the hospital advising that their mother was being discharged with interim care. Their anxiety was because of the relatives not prepared for her return home and consequently no care package was in place. However, the discharge plan was later rescinded by the hospital. Hospital staff kept on altering the dates for discharge to another hospital. The funding for NHS continuing health care or the payment of care fees by the local authority can influence the patient discharge destination (i.e. discharge to a care home or discharge to the patient's home with a care package). Living and being hospitalised in different counties presents a challenge for patients and carers alike as two separate social workers are involved in the discharge. This is explained by the following quote from a carer:

It is proving difficult because we live in Hampshire and the hospital is in Dorset. So the process is going through but it can be difficult because it is two different counties and two different social workers to deal with (Carer 26).

Discharge assessment

A carer spoke about how social workers assess patients to ascertain whether they are suitable to go back home with a care package or to a care home. Furthermore, after hospitalisation a patient was reassessed to determine whether she could return to her assisted living residence. Physiotherapists conduct mobility assessments in the hospital or home environment to inform patient care. A carer spoke about how a patient refused to comply with the mobility assessment completed by the physiotherapist. A carer reports this:

The physios come along and say oh can you show us how you are walking. And she just will refuse. Because she, I guess it is an aspect of control that she still has. She can say no. Even though you can explain to her well, if the physios can see how you are walking they can help you (Carer 6).

A relative wanted an occupational therapist to visit her mother at home. Home visits were made to ensure that the home environment was safe for the patient. Staff sometimes requested improvements to be made in the home environment where necessary. This is illustrated with the following quote from a carer:

We have had community nurses and occupational therapist have come and looked at the house and arranged for modifications (Carer 17).

There are different people involved in assessing a patient for discharge from the hospital. Perhaps, there needs to be a lead who advocates for the patient's needs.

Discharge decision

A carer disagreed with a medically fit for discharge decision for their relative. This is illustrated by the following quote from a carer:

They have said the other day that medically she was fit to go home. There is no way. She is a hundred times worse now than she was when she came in here (Carer 16).

The nursing needs of individual patients can change when they are in hospital. Two carers felt that they could not continue to provide nursing care for their relatives at home. Hospital staff told another carer that she will not be able to cater for her husband's nursing needs at home. A relative felt 'relieved' to know that the hospital would cater for her husband until they found a suitable nursing home. Two carers referred to their endeavour to respect the wishes of their parents in avoiding a care home placement. The family members of another patient did not want their relative to be discharged into a care home. Discharge decisions involved arranging for a care package or nursing home placement. In a previous hospital admission, a carer advocated for his mother to be discharged home with a care package instead of her being placed in a nursing home. This carer spoke about his willingness to pay for extra care should this be required. Another carer was unsure as to whether it was best for him to advocate for a care package or accept a nursing home placement. He was not sure if his mother's behaviour had deteriorated because she was in a hospital. He therefore felt that having an in-depth conversation with hospital staff would enable him to make the right decision regarding his mother’s discharge destination. A carer refers to this:

What you really want is to sit down with someone who can go through. Say well yes this is what has been happening. This is the care she has needed. I know they do care diaries. She is maybe incontinent every night. That sort of thing will say yes, make me realise that she cannot go back home because the care that she needs cannot be provided there. And that maybe, a care home is the best. But to sit down with someone (Carer 6).

The long-term decision as to whether care fees should be paid by the NHS or the local authority was made after discharge. A carer expresses this as follows:

So if the next assessment, which takes place, is negative. I.e. the clinical commissioning group cannot continue to fund G…. (Name). We are then having to be referred to the social services. And the social services will then do a financial assessment of us as to how his placement can be funded. Whether he can stay in the nursing home that he will be going out to on Monday. That is where it is disconcerting (Carer 27).

A carer labelled discharge decisions as a ‘fast track’ system. This carer felt that hospital staff took advantage of the fact that carers had an inadequate knowledge of the hospital’s policies. Carer stated the following:

Discharge planning is tricky. It tends to be they play their cards close to their chest. It is quite secretive. And they rely very, very much, on what you do not know as the person that is involved on behalf of the patient. They very much rely on what you do not know. They abuse the privilege of the fact that you do not know the policies. That is discharge planning unfortunately for someone with dementia. They are relying on the person with dementia has no clue. So he needs someone to advocate for them. That can be anyone, social worker or not. There are not many social workers in Hampshire. It is a fudged system. It’s a fast track get out of hospital. And the fast *track is being abused. They should not use the fast track to get someone out of the hospital in that way (Carer 25).*

Efficient discharge

A carer felt that she had been well informed about the discharge planning process. The carer had been provided with details of the funding streams that were available to them. Another carer felt that their discharge planning process was easy because they already had a care package. According to this carer, it was helpful to have a discharge planner who co-ordinated all the discharge activities of medically fit patients. The carer stated that staff made sure that they had all of the patient's valuables and medication on discharge. A carer was made aware of the *brokerage* that identified appropriate care homes. Another carer mentioned that the discharge process was started on admission to the ward. This according to him helps to prevent nosocomial infections and frees-up beds on hospital wards. Another carer stated that the discharge process could be improved by allowing relatives to pick-up prescriptions directly from the pharmacy. Carer mentioned the following:

Well, if they knew we were going home. Or they were gonna be allowed to go home that day. Maybe as soon as the doctor said yeah that is your patient, your father can go home today. If they went on the screen and did, the prescription and it went straight through to pharmacy. Then maybe you could go yourself with your patient and go to pharmacy to pick up your prescription (Carer 3).

It is clear that some carers were satisfied with the discharge planning process. However, the interviews indicate a lack of consistency. The satisfaction appears to depend on particular staff who make the system work. There needs to be a system that does not rely on individual staff members performing well.

Liaising with the community

A carer had been waiting for two months for assistance from social services. He had been told to wait but decided to keep things under control himself by buying the equipment that his mother required. However, another carer said that their experience of social services had been positive in that certain resources had been provided. Carers state this as follows:

The social services people gave me a seat for him to sit in the shower. So he was sat down in case he got dizzy. They have been very good. They have tried to put toilet seat on so he does not have so far to sit down onto the toilet (Carer 15).

Like I said, it seems very well organised from the hospital the NHS side. It is not joined up to anything on the other side. Once it get to the, once it gets to social services. Social services are supposed to be helping, they are not, they are not helping. We have not had any. My mum came from another hospital. Last time she was in Alderney hospital in Poole. She was discharged at the end of August and we have not had any contact with social services, with community therapist, carers. I asked for a carer's assessment. Absolutely nothing. Just say you have to wait, you have to wait, you have to wait (Carer 13).

Visiting a care home

Although two carers visited care homes for the possibility of placement, the care homes refused to accept the patients because they could not cater for challenging behaviour and complex needs. Carers stated the following:

I have been to three nursing homes they have given me. They are supposed to come and assess him but as soon as they hear, challenging behaviour they are not that interested. The reason being again staff. At the hospital, you have security guards you can call on. In the nursing home, you probably only have nurses. Or maybe not even. Maybe just one nurse and maybe four carers. But they are all women. And even if it is a man, he needs someone quite strong because he is a big man. And that *is why they call on security guards when he starts being aggressive. I do not want to see him hurt somebody or himself. So those are the things that I find quite, I am quite concerned with (Carer 10).*

They tried to put him into somewhere. But they would not take him. They said they could not accommodate his needs. At the moment, that is how it is (Carer 5).

Summary

Carers stated that nursing home placements and care packages were expensive. Discharge could be delayed by a few hours or days. This was often due to reasons such as the dispensation of discharge medication or the arrangement of care packages. A discharge decision, which involved the provision of interim care, was made without the inclusion of a family carer. This discharge plan was later on rescinded by the hospital. Funding stream arrangements for social care pose a challenge to carers. Social workers and physiotherapists completed discharge assessments. Carers had to make difficult decisions as to whether they should accept a nursing home placement or a care package. Some carers were satisfied with the hospital's discharge process whilst others were unsatisfied. Hospital staff visited the homes of patients in order to ensure that it was safe for their return. A carer was satisfied with the support they received from social services, another carer was unsatisfied. Carers visited care homes to ascertain its suitability for their relative on discharge. However, the care homes could refuse to accept patients because of a lack of appropriate staff.

5.23) Overarching Theme 5: People in relation to discharge planning

The experiences of carers in relation to discharge planning is discussed. Carers' perceptions around the patient's role in discharge planning are reviewed.

Carer factor

Coping

The assessment of the coping strategies that carers use can be important in the discharge planning process because it enhances their satisfaction and the sustainability of the discharge (Carole Cox, 1996). One respondent modified their approach to their dementia relative following conversations with personnel from an Alzheimer's charity. Similarly another came to the same conclusion having researched information from the internet. They both accepted the patients' false sense of reality in order to avoid arguments. Another carer spoke about how he gave as much autonomy as possible to his mother by allowing his mother to take her own medication. She sometimes, however took an incorrect dosage. Another carer said that neither herself, the nursing home or the hospital could cope with her husband's challenging behaviours. Carer said the following:

I know I cannot cope with him. It has been proved by nursing home not coping, hospital not coping. It seems to me that all the hospital want to do is get him out quick (Carer 10).

Experience at home

Caring for a patient with dementia at home caused fear and anxiety in a participant who was coping with nervous anxiety in herself. This fear was because the carer was uncertain of 'what is going to happen'. Eight relatives had paid carers coming in to assist with personal care. A relative stated that paid carers needed to be conversant with the patient's routines as well as be compassionate. He felt that compared with hospital staff, paid carers were more adept at home helping his Dad to stand regularly with a standing aid. Family carers assisted patients with activities such as shopping, paying bills, managing the patients' finances, washing and cleaning. Other family carers were directly involved in the provision of personal care. A carer said that the patient could maintain her own personal hygiene. Another carer stated that her mother found contentment in simply folding napkins at home. Carer expresses this as follows:

Like my mum likes folding things. Like at home I just give her napkins and she just sits and folds them (Carer 17).

Patient factor

Co-morbidities

Co-morbidities are associated with prolonged hospital stays (Bahrmann et al., 2019) and necessitates the need for a thorough discharge planning process (Kralik, 2005). Carers stated that people with dementia also experienced multiple or single co-morbidities. Carers stated that their relatives had the following conditions: 1) Parkinson's disease. 2) Infection. 3) Repair of hip replacement. 4) Stroke. 5) Incontinence. 6) Confusion. 7) Arthritis. 8) Falls. 9) Cerebella Ataxia. 10) Fracture. 11) Sepsis. 12) Shingles. 13) Delirium. 14) Subarachnoid haemorrhage. 15) Postural hypotension. 16) Knee replacement. 17) Epilepsy. 18) Blocked pancreas. 19) Pneumonia. 20) Food on lungs. 21) Headache. 22) Malunion of fracture. 23) Seizure. 24) Fluid retention. 25) Severe bleeding. 26) Poor eyesight. 27) Hearing loss.

Carers stated the following:

Very long-lived very long slow developing Parkinson's disease. So we have been living with it for quite a long time (25 years) (Carer 11).

She has had to have a hip replacement and she has had to have an operation to repair the hip replacement. That is what, why she went into Poole hospital because she had fallen (Carer 13).

Understanding the patient

A carer spoke of how individual patients experienced dementia in a unique and constantly changing way. The task of relating to them and therefore responding to their needs is exceedingly difficult. It was therefore essential that staff spent time getting to know the patient as individuals if they are to offer appropriate and consistent care. A carer felt that there was a lot of empathy for patients as well as their families and she was surprised and encouraged by the employment of specialist dementia staff. Carers stated the following:

Each patient is at a different level of their dementia and it can change from day to day as well. It is very difficult. In a hospital environment. You do not really know the patient too well. You do not know what is normal for them. Even like the last 48 hours, I do not know what is normal for my mum now (Carer 13).

People are more understanding of the problems caused by dementia and they are more sympathetic, more empathic towards people with dementia and the relatives as well. I think there are more services in place because I did not realise there were dementia nurses in the hospital. And I spoke to one of them when my husband was admitted. So that has been quite useful (Carer 21).

Summary

Carers had different methods of coping with dementia. It was necessary to involve carers in discharge because of the various levels of their participation in patient care. The discharge of patients was affected by their co-morbidities. It was necessary to know patients in order to facilitate their discharge.

5.24) Overarching Theme 6: The environment in relation to discharge planning

This theme looks at the policies that guide dementia care. Carer perceptions regarding the use of hospital equipment is discussed.

Policies

Dementia ward and nurses

The use of a dementia specialist has been documented to enable patients with dementia to leave hospital sooner because of their ability to reduce the patients' challenging behaviour (Elliot & Adams, 2011). Five carers felt that the hospital needed to have specialist dementia wards and nurses to deliver patient care and appropriate activities. It was felt that staff were not sufficiently trained to cater for the needs of patients with dementia who may have communication difficulties alongside challenging behaviour. Staff needed to have sufficient time to find out from the patient what their individual needs were. A carer expresses this as follows:

I think all the people that got dementia need to be on the same ward if possible. With people who are trained to look after people with dementia. That have got the time. To say. Find out are they capable of going to the toilet. If they do, if they do. I think it could make things a lot easier. Maybe it does not have to be a nurse. Maybe a dementia friend person on the ward that goes round and talks to them. And tries to ascertain do you want to go to the toilet. I think that is one of the main things it seems to be toilet issues where they are not listened to or they are not comfortable. And because they have dementia, I think they are ignored a bit. It is easy to ignore somebody who is saying the same things over and over again. But generally, they are saying it for a reason. I think (Carer 3).

Concerns

A carer felt that staff were always writing in medical notes rather than providing bedside care. Another carer stated that they had not received a discharge letter for his mother's previous admission. Carer reported the following:

I had good conversations with this sister. She was the sister on duty and she was clear about what was happening and what the medications were she was giving me. And that all the tests had been done. But there was not a discharge letter available for me to take home and to be immediately sent to the GP because the doctors were busy. So we just carried on with the discharge anyway. And she said well it will come in the post and I do not think we ever got it (Carer 11).

One carer recounted the fact that the hospital contacted the wrong brother to obtain information regarding patient care. A carer felt that busy hospital staff were unable to spend enough time with patients. Another carer felt that staff did not know individual patients well enough to understand and meet their unique needs. A carer monitored the care given to his relative because he was concerned it was inadequate. He also felt that he was not being involved in his relative's care. Another carer stated that staff put soiled linen from another patient on to her husband's bed space (Infection prevention issues could potentially delay discharge). A carer was concerned about the fact that her relative was not being assisted during meal times. Carer stated the following:

They do not seem to help them with the food enough. They put the food in front of mum and if she does not eat it, they take it away. If they cut it, up perhaps and try to coax her to eat. She might eat something. But they have not got the time (Carer 16).

Another concern raised by a carer was the dispensation of liquid medication instead of tablets. Staff dispensed liquid medication because of the patient's swallowing difficulties. According to the carer, her swallowing difficulties were worse in hospital rather than at home. He therefore arranged for the GP to change the medication to tablets enabling his relative to take her medication by herself at home. Another carer spoke of how her relative was discharged with tablets instead of liquid medication. Carer stated the following:

He was discharged about 6 weeks ago. And it was, it was ok. He was sent out with medication, solid form. And he cannot take tablets so I had to ring the ward and say it should be soluble or liquid because he will just spit it out. I think there was a breakdown in communication between what the doctors were writing up the chart and pharmacy (Carer 21).

In terms of hospital discharge procedures, a carer was anxious regarding the discharge of his mother because he would be overwhelmed by her needs should the care agencies be unable to respond. However, the hospital social worker reassured him that community resources would be available and adequate. A carer referred to an occasion where booked hospital transport did not arrive. Carer stated the following:

The transport is the most difficult. Because it does not always turn up. He has to have. He has to have transport to take him home. On an ambulance. We did have a situation here in March where the transport was so busy. That it just literally did not turn up. Sister L… (Name) had to say I am sorry it is too late for him to go home. So I had to go home and then come back again the next day sort of for his discharge. But that was not the wards fault. That was just the sheer volume of patients I suppose wanting transport (Carer 12).

Documentation

According to a carer, although hospital staff completed documents intended to give person-centred care, this is not reflected in practice. This carer felt that there was a lack of transparency regarding hospital discharge policies. Patients who no longer required medical care received letters from the hospital if the progress of their discharge was not meeting the hospital's expectation. This is illustrated in the following quote from a carer:

There is a flow chart for discharge. So if it is not going where the hospital wants you get letter one. If it is not going still where the hospital wants it to go for kicking you out of the hospital quickly basically into a care home as a transition place you get letter two. You do not get much in terms of policy to allow you understand the process and you to understand how they are allowed to apply it. No disrespect it does not help them if they give you the information that they are meant to be going by. Which allows them to work in a grey area if you will. So we do not get much in *way of paperwork. Just happy stuff that says you are going home now. It is nothing helpful (Carer 25).*

Meetings

A carer felt that good handovers and team meetings were essential in providing person-centred care. Another carer had a meeting with the doctors on the ward to discuss patient care. Carer expressed the following:

We talked to a doctor on Ward Y. And he explained everything. Now she has been moved. They want to, a doctor wants to talk to me (Carer 31)

Another carer had a meeting with staff to discuss the funding arrangements of social care on discharge. Two carers met with staff to discuss the discharge destination of their relatives. A carer had a positive experience at the multi-disciplinary team meeting. She felt that the discussion with hospital staff about a nursing home placement for her husband went well. A carer who attended a multi-disciplinary team meeting highlighted the competing agendas of the hospital, patient, carer and social worker. The carer felt that it was not necessarily the patient's interest that was the focus but rather the hospital need to discharge the patient quickly. Another carer had difficulties understanding the acronyms that were used in a multidisciplinary team meeting. Following the meeting, he telephoned the ward staff to explain that he had not understood the proceedings and much of the terminology. The response of the ward was unhelpful. He therefore spoke to staff at the Dorset Clinical Commissioning Group where staff were far more prepared and able to help him with the terminology and decisions made. This is illustrated by a quote from a carer:

I was not clear in mind what the process was, what the stages were. When I phoned back the ward, it was like I was told well we did explain this in the MDT meeting. To me that came out of the blue. I did not really register half of it or it was not fully or I did not feel. I did not feel I had a good understanding of the process and what the stages and what was going to be happening and my involvement in it. But then I *did speak to a person at the Dorset CCG who did explain things very, very clearly (Carer 6).*

Property

A carer stated that her father's property was mislaid when he was transferred between wards. This is illustrated by the following quote from a carer:

The information gets lost as well as belonging and bits and things like that. Like his battery, hearing aids had gone (Carer 3).

Suggestions

A carer stated that patient's medical notes should be available electronically to avoid unnecessary repetition of medical information. Another carer stated that the electronic provision of patient discharge details would be beneficial to carers as staff are often too busy to respond to relatives request for information. Carer stated the following:

Maybe sometimes wards are busy. And it is hard, hard to get hold of people because they are busy doing things. I do not want to stop them from attending to other patients. So if there was maybe I do not know like a computer or something so that we can tap in the details of our relatives we can find out what has been planned for them with regards to discharge. Because sometimes pinpointing someone to talk to is quite tricky (Carer 17).

Hospital Equipment

Carers spoke about using the following equipment for patients in their homes: hospital beds, commodes, wheelchairs, handrails, ramps, seats and Zimmer frames. A carer stated that the particular clinical commissioning group involved directed the type of equipment provided for the patient at home. He felt that the standing aid that he had at home was unsuitable for transferring his father into his tilt and space wheelchair. Another carer said that social services had provided a standing aid for his relative, although he did not use this for transferring his mother. It was rather the paid carers in the home who utilised this equipment. Carer expressed the following:

We have each of those at home supplied by social services. They are used in most of her transfers through that sort of distance. About a foot or so. But when I am transferring her, myself, I, we, we quite successfully use. I just hold her and she stands. And I help her shuffle into her new position. So we do not use equipment, we just use wheelchair. So that equipment we are familiar with and it is very helpful. Certainly, it helps the carers have a more uniform approach to her transfers. Where they do not have to use their own strength to support her. We do not use hoist or anything more complicated like that to do transfers (Carer 11).

A carer felt that her husband may need simple equipment like a Zimmer frame when discharged. Four carers stated that extensive equipment were provided for the patients on discharge. Two carers felt that the hospital was well equipped with resources like beds, mattresses and Zimmer frames. This is illustrated with the following quote from a carer:

I think you have all the equipment here. The bed, special mattress and all that. She is getting loads of care (Carer 13).

Summary

In terms of policies and direction, five carers felt that there was a need to have specialist dementia wards and nurses in the hospital. Carers raised their concerns and suggestions on how to improve patient care. According to one participant, patient care documents intended to encourage staff to apply person-centred principles were not adopted in practice. Carers highlighted various meetings with hospital staff to discuss the care of the patient as well as discharge arrangements. Another carer also highlighted the loss of patient property in ward transfers. Carers referred to the use of specialised equipment on the hospital wards. Much of which was available for use in the home when the patient was discharged.

5.25) Overall summary on discharge planning

Carers were concerned about the costs of nursing home placements and care packages. Some of the reasons for delayed discharges included the dispensation of discharge medication and the arrangement of care packages. Whereas some carers were satisfied with the hospital's discharge process, others were not. Hospital staff made patient home visits in order to ensure that it was safe for their return. Carers visited care homes to ascertain the suitability for their relative on discharge. In terms of the people factor, it was necessary to involve family carers in discharge planning. The hospital discharge process was affected by patient characteristics such as their co-morbidities. In terms of policies, carers felt that there was a need to have specialist dementia wards and nurses. Carers raised their concerns and provided feedback on how to improve dementia care. Carers attended various meetings with hospital staff to discuss discharge arrangements. Patient property was sometimes mislaid during ward transfers. Carers stated that hospital equipment was provided for them to use in the home when the patient was discharged.

5.26) Discussion

This study used a systems framework for the qualitative aspect of the study. Interviews with staff and carers were conducted over a period of three months in six medical wards of an acute hospital. The focus of the qualitative aspect of the study was to ascertain if a systems approach could be used to reduce falls on the wards as well as improve discharge planning. Twenty hospital staff and thirty-two family carers consented to the individual interviews, which were embedded in a systems framework. The discussion of the findings will be guided by the research question: How might a systems approach contribute to reducing falls and improving discharge planning amongst patients with dementia? This research question is answered by exploring the current experiences of carers and staff in relation to these issues so as to develop a support bundle to improve care on the wards. For the staff interviews, all the overarching themes and themes under falls confirmed previous knowledge. The overarching staff themes and themes associated with people in relation to falls also confirmed prior studies. The staff theme, which made a novel contribution to current knowledge, was the use of hospital equipment. For the carer interviews, the overarching themes on falls and the environment in relation to falls confirmed previous studies. The subthemes under the overarching theme (i.e. people in relation to falls) that made a novel contribution to the literature on falls was reliance on others and inadequate care. Prior studies have focused on staff views regarding the reduction of falls amongst patients with dementia (Ayton et al., 2017; Burgon et al., 2019). I have broadened current understanding on this issue by presenting the views of carers regarding the reduction of falls amongst patients with dementia in hospital. For staff interviews, the overarching themes and themes under discharge confirmed previous studies. Novel staff sub-themes under the overarching theme (i.e. people in relation to discharge) included the following: Understanding your patient and Attitudes on policy. These two sub-themes enable staff to discern the long-term discharge needs of the patient. The staff theme (i.e. hospital equipment) under overarching theme (i.e. Environment in relation to discharge planning) was novel. The carer sub theme (i.e. understanding the patient) under the overarching theme (i.e. people in relation to discharge) was a novel contribution to literature. The carer theme (i.e. hospital equipment) in relation to discharge was novel. Prior studies have explored the views of patients with dementia, staff (Emmett et al., 2013, 2014; Poole et al., 2014) and family carers (M. Bauer, Fitzgerald, & Koch, 2011; M. Bauer, Fitzgerald, Koch, et al., 2011; Emmett et al., 2013, 2014; Poole et al., 2014) regarding the discharge process. I have broadened current understanding on this issue by approaching it from a systems perspective.

The following falls sub-themes and themes were common to carers and staff: falls prevention, transfer between wards, training and the physical environment. The sub-themes that carers and staff agreed on in relation to discharge planning were: nursing and care package cost, delayed discharge, discharge assessment, efficient discharge, liaising with the community, documentation, property, understanding the patient and hospital equipment. Carers and staff identified the same issues made mention above.

Falls

Findings from this study suggested that the causes of falls could be medical (e.g. postural hypotension) and environmental (e.g. poor night-time visibility). A similar finding is reported in previous literature in which the authors found that the factors that trigger falls could be physical (e.g. slipping on the floor) and medical (e.g. side effect of prescribed medication) (Tängman, Eriksson, Gustafson, & Lundin-Olsson, 2010). This suggests that environmental interventions (e.g. anti-slip procedures) designed to reduce falls need to take into account the patient's medical condition (Tängman et al., 2010). Such an approach will enable staff to adequately address the various causes of falls.

This study indicated that falls could be prevented by one-to-one observation. This method of falls prevention was however deemed expensive (Ayton et al., 2017). Other less expensive methods of preventing falls reported in the current study included eliminating environmental hazards such as the provision of adequate lighting and making the bed space free from clutter. This resonates with another research conducted in Sweden where the authors list the environmental hazards of falls (S. Eriksson et al., 2009). These hazards include factors such as inadequate lighting and inappropriate footwear (S. Eriksson et al., 2009). This suggests the need for hospital staff to have a multi-faceted approach to the prevention of falls. Participants in this study felt that encouraging mobility in patients helped to reduce falls. Previous research has highlighted the benefits of physical activity in reducing falls (Allan, Ballard, Rowan, & Kenny, 2009). The evidence from Cameron et al. (2018) work suggested that the benefits of physical activity on the wards was unclear. The findings of this research suggested that there were occasions when staff limited the physical movement of patients with dementia in hospital because they were at risk of falls. It should however be noted that the use of such an approach could increase the agitation of patients (Scherder, Bogen, Eggermont, Hamers, & Swaab, 2010). Findings on the benefits of multifactorial interventions to reduce falls are mixed (Cumming et al., 2008; Hill et al., 2015). Whereas some authors have documented that the training of patients and staff can reduce falls (Hill et al., 2015), a previous study has found such an approach to be ineffective (Cumming et al., 2008). Findings of this study are closely aligned with research that suggests that training of staff is important in the reduction of falls (Hill et al., 2015). Although staff in this study used online risk assessment tools to reduce falls, previous research suggests that staff observation of patients is far more effective than staff reliance on such tools (Vassallo, Poynter, Sharma, Kwan, & Allen, 2008). This study was however conducted at a time when online risk assessment tools was not used regularly. Staff were therefore more familiar with observation rather than online risk assessment tools. Other researchers have found that both staff identification of patients who are at risk of falls and the use of falls prevention tools are ineffective because of staff inability to differentiate between people who are at risk of falls and those who are not affected (Myers & Nikoletti, 2003).

Staff stated that one difficulty in the prevention of falls was the lack of low beds. Although previous studies found support for the use of low beds in preventing falls (Tzeng et al., 2013; Tzeng, Yin, Anderson, & Prakash, 2012), other researchers have found this to be ineffective because of the lack of staff diligence (T.P. Haines et al., 2010). Another difficulty in the prevention of falls includes staff perceptions that patients do not retain the advice and information given to them on falls prevention. This finding is consistent with that of previous literature (Ayton et al., 2017; Chaâbane, 2007). Prioritising the falls risk of individual patients was difficult because of the competing needs that staff attend to. A member of staff for example stated that four patients could climb out of bed at the same time. Another member of staff stated that some wards focused on falls because they admitted many older patients who were at risk of falls. This finding is further expanded upon by Rooddehghan, Yekta, and Nasrabadi (2018) and Suhonen et al. (2018) who stated that the prioritisation of nursing care could result in negative outcomes such as missed care.

Staff in this study stated that they were mandated to report falls via the incident reporting form. They used Datix (NHS incident reporting system) to report the incidence of falls. The Learning Event Report Notification form was also used to document successful events and mistakes. Some staff and wards appears to practice transparency in the documentation of falls whilst others appear not to (T. P. Haines, Cornwell, Fleming, Varghese, & Gray, 2008). This inconsistency in staff documentation of falls could be due to a decreased incentive to complete the relevant forms if they are not liable (T. P. Haines et al., 2008). This suggests the need to adequately train all staff on how to use the falls notification system (T. P. Haines et al., 2008). This current study reported that sustaining a fall on the wards could result in negative outcomes such as fear and increased length of stay amongst patients. Previous literature has associated falls with post traumatic disorder (Bloch et al., 2014; Chung et al., 2009) and the prevalence of psychological conditions such as fear of falling (C. Cox & Vassallo, 2015). This suggests the need for patients and their carers to have greater understanding of the psychological responses that occur following a fall. Staff reported feeling *bad* and *terrible* after a patient had fallen. Previous literature indicated that staff felt bad after a fall (King, Pecanac, Krupp, Liebzeit, & Mahoney, 2018). This suggests the need to create a supportive, learning environment where staff are encouraged to express their feelings and natural defensiveness is discouraged.

Although carers in this study stated that the appropriate use of bed side rails could reduce falls, findings from the literature indicate that the use of side rails could result in serious harm because some patients might climb the rail and fall from a higher position (Hanger, Ball, & Wood, 1999; O'Keeffe, Jack, & Lye, 1996). This suggests the need to use bedside rails appropriately both at home and on the wards. There is no consistency in the use of side rails on the wards. Some wards use side rails and others use low beds. More research appears to be required in this area.

People in relation to falls

In relation to falls and the human component of a systems approach, which has been discussed in Chapter 1, this section reviews the role of the carer, patient and staff. Involving families in the care of patients made them more settled and therefore reduced behaviours such as agitation which has been found to be associated with the susceptibility of falls (Mansutti, Venturini, & Palese, 2019). It has been documented that staff have negative experiences with dementia and this could influence the type of falls training given to patients with dementia as it is felt that they are unable to retain the information given (Bamford, Wheatley, Shaw, & Allan, 2019). It is therefore necessary to train staff on how to offer innovative, sustainable and bespoke services to people with dementia (Bamford et al., 2019).

The human component of a systems approach necessitates research encompassing patient characteristics such as their diagnosis and the level of frailty. A systems approach also looks at the role that staff, family carers and managers play in the care of patients with dementia. Staff used emotional phrases such as *sad* and *horrible disease* to describe the observed effects of dementia. People with a diagnosis of dementia are likely to fall in hospital (Brand & Sundararajan, 2010). Some suggestions for the reduction of falls amongst people with dementia include the management of hypotension (e.g. drinking fluids and the review of patients' medication) and the encouragement of physical activity (Allan et al., 2009). Staff in this study referred to situations where patients were at risk of falls because they did not understand the rationale behind their treatment. An example of this included a scenario whereby a patient walked away from his catheter bag, which had been strapped, to his bed. Such actions by patients could cause injury and also increase the patients' length of hospital stay (Leslie, Sajjad, & Sharma, 2019). Their difficulty in recalling or retaining information around their medical condition means that they may not be able to retain information related to falls (Burgon et al., 2019). Findings from a literature review indicates that communication difficulties are more pronounced in patients with dementia particularly as the disease progresses (Banovic, Zunic, & Sinanovic, 2018). A member of staff in this study, however, stated that people with dementia could communicate when they are confused. Both carers and staff in this study stated that patients with dementia experienced poor sleep quality. Poor sleep quality has also been associated with the risk of falls (Eshkoor et al., 2013). It is therefore necessary to effectively manage environmental and physiological factors which affect sleep quality such as pain and lighting (Ooms & Ju, 2016).

Carers in this study indicated that their relatives experienced a deterioration of their physical health over time during their hospital admission. Frailty has also been found to be a predictor of falls (O. J. de Vries et al., 2013; Ensrud et al., 2007) and fractures (Ensrud et al., 2007). Some successful interventions designed to reduce frailty include improving the patient's nutritional status and encouraging physical activity (Marcucci et al., 2019; Puts et al., 2017). Another patient characteristic that was related to falls in the current study was the patient's inability to remember to use their mobility aids. Forgetfulness in the use of one's mobility aid could result in serious injury (Luz, Bush, & Shen, 2017). A previous study did not however find any significant differences in the risk of falls amongst people used or did not use mobility aid (Gell, Wallace, LaCroix, Mroz, & Patel, 2015). Furthermore, people who use mobility aids can fall when they lift these assistive devices, despite research supporting the fact that mobility aids help to improve balance (Bateni & Maki, 2005). Findings from this study indicated that patients had impaired mobility. They were therefore at a greater risk of falls (Dionyssiotis, 2012; Vassallo, Vignaraja, Sharma, Briggs, & Allen, 2004). It is therefore necessary to encourage balance training exercises in order to reduce falls (Sherrington et al., 2008). However, the benefits of exercises amongst patients in hospital requires further research (Sherrington et al., 2017). Also, only 10% of 140 staff interviewed in a previous study identified the use of exercises as a falls prevention measure (Shever, Titler, Mackin, & Kueny, 2011).

Carers in this study stated that they helped their relatives with mealtimes. Findings from previous studies indicate that malnutrition could make one susceptible to injurious (Lackoff et al., 2020) and multiple falls (Julius et al., 2015). A strategy adopted by a carer in this study to improve the nutritional intake of his mother involved the simple act of adding tomato sauce to her meal. Other strategies that are useful to improving nutritional intake include the use of volunteers at meal times to assist the patient alongside the provision of relaxing music to accompany meal times (A. Wong et al., 2008). The finding that volunteers could be usefully employed to assist patients at meal times was confirmed in another research (H. C. Roberts et al., 2014) and this current study. However, caution in this area is necessary, as some patients will require professional nursing experience in such a task.

Staff in this study confirmed that teamwork on the ward helped to reduce falls. This involved: bringing to the attention of staff the environmental hazards that were present on the wards, placing the findings of mobility assessments on boards, which were located behind the patients' beds, having detailed handovers and the use of the falls resource team. This finding is similar to a previous study which reported the benefit of a high degree of staff accountability (Dykes, Carroll, Hurley, Benoit, & Middleton, 2009). A team-based approach to the reduction of falls could however be undermined by poor staff retention (Eckstrom et al., 2016). Staff in this study suggested that volunteers could help with reduction of falls by keeping patients occupied. Previous studies have documented that volunteers can be used to reduce falls through patient observation (Donoghue, Graham, Mitten-Lewis, Murphy, & Gibbs, 2005; Giles et al., 2006). There was however a situation where a carer stated that a patient was not receptive to the idea of engaging with a volunteer. It is therefore necessary to adequately train and support volunteers to enable them to carry out tasks assigned to them on the wards (Koivula, Karttunen, Dickinson, & Hujala, 2014). It is also important not to impose a volunteer on an unwilling recipient.

Carers on the ward indicated that there were often communication difficulties between themselves and their relatives. People with communication difficulties are susceptible to falls because of their inability to understand information related to their risk of a fall (Hemsley et al., 2019). The training of family members could help to reduce anxiety, stress and depression amongst older people who have communication difficulties (Ghazavi, Feshangchi, Alavi, & Keshvari, 2016). It also helps to reduce the isolation that people with communication difficulties face (A. D. Palmer, Newsom, & Rook, 2016).

A carer in this study stated that communication between him and staff, particularly centred on information sharing around handover was inadequate. Poor communication between staff and carers have been documented to be a source of discontentment (Jurgens et al., 2012; Spencer et al., 2013). A possible reason for the poor communication between staff and family members could be the time pressures that staff face (Manias, 2015). Susceptibility to these pressures runs the risk of losing the significant contribution that family members make to patient care (C. M. Williams, 2005). Carers in this study stated that their relatives had received inadequate nursing care (e.g. carer mentioned that patients who had soiled themselves were sometimes left unattended). A higher falls rate was reported on wards where staff stated that there were gaps in nursing care (Sochalski, 2001).

Environment in relation to falls

The other components of the systems approach are policies, environment and equipment (E. Edwards, 1972; Hawkins, 1987; Zecevic et al., 2007). These components are discussed in this section. In regards to policies covering staffing levels, staff and carers in this study indicated that they were inadequate. In addition, some staff complained of large caseloads. Previous literature shows that an adequate staff-to-patient ratio reduces falls (Dunton et al., 2004; Krauss et al., 2005) and the patients hospital stay (Tschannen & Kalisch, 2009). An adequate staff-to-patient ratio aids in the observation of patients and their safe mobilisation (Dunton et al., 2004). In contrast, Donaldson et al. (2005) did not find an association between nursing staffing levels and falls. Staff and carers stated that patients were unsettled when they were transferred between wards. Multiple patient ward transfers could increase the likelihood of falls (Kanak et al., 2008; Toye et al., 2019). Such transfers can make patients lose their network of friends and new ward staff may be unfamiliar with the nursing care required by the patient (Goulding, Adamson, Watt, & Wright, 2015). Staff had to fulfil their own training requirement and additionally educate care agencies and family members. Some carers in the present study felt that staff had inadequate training. Staff in a previous research felt that the education of people with a diagnosis of dementia on the risk of falling was ineffective (Ayton et al., 2017). This does not apply to patients in general as a previous research have found that patient and staff education on the risk of falls to be effective (Hill et al., 2016). Other researchers have stated that it is helpful to involve family members in the training on falls prevention in hospitals (Gu, Balcaen, Ni, Ampe, & Goffin, 2016).

In regards to the hospital environment, staff indicated that there was not enough room around patients' bed spaces. This finding is important because a previous study concluded that most falls in the acute setting occur around the patients' bed space (M. Johnson, George, & Tran, 2011). A possible solution to insufficient patient bed space could be in the use of single rooms instead of multiple occupancy. However, the use of single rooms has been associated also with an increased falls rate because hospital staff were not able to observe patients (Singh, Okeke, & Edwards, 2015). Simon, Maben, Murrells, and Griffiths (2016) did not observe an association between patient falls and the use of single rooms. Some staff advocated for the use of Quiet Spaces and Day Rooms. This helps to reduce falls by counteracting the busyness of the ward. It is important to note that a previous study found that patients hardly used Day Rooms in hospitals because they were not aware of the availability of such facilities (Maben et al., 2016). This suggests the need for staff to be more patient-focused by orientating them towards the facilities that are available.

Staff and carers suggested the use of colour to enhance visibility of toilets, bays and equipment. Findings from a previous study indicated that patients found it difficult to orientate and navigate themselves in hospitals because there were no distinctive colour schemes at entrances and hallways (Hung et al., 2017). Staff stated that patients found orientation boards in hospital to be confusing because they contained too much information. Previous research has documented that people who are disoriented (Härlein et al., 2011) and unfamiliar with their surroundings are also at risk of falls (Morris & O'Riordan, 2017). Carers stated that the hospital environment was often busy. The successful implementation of any falls prevention programme in busy hospital environments may be difficult to achieve because of the time constraints that are present in such institutions (Schwendimann, Bühler, De Geest, & Milisen, 2006). Also, patients who are at risk of falls may for example mobilise without assistance if they feel that staff are too busy to help them (T. P. Haines, Lee, O'Connell, McDermott, & Hoffmann, 2015). Carers felt that although carpeted floors could prevent patients from injuring themselves when they fall, they were unhygienic and therefore unsuitable for hospitals. Previous research has found that carpeted floors in hospital settings contain a large amount of pollutants (Harris, Pacheco, & Lindner, 2010). Furthermore, the use of carpets could exacerbate respiratory conditions such as asthma (Ferry, Duffy, & Ferreira, 2014; Jaakkola, Ieromnimon, & Jaakkola, 2006).

In relation to equipment, staff felt that the use of the right mobility aids could prevent falls. Gell et al. (2015), however, reported that there were no significant differences in falls amongst people who used mobility aids and those who did not rely on this type of equipment. Further research is required to ascertain if falls risk assessment programs that may accompany the use of mobility devices actually prevent falls (Gell et al., 2015). Other researchers have documented that the use of mobility aids alongside the encouragement of physical activity could in fact help to reduce falls (Graafmans, Lips, Wijlhuizen, Pluijm, & Bouter, 2003). Staff in this study stated that the use of brightly coloured mobility aids could prompt patients to remember to use them. This finding is consistent with previous research which found that patients with dementia were more likely to use red Zimmer frames as opposed to grey ones (L. Morrison, 2017).

Discharge planning

Staff in the current study indicated that efficient discharge planning was quick and well organised (i.e. patient is prepared for discharge so that as soon as they are medically fit, they can go home). Previous research has found that such an approach was necessary in reducing the patient’s hospital stay (Gonçalves-Bradley, Lannin, Clemson, Cameron, & Shepperd, 2016). Whilst there are considerable benefits in an efficient discharge process, there are a number of negative factors, which may affect this (M. Connolly et al., 2009; E. L. Wong et al., 2011). A negative factor referred to by staff in this study included the ability of patients to change their minds regarding discharge plans (e.g. patient becomes well and opts for a care package instead of a nursing home placement). This finding is consistent with that of other researchers who have found that some patients do not want long-term institutional care (E. L. Wong et al., 2011). Another barrier to discharge planning identified in this study included the inadequate preparation of the patients’ carers (e.g. poor communication). This has also been referred to by M. Bauer, Fitzgerald, Koch, et al.

(2011). It is therefore necessary to ensure the involvement of family carers during the patient's hospital admission as well as in the discharge planning process (M. Bauer, Fitzgerald, & Koch, 2011). There was a situation in this study where staff had discharged patients without their belongings. This could have been as a result of inconsistent patient transfer procedures as well as the time constraints faced by staff (Catchpole, Sellers, Goldman, McCulloch, & Hignett, 2010).

Staff in this study had to undertake difficult negotiations with patients and carers in regards to whether placement in a nursing home residence is a better option than home. Such placements can be influenced by the individual's ability to perform daily living activities (Luppa et al., 2010; Miller, Schneider, & Rosenheck, 2011). Another factor to consider in nursing home placements is that stressed caregivers may be too ready to accept a placement (Gallagher et al., 2011; Spitznagel, Tremont, Davis, & Foster, 2006). Some family members involve the patient in the decision-making process of accepting a nursing home placement whilst others do not consider the views of the patient (Lord, Livingston, Robertson, & Cooper, 2016). Carers and staff in this study stated that nursing home costs and care packages were expensive. There is the need to consider the fact that costs associated with nursing home placements are likely to be considerably higher than home based care services (Knapp et al., 2016). The decision as to whether a nursing home is more appropriate than the patient's residence, therefore, lies with the careful consideration of patient and family alongside monetary factors. Findings from this study indicated that some care homes refused to accept patients with complex needs and challenging behaviours. The process of selecting a care home for patients has been described as challenging by carers because of the absence of relevant information (S. Davies & Nolan, 2003). This is however not the case for all because the reputation of particular care homes is known in the locality (A. Ryan & McKenna, 2013). This suggests that the selection of care homes by carers favours local knowledge and residency.

There was a divergence of views on the patient requirements around community teams. Whereas staff focused on services such as the Community Mental Health team, carers were concerned around support provided by social services. Communication and involvement between the hospital and community services could range from a simple telephone call to a complex visit by the nurse (Guerin, Grimmer, & Kumar, 2013). However, a previous study reported difficulties in communication between staff in the acute environment and those in the community setting (Baillie et al., 2014). A carer in this study felt that communication with the staff regarding the care provided for the patient was inadequate. There also seemed to be an inadequate involvement of patients in the planning and provision of their community care (Georgiadis & Corrigan, 2017; Zakrajsek, Schuster, Guenther, & Lorenz, 2013). Lapses in the communication process between staff and patients resulted in a lack of preparedness for the patients return home (Nielsen, Gregersen Østergaard, Maribo, Kirkegaard, & Petersen, 2019).

According to participants in this study, discharge could be delayed by a few hours or days. This was due to reasons such as the delivery of hospital equipment for use at home and the delay in the dispensation of medication. Other reasons for the delays in discharge are the admission process to a nursing home and an arrangement for the receipt of care packages at home (Challis, Hughes, Xie, & Jolley, 2014). This finding resonates with the current research, which found that some patients had to wait for care packages. Furthermore, delays in discharge could cause anxiety in patients (Kydd, 2008). There is the added risk of patients acquiring new hospital infections (Rojas-García et al., 2018). Others, may disengage from the discharge planning process because of its complexity and their own complex health needs (Swinkels & Mitchell, 2009). It is therefore necessary to address these delays through the successful integration of a wide range of policies such as the introduction of discharge co-ordinators and intermediate care services (Baumann et al., 2007; Bryan, 2010).

Although carers and staff in this study indicated that home visits ensured patient safety in the home post-discharge, a previous study has shown that these do not have any effect on reducing further admissions (F. K. Wong et al., 2008). In contrast, the use of telephone calls together with home visits was found to lower rehospitalisations (F. K. Wong, Chow, Chan, & Tam, 2014). Furthermore, home visits by a pharmacist enabled them to detect problems related to the use of medication (Kogut, Goldstein, Charbonneau, Jackson, & Patry, 2014). Also, even though home visits by occupational therapists was believed to enhance patient safety, these visits were undermined by the late delivery of hospital equipment to the patient’s home (Nygård, Grahn, Rudenhammar, & Hydling, 2004). Interestingly, home visits made by occupational therapists whilst the patient is still in hospital have been found to increase the anxiety of the patient but reduce the anxiety of carers (Atwal, McIntyre, Craik, & Hunt, 2008).

People in relation to discharge planning

Previous researchers have identified the invaluable role that family members play in the provision of care (Baillie et al., 2012b; Digby et al., 2012; Fitzpatrick, 2018; Hunter et al., 2017; Iecovich & Rabin, 2014; Krupic et al., 2016; Moyle et al., 2011; Nolan, 2006; Scerri et al., 2015). This previous work supports the findings of the current research in relation to discharge planning, which is part of continuing patient care. According to staff, although family carers help to complement the care given to patients on the wards, some of the carers were stressed. This stress is because of the anticipated additional care demand that will be placed on them when their relative is discharged (Slatyer et al., 2019). The well-being of family carers can therefore be improved with interventions such as yoga and meditation (Waelde, Thompson, & Gallagher-Thompson, 2004). Some patients do not have the support of family members. Staff therefore had to involve care agencies or the Independent Mental Health Capacity Advocates. The role of the Independent Mental Health Capacity Advocates in an acute setting is however not fully understood by hospital staff (Chatfield et al., 2018).

Some carers in this study were able to cope with symptoms of dementia whilst others managed challenging behaviours less well. Individual patients who deteriorated whilst they were at home often were rehospitalised due to their poor coping skills (Hodgins, Filiatreault, Keeping-Burke, & Logan, 2020). It is therefore necessary to support patients with targeted bespoke services in the home if hospital readmissions are to be reduced. Whilst some carers in this study were involved in the provision of personal care for their relatives, others were not. A previous study reported that carers who provided round-the-clock personal care for their relatives felt lonely and tired (van Wijngaarden, van der Wedden, Henning, Komen, & The, 2018). The strains associated with caregiving however co-exist with positive feelings such as personal fulfilment and achievement in the care of relatives (Krutter et al., 2020; Sanders, 2005).

Carers and staff in the current study stated that patients with dementia have co-morbidities. Having co-morbidities can affect discharge planning because it makes the process more complex (Nardi et al., 2007). This complexity is as a result of the involvement of multiple professionals in the care of people with co-morbidities (S. O'Connor, Deaton, Nolan, & Johnston, 2018). The use of multiple professionals can make it difficult for a patient to keep up-to-date with information related to their care because of the miscommunication and the lack of consistency amongst the various specialists (Kralik, 2005). This suggests that many people are not being cared for in a holistic manner. Staff stated that people with dementia had fluctuating capacity. Staff who attend to people with fluctuating capacity have varied approaches to deciding the patients' capacity to consent to their discharge destination (Emmett et al., 2013). Discharging a patient with fluctuating capacity presents a dilemma for staff because they have to decide whether the patient will be safe in their home with impaired memory or be better served with a permanent placement in a nursing home (Stewart, Bartlett, & Harwood, 2005). This suggest the need for further research on capacity assessments and individual freedom in the context of fragility. Carers and staff stated that it was necessary to get to know their patient. Knowing the patient is important in discharge planning because it enables professionals and patients to find a collaborative approach to continuing care (Hyslop, 2020). The adoption of a person-centred approach to discharge planning can however be undermined by pressures on staff time and the involvement of multiple professionals due to shift patterns (Hesselink et al., 2012).

Although staff in this study were initially reluctant to use a behavioural management tool (allows staff to document the behaviour of patients and how it was managed) to monitor patients with dementia, with education and familiarity they were increasingly convinced of its value. It is important to note that a patient who experiences the challenging behavioural symptoms of dementia is more likely to be placed in the care of a nursing home (V. L. Phillips & Diwan, 2003). The likelihood of a nursing home placement is reduced when hospital staff visit a patient in their home and make recommendations as to how their home environment can be modified to accommodate their illness (Wilson, Atwal, Richards, & McIntyre, 2012). This suggests that a more accurate discharge assessment is made when health professionals visit the patient's home. Staff used a team-based approach in the discharge of patients. The building and maintaining of healthy staff teams for discharge planning involves factors such as having clearly defined roles and boundaries as well as effective leadership (Pethybridge, 2004). A team-based approach to discharge planning may, however, be undermined by hospital pressures to quickly discharge patients alongside inadequate liaison between staff (M. Connolly et al., 2009; E. L. Wong et al., 2011). The emphasis should be on patient-centred care as opposed to the pressure of vacating bed space.

The environment in relation to discharge planning

This section discusses how policies and equipment affect discharge planning. In relation to policies, staff stated that the documentation of nursing care in the medical records of patients enabled them to assess continuing nursing requirement on discharge. A family carer on the other hand felt that staff did not adopt person-centred models despite completing documents that promote the use of such an approach. Previous research has found that the timely receipt of discharge documentation by the patient's GP can help to reduce the risk of rehospitalisation as it ensures continuity of care (J. Y. Li, Yong, Hakendorf, Ben-Tovim, & Thompson, 2013; van Walraven, Seth, Austin, & Laupacis, 2002). Discharge documentation may however be incomplete as relevant patient information can be excluded (Sakaguchi & Lenert, 2015; Were et al., 2009). Although staff crosschecked patient valuables to ensure that their belongings were with them, a family carer reported that her father's property had been mislaid during a ward transfer. Findings from a previous study indicated that staff did not assist patients in the packing of their personal property on discharge (Hegney et al., 2002). Another study on discharge planning, however, educated staff to assume responsibility for the packing of patients’ personal items (Gray, Santiago, Dimalanta, Maxton, & Aronow, 2016). Family carers mentioned how valuable specialist dementia wards and nurses were to patients. Previous research has found that the use of specialist nurses helped to improve the discharge process because of their ability to manage challenging behaviours (Elliot & Adams, 2011). Dementia specialist nurses could also take a more active role in the discharge planning process by following-up discharged patients and working with other members of the multi-disciplinary team (P. Griffiths, Bridges, Sheldon, & Thompson, 2015). Family carers highlighted concerns in this study ranging from patients receiving inadequate care to the incorrect constitution of a patient’s medication. A previous study has categorised patient complaints into three groups: those that are clinical in nature, those that relate to managerial issues, such as waiting list delays, and those that involve the experiences of patients (Reader, Gillespie, & Roberts, 2014). Also, there is the issue of inadequately addressing the complaints of patients regarding the hospital care that they receive (Skär & Söderberg, 2018). Family carers met with staff to discuss social care arrangements and discharge destination. Whilst one carer was satisfied with the progress of the discharge meeting, two carers were dissatisfied. This was because one carer felt that the meeting was aimed at discharging the patient quickly rather than emphasising the patient’s interest whilst the other carer did not fully understand the acronyms used at the meeting. A well organised discharge meeting involves helping the patient to formulate questions before the start of the meeting and making sure that patients have understood the purpose of the meeting by asking for a summary of the points that have been discussed (Bångsbo, Dunér, & Lidén, 2014). It is also important to encourage patients to actively contribute towards discharge meetings by allowing them to provide staff with the necessary information needed to make the most appropriate discharge decision (Schoeb, Staffoni, & Keel, 2019). Two family carers felt that making medical information electronic could reduce unnecessary repetition of information. It was also believed to have the potential of making it easier for carers to ascertain proposed medical interventions. Although the use of electronic medical records could help researchers to improve the health outcomes of patients, there are several disadvantages such as the cost associated with its use alongside possible security risks (Menachemi & Collum, 2011).

In relation to equipment, staff felt that it was necessary to discharge patients with equipment that they had used in hospital as they had become familiar and adapted to its use. Family carers and staff stated that patients used hospital equipment at home. It was felt that telecare (remote care packages for those living alone) could be used to support patients in the home environment. It is therefore necessary to train staff on these type of interventions (Guise & Wiig, 2017). There is the need to train family carers and patients too.

5.27) Implications for policy and practice

Acute hospitals are there to make people better or to make them as comfortable as possible if death is inevitable. It is clear from the research that coming into hospital can compound the experience of dementia. The hospitals are clearly not always serving the needs of dementia patients and the family carers. The outcomes appear at times to serve the institution rather than the patient.

It appeared that some carers were satisfied with the care provided to their relatives whilst others were not. Hospitals comprise of health professionals, patients and family carers. However, there are competing vested interest. Staff do not use a systems approach in the prevention of falls and discharge planning. Staff are, however, guided by a discharge checklist and falls protocol (see Appendix 13 and 14). A systems approach to falls and discharge planning may create a better environment because it is uses a holistic approach. However, it is difficult for staff to embed this in their practice because of the busy nature of acute settings. There is little time given to the bigger picture. A systems approach brings the whole resource of the hospital together for the patient and family. It therefore has the potential to improve patient care.

Policy makers can provide staff with training on how to prevent falls and improve the discharge planning process through a systems approach. This training could be provided online or face-to-face. It would be helpful if staff on the ward felt that their contribution was valued and important. Staff need to be incentivised to adopt a systems approach to care. In essence, this will only happen if staff *own* the value and contribution that a systems approach could make.

Findings from this research need to be fed back to practitioners on the ward. This is the goal of many academic research studies. However, we know in practice this does not often happen. A systems approach is a practical method to patient-centred care. I would like to see its natural use on the wards through a digital tool (i.e. an App (Application)). A true embodiment of a systems approach would encourage a full use of such an App by the multi-disciplinary team and include access by family carers (with usual safeguarding protocols in place). This would encourage transparency and empower principal carers of dementia patients.

5.28) Contribution to knowledge

By interviewing staff and carers, I have used the work of E. Edwards (1972), Hawkins (1987) and Zecevic et al. (2007) (which was originally focused on aircraft safety and falls within the community) to explore how to improve the dementia patient's experience in an acute hospital. I have expanded on their work by showing that patient (e.g. frailty), staff (e.g. teamwork) and carers (e.g. stress) characteristics affect the discharge planning process and falls. I have also illustrated how the hospital environment affects falls and discharge planning. My research has shown that the various components of the system (people, policies, equipment and environment) interact to influence patient outcomes. I have grouped the following subthemes (policies, equipment and the physical environment) under the hospital environment because they contribute towards the ward atmosphere. Whereas falls was influenced by policies, equipment and the physical environment, discharge planning was only influenced by policies and equipment. Issues regarding the discharge lounge as a physical environment were not raised. Three novel themes and subthemes emerged from the staff and carer interviews regarding falls. These were: the use of equipment in relation to falls, reliance on others and inadequate care. Previous studies have focused on the perception of staff in relation to the reduction of falls (Ayton et al., 2017; Burgon et al., 2019). I have created new knowledge by looking at the perceptions of carers in relation to the reduction of falls amongst patients with dementia in hospital. The novel themes and sub-themes generated from the staff and carer interviews on discharge planning is as follows: Understanding your patient, Attitudes on policy and the use of hospital equipment. Prior studies have examined the perception of patients with dementia, staff (Emmett et al., 2013, 2014; Poole et al., 2014) and family carers (M. Bauer, Fitzgerald, & Koch, 2011; M. Bauer, Fitzgerald, Koch, et al., 2011; Emmett et al., 2013, 2014; Poole et al., 2014) in relation to the discharge process. I have broadened current understanding on this issue by addressing it from a systems perspective.

5.29) Strengths and Limitations of the qualitative study

A major strength of this study was the large sample size of 52 carers and staff on acute medical wards. Interviews with staff and carers ensured that wide ranges of views were sampled. Another strength of the study was the wide range of professionals interviewed (three staff nurses, six healthcare assistants, three dementia and delirium specialist nurses, one occupational therapist, one specialist nurse in Parkinson’s disease, one discharge co-ordinator, four deputy sisters and one assistant practitioner).

As the data from the qualitative study were obtained from a single hospital within the UK, the results may not be applicable to other environments (Callahan et al., 2012; Tropea et al., 2016). In order to transfer findings from both qualitative and quantitative projects, Polit and Beck (2010) argue for the need of researchers to repeat the studies in different environments and incorporate the results obtained from a review of relevant literature into clinical practice. Other limitations of the current study are: the absence of the views of patients with dementia, the lack of observational data to support the findings from the interviews and insufficient information obtained about the patient journey (i.e. patient experience from admission to discharge).

5.30) Conclusion

The researcher obtained information regarding the experiences of carers and staff on how to reduce falls and improve discharge planning amongst patients with dementia. The next chapter seeks to develop a support bundle to help improve the care on the wards.

Chapter 6

Development of a falls and discharge planning support bundle

6.1) Introduction

A bundle has been defined as "*a small set of evidence-based interventions for a defined patient segment/population and care setting that, when implemented together, will result in significantly better outcomes than when implemented individually." (Resar, Griffin, Haraden, & Nolan, 2012, p. 2).* Examples of care bundles include a bundle to assist clinicians in the use of ventilator equipment (Institute for Healthcare Improvement, 2012) and those for central venous lines (Ista et al., 2016). The ventilator associated pneumonia bundle was developed from a review of previous literature (Institute for Healthcare Improvement, 2012). After identifying the relevant literature in regards to the problem that the support bundle is addressing, it is necessary to pilot the bundle (Borgert, Binnekade, Paulus, Goossens, & Dongelmans, 2017). Other documents providing guidance for practitioners are referred to as clinical pathways. These outline key evidenced based actions which are to be used by hospital staff in order to provide quality patient care (Lawal et al., 2016). Clinical guidelines are recommendations aimed at improving patient care (Rotter, Kinsman, James, Machotta, & Steyerberg Ewout, 2012; Tetreault et al., 2019). Clinical protocols are formal adopted methods of care which specify a clear a inclusion and exclusion list of expectation required for the care of a specific patient group (Prasad, Christie, Bellamy, Rubenfeld, & Kahn, 2010). I chose to develop a bundle as opposed to clinical guidelines, protocols or pathway because of their ability to ensure that consistent care is given to patients on the wards, if properly applied (Rello, Chastre, Cornaglia, & Masterton, 2011). The support bundle I have developed is simple to use and addresses the key concerns of the various stakeholders in dementia care.

6.2) How was the support bundle developed?

I identified that falls and discharge to a care home were affecting the length of hospital stay of patients with dementia. I therefore interviewed staff and carers about their views on how to reduce falls and improve the discharge planning process. I developed the support bundle by extracting the key points from the findings and compiled them into a list of points that could be used by staff to improve the care of patients with dementia on the ward. The key points for falls centred on: nutrition, sleep, pain, medication, physical activity, environmental hazards, mobility aids, one-to-one nursing, training, liaising with the falls team and the minimisation of ward transfer. The key points for discharge planning centred on: discharge assessment, discharge planning meetings, funding arrangements, GP/social services/community team referrals, visit to patients' homes or care homes, delivery of patient equipment to their home, patient medication, patients' property, discharge summary and arrangements for patient transport.

6.3) Evidence for the falls support bundle and tasks to be undertaken by staff

A. **Encourage patients with dementia to eat their meals.**

Supporting evidence: Malnourishment could lead to falls (Julius et al., 2015; Lackoff et al., 2020). The incidence rate ratio for malnourishment in the service evaluation was 1.163 (p=.037). Findings from the qualitative interviews indicated that carers assisted their relatives at meal times. Two of the carers felt that hospital staff were too busy to provide nutritional care for patients with dementia.

What needs to happen: Staff need to clearly identify patients that require assistance during mealtimes. Staff should encourage relatives and volunteers to help with mealtimes. If there are patients without families /carers who require assistance with their meals, ward staff should ensure this happens and document the activity in the patient care notes.

B. **Create an atmosphere that encourages patients with dementia to sleep.**

Supporting evidence: People who experience poor sleep quality are likely to fall (Eshkoor et al., 2013). Findings from the qualitative study indicated that some patients slept during the day and remained awake at night. This made it impossible for carers to interact with patients during normal visiting hours.

What needs to happen: Ensure that the lighting on the wards is dimmed at night-time (outside visiting hours). Ensure that staff are available to assist patients who require the toilet during the night. For patients who are unable to sleep at night, ask carers if they have any bedtime rituals. These should be recorded in their care notes. Optimise sleep hygiene and administer any sleeping medication. If there are nursing interventions, which assist the patient to sleep, document these in their case notes alongside possible reasons why they remain active at night (sundown syndrome: heightened confusion during the evening and night hours).

C. **Assess and manage both verbal and non-verbal expression of pain.**
Supporting evidence: Pain is a predictor of falls (Stubbs et al., 2014). People with dementia may underreport their experiences of pain (Oosterman et al., 2014). There is the need to use observational pain assessment instruments like the ‘Abbey Pain Scale’ (Abbey et al., 2004). A carer in the qualitative study stated that her husband could not walk far because he had knee pain.

What needs to happen: If a patient condition is associated with pain (e.g. arthritis), an immediate referral to clinicians to ensure a review of pain relief is made. Ask carers for the patient non-verbal expression of pain signs, if the patient has communication difficulties. Identify physiological symptoms of pain such as changes in vital signs. Bring to the attention of medical staff the physiological symptoms of pain.

D. **Review patients’ medication.**
Supporting evidence: The use of psychotropic and hypnotic medication has been associated with the prevalence of falls (Hayakawa et al., 2014). Staff in the qualitative study reported that falls could result from postural hypotension and the side effects of medication.

What needs to happen: It is the responsibility of ward staff to create a supportive environment where staff, patients and carers can bring to the attention of medical staff the need to review patient medication, if necessary. Raise awareness on the types of medication that increases the patient's risk of falls. There is also the need to educate staff on how polypharmacy increases the susceptibility of an individual to falls (Dhalwani et al., 2017).

E. **Encourage physical activity.**

Supporting evidence: A previous study has found patient engagement in physical activity to be beneficial in the prevention of falls (Allan et al., 2009). Staff in this study stated that encouraging mobility was a falls prevention measure. However, staff needed to balance the positive benefit of the freedom of mobility with the increased risk of a hospital acquired infection.

What needs to happen: Check patient notes to ensure appropriate physiotherapist referrals have been made. Encourage patients to exercise whilst sitting or lying down. If appropriate, carers should be encouraged to support their relatives to mobilise on the ward. Volunteers could help people with dementia to exercise or support them in attending an activity.

F. **Ensure that the environment is free from hazards (e.g. hanging wires and clutter).**

Supporting evidence: Previous research has found the use of inappropriate footwear and inadequate lightning to be associated with falls (S. Eriksson et al., 2009). Staff in the qualitative study stated that making sure that the bed space had adequate lighting and was free from clutter was necessary to prevent falls.

What needs to happen: Declutter the patient bedside environment (e.g. hanging wires and items that may cause slips). Ensure patient has appropriate footwear. Provide adequate lighting on the ward.

G. **Ensure that patients are familiar with their mobility aids.**

Supporting evidence: The use of mobility aids alongside physical activity could help to reduce falls (Graafmans et al., 2003). Staff in the qualitative study stated that the right mobility aids together with the use of low beds, bed levers and commodes could reduce falls. Furthermore, being familiar with the patient enabled staff to understand their movement pattern and made them aware of the type of walking aids that they use.

What needs to happen: Support patients to use the equipment that has been provided by the hospital. The medical equipment department needs to train staff and competently assess their ability to operate hospital equipment.

H. **Provide one-to-one nursing for patients who are at high risk of falls.**

Supporting evidence: Staff felt that the provision of one-to-one nursing for patients who were at risk of falls was effective (Ayton et al., 2017). Eleven staff members in the qualitative study stated that the main methods used to prevent falls on the ward was observation and one-to-one nursing.

What needs to happen: Identify patients who need one-to-one support. Request additional staffing from the ward manager and consider group supervision of patients. Assess the potential for the use of trained volunteers to observe patients and offer one-to-one support (Giles et al., 2006).

I. **Provide training for patients, staff and carers.**

Supporting evidence: Previous research has found that patient education in addition to staff training helped to reduce falls (Hill et al., 2015). The training of staff was seen to be important for the reduction of falls in the qualitative study. Training of staff equips them with the knowledge required to identify falls risk and mobilise patients safely. Staff training included the following: manual handling, falls champions and dementia education. Staff in the qualitative study trained family members on how to use special equipment, mobilise patients and assist a patient who had fallen. A carer spoke about the time he spent training staff to the idiosyncrasies of his father's use of a standing aid.

What needs to happen: Ward managers must give staff time to complete their online training modules. The hospital needs to provide practical face-to-face falls training for staff. Staff need to listen to and include carers if they wish to be involved in meeting the continuing needs of the patient.

J. **Liaise with the falls team.**

Supporting evidence: Previous research has indicated that teamwork is vital in the prevention of falls (Dykes et al., 2009). Findings from the qualitative study indicated that staff felt it was necessary to support new members of staff by giving them a detailed handover, which helped to address the needs of patients. Other elements of a good handover involved staff identification of patients who were at risk of a fall, together with the circulation of instructions regarding the safe mobilisation of patients on the wards. Staff felt that it was necessary to obtain help from their direct line manager when they were faced with difficulties in the reduction of falls. Staff contacted the falls resource team to help them with the reduction and management of falls.

What needs to happen: Staff should refer patients with dementia who are at risk of falls to the falls resource team; it is also imperative that the wards' responsibility is taken seriously. Staff need to indicate on their hand-over sheet, patients who are at risk of falls. Staff training should highlight the benefits of a team-based approach to the prevention of falls.

K. **Minimise ward transfer.**

Supporting evidence: Transferring patients between wards could make them vulnerable to falls (Kanak et al., 2008; Toye et al., 2019). Staff in the qualitative study stated that as part of hospital procedures, patients were moved from assessment units to short and long stay wards. This, according to staff, results in the hospital experience of patients with dementia to be even more unsettling. Three carers said that transfer between wards could unsettle the patient and cause agitation as well as disorientation. Furthermore, ward transfers result in the patient having to encounter new staff and another unfamiliar ward environment. One carer reflecting on this subject stated that such transfers were inevitable because patients were moved between wards depending on the needs of the hospital (i.e. whether they are staying in hospital for a short or long period). This practice is not patient focused and seems to serve the needs of the institution rather than the patient.

What needs to happen: the bed management team should endeavour to put patients with a diagnosis of dementia on a special pathway in regards to the allocation of beds to ensure that transfer between wards is minimised.

Table 9: The falls support bundle as staff would see it

Patient’s name				
Day of admission	1	2	3	4
A) Encourage patients with dementia to eat their meals. Completed by:				
Staff	☐	☐	☐	☐
Carer	☐	☐	☐	☐
Patient	☐	☐	☐	☐
B) Create an atmosphere that encourages patients with dementia to sleep. Completed by:				
Staff	☐	☐	☐	☐
Carer	☐	☐	☐	☐
Patient	☐	☐	☐	☐
C) Assess and manage both verbal and non-verbal expression of pain. Completed by:				
Staff	☐	☐	☐	☐
Carer	☐	☐	☐	☐
Patient	☐	☐	☐	☐
D) Review patients’ medication. Completed by:				
Staff	☐	☐	☐	☐
E) Encourage physical activity. Completed by				
Staff	☐	☐	☐	☐
Carer	☐	☐	☐	☐
Patient	☐	☐	☐	☐

Patient’s name				
Day of admission	1	2	3	4
F) Ensure that the environment is free from hazards. Completed by:				
Staff	☐	☐	☐	☐
Carer	☐	☐	☐	☐
Patient	☐	☐	☐	☐
G) Ensure that patients are familiar with their mobility aids. Completed by:				
Staff	☐	☐	☐	☐
Carer	☐	☐	☐	☐
Patient	☐	☐	☐	☐
H) Provide one-to-one nursing for patients who are at high risk of falls. Completed by:				
Staff	☐	☐	☐	☐
Carer	☐	☐	☐	☐
I) Provide training for patients, staff and carers. Completed by:				
Staff	☐	☐	☐	☐
J) Liaise with the falls team. Completed by:				
Staff	☐	☐	☐	☐
K) Minimise ward transfer. Completed by:				
Staff	☐	☐	☐	☐

6.4) Evidence for the discharge planning support bundle and tasks to be undertaken by staff

A. **Assess the dementia patient's discharge destination (e.g. home with or without a care package, nursing or residential home) with patient and family carers.**

Supporting evidence: The incidence rate ratio for discharge to a care home was 2.443 (p=.000) in the service evaluation. This showed that participants who were discharged to a care home were 2.4 times more likely to stay in hospital for a longer period than those who were not going to a care home. This finding could be due to the discharge assessments that staff made during the patients' hospital stay. Staff in the qualitative study used care diaries and behaviour charts to document the amount of care that a patient required during their hospital admission. This was completed in order to make appropriate decisions regarding their discharge destination. The decisions regarding the location of patients on discharge were also arrived at after staff simulated care packages on the ward. A carer spoke about how social workers assess patients to ascertain whether they are suitable to go back home with a care package or go to a care home. Furthermore, after hospitalisation a patient was reassessed to determine whether she could return to her assisted living residence. Physiotherapists conduct mobility assessments in the hospital or home environment to inform patient care. It is worth noting that there is not a consistent approach in the level of involvement that staff give to patient/carers in discharge decisions (Lord et al., 2016).

What needs to happen: Simulate care packages that patients with dementia will receive in their homes on the ward. Document in the patient care notes the amount and type of care that is required following the ward's simulation.

B. **Arrange a discharge planning meeting with family.**

Supporting evidence: Staff stated that multi-disciplinary team meetings for discharge were held on a daily basis during weekdays. Best interest meetings for discharge planning involved the multi-disciplinary team and patient advocates or family members. Two carers met with staff to discuss the discharge destination of their relatives. A carer had a positive experience at the multi-disciplinary team meeting. She felt that the discussion with hospital staff about a nursing home placement for her husband went well. A carer who attended a multi-disciplinary team meeting highlighted the competing agendas of the hospital, patient, carer and social worker. The carer felt that it was not necessarily the patient's interest that was the focus but rather the hospital's need to discharge the patient quickly. Another carer had difficulties understanding the acronyms that were used in a multi-disciplinary team meeting. In order to ensure that patients benefit from discharge planning meetings, they have to be encouraged to formulate questions before the meeting and also asked to summarise the points that have been raised during the meeting (Bångsbo et al., 2014).

What needs to happen: Arrange a 'round table' meeting with staff, patient and family carers to discuss the patient's discharge destination. Explain to carers and patients all the hospital acronyms as and when used in the discharge planning process.

C. **Discuss funding arrangements with family.**

Supporting evidence: According to staff, the costs associated with a nursing home placement could be very high. Another member of staff stated that family carers often do not have an understanding of the funding streams, which may or may not be available to them. Two carers stated that costs for nursing home placements and packages of care were expensive. A carer stated that she had been provided with details of the funding streams that were available to them. Another carer had a meeting with staff to discuss the funding arrangements of social care on discharge. It is worth noting that costs associated with nursing home placements are higher than care packages (Knapp et al., 2016). There is a great deal of confusion around funding and the actual cost of care packages and nursing home placement. There is a lack of transparency in the process.

What needs to happen: Arrange a round table meeting with staff, patients and family carers to discuss the funding streams that are available to patients. Staff should discuss the positives and negatives associated with each funding stream with the family. This approach provides a better way of educating patients and carers of the funding stream that is available to them. For patients without family, involve the Independent Mental Capacity Advocate in such discussion.

D. **Refer patients to GP, social services or community teams.**

Supporting evidence: Staff in the qualitative study felt that it was necessary to liaise with other services. This included contacting the Community Mental Health Teams as well as the Intermediate Care Service for Dementia to support the discharge of patients. A carer had been waiting for two months for assistance from social services. Another carer said that their experience of social services had been positive in that certain resources had been provided. The involvement of community teams could range from telephone calls to home visits made by the nurse etc. (Guerin et al., 2013).

What needs to happen: Nursing staff must check the patient care notes to ensure that they have been referred to the appropriate community team. If this action has not been completed, staff should take the necessary action of referring the patient and document this. This action should be completed as soon as the patient has been declared fit for medical discharge.

E. **Arrange a visit to patients' homes or care homes.**

Supporting evidence: Carers in the qualitative study visited care homes to ascertain the suitability of a placement. Care homes sometimes refused to accept patients because they could not cater for challenging behaviour and complex needs. According to staff in the qualitative study, home visits were made by the Occupational Therapist to ensure that discharges to the home environment were viable. Another reason for conducting home visits was to train carers and offer advice. A previous research stated that the Occupational Therapist visited patient homes in order to make recommendations on how their home environment could be modified to accommodate their illness (Wilson et al., 2012).

What needs to happen: signpost carers to possible care homes by providing them with a neutral broker. Encourage carers to visit care homes. Occupational Therapists need to find a convenient time to visit a patient's home to ascertain its suitability for discharge. For patients living with carers, the home visit could be arranged virtually to ensure convenience and efficiency.

F. **Ensure the delivery of patient equipment to their home.**

Supporting evidence: Staff thought it necessary to have patients discharged with the same mobility aids that they had become used to in the hospitals when they are discharged. This ensures patient familiarity with hospital equipment. The hospital Occupational Therapist supplied patients with the right equipment in their homes and on the wards. As part of hospital discharge planning, staff had to visit patients in their homes to ensure that there was enough space for incoming hospital equipment. Staff stated that the next day delivery of hospital equipment to a patient's home in Dorset had been achieved suggesting that fast track delivery was possible. Carers spoke about using the following equipment for patients in their homes: hospital beds, commodes, wheel chairs, handrails, ramps, seats and Zimmer frames.

What needs to happen: Nursing staff should provide written details of the types of equipment used by the patient in hospital. Visit the patient's home to ensure that there is adequate space for the equipment that they need. Ask the Occupational Therapy Team to order and ensure the timely delivery of equipment.

G. **Review patients' medication.**

Supporting evidence: A carer in the qualitative study stated that liquid medication was dispensed instead of tablets. Staff dispensed liquid medication because of the patient's swallowing difficulties. He therefore arranged for the GP to change the medication to a more appropriate method enabling his relative to take her medication by herself at home. Another carer spoke of how her relative was discharged with tablets instead of liquid medication.

What needs to happen: Staff may need to liaise with patients and carers in regards to the format of their discharge medication (i.e. liquid or tablet). They also have to liaise with clinicians and pharmacists regarding the medication required by patients.

H. **Ensure patients' property is with them (e.g. equipment and valuables).**

Supporting evidence: Staff in a previous study did not assist patients with the packing of their belongings (Hegney et al., 2002). Staff in this qualitative study sometimes neglected to include in the patient's belongings their Zimmer frames that they had used whilst in hospital. A carer stated that her father's property was mislaid when he was transferred between wards.

What needs to happen: If patient is mobile, nursing staff should encourage them to assemble their belongings. Otherwise, give assistance as necessary. Ask carers to ensure that all items have been taken.

I. **Print patients' discharge summary and give a copy to the patient or carer.**

Supporting evidence: Previous research has found that the timely receipt of the discharge summary by the patients' GP ensures continuity of care (J. Y. Li et al., 2013; van Walraven et al., 2002). A carer in the qualitative study stated that he had not received a discharge letter for his mother's previous admission.

What needs to happen: Provide a copy of the discharge letter to the patient, carer and GP. If there are no family carers involved, provide it for patient.

J. **Arrange transport.**

Supporting evidence: Staff in the qualitative study stated that there were instances where the transport booked to take the patient to their home did not arrive.

What needs to happen: Staff must ensure that patient transport is booked in a timely manner. If patient or family carers can make appropriate travel arrangements, they should be encouraged to do so.

Table 10: The discharge support bundle as staff would see it

Patient's name				
Day of admission	1	2	3	4
A) Assess the discharge destination with patient and family carers. Initiated by: Staff Carer Patient	☐ ☐ ☐	☐ ☐ ☐	☐ ☐ ☐	☐ ☐ ☐
B) Arrange a discharge planning meeting with family. Initiated by: Staff Carer Patient	☐ ☐ ☐	☐ ☐ ☐	☐ ☐ ☐	☐ ☐ ☐
C) Discuss funding arrangements with family. Initiated by: Staff Carer Patient	☐ ☐ ☐	☐ ☐ ☐	☐ ☐ ☐	☐ ☐ ☐
D) Refer patients to GP, social services or community teams. Initiated by: Staff	☐	☐	☐	☐
E) Arrange a visit to patients' homes or care homes. Initiated by: Staff Carer Patient	☐ ☐ ☐	☐ ☐ ☐	☐ ☐ ☐	☐ ☐ ☐

Patient’s name				
Day of admission	1	2	3	4
F) Ensure the delivery of patient equipment to their home. Initiated by:				
Staff	☐	☐	☐	☐
Carer	☐	☐	☐	☐
Patient	☐	☐	☐	☐
G) Review patients’ medication. Initiated by:				
Staff	☐	☐	☐	☐
H) Ensure patients’ property is with them. Initiated by:				
Staff	☐	☐	☐	☐
Carer	☐	☐	☐	☐
Patient	☐	☐	☐	☐
I) Print patients’ discharge summary and give a copy to the patient or carer. Initiated by:				
Staff	☐	☐	☐	☐
J) Arrange transport. Initiated by:				
Staff	☐	☐	☐	☐

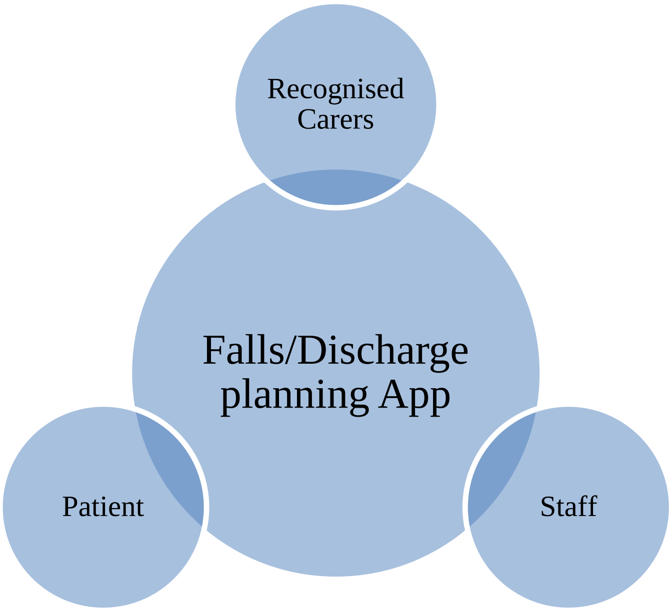
6.5) Comparison of the falls and discharge support bundles with current policies

I am looking at an addition to existing policies in the Trust rather than creating a new protocol or guideline. An illustrated summary of the falls and discharge bundles has been provided in Appendix 15 and 16. The current checklist for the reduction of falls and discharge is a comprehensive document. The Royal Bournemouth Hospital falls prevention policy (see Appendix 14) consists of the following: ‘risk assessment, medication, blood pressures, patient leaflet, bed rails, low beds, footwear, post-falls management, training and reporting’. This policy excludes important information such as: sleep, pain, physical activity and the minimisation of ward transfers. The input of patients’ carers in the prevention of falls is also excluded in the falls prevention policy.

The Royal Bournemouth Hospital discharge policy seeks to involve carers in the discharge planning process. The discharge checklist comprised of the following: confirmation of address, communication with patient, family carers as well as the community teams, discharge conference, medication, circulation of the discharge summary, property checklist and removal of cannula. The content of the support bundle that I developed can be found in the discharge checklist (see Appendix 13).

6.6) Falls and discharge planning App

Figure 14: App



From the evidence of the staff and carers interviews, patients and carers encounter inconsistency, frustration and at times a poor patient experience. The reality is that health professionals who are serving the institutions that they represent complete the forms. A true systems approach allows the whole team to contribute to both the discharge and falls prevention processes. That team must therefore include, most importantly, the patients and their carers. The way forward could be the development of a digital App, where the team members and again most importantly patients (if they have capacity) and their recognised carers all contribute to this process (falls prevention, discharge planning). Simply put, all would login to the digital App and contribute whether that be by typing the information and (this is especially for patients and carers) digitalising their contribution via voicemail access etc. so that their comments and contributions could be included, easily (See diagram above).

Figure 15: The relationship of the falls support bundle and a systems theory generated from the work of Zecevic et al. (2007), Hawkins (1987) and E. Edwards (1972)

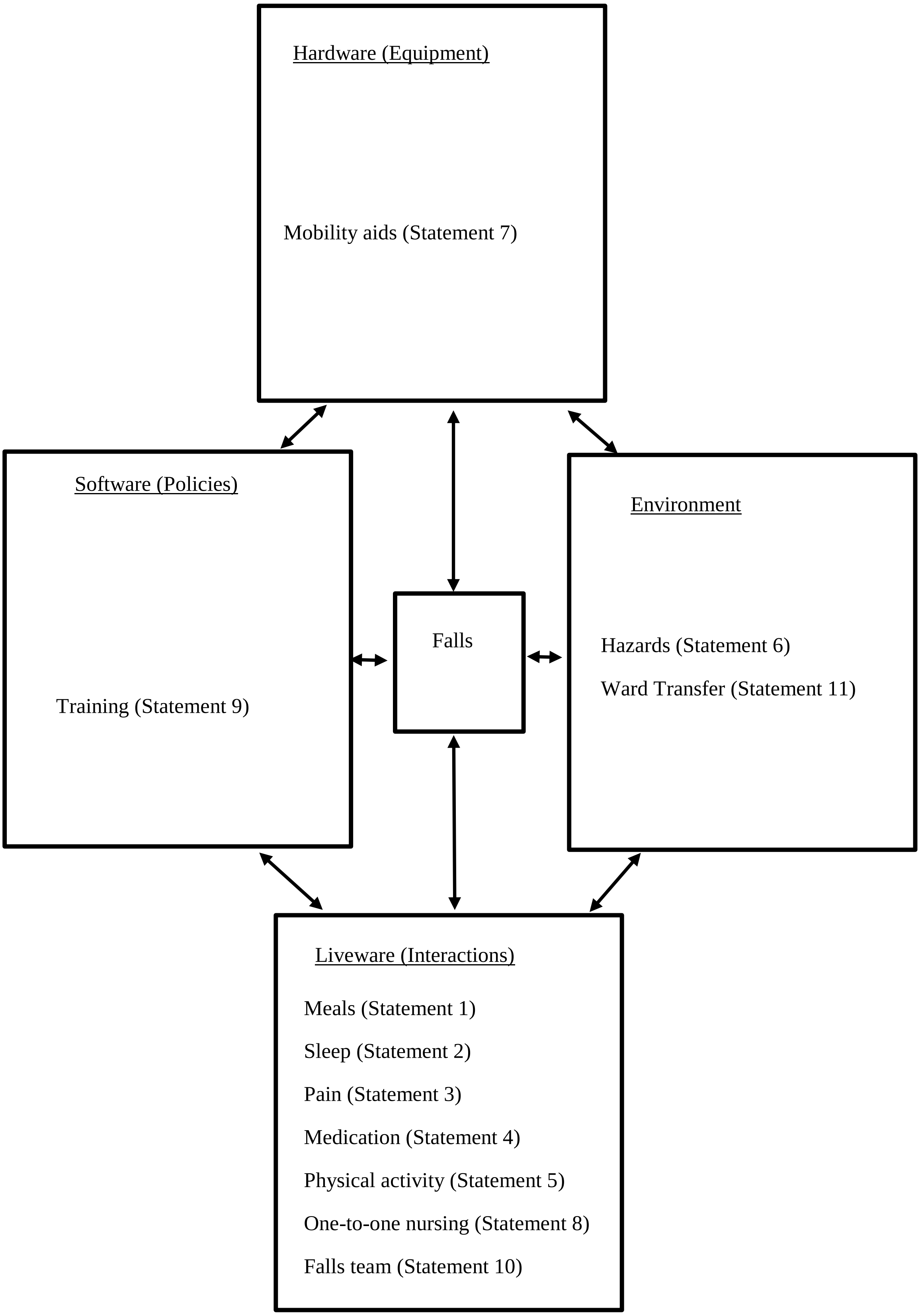
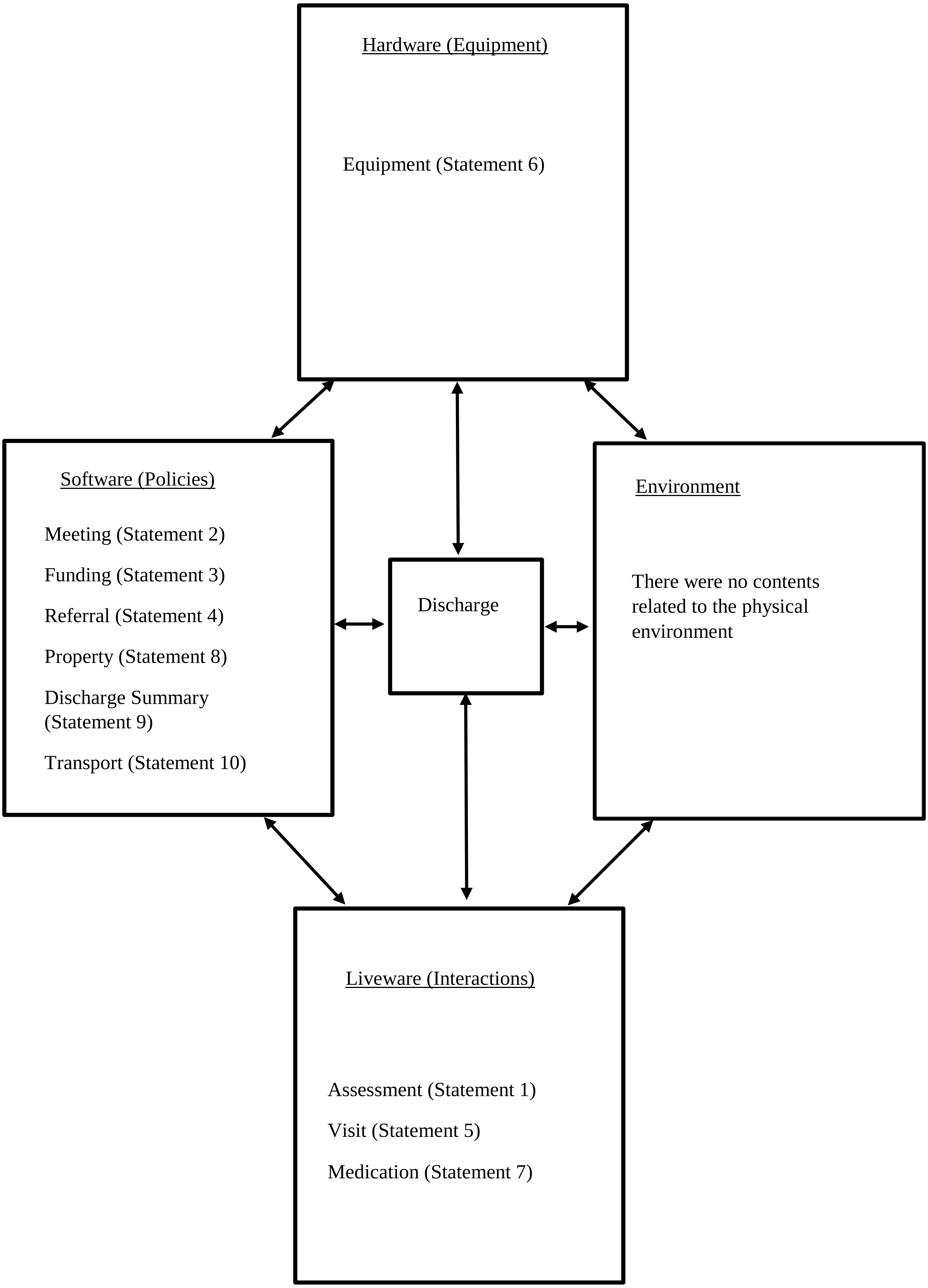


Figure 16: The relationship of the discharge support bundle and a systems theory generated from the work of Zecevic et al. (2007), Hawkins (1987) and E. Edwards (1972)



6.7) Conclusion

I have developed a discharge and falls support bundles. The contents of the bundles were based on my qualitative interviews and the literature review. I have presented a graphical display of the support bundles. I then compared the support bundles with the existing falls and discharge policies. I have documented the relationship between the support bundles and a systems approach. The next chapter seeks to ascertain the acceptability of the falls and discharge bundles amongst people with dementia, their carers and staff.

Chapter 7

Phase 3 (Online Survey)

7.1) Introduction

The aim of the online study was to ascertain the acceptability of the developed falls and discharge bundles by asking for the views of staff, carers and people with dementia.

7.2) Study design

The study design was a cross-sectional online survey. Participants were anonymous to the researcher. The online survey contained 20 items for the falls survey. The discharge survey contained 19 items. The researcher designed the questionnaire based on the findings from the interview study and the literature review.

7.3) Ethics

Ethical approval was obtained from the North West-Greater Manchester Central Research Ethics Committee by adding a non-substantial no study-wide review required amendment to the original application made for the interview study. This was based on advice received from the research facilitator at the Royal Bournemouth and Christchurch Hospitals NHS Foundation Trust. I also obtained Confirmation of Continued Capacity and Capability from this same hospital.

7.4) Recruitment

The research was advertised on the Join Dementia Research platform from 11th December 2020 to 31st January 2021. The target population for people with dementia was 4,861and that of the carers was 3,819. On 22nd December 2020, the survey for staff was advertised on this website: (https://www.uhd.nhs.uk/news/our-publications/staff-bulletins/staff-bulletin-22-december-2020). On 13th January 2021, the staff survey was re-advertised on the University Hospitals Dorset Facebook page with 10,548 followers: (https://m.facebook.com/story.php?story_fbid=2378066545673497&id=223693914444115). On 13th January 2021, the staff survey was re-advertised on University Hospitals Dorset Twitter page with 8,536 followers:

(https://mobile.twitter.com/UHD_NHS/status/1349389511822893057). On 15th January 2021, the staff survey was re-advertised on this website: (https://www.uhd.nhs.uk/news/our-publications/staff-bulletins/staff-bulletin-15-January-2021). I was unsuccessful at recruiting participants from the following organisations: Alzheimer's Research, Age UK, Carers UK, Alzheimer's Society and Dementia UK.

7.5) Participants

Participants for the hospital survey on the falls support bundle

A total of 14 people consented to the staff survey on falls. This comprised of 12 staff who had worked with people who have dementia and two carers of people with dementia. Staff work experience ranged from 3 months to 27 years. Thirteen people had either fallen or cared for someone who had experienced a fall.

Participants for the hospital survey on the discharge support bundle

A total of three people consented to the staff survey on discharge. This comprised of two staff who had worked with people who have dementia and one carer of a person with dementia. Staff work experience ranged from 3 years to 11 years. All the three people had either been discharged or cared for someone who had experienced a hospital discharge.

Participants for the Join Dementia Research survey on the falls support bundle

A total of 38 people consented to the Join Dementia Research survey on falls. This comprised of eight persons with dementia, 29 carers of people with dementia and 5 staff who had worked with people who have dementia. The number of people who consented (38) is less than the total number (42) in the various categories (i.e. person with dementia, carer of person with dementia etc.) because respondents may have been eligible to tick more than one box. People with dementia had lived with the disease from 18 months to 5 years. Carers had been responsible for people with dementia from 18 months to 10 years. Staff work experience could not be determined from the responses because they did not indicate months or years. Fourteen out of the 38 people had either fallen or cared for someone who had experienced a fall.

Participants for the Join Dementia Research survey on the discharge support bundle

A total of 14 people consented to the Join Dementia Research survey on discharge. This comprised of four persons with dementia, 10 carers of people with dementia and 2 staff who had worked with people who have dementia. The number of people who consented (14) is less than the total number (16) in the various categories (i.e. person with dementia, carer of person with dementia etc.) because respondents may have been eligible to tick more than one box. People with dementia had lived with the disease from 18 months to 5 years. Carers experience could not be determined from the responses because they did not indicate months or years. Staff work experience could not be determined from the responses because they did not indicate months or years. Twelve out of the 14 people had either been discharged or cared for someone who had been discharged.

7.6) Procedure

The online questionnaire had sections on the background details of respondents such as the length of time that the person has lived with dementia. Participants were then presented with statements that reflect the contents of the support bundles and asked to explain and rate their answers. The rating of the answers were based on the following scale: strongly agree, agree, neutral, disagree and strongly disagree.

7.7) Analysis

I analysed the quantitative data by presenting the figures in a table. I immersed myself into the qualitative data by reading over it several times. I highlighted meaningful texts from the data produced. I then grouped similar items together and summarised this information. Contradictory views were also incorporated into my findings.

7.8) Findings

The first set of results mainly relates to staff and then later for carers as well as patients with dementia.

Table 11: Quantitative findings on the hospital falls survey

Staff and carers rating of the falls support bundle

Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Total
Statement 1 (Meals)	4	7				11
Statement 2 (Sleep)	6	5				11
Statement 3 (Pain)	7	3	1			11
Statement 4 (Medication)	9	2				11
Statement 5 (Physical activity)	11	1				12
Statement 6 (Hazards)	9	3				12
Statement 7 (Mobility aids)	8	4				12
Statement 8 (One-to-one nursing)	8	2	2			12
Statement 9 (Training)	9	2	1			12
Statement 10 (Falls team)	6	2	4			12
Statement 11 (Ward Transfer)	10	1	1			12

Statement 1: Encouraging patients with dementia to eat their meals can help to reduce falls.

Qualitative findings:

In favour of the support bundle point

A staff member believed that adequate nutrition made patients feel settled. A member of staff and a carer believed that adequate nutrition helped to build the muscles of patients with dementia and provided them with energy.

Further points being made

A member of staff felt that hungry patients with dementia might leave their bedside and make their way to the kitchen in order to look for food.

Statement 2: Creating an atmosphere on the ward that encourages patients with dementia to sleep and rest can help to reduce falls.

Qualitative findings:

In favour of the support bundle point

A member of staff felt that inadequate sleep could result in tiredness, which can increase the risk of falls. Another staff member felt that having adequate sleep reduced mobility-related risk of falls.

Further points being made

A member of staff believed that patients who woke up during the night could feel disoriented to their environment. Another member of staff noted that patients with dementia might find it difficult to sleep because of their admission into an unfamiliar environment.

Statement 3: Assessing and managing both spoken and non-spoken expressions of pain can help to reduce falls amongst patients with dementia.

Qualitative findings:

In favour of the support bundle point

A member of staff felt that patients with dementia who are in pain could pace around the ward and this could increase their susceptibility to falls. A member of staff felt that untreated pain could cause agitation and subsequently result in falls if the patient has problems with their mobility. A member of staff stated that patients with dementia who are in pain are likely to be unsettled and self-mobilise in an attempt to alleviate their symptoms, which could increase their risk of falls.

Further points being made

Another staff stated that pain could make it difficult to mobilise. Another member of staff felt that pain could exacerbate confusion.

Statement 4: Reviewing the medication of a patient with dementia can help to reduce falls.

Qualitative findings:

In favour of the support bundle point

Two members of staff felt that polypharmacy contributed towards falls. Two staff members felt that falls could be because of the side effects of medication. Two members of staff felt that the use of inappropriate medication could result in falls. An example of an inappropriate medical prescription given by a staff member is the use of haloperidol for treating the behavioural symptoms of dementia, which may be caused by untreated pain.

Further points being made

One member of staff suggested that the pharmacy was responsible for reviewing the medication of patients whilst another hospital staff noted that doctors or pharmacists could complete this task.

Statement 5: Encouraging physical activity amongst patients with dementia can help to reduce falls.

Qualitative findings:

In favour of the support bundle point

Five members of staff felt that physical activity helped to strengthen the muscles of patients with dementia.

Further points being made

Two members of staff stated that falls had increased because of the temporary inactivity on the wards, which have been caused by Covid.

Statement 6: Ensuring that the ward environment is free from hazards (e.g. hanging wires and clutter) can help to reduce falls amongst patients with dementia.

Qualitative findings:

In favour of the support bundle point

According to a member of staff, patients can push trolleys and movable items left on the ward and this can cause them to fall.

Further points being made

A member of staff felt that a busy hospital environment could make the patient unsettled. Another member of staff stated that they could quickly de-escalate difficult situations by reducing the amount of stimulation that the patient gains from their environment.

Statement 7: Ensuring that patients with dementia are familiar with their mobility aids can help to reduce falls.

Qualitative findings:

Further points being made

A member of staff noted that patients could sometimes refuse to use their mobility aids. Another member of staff stated that patients should not share mobility aids. Three members of staff stated that patients should be familiar with their mobility aids and have these near to them so that they can have access to them.

Statement 8: Providing one-to-one nursing for patients with dementia who are at high risk of falls can help to reduce falls.

Qualitative findings:

In favour of the support bundle point

A member of staff felt that potential falls could be detected through one-to-one nursing.

Not in favour of the support bundle point

A member of staff felt that one-to-one nursing could sometimes lead to falls if patients with dementia get frustrated when staff prevent them from mobilising on the ward.

Further points being made

Two members of staff felt that inadequate staffing levels made one-to-one nursing provision difficult. A member of staff felt that falls occurred when staff were on break or involved in multi-disciplinary team meetings. Two members of staff believed that staff providing one-to-one nursing needed regular breaks and formal handovers.

Statement 9: Training in falls prevention for patients, carers and staff can help to reduce falls amongst patients with dementia.

Qualitative findings:

Further points being made

A member of staff felt that the training that they received on dementia care was inadequate. Another member of staff who provided dementia training felt that other colleagues working on the wards do not fully understand the needs of patients with dementia.

Statement 10: Ward staff liaison with the hospital falls team can help to reduce falls amongst patients with dementia.

Qualitative findings:

Further points being made

Two members of staff stated that they had not been involved with the falls team. Another member of staff felt that the falls team could increase their input to the training of ward staff.

Statement 11: Minimising transfers of patients between wards can help to reduce falls amongst patients with dementia

Qualitative findings:

In favour of the support bundle point

Two members of staff felt that ward transfers could contribute to falls.

Further points being made

Six hospital staff members thought that transferring of patients between wards caused disorientation and confusion. Two members of staff felt that the transfer of patients at night-time increased the behavioural symptoms of dementia.

Digital App (How would it reduce falls if a patient or/and their family carer was able to contribute to the process (i.e. reduction of falls) through logging into patient hospital notes via a digital App?)

In favour of a Digital App

A carer and a hospital staff stated that information obtained from the App could help staff to manage falls. Three members of staff felt that this idea would enable staff to ascertain the likes and dislikes of the patient, provide them with knowledge about their behaviours and give them background information. A staff believed that an App would make staff involve relatives in the provision of care, as they will be seen as members of the team.

Not in favour of a Digital App

A member of staff stated that they were not sure about the level of access that families would have in the implementation of a digital app.

Falls reduction strategies

Two members of staff felt that more staff were needed on the wards to reduce falls. Another member of staff stated that volunteers, falls champions and activity co-ordinators could be used to engage patients to reduce the mobility-related risk of falls. A hospital staff member stated that patients needed to be observed, given appropriate footwear, encouraged to mobilise, provided with their glasses and their hearing aids. This same respondent suggested that staff needed to have up-to-date manual handling training to enable them to safely mobilise patients. Another member of staff suggested that the regular use of pain relief, encouraging patients to use the toilet and the provision of person-centred care could help to reduce falls.

Summary

Both the quantitative and qualitative data suggested that staff generally found the contents of the support bundle acceptable. The training of hospital staff on falls needs to include issues identified in the support bundle to try to improve bedside practice.

Table 12: Quantitative findings on the hospital discharge survey

Staff and carers rating of the discharge support bundle

Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Total
Statement 1 (Assessment)	3					3
Statement 2 (Meeting)	2		1			3
Statement 3 (Funding)	2	1				3
Statement 4 (Referral)	1		1			2
Statement 5 (Visit)	2		1			3
Statement 6 (Equipment)	2	1				3
Statement 7 (Medication)	2	1				3
Statement 8 (Property)	2	1				3
Statement 9 (Discharge Summary)	2		1			3
Statement 10 (Transport)	2	1				3

Statement 1: Assessing the dementia patient's discharge destination (e.g. home with or without a care package, nursing or residential home) by hospital staff with the patient and family carers present can improve the discharge planning process.

Qualitative findings:

In favour of the support bundle point

A carer and a member of staff felt that an assessment of the patient discharge destination was essential, and needed to be incorporated into everyday practice. An Occupational Therapist felt that it was important to assess the patient's home environment in order to ensure a safe discharge.

Statement 2: Arranging a discharge planning meeting with the dementia patient's family in attendance can help to improve the discharge planning process.

Qualitative findings:

In favour of the support bundle point

A member of staff felt that family involvement in discharge planning was necessary.

Not in favour of the support bundle point

Another member of staff felt that the involvement of families in the discharge planning process needed to occur in the following circumstances: when the patient demands this, in situations where the family had concerns about the process or if the discharge is complex in nature. This same member of staff stated that the involvement of family members in every single ward discharge could cause delays to the process.

Further points being made

A carer felt that they needed to be treated as partners and members of the team in the provision of care.

Statement 3: Discussing the nursing home and care package funding arrangements with the dementia patient's family can help to improve the discharge planning process.

Qualitative findings:

Further points being made

A member of staff felt that this was important for patients who are self-funding their social care packages and those with complex needs.

Statement 4: The referral of a patient with dementia made by hospital staff to their GP, social services or community teams can help to improve the discharge planning process.

Qualitative findings:

Not in favour of the support bundle point

A member of staff felt that the involvement of multiple professionals makes the discharge process slower.

Further points being made

A carer felt that this should take place if the referral services are helpful.

Statement 5: Arranging a hospital staff visit to patients' homes or alternatively arranging a care home visit by relatives can help to improve the discharge planning process.

Qualitative findings:

Further points being made

A member of staff stated that the discharge to assess guidelines mandates the need for Therapists to reduce their home visits and refer patients to the community therapy team for home visits.

Statement 6: Ensuring the delivery of equipment to the dementia patient's home can help to improve the discharge planning process.

Qualitative findings:

Further points being made

A member of staff felt that willing family members could collect hospital equipment. This same member of staff stated that temporary measures could be put in place when equipment is not immediately available.

Statement 7: A clinical review of the dementia patient's medication can help with the discharge planning process.

Qualitative findings: There were no responses to this statement.

Statement 8: Ensuring that the dementia patient's property is with them (e.g. equipment and valuables) can help to improve the discharge planning process.

Qualitative findings:

Further points being made

A carer stated that her mother's hearing aids were misplaced.

Statement 9: Printing the dementia patient's discharge letter and giving a copy to the patient or carer can help to improve the discharge planning process.

Qualitative findings: There were no responses to this statement.

Statement 10: Arranging transport for the patient with dementia on their leaving hospital helps to improve the discharge planning process.

Qualitative findings: There were no responses to this statement.

Digital App (How would it improve the discharge planning process if a patient or/and their family carer was able to contribute to the process (i.e. discharge planning) through logging into patient hospital notes via a digital App?)

In favour of a Digital App

A member of staff felt that this would be a good way of involving family members in patient care. A carer felt that this could be helpful.

Not in favour of a Digital App

A member of staff was unsure of the boundaries and parameters round the digital app when it comes to family access to the medical records of the patient.

Strategies for improving the discharge planning process

A carer and member of staff stated that adequate involvement of families in the discharge process could help to improve care. Another member of staff felt that the discharge process needs to be recognised as a collaborative procedure.

Summary

Noting the exception of statement 4, the majority of the participants quantitatively agreed with the contents of the discharge support bundle. Respondents felt that two aspects of the discharge bundle (i.e. involvement of family members and the multidisciplinary team) could cause delays. Another participant made mention of the fact that the discharge to assess guidelines encouraged the use of the Community Therapy Team for home visits. This means that ward staff would have to modify the contents of the discharge support bundle to suit their needs.

Table 13: Quantitative findings on the Join Dementia Research falls survey

Staff, carers and persons with dementia rating of the falls support bundle

Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Total
Statement 1(Meals)	12	16	9			37
Statement 2(Sleep)	18	13	7			38
Statement 3(Pain)	18	12	8			38
Statement 4 (Medication)	18	12	5	1		36
Statement 5 (Physical activity)	24	9	5			38
Statement 6 (Hazards)	29	7	2			38
Statement 7 (Mobility aids)	25	11	2			38
Statement 8 (One-to-one nursing)	23	12	3	1		39
Statement 9 (Training)	27	9	2			38
Statement 10 (Falls team)	18	12	7		1	38
Statement 11 (Ward Transfer)	22	6	8	1		37

Statement 1: Encouraging patients with dementia to eat their meals can help to reduce falls.

Qualitative findings:

Further points being made

Two carers believed that inadequate nutrition caused weakness and two other carers believed this could cause dizziness. Whilst one carer stated that her mother left hospital underweight, another carer believed that nutritional interventions in hospitals are unlikely to make a difference as patients are in hospital for a short period. One carer and staff member stated that patients with dementia sometimes refused their meals. Three carers felt that patients with dementia were sometimes not assisted with their meals. Two carers felt that adequate nutrition enhances the strength of bones. Five carers felt that good nutrition makes one strong and fit. One person with dementia and a carer believed that adequate nutrition prevented low sugar levels. A carer stated that maintaining adequate nutrition was important for her husband because he had diabetes and dementia.

Statement 2: Creating an atmosphere on the ward that encourages patients with dementia to sleep and rest can help to reduce falls.

Qualitative findings:

In favour of the support bundle point

A carer noted that his/her grandad had reduced falls after he was prescribed sleeping pills. A person with dementia and two carers stated that inadequate sleep could cause tiredness, which can increase the risk of falls.

Further points being made

Another carer stated that inadequate sleep could affect the individual’s standing and balancing capacity. A carer felt that inadequate sleep could cause delirium. A carer stated that excessive sleep and inactivity could lead to muscle wastage. A carer felt that sleep improves one’s physical health.

Another member of staff believed sleep enhances one’s mental health. Despite the benefits of sleep, a carer stated that hospital wards were noisy. Two carers therefore stated that it was necessary to create a calm atmosphere on the ward. A member of staff who was a carer suggested the use of sensor lights. Another carer proposed the use of calming music on the wards. Another carer felt that sleeping pills reduced one’s quality of life.

Statement 3: Assessing and managing both spoken and non-spoken expressions of pain can help to reduce falls amongst patients with dementia.

Qualitative findings:

In favour of the support bundle point

Two carers stated that untreated pain could cause agitation and subsequently lead to falls. A member of staff stated that untreated pain could cause frustration and result in falls.

Further points being made

A person with dementia and three carers stated that pain could affect safe mobilisation. A person with dementia and a carer stated that pain affected one’s ability to balance. A carer stated that his/her mother’s pain resulted in delirium. A carer stated that untreated pain could affect one’s ability to concentrate on mobility related tasks. Two carers stated that patients with untreated pain are likely to self-mobilise in order to relieve their symptoms. A member of staff who was a carer noted that pain assessment tools are hardly used on the wards. A carer felt that people with dementia are not given adequate pain relief even when their relatives bring this to the attention of hospital staff.

Statement 4: Reviewing the medication of a patient with dementia can help to reduce falls.

Qualitative findings:

In favour of the support bundle point

A carer stated that medication balanced out the peaks and troughs of the disease and therefore reduced the risk of falls. A list of medications that carers felt could contribute to falls included: laxatives, benzodiazepines, blood pressure tablet, sleeping pills and anti-depressants. A carer mentioned that low vitamin D levels in the body could result in falls. Two carers felt that polypharmacy could increase falls risks. A person with dementia and a carer stated that the side effects of some types of medication includes dizziness, which can lead to falls.

Further points being made

Another carer stated that a side effect of some types of medication includes an alteration in balance. Two carers felt that inappropriate medication could lead to drowsiness.

Statement 5: Encouraging physical activity amongst patients with dementia can help to reduce falls.

Qualitative findings:

Further points being made

A member of staff who was a carer, an individual carer as well also stated that people with dementia are encouraged to sit down instead of exercising. A carer felt that people with dementia needed assistance with exercise whilst a person with dementia believed that they required encouragement. Two carers and a person with dementia suggested that exercises needed to be tailored to meet the requirement of the patient as they may have additional physical impairments. Eleven carers, a person with dementia and a member of staff believed that physical activity improved muscle strength. Four carers felt that physical activity was important for one’s mental well-being. A member of staff who was a carer, staff and five carers stated that physical activity enhanced one’s stability. A member of staff who was a carer stated that physical activity reduced agitation. A carer stated that physical activity facilitates relaxation. Another carer felt that exercise reduced swelling of the feet.

Statement 6: Ensuring that the ward environment is free from hazards (e.g. hanging wires and clutter) can help to reduce falls amongst patients with dementia.

Qualitative findings:

In favour of the support bundle point

A person with dementia felt that walking sticks could be a potential tripping hazard. A member of staff who was also a carer felt that the remote controls for hospital beds were a tripping hazard because of the cable. This same person believed that hospital socks could cause falls if they are incorrectly fitted. A carer felt that flooring that resembled holes could contribute to falls.

Further points being made

Two carers stated that some people with dementia have visual difficulties and therefore required a hazard free environment. Two carers felt that some people with dementia might have poor spatial awareness.

Statement 7: Ensuring that patients with dementia are familiar with their mobility aids can help to reduce falls.

Qualitative findings:

Further points being made

A member of staff who was a carer and four carers felt that people with dementia might forget to use their mobility aids. A carer felt it was important to constantly remind patients with dementia to use their mobility aids. Two carers felt that it was difficult to introduce people with dementia to new mobility aids. A member of staff who was a carer and a carer stated that it was necessary to supervise the use of mobility aids. A staff and one carer mentioned the need to encourage and support patients with dementia to use their mobility aids. A carer noted the need to ensure that mobility aids are easily accessible. A carer stated that it was necessary to make sure that patients with dementia are using correctly sized walking aids.

Statement 8: Providing one-to-one nursing for patients with dementia who are at high risk of falls can help to reduce falls.

Qualitative findings:

In favour of the support bundle point

A carer felt that one-to-one nursing would enable patients with dementia receive the assistance that they need in order to mobilise safely. Another carer felt that one-to-one nursing had multiple benefits: encouraging patients to eat their meals, engaging them in physical activity and putting in place the necessary measures required to prevent falls.

Not in favour of the support bundle point

A person with dementia, carer and a member of staff who was a carer felt that this approach was labour intensive. Three carers felt that this method was too expensive. A member of staff who was a carer stated that in principle this is a good idea. However if it was a tool to manage and control patient behaviour (e.g. insisting patient sits down all day) this would be inappropriate and unfair as patients are adults.

Further points being made

Two carers felt that one-to-one nursing needed to be provided by staff with specialist dementia knowledge for it to have an impact on falls. Another carer stated that willing relatives or trained volunteers could be used to provide one-to-one dementia care.

Statement 9: Training in falls prevention for patients, carers and staff can help to reduce falls amongst patients with dementia.

Qualitative findings:

In favour of the support bundle point

A carer stated that staff needed to combine training with common sense in order to identify and reduce the risk of falls.

Further points being made

A carer felt that the training on falls was inadequate. A person with dementia noted that falls training needed to be repeated on a regular basis. A member of staff who was also a carer stated that students should have mandatory placements on dementia units. A carer felt that unpaid carers should be provided with free falls training. Another carer stated that they were engaged in the supervision of physiotherapy exercises even though they had not received any training for this.

Statement 10: Ward staff liaison with the hospital falls team can help to reduce falls amongst patients with dementia.

Qualitative findings:

In favour of the support bundle point

Two carers felt that the falls team have specialist knowledge, which can be shared with ward staff. A carer felt that involving the falls team would ensure the introduction of necessary falls interventions. A member of staff stated that the involvement of multiple professionals in patient care was good.

Not in favour of the support bundle point

A carer said that there appeared to be limits with the falls team because they sent her husband home for falling too much. A person with dementia stated that an additional layer of staff on a high rate of pay is not valuable because patients with dementia need to have familiar faces.

Further points being made

A member of staff who was a carer mentioned that staff turnover prevented continuity of care. A carer stated that the falls team needed to screen all patients immediately after admission. Another carer stated that there should already be a procedure in place for referring patients to the falls team.

Statement 11: Minimising transfers of patients between wards can help to reduce falls amongst patients with dementia.

Qualitative findings:

Further points being made

A person with dementia and seven carers stated that the transfer of patients between wards could result in confusion or disorientation. Two carers stated that patients with dementia might find ward transfers stressful. Another carer felt that ward transfers could unsettle patients with dementia.

Digital App How would it reduce falls if a patient or/and their family carer was able to contribute to the process (i.e. reduction of falls) through logging into patient hospital notes via a digital App?

In favour of a Digital App

A carer felt that the use of an App would make staff aware of the patient's idiosyncrasies. A member of staff who was a carer stated that the use of an App would hasten patient referrals and ensure that falls prevention measures were put in place. A carer stated that Covid restrictions on visiting the hospital highlighted the potential usefulness of an App in facilitating family involvement in patient care. Two members of staff who were carers and one carer stated that the use of an App would ensure greater family involvement in patient care. Another carer noted that the use of an App would save them time spent trying to get information from the ward regarding the welfare of the patient. A carer stated that the documentation of falls through an App would enable staff to identify the circumstances surrounding falls and facilitate the adoption of the most appropriate intervention.

Not in favour of a Digital App

A carer felt that face-to-face interactions with hospital staff was better than the use of an App. Another carer had no confidence that information given to staff on App will be used in patient care. A person with dementia stated that the use of an App could compromise the protection of patient information. A carer stated that relatives who do not use smart phones could not access an App.

Further points being made

A carer felt that the admission process should include the completion of falls risk assessment forms by families. Another carer stated that families were sometimes excluded from patient care. A carer noted that paper records were sometimes mislaid. This same carer stated that he/she had to keep reminding staff of his/her concerns because staff were not reading previous medical records.

Falls reduction strategies

A person with dementia, three carers and a member of staff who was a carer felt that staff needed more training in order to reduce falls. A member of staff who was a carer and five carers stated that more staff were needed on the wards. Four carers believed that one-to-one nursing was important in falls prevention. A member of staff who was a carer and two carers noted that patients should be given properly fitted shoes. Two carers stated that mobility aids should be within the patient's reach. A member of staff who was a carer and a carer mentioned the need to have adequate lighting. A carer noted that staff should quickly respond to patients who have finished using the toilet so that they do not attempt to self-mobilise as they seek assistance. A person with dementia felt that drip stands were a trip hazard and so staff should discourage patients from walking long distances when they are attached to such equipment. A member of staff stated that patients with dementia needed to be supported to engage in gentle exercises. Another carer mentioned the need to engage patients with dementia in physiotherapy exercises. A member of staff who was a carer felt that the use of equipment, which sits on wheels, needed to be reduced because it can be easily used for furniture walking. A carer believed that patients would benefit from the installation of handrails. Another carer indicated the need for patients to mobilise with assistance and supported at meal times. A carer felt that dehydration could cause urinary tract infections and confusion. This respondent therefore believed that it was necessary to maintain adequate intake of fluids. A carer stated that it was necessary to declutter the environment and address issues such as impaired vision and low blood pressure. Another carer raised the need to review the medication of the patient and keep incontinent patients dry as they may attempt self-mobilise in order to get assistance if they have soiled themselves. A carer stated that it was important to use pressure mats in hospitals so that staff are able to monitor the movements of patients. A carer mentioned the need to repeat mobility-related risk assessments throughout the patient's hospital stay.

Summary

Findings from the quantitative and qualitative survey suggested that respondents generally agreed with the contents of the support bundle. One-to-one nursing and the use of the falls team were deemed as expensive methods of falls prevention.

Table 14: <u>Quantitative findings on the Join Dementia Research discharge survey</u>

Staff, carers and persons with dementia rating of the discharge support bundle

Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Total
Statement 1 (Assessment)	10	3	1			14
Statement 2 (Meeting)	11	2		1		14
Statement 3 (Funding)	10	3	1			14
Statement 4 (Referral)	10	2	1	1		14
Statement 5 (Visit)	9	1	3	1		14
Statement 6 (Equipment)	12	1	1			14
Statement 7 (Medication)	7	4	2			13
Statement 8 (Property)	8	3	3			14
Statement 9 (Discharge Summary)	10	4				14
Statement 10 (Transport)	10	3	1			14

Statement 1: Assessing the dementia patient's discharge destination (e.g. home with or without a care package, nursing or residential home) by hospital staff with the patient and family carers present can improve the discharge planning process.

Qualitative findings:

In favour of the support bundle point

A member of staff who was also a carer stated that the assessment of the patients' discharge destination would enable staff to identify the potential difficulties that the patient could face in their home environment. This would ensure the provision of an appropriate care package. Another carer noted that assessments allowed staff to identify the most suitable discharge location.

Not in favour of the support bundle point

A carer felt that discharge assessments could cause delays to the discharge process.

Further points being made

A carer stated that they had sleepless nights because of the bureaucracy surrounding the discharge process. A carer mentioned that discharge assessments were not routinely carried out in their experience as this happened for their mother on only one out of three hospital admissions.

Statement 2: Arranging a discharge planning meeting with the dementia patient's family in attendance can help to improve the discharge planning process.

Qualitative findings:

In favour of the support bundle point

A carer stated that family involvement in the discharge process would enable them to make the necessary preparations required to receive the patient at home. Another carer felt that families could help staff make the right discharge decisions.

Further points being made

A person with dementia stated that they lived far away from their family. It was therefore unrealistic to involve their family in the discharge process. A carer stated that family involvement in the discharge process should not merely seek to enforce staff decisions (i.e. the avoidance of tokenism).

Statement 3: Discussing the nursing home and care package funding arrangements with the dementia patient's family can help to improve the discharge planning process.

Qualitative findings:

In favour of the support bundle point

A carer mentioned that family involvement in funding arrangements made them aware of social care costs. A member of staff who was a carer stated that family involvement in funding arrangements would enable them to ascertain if they can privately top up a care package. Another carer stated that family involvement in funding arrangements was particularly important in situations where the patient did not have the capacity to consent to discharge decisions. A carer stated that their participation in meetings regarding funding arrangements was crucial because they close the gaps in the social care sector.

Further points being made

A person with dementia noted that it was very difficult to be awarded continuing healthcare funding. A carer stated that a care home did not encourage her sister to be active or independent, and that a care package for her to remain in her home would have been better as the family would have had a greater say in her activity levels.

Statement 4: The referral of a patient with dementia made by hospital staff to their GP, social services or community teams can help to improve the discharge planning process.

Qualitative findings:

In favour of the support bundle point

A carer stated that a referral to the community team would make relatives aware of the various sources of support. A member of staff who was a carer stated that a referral to the community team would enable them to put in place the necessary interventions that are required by the patient prior to discharge.

Not in favour of the support bundle point

A person with dementia stated that GPs are only interested in filing information rather than analysing and using the data for the patient's welfare. A carer noted that there was no consistency with social services as they dealt with different staff every time they called. This same carer mentioned that the district nursing team sometimes did not notify patients when they missed their appointments. Another carer believed that social services did not promptly attend to their sister's needs.

Further points being made

A carer noted that their mother had been visited by social services once in a period of five years after a referral. A carer stated that they were marginalised from a care home discussion over a funding issue.

Statement 5: Arranging a hospital staff visit to patients' homes or alternatively arranging a care home visit by relatives can help to improve the discharge planning process.

Qualitative findings:

In favour of the support bundle point

A person with dementia and a member of staff who was a carer stated that home visits enable staff to decide on the type of care required by the patient upon discharge. Another carer felt that recommendations made from home visits were beneficial because the stress associated with hospital admissions meant that carers might not be able to think rigorously about the discharge. A carer believed that it was important for relatives to be allowed to select the type of care homes they prefer.

Not in favour of the support bundle point

One carer stated that a home visit benefited them minimally as they experienced issues with effective communication.

Statement 6: Ensuring the delivery of equipment to the dementia patient's home can help to improve the discharge planning process.

Qualitative findings:

In favour of the support bundle point

A person with dementia stated that patients should be encouraged to become familiar with their discharge equipment whilst in hospital. A person with dementia and three carers stated that hospital equipment needed to be supplied before discharge. A carer stated that the use of equipment makes life easier for everyone (i.e. patient and carers).

Further points being made

A member of staff who was a carer stated that most of the time, families are not given any training on how to use hospital equipment at home. Another carer noted that a care home prevented social services from providing their relative with equipment.

Statement 7: A clinical review of the dementia patient's medication can help with the discharge planning process.

Qualitative findings:

In favour of the support bundle point

A carer stated that a clinical review provided staff with an opportunity to bring to the attention of relatives the side effects of patients' medication.

Further points being made

A person with dementia noted that their repeat prescriptions had not been reviewed since the beginning of the Covid pandemic. A carer was concerned about long-term medication because they felt that these were not thoroughly reviewed. A person with dementia felt that it was not necessary to review long-term medications. A member of staff who was a carer noted that patients could conceal small tablets in their mouth in order to spit it out. This same person noted that some patients with dementia could have difficulties consuming big tablets and issues with their swallowing reflex. A carer stated that the dispensation of medication for discharge could take the whole day to arrange.

Statement 8: Ensuring that the dementia patient's property is with them (e.g. equipment and valuables) can help to improve the discharge planning process.

Qualitative findings:

In favour of the support bundle point

A member of staff who was a carer stated that this was crucial because patients become attached to their personal belongings.

Further points being made

A carer felt that ensuring care equipment was with a patient is far more important than their personal belongings.

Statement 9: Printing the dementia patient's discharge letter and giving a copy to the patient or carer can help to improve the discharge planning process.

Qualitative findings:

In favour of the support bundle point

A member of staff who was a carer stated that the discharge letter helps the ambulance crew to provide appropriate care. A person with dementia mentioned that the discharge letter should provide an insight into the patient’s condition and clearly present follow-up instructions. A carer stated that issuing patients or carers with a discharge letter presents staff with an opportunity to discuss patient care.

Further points being made

Whilst one carer stated that she had never received a discharge letter, a person with dementia mentioned that this had always been given to them upon request. A carer stated that patient or carer receipt of a discharge letter is not possible if the printer is broken down. A carer stated that a discharge letter should explain technical terms. A carer noted that a thorough discharge plan reduces uncertainty and follow-up calls.

Statement 10: Arranging transport for the patient with dementia on their leaving hospital helps to improve the discharge planning process.

Qualitative findings:

In favour of the support bundle point

Two members of staff who were carers and a person with dementia stated that it was important to have a relative travel with the patient. The member of staff who was a carer thought this necessary because it reduced anxiety.

Further points being made

A member of staff who was a carer stated that hospital staff who arranged for patient transport did not liaise with family to ensure a detailed knowledge of the patients’ home situation (i.e. spouse of patient also had dementia and could not care for the patient). A person with dementia felt the arrival of patient transport could take a long period.

Digital App How would it improve the discharge planning process if a patient or/and their family carer was able to contribute to the process (i.e. discharge planning) through logging into patient hospital notes via a digital App?

In favour of a Digital App

Two carers noted that relatives could contribute to the discharge process using an App. A member of staff who was a carer stated that relatives could use the App to make staff aware of potential problems. A carer stated that staff would need to be alerted to issues detected on the App through conversations.

Not in favour of a Digital App

A carer and a person with dementia stated that face-to-face discussions were better than the use of an App. A person with dementia stated that some carers might need help depending on their skill or familiarity with technology. A carer mentioned that some people may not have access to smart phones and so other alternatives (i.e. paper forms) should be made available.

Further points being made

A carer felt that there was a complete lack of consultation with the Next of Kin in regards to the patient’s discharge destination. Another member of staff who was a carer felt that that there should be greater transparency and openness in regards to carer access to patient notes especially when the patient did not have capacity.

Strategies for improving the discharge planning process

A carer felt that ‘bed blocking’ happens because of hospital-associated infections and this causes delays to the discharge process. A carer stated that patient care in the discharge lounge needed to be improved because their mother was placed there without food for a period of 8 hours. A person with dementia noted that discharge medication need to be ordered in good time. A carer felt that the discharge process needed to be quicker. Two members of staff who were carers and three carers mentioned that discharge planning needed to involve patients and their families as well as addressing any concerns. Two carers stated that a discharge checklist needed to be completed in consultation with the patient's relatives to ensure that mistakes are minimised. A carer noted the need for staff to signpost relatives to community support services in order to reduce readmissions. Another carer felt that hospital staff needed to liaise with the community care agencies and GPs in order to adopt a consistent approach in patient care.

Summary

Most of the participants quantitatively and qualitatively agreed with the contents of the discharge support bundle. Some of the respondents experienced difficulties in engaging with social services. Hospital staff need to involve families who are willing to engage in patient care in order to improve the discharge process.

7.9) Discussion

This study sort to ascertain the views of people with dementia, their carers and staff regarding the acceptability of two newly developed support bundles. The surveys were advertised on the Join Dementia Research platform as well as the staff bulletin, Facebook and Twitter pages of the University Hospitals Dorset NHS Foundation Trust. A total of 52 people with dementia, their carers and hospital staff participated in the falls survey. The number of people with dementia, their carers and hospital staff who took part in the discharge survey was 17. Discussion of the findings will be guided by the contents of the falls and discharge bundles, which have been previously described.

Falls

The first statement contained in the falls support bundle was to encourage patients with dementia to eat their meals. Findings from the survey indicated that adequate nutrition helped to strengthen the muscles and bones of patients. This finding is consistent with a previous study, which found that muscle weakness was associated with malnutrition (Chatindiara et al., 2018). Furthermore, researchers have documented an association between muscle weakness and falls (Ahmadiahangar et al., 2018). Participants in the survey made mention of the link between diabetes and falls. This finding is in agreement with a previous systematic review, which found an association between diabetes and an individual’s susceptibility to fall (Yang, Hu, Zhang, & Zou, 2016). Some online respondents stated that patients with dementia sometimes refused their meals. Other participants felt that patients with dementia were sometimes not assisted with their meals. A previous systematic review found that one way of encouraging people with dementia to eat well included having meals with family members present (Bunn et al., 2016).

The second statement of the falls support bundle was to create an atmosphere that encourages patients with dementia to sleep. Some online respondents felt that inadequate sleep could result in tiredness, which can increase the risk of falls. This finding is similar to a previous study that found an association between tiredness and an individual’s susceptibility to falls (Renner et al., 2020). A respondent felt that inadequate sleep could cause delirium. Another online participant believed that patients who woke up during the night could feel disoriented to their environment. A previous study has found an association between delirium and sleep disturbance (FitzGerald et al., 2017). Furthermore, a group of researchers have documented a relationship between delirium and falls (Babine et al., 2016). In contrast, Kamdar et al. (2015) did not find a relationship between the risk of developing delirium and sleep disturbance.

The third statement of the falls support bundle was to assess and manage both verbal and non-verbal expression of pain. A respondent felt that untreated pain could cause agitation and subsequently result in falls if the patient had problems with their mobility. This result contradicts findings of a previous study which did not report a relationship between pain and agitation (Sampson et al., 2015). Another study, however, found an association between pain and agitation (Habiger, Flo, Achterberg, & Husebo, 2016). Furthermore, a relationship between agitation and patients’ susceptibility to falls has been documented in previous literature (Mansutti et al., 2019). A participant stated that their mother's pain resulted in delirium. The association between pain and delirium has been documented in previous literature (Feast et al., 2018). A group of researchers who tried to improve the management of delirium through education found that this strategy reduced a hospital's falls rate (Babine et al., 2018).

The fourth statement of the falls support bundle was to review patients' medication. Findings from the survey indicated that falls could be because of the side effects of medication. This finding is consistent with the results of previous studies, which have found that an individual's susceptibility to falls is associated with the intake of certain types of medication (Hatahira et al., 2018; Seppala et al., 2018). Respondents in the survey felt that polypharmacy contributed towards falls. This finding is supported by a previous study, which reported a weak association between harmful falls and polypharmacy (Morin et al., 2019). Other researchers have argued that the current cut-off criteria for a comprehensive review of patients' medication may need to be extended to include people on more than 4 drugs as they are at risk of falls (Dhalwani et al., 2017).

The fifth statement of the falls support bundle was to encourage physical activity. Findings from the survey indicated that online respondents believed that physical activity helped to strengthen the muscles of patients with dementia. Findings from a previous systematic review concluded that muscle strengthening exercises helped to reduce falls (Ishigaki, Ramos, Carvalho, & Lunardi, 2014). A participant stated that physical activity reduced agitation. This finding is consistent with a previous study, which found a reduction in agitation following the introduction of an exercise initiative (Fleiner, Dauth, Gersie, Zijlstra, & Haussermann, 2017). In contrast, some researchers have documented a non-significant relationship between agitation and physical inactivity (Fleiner et al., 2019).

The sixth statement of the falls support bundle was to ensure that the environment is free from hazards. Online participants stated that people with dementia have visual difficulties and therefore required a hazard free environment. This finding is echoed in a previous research, which found that patients with dementia are more likely to have visual difficulties (Marquié et al., 2019). The presence of visual difficulties have been associated with the occurrence of falls within a five-year period (Hong, Mitchell, Burlutsky, Samarawickrama, & Wang, 2014). A survey participant felt that flooring that resembled holes could contribute to falls. A group of researchers stated that dark patches on the floor and shiny surfaces may be a trip hazard because people with dementia may think that they are steps or that the flooring is wet (Waller & Masterson, 2015).

The seventh statement on the falls support bundle was to ensure that patients are familiar with their mobility aids. Participants in the survey felt that people with dementia might forget to use their mobility aids. This finding is echoed in a previous research which indicated that mobility aids could end up being a trip hazard when patients with dementia forget to use them and place them in a shared space on the ward (Burgon et al., 2019). Two respondents stated that it was difficult to introduce people with dementia to new mobility aids. This finding is replicated in a previous study, which found that patients with severe cognitive impairment found it difficult to use assistive devices (Mc Carroll & Cooke, 2019).

The eighth statement on the falls support bundle was to provide one-to-one nursing for patients who are at high risk of falls. A survey respondent noted that one-to-one nursing could sometimes lead to falls if a patient with dementia gets frustrated because of staff preventing them from mobilising on the ward. These negative patient-staff interactions (e.g. not explaining the rationale for giving intravenous or oxygen therapy to an agitated patient) that can occur with the provision of one-to-one nursing has been documented by previous researchers (Cook, Palesy, Lapkin, & Chenoweth, 2020). Three online respondents felt that one-to-one nursing was too expensive. The cost of one-to-one nursing has been raised in previous literature (Coyle, Wilson, Lapkin, & Traynor, 2020).

The ninth statement on the falls support bundle was to provide training for patients, staff and carers. Two respondents mentioned that the training on falls or dementia care was inadequate. A recent study found that the majority of the training on dementia care in hospitals and care homes were likely to exclude important topics such as the pharmacological management of dementia patients/residents and end-of-life care (Smith et al., 2019). Two online respondents felt that carers should be provided with falls training and advice on how to supervise physiotherapy exercise at no cost. This finding resonates with that of a previous research where carers stated that they required further training on how to provide quality care for patients with dementia (Teles, Paúl, Sosa Napolskij, & Ferreira, 2020).

The tenth statement on the falls support bundle was to liaise with the falls team. An online participant believed that involving the falls team would ensure the introduction of the necessary falls interventions. This finding is supported by a previous study which found that people who attended a programme run by a falls clinic reported reduced falls (Blain et al., 2019). Despite this advantage, one online participant stated that an additional layer of staff on a high rate of pay was not valuable because patients with dementia need to have familiar faces. A previous study reported a similar concern (i.e. cost associated with the use of a falls clinic) (Evron, Schultz-Larsen, & Fristrup, 2009). The cost associated with the treatment of falls needs to be weighed against potential expenditure incurred whilst using the falls team (Morello et al., 2015).

The eleventh statement on the falls support bundle was to minimise ward transfer. Some online participants thought that transferring patients between wards caused disorientation and confusion. Confusion and disorientation amongst people with cognitive impairment has been associated with falls (Härlein et al., 2011). Other respondents stated that patients with dementia might find ward transfers stressful. A relationship between stress and falls has been documented in previous literature (Noh et al., 2017).

Discharge planning

The first statement in the discharge support bundle was to assess the patients' discharge destination with patient and family carers. An online respondent felt that it was important to assess the patient's home environment in order to ensure safe discharge. This finding is consistent with previous research, which has found an association between home visits conducted whilst the patient is in hospital and a decrease in poor outcomes such as susceptibility to falls (Lockwood, Taylor, & Harding, 2015). An online participant felt that discharge assessments could cause delays to the discharge process. One of the reasons cited in previous literature for the delays in discharges includes the time spent in waiting for assessments by the social services team (Hendy, Patel, Kordbacheh, Laskar, & Harbord, 2012).

The second statement of the discharge support bundle was to arrange a discharge planning meeting with family. A respondent stated that the involvement of family members in every single ward discharge could cause delays to the process. A possible reason for the delays in the discharge process caused by the involvement of family members is a lack of agreement on the best plan of action (Zhao et al., 2018). An online participant stated that family involvement in the discharge process should not merely seek to enforce staff decisions (i.e. the avoidance of tokenism). This result contradicts findings from a previous research where the preferences of family members were given due weight (Rhynas, Garrido, Burton, Logan, & MacArthur, 2018).

The third statement of the discharge support bundle was to discuss funding arrangements with the family. Online participants mentioned that family involvement in funding arrangements made them aware of social care costs and offered them the opportunity to privately top up a care package. The high cost of social care for self-funders has been described in previous research (Tanner, Ward, & Ray, 2018). A respondent stated that it was very difficult to be awarded continuing healthcare funding. This finding is consistent with a previous study, which found that patients eligible for continuing healthcare funding have very poor outcomes (i.e. likely to die within a year) (Martin, Valiyaparambath, & Gray, 2013).

The fourth statement of the discharge support bundle was to refer the patient to GP, social services or community teams. A respondent believed that the involvement of multiple professionals made the discharge process slower. This finding could be explained by the differing professional focuses of the multidisciplinary team (Mizuma et al., 2020). An online respondent stated that a referral to the community team would make relatives aware of the various sources of support. This is particularly important as family carers who reported that they had received inadequate support for their relatives with dementia who attended appointments at day clinics ended up being rehospitalised (Sadak, Zdon, Ishado, Zaslavsky, & Borson, 2017).

The fifth statement of the discharge support bundle was to arrange a visit to patients' homes or care homes. Some online respondents stated that home visits enabled staff to decide on the type of care required by the patient upon discharge. This result is consistent with findings of a previous research where pre-discharge home visits informed staff decisions regarding the patient's discharge options (Godfrey et al., 2019). An online respondent believed that it was important for relatives to be allowed to select the type of care homes they preferred. This finding is particularly important as relatives may want to select care homes that are closer to where they live, so that they can more easily visit their loved ones (Hefele et al., 2016).

The sixth statement of the discharge support bundle was to ensure the delivery of patient equipment to their home. A respondent stated that most of the time, families are not given any training on how to use hospital equipment at home. This contradicts findings of previous research where Occupational Therapists stated that they preferred to educate relatives on how to use adaptive equipment in their homes as patients with cognitive impairment may forget to how to use them (Collins, 2018). An online respondent stated that the use of equipment made life easier for everyone (i.e. patient and carers). This result confirms findings of a previous study, which suggested that the low levels of difficulties experienced by some family members in the provision of dementia care might be due to the availability and the use of the right hospital equipment (Amato et al., 2021).

The seventh statement of the discharge support bundle was to review patients' medication. An online respondent was concerned about long-term medications because they felt that these were not thoroughly reviewed. This concern is relevant because people with dementia are likely to be on repeat prescription (Clague, Mercer, McLean, Reynish, & Guthrie, 2017). An online participant stated that the dispensation of medication on discharge could take the whole day. This result contradicts findings of a previous study, which concluded that patients were promptly attended to when their prescriptions were completed electronically (Fernando, Nguyen, & Baraff, 2012).

The eighth statement of the discharge support bundle was to ensure patients' property is with them. An online respondent stated that her mother's hearing aids was misplaced. This finding may be explained by staff not consistently following policies related to the safe transfer of patients from the emergency setting into a medical ward (D. T. O'Connor, Rawson, & Redley, 2020). An online respondent stated that ensuring a patient's property is with them is important because patients become attached to their personal belongings. This finding is consistent with the results of a previous literature review, which concluded that older people are likely to get attached to their possessions due to their sentimental value (Dozier & Ayers, 2020).

The ninth statement of the support bundle was to print patients' discharge summary and give a copy to the patient or carer. An online respondent stated that a discharge letter should explain technical terms. This finding is consistent with a previous research, which found that some patients were unable to fully comprehend medical instructions given by their doctors (Gignon, Ammirati, Mercier, & Detave, 2014). Whilst one respondent stated that she had never received a discharge letter, another participant mentioned that this had always been given to him or her upon request. Findings from a previous study found that none of the 100 patients who took part in an interview study and an audit had received a discharge letter (Stevens, Fry, Browne, & Barnes, 2019).

The tenth statement of the discharge support bundle was to arrange for transport. A respondent felt the arrival of patient transport could take a long time. Previous research has documented that a patient’s discharge may be delayed for a day because of the hospital’s inability to fully co-ordinate with transport facilities (Ragavan, Svec, & Shieh, 2017). Online respondents stated that it was important to have a relative travel with a patient. Conclusions from a previous research noted that the experience of patients with dementia who used the hospital transport system could be enhanced with the provision of trained escorts (N. Roberts et al., 2010).

7.10) Revisions to the discharge support bundle and the Digital App

Statement 6 of the discharge support bundle needs to be amended to include training. The issues raised by some of the respondents in regards to the Digital App would be addressed in the normal way (i.e the app would be fully compliant with the NHS protocols around privacy).

7.11) Strengths and Limitations

A major strength of this study is that participants were able to answer the questions anonymously. The anonymity provided the participants with an opportunity to be honest with the researcher. The online survey provided participants with flexibility and convenience to complete the questions. I was able to target the respondent audience accurately through the Hospital Trust communication system and the Join Dementia Research platform.

A major limitation of this study was that I could not verify the diagnosis of people with dementia who responded to the survey. There was also no opportunity to ask additional and follow-up questions.

7.12) Ideas for future research

Future research could target the implementation of the support bundle in an acute setting. There needs to be an exploration of the digital resources and resourcing for the improvement of the care of patients with dementia in hospitals.

7.13) Implications for policy and practice

Policy makers have an important role to play in the provision of quality dementia care. This is because of their responsibility for the enactment of the relevant legislative framework that can be incorporated into practice. There needs to be a set of expectations when dementia patients are admitted into hospital. Wards would then be accountable to patients and family members for the bespoke care plan of dementia patients, and how these are implemented and actioned in the acute hospital setting.

In terms of improving dementia care practice on the wards, the content of the support bundle needs to be incorporated into staff mandatory training. It should, however, be noted from literature reviewed in Chapter 2 that training may or may not improve bedside practice. However, training may enable staff to become aware of the distal causes of falls and allow them to familiarise themselves with effective discharge processes.

7.14) Conclusion

To conclude, respondents generally agreed with the contents of the support bundle. Findings from the survey indicated that falls could be related to a wide-range of factors such as pain and sleep. The survey also highlighted the challenges and strengths of the discharge process. A member of staff for example, felt that the involvement of multiple professionals would result in the discharge process becoming slower. Despite the challenges in the prevention of falls (e.g. patient forgetting medical instructions) and the discharge planning process, there is a potential for the support bundle to improve patient care on the wards. The next section is the concluding chapter.

Chapter 8 (Concluding chapter)

The concluding chapter ascertains whether the study's aims and objectives were met. A summary of previous chapters is outlined. The limitations and strengths of the study are discussed. The implications for practice are also highlighted.

8.1) Aims and Objectives

The aim of the service evaluation was to identify health outcomes that affect length of hospital stay amongst people with dementia at a local hospital. This aim was fully met by identifying demographic, administrative and clinical variables that affect patient hospital length of stays. The qualitative study focused on falls and discharge planning because the quantitative analysis indicated that they had the highest incidence rate ratios. The aim of the qualitative aspect of the study was to explore how a systems based approach can be used to help understand the factors that contribute towards the reduction of falls, and the improvement of the discharge planning process amongst people with dementia in hospital. This aim was fully met by interviewing staff and family carers on their views regarding the reduction of falls and how to improve the discharge planning through the lens of a systems approach. The aim of the online survey was to ascertain the acceptability of the falls and discharge bundles amongst people with dementia, their carers and staff. This aim was fully met by asking for the views of people with dementia, their carers and hospital staff about the contents of the support bundle. The first objective was to generate knowledge on the factors that affect the length of hospital stay amongst patients with dementia. This objective was fully met. The second objective was to gather information on how a systems based approach could help to reduce falls and improve the discharge planning process amongst patients with dementia in hospital. This objective was fully met. The third objective was to ascertain the acceptability of the falls and discharge bundles through an online survey involving people with dementia, their carers and hospital staff. This objective was fully met.

8.2) Summary of previous chapters

Chapter 1 focused on describing the pathophysiology of dementia because the research took place in an acute setting. It also referred to the various perspectives on dementia care such as: the biomedical viewpoint, the psychosocial model and rights based approaches (e.g. the inherent rights of being a human being). Chapter 1 then recommended the use of a systems approach because of its holistic focus. A systems approach considers the impact of the environment, equipment, polices and human interactions (E. Edwards, 1972; Hawkins, 1987; Zecevic et al., 2007) on the reduction of falls and the improvement of the discharge planning process.

Chapter 2 examined the main issues that affected people with dementia in a hospital setting. In terms of the human interaction aspect of the systems approach, there is the need to look at the following relationships: staff-family, patient-staff and staff-staff. Findings from the literature review indicated that although the involvement of family carers in the provision of dementia care can be useful, they could be experiencing stress. The wishes of carers who do not want to get involved in care of patients whilst in hospital need to be accommodated. The literature review also showed difficulties in patient-staff communication. Staff responses in stressful situations were sometimes inappropriate. Further research is therefore needed on how to transform practice and improve patient-staff relationships. Findings from the literature review revealed that staff faced setbacks such as time constraints and inadequate staffing levels. Staff were also stressed. This created gaps in the provision of care. Further research is therefore needed on how to improve patient care in a pressurised environment. In terms of the environmental aspect of the systems approach, the literature review indicated that dementia-friendly principles must be incorporated into the physical and psychosocial set-up of the wards. This could for example, be achieved by improving the ward layout and encouraging purposeful activity. The literature review stated that the ward atmosphere could be chaotic. It was therefore necessary to design hospital wards, which work for people with dementia (Houghton et al., 2016). Also, the hospital wards serve different purposes for the various stakeholders (person with dementia, carer and staff) (Norman, 2006). The literature review indicated that the various stakeholders have different concerns in relation to how the physical environment can work for them. In terms of the equipment related to the systems approach, the literature review suggested that it was necessary to design hospital equipment that adequately met the needs of all stakeholders (person with dementia, staff and carer). In terms of the policies related to the systems approach, the literature review showed that there were a wide-range of dementia training programmes for staff and carers. However, more research is needed to identify the most effective training approach. Furthermore, it was evident that policies related to improving the care of people with dementia must be directed towards all stakeholders (patients, carers and staff). In addition, there should be a greater emphasis on policies related to the priority of patient-centred care. The literature review then focused on patient outcomes. The literature review showed that patient outcomes such as falls were common amongst people with dementia. Further research is therefore needed on how to prevent falls amongst people with dementia. The literature review showed that one of the main issues that people with dementia face at the end-of-life stage is whether a DNR form should be completed or not. Furthermore, staff do not always recognise the end-of-life stage for dementia. Patients are therefore at risk of receiving poor end-of-life care. Issues relating to discharge that emerged from the literature review involved delays in the discharge planning procedure and the inadequate involvement and focus on the person with dementia. The literature review indicated that people with dementia experienced complex nutritional issues for example, the impact of swallowing difficulties on the patients' diet. Strategies to improve the nutritional status of people with dementia was discussed. The literature review indicated that some people with dementia are able to report their pain whilst others are not able to do so because of communication difficulties. In order to manage pain, staff had to rely on their professional opinion, experiential knowledge and the patient's non-verbal communication. Barriers to management of pain was discussed.

Chapter 3 identified the philosophy that underpinned the quantitative and qualitative studies. This study utilised a mixed-methods approach. The advantages and disadvantages of prospective and retrospective dementia was highlighted. The justification for the use of a retrospective method in the quantitative study included its cost effectiveness, time efficiency and its ability to address the research aim. The process of obtaining appropriate ethical approval for the quantitative, qualitative and online studies were described. The integrity of the dataset is outlined. Ethical issues arising out of the qualitative study are also highlighted. The benefits and drawbacks of using online survey methods were identified.

Chapter 4 analysed data on 14,771 people who had stayed in hospital for more than 24 hours and not been readmitted. A further sample of 1,133 people with dementia, who had not been readmitted and had stayed in hospital for more than 24 hours, was extracted and analysed. Length of stay was chosen as a dependent variable because people who stay in hospital for a long period are at risk of acquiring health care associated infections (Rosman, Rachminov, Segal, & Segal, 2015). A novel finding of the quantitative study was the non-significant relationship between admission method (attendance at an emergency unit, referral from a medical practitioner, referral from a consultant and admission from for example, another hospital) and the length of hospital stay. Discharge method (i.e. death) was however associated with the patients length of stay in the main and dementia sub-samples.

The demographic variables for the quantitative study were age and gender. Whereas age was associated with length of stay in the multivariate analysis of the main sample, this was not the case for the dementia sub-sample. This suggests the need to identify the various factors that influence the length of hospital stay for the different age groups.

Admissions and discharges to care homes were associated with length of stay in the main and dementia sub-sample for the multivariate analysis. This suggests the need for robust discharge planning.

There were no significant differences in length of stay for early warning signal in the main sample for the multivariate analysis. This suggests that current policies for identifying deteriorating patients in order to reduce their length of hospital stay are adequate. There were significant differences in length of stay for falls without injury and falls with minor harm in the main and dementia sub-samples in the multivariate analysis. There is the need to adopt a systems approach in the prevention or reduction of falls to reduce the hospital stay of patients. High MUST scores were associated with length of stay in the main and dementia sub-sample in the multivariate analysis. Hospital staff need to be made aware of the relationship between malnutrition and length of hospital stay so that they can adopt an active approach in assisting patients with their meals. Category 1, 2, 3 and 4 pre-admission pressure sores were significantly associated with length of stay in the main sample for the multivariate analysis. Category1, 2, 3, 4 and un-stageable post admission pressure sores were associated with length of stay in the main sample for the multivariate analysis. Category 1 and 2 post-admission pressure sores were associated with the hospital stay of patients with dementia. There were significant differences in Waterlow score for length of stay in the main sample but not in the dementia sub-sample in the multivariate analysis. This suggests the need for an early referral of people with pre- and post-admission pressure sores as well as high Waterlow scores to the tissue viability team, so that the necessary actions can be put in place. Dementia spell but not history was associated with length of stay in the main sample of the multivariate analysis. This suggests the need for dementia specialist nurses to be available during the weekends and at night to reduce the hospital stay of patients.

Chapter 5 focused on falls and discharge planning because the incidence rate ratio for falls without harm was 2.486 and discharge to a care home was 2.443. This means that participants who experienced falls without harm were 2.5 times more likely to stay in hospital for a longer period than those who did not experience falls without harm. A total of 52 carers and staff were interviewed. The novel themes and subthemes that emerged from the staff and carer interviews regarding falls were: the use of equipment in relation to falls, reliance on others and inadequate care. The novel themes and sub-themes generated from the staff and carer interviews on discharge planning is as follows: understanding your patient, attitudes on policy and the use of hospital equipment. These themes were derived from a systems approach.

In terms of falls, findings from the qualitative study indicated that they could be caused by medical or environmental conditions. A timely identification of a patient falls risk will enable staff to intervene appropriately. In addition, participants in the qualitative study felt that physical activity could help reduce falls. This suggest the need for staff to encourage physical activity where appropriate. The training of hospital staff as well as the use of online risk assessment tools were believed to be important in the reduction of falls. Falls prevention training needs to be directed towards staff, patients and carers. There is also a need to simplify online risk assessments so that staff can easily integrate it into their busy schedule. As the evidence on the use of low beds is inconclusive, staff need to be encouraged to continue observing patients who are at risk of falls. For patients who are unable to retain information related to falls, staff have to try new and innovative ways of communicating with patients. They can for example use pictures to help the patient understand their risk of falls and repeat this message continuously. Staff need to be trained so that they can consistently document falls in the online incident reporting process. Staff often felt *bad* after a patient fell on the ward. There should be a recognised emotional support system where staff are able to use *buddies or champions* within the Trust. These would be trained to listen in a non-judgemental way so that staff are able to reflect on their anxieties and stress. Patients on the other hand could become especially fearful following a fall, and their stay in hospital consequently could be prolonged. Preventable falls should become ‘never, never’ incidences to prevent patients from becoming fearful.

In terms of the people factor in relation to falls, findings from the qualitative study indicated that the involvement of family members in the care of patients with dementia made them more settled. Family carers should be embraced as key members of the multi-disciplinary team. This would enhance their confidence in the prevention of falls through patient observation as well as the use of calming techniques. However, some family members had especially negative experiences with dementia. Family members who have had negative experiences with dementia (e.g. coping with challenging behaviour) may be more content to delegate the care of patients to staff. Therefore, the involvement of family members in the care of patients should be tailored to meet their specific needs. Some carers may be too exhausted from meeting the demands of the patient whilst others may not. Patient characteristics such as their diagnosis, frailty, nutritional status could make them susceptible to falls. Staff will need to be trained on how to mitigate against the distal causative factors of falls e.g. frailty and malnutrition. Patients also experienced poor sleep quality. It would be helpful if patient handovers included patient specific detail of what aids their sleep pattern. Patients were also forgetful regarding the use of their mobility aids. There should be a system whereby staff record the patients' use of mobility aids each time they transfer between wards. Communication difficulties between patient and carers as well as staff also affected the reduction of falls. Staff should therefore refer patients with communication difficulties to the therapy team (i.e. speech therapist). Equipment such as hearing aids and mobile phones need to be electronically tracked in order to minimise inconvenient and stressful loss of property. The use of a team-based approach and trained volunteers in the reduction of falls was felt to be helpful. The reduction of falls must be seen as everyone's responsibility from the consultant to ward clerk and domestic staff. Hospitals need to embrace published research in the successful use of volunteers in falls prevention.

In terms of the environment in relation to falls, staff stated that they had large caseloads and the staffing levels were inadequate. There needs to be a management commitment to maintaining realistic staffing levels to ensure patient safety. There was also the issue of multiple ward transfer of patients, which could make patients susceptible to falls. There needs to be a commitment to the dementia patient that the appropriate care comes to them rather than they to the care. Therefore, when a dementia patient is admitted, they remain on their ward of admission. This becomes part of the Charter of Care expected for the dementia patient. Staff should provide falls training to family members, care agencies as well as themselves. Additional mandatory online training should be provided for staff caring for dementia patients. It was felt that it was necessary to use colours in order to enhance the visibility of toilets, specific bays and hospital equipment. Again, there needs to be a commitment from the estate department etc. of the hospital Trust so that these simple approaches are fully adopted. Mobility aids need to be tailored to the specific requirement of the patient. Then, staff need to ensure that these are used appropriately for the individual patient. All these expectations should be included in a Patient Charter for people with dementia.

Efficient discharge planning is well organised. Patients may however change their minds regarding their discharge destination. It is necessary to uphold the rights of patients regarding their discharge destination. If the patient has capacity, then they have the right to make those essential decisions. Carers may also not be adequately prepared for patient discharge by the hospital. There needs to be an expectation that family carers will be fully involved. Patients and family carers therefore need to be intrinsically involved in discharge decisions. Care homes may not have the capacity to accept patients with challenging behaviour or complex needs. It is therefore necessary to involve community teams (e.g. Community Mental Health Team) or ICSD (Intermediate Care Service for Dementia) in the discharge of patients. These teams can signpost to the support services that are available in the community (e.g. day centres). Home visits were made by hospital staff to ensure the viability of the discharge into the patient’s home. The home visit should be arranged at the earliest opportunity on admission to ensure a full assessment of the patients’ needs. Discharge could be delayed for reasons such as the dispensation of medication, the delivery of hospital equipment and receipt of care packages. People whose discharges are likely to be delayed should be identified at the earliest opportunity so that the necessary interventions are put in place. As in other areas of health care, where there is non-compliance there should be financial implications for hospital Trusts where delayed discharges are frequent.

In terms of people in relation to discharge, the input of family members in the care of patients with dementia was invaluable. This should be more than ‘lip service' in the hospital. Fundamentally, family carers are essential to the care of patients before admission, during admission and on discharge. Some carers were however unable to cope with the symptoms of dementia whilst others managed just fine. There needs to be a greater emphasis on the well-being of carers in their crucial role. It was important for staff to know the patient when planning their discharge. The use of a falls/discharge Application (App) (described above) where the multi-disciplinary team including family carers contribute to this task is essential. It will then be a truly collegiate approach to decision-making.

In terms of policies in relation to discharge planning, the use of specialist dementia wards and nurses was deemed important in the care of patients. Dementia specialist nurses need to be available 24/7. Some family carers were satisfied with the discharge planning meeting whilst others were not. There needs to be a 'round table' approach where the recognised family carer is an equal partner alongside the multi-disciplinary team. Carers stated that the use of electronic records could help avoid duplication and improve patient care. There is an urgency around electronic medical record keeping. Hopefully, the new NHS electronic medical system (Sunrise) will address these issues as NHS Trusts adopt it nationally.

Chapter 6 discussed the development of the two support bundles from the findings of the qualitative interviews. The falls support bundle centred on the following: nutrition, sleep, pain, medication, physical activity, environmental hazards, mobility aids, one-to-one nursing care, falls training, liaising with the falls team and the minimisation of ward transfers. The discharge support bundle centred around the following: discharge assessment, discharge meeting, funding arrangements, community referral, visit to a care home or patient's home, delivery of equipment, medication, patients' property, discharge summary, transport. The relationship between the support bundles and a systems approach was highlighted.

Chapter 7 presented the findings from the online survey in terms of the following: responses that were in support of the support bundle statements, those that disagreed with the support bundle points and those that provided additional clarification.

8.3) Strengths

A major strength of the service evaluation is that it used real world data to identify issues affecting patients with dementia in hospital. The issues identified in the service evaluation affected 1,133 people with dementia. The findings of the service evaluation therefore applied to a large number of people.

A major strength of the qualitative study was that it involved conducting interviews that were centred on the systems framework. By adopting this framework, I was able to obtain a holistic account of the issues (i.e. falls and discharge planning) that affect people with dementia in hospital.

Another strength of the qualitative study was the fact that I interviewed 52 staff and carers. The relational approach that I used in the interviews enabled staff and carers to be frank and honest in their responses.

A strength of the online survey was that the participants were anonymous to the researcher. The respondents were therefore more likely to provide honest feedback.

8.4) Limitations

A limitation of the service evaluation was that it relied on data, which had already been collected by staff. It is possible that I could have received a different result if I had collected the data myself. I could have for example; collected information on the impact of sleep on length of hospital stay if I had reviewed the medical records of individual patient’s myself. The information that was available in the dataset forms part of the details presented to the Secondary Uses Service of the NHS Digital Department. The research therefore makes inferences from the use of a real world dataset.

A limitation of the qualitative study involved the use of a single method of data collection (i.e. individual interviews). The use of video recordings and observations would have enabled me to obtain an accurate picture of the care received by patients on the ward. However, this was not possible because the NHS ethics committee recognised the difficulty in assessing the continuing capacity of patients in giving consent.

A limitation with the online survey was that the researcher was not able to verify the dementia diagnosis of the research participants.

Future researchers should focus on the best way of integrating the support bundles developed from this thesis into the existing pathways for falls and discharge planning. There is also the need to involve patients and carers in the best way of reducing the length of hospital stay.

8.5) Reflection

I managed to obtain a dataset in my second year of appointment as a PhD student. Upon reflection, I should have arranged to obtain the dataset in my first year of study at Bournemouth University. This would have prevented delays in the progress of the study.

My first ethics application was rejected because the NHS ethics committee recognised the difficulty in assessing the continuing capacity of patients in giving consent. Upon reflection, I should have identified this outcome before applying to the ethics committee. An early recognition of this would have led to an amended application.

The study sought to develop a support bundle for the reduction of falls and the improvement of the discharge planning process through interviews with carers and staff. Upon reflection, I should have asked staff about how the current falls and discharge planning policies could be improved.

8.6) Implications for practice

The findings from this study suggest that staff and carers do not use a systems approach in dementia care. Toolkits and policies that guide staff in the care of patients with dementia need to adopt a systems perspective because of its holistic focus.

Family carers need to be considered as partners in the provision of dementia care. Current guidelines on the care of patients with dementia need to acknowledge the crucial role that family carers play in the provision of that care.

Findings from this study indicated that some carers were not satisfied with care provided on the wards. It is therefore necessary to train staff and students on how to address informal complaints.

8.7) Recommendations

One staff suggested that the recruitment of an enhanced care team with a remit to therapeutically engage patients would have a likely reduction in the need for one-to-one nursing to prevent falls.

Another member suggested that having more staff on the ward to observe patients would reduce the number of falls that occur on the wards. In addition, having adequate numbers of staff would enable patients to spend more time in the dementia garden. Clearly having extra staff is always worthwhile because they can engage with the patients through conversation. The use of volunteers in observation is clearly effective from the literature review.

The use of an App by patients, carers and staff would create a greater sense of working as a team.

Staff will be required as part of their mandatory training to incorporate the support bundle that has been developed into patient safety and care.

There should be a set of expectations (a Charter of Care for the dementia patient). This along with the support bundle should be incorporated into the policy and protocols for dementia patients. The adherence to that policy will be the specific responsibility of the dementia nurse specialist.

The expectations in the care of dementia patients should be public documents, which are displayed in public areas especially on dementia wards.

8.8) Conclusion

The study analysed data on a sample of 14,771 people who had stayed in hospital for more than 24 hours and not been readmitted. It also analysed information on a sample of 1,133 people with dementia, who had not been readmitted and had stayed in hospital for more than 24 hours. These two sub-samples were extracted from a convenience sample of 35,792 emergency admissions with a recorded discharge date between 01/01/2016 and 31/12/2016. The study identified some of the factors that affect patient hospital stays. The findings from the service evaluation were important because they enabled me to identify the specific factors to focus on in the qualitative study. The factors identified were falls and discharge planning. A novel finding of the service evaluation is that admission method (attendance at an emergency unit, referral from a medical practitioner, referral from a consultant and admission from for example, another hospital) was not significantly associated with extending the length of stay of patients. Discharge method (i.e. death) was, however, associated with the length of stay of a patient.

The qualitative study was grounded in a systems approach. Using interviews, I solicited the views of staff and carers regarding how a systems approach could be used to reduce falls and improve discharge planning. Findings from the research indicated that even though some carers were satisfied with the care given to their relatives, others were not. In terms of the people component of a systems approach, patient (e.g. co-morbidities), staff (e.g. teamwork) and carer (e.g. stress) characteristics affected falls and discharge planning. In addition, the environment (including the physical environment, policies and equipment) influenced falls and discharge. Three novel themes and subthemes that emerged from the staff and carer interviews regarding falls were: the use of equipment in relation to falls, reliance on others and inadequate care. The novel themes and sub-themes generated from the staff and carer interviews on discharge planning were: understanding your patient, attitudes on policy and the use of hospital equipment.

Two support bundles on falls and discharge support bundles were developed to help improve patient care and reduce length of hospital stay. The support bundles were developed using a bottom-up approach (i.e. its contents were mainly derived from the issues that emerged from my interviews with carers and staff). The findings from the interviews were then supported with data from previous research. This approach to the development of the support bundles was important as a recent research has suggested that patient tokenism cannot be ruled out in the processes used to develop guidelines (Kim, Berta, & Gagliardi, 2021). An online survey to ascertain the acceptability of the falls and discharge bundles amongst people with dementia, carers and staff was conducted. Findings from the survey indicated that people with dementia, their carers and staff generally agreed with the contents of the support bundles.

I have outlined the practice implications for this study. The findings from the study could be used to improve patient care. The key message from my quantitative, qualitative and online studies is that there needs to be a greater sense of cohesion between the multidisciplinary staff team, patients and carers. There is also the need to have dedicated dementia wards with a targeted goal to significantly reduce ward transfers during patient hospital stays.

References

Abbey, J., Piller, N., De Bellis, A., Esterman, A., Parker, D., Giles, L., & Lowcay, B. (2004). The Abbey pain scale: a 1-minute numerical indicator for people with end-stage dementia. *International journal of palliative nursing, 10*(1), 6-13. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=RN143982243&site=eds-live&scope=site.

Achterberg, W. P., Pieper, M. J. C., van Dalen-Kok, A. H., de Waal, M. W. M., Husebo, B. S., Lautenbacher, S., . . . Corbett, A. (2013). Pain management in patients with dementia. *Clinical interventions in aging, 8*, 1471-1482. Retrieved from https://www.ncbi.nlm.nih.gov/pubmed/24204133

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3817007/. doi:10.2147/CIA.S36739

Adams, T., & Gardiner, P. (2005). Communication and interaction within dementia care triads: developing a theory for relationship-centred care. *Dementia (14713012), 4*(2), 185-205. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=ccm&AN=106401295&site=eds-live&scope=site.

Afzal, N., Buhagiar, K., Flood, J., & Cosgrave, M. (2010). Quality of end-of-life care for dementia patients during acute hospital admission: a retrospective study in Ireland. *General Hospital Psychiatry, 32*(2), 141-146. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edselp&AN=S0163834309002229&site=eds-live&scope=site. doi:10.1016/j.genhosppsych.2009.10.003

Ahmadiahangar, A., Javadian, Y., Babaei, M., Heidari, B., Hosseini, S., & Aminzadeh, M. (2018). The role of quadriceps muscle strength in the development of falls in the elderly people, a cross-sectional study. *Chiropractic & manual therapies, 26*, 31. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=30128111&site=eds-live&scope=site. doi:10.1186/s12998-018-0195-x

Aita, K., Takahashi, M., Miyata, H., Kai, I., & Finucane, T. E. (2007). Physicians' attitudes about artificial feeding in older patients with severe cognitive impairment in Japan: a qualitative study. *BMC Geriatr, 7*, 22-22. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=17705852&site=eds-live&scope=site.

Algase, D. L., Beck, C., Kolanowski, A., Whall, A., Berent, S., Richards, K., & Beattie, E. (1996). Need-driven dementia-compromised behavior: An alternative view of disruptive behavior. *American journal of Alzheimer's disease and other dementias, 11*(6), 10-19.

Allali, G., Launay, C. P., Blumen, H. M., Callisaya, M. L., De Cock, A.-M., Kressig, R. W., . . . Beauchet, O. (2017). Falls, Cognitive Impairment, and Gait Performance: Results From the GOOD Initiative. *Journal of the American Medical Directors Association, 18*(4), 335-340. Retrieved from http://www.sciencedirect.com/science/article/pii/S1525861016304868. doi:https://doi.org/10.1016/j.jamda.2016.10.008

Allan, L. M., Ballard, C. G., Rowan, E. N., & Kenny, R. A. (2009). Incidence and Prediction of Falls in Dementia: A Prospective Study in Older People. *Plos One, 4*(5), 1-8. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edb&AN=55979960&site=eds-live&scope=site.

Allen, V. J., Methven, L., & Gosney, M. (2014). Impact of serving method on the consumption of nutritional supplement drinks: randomized trial in older adults with cognitive impairment. *J Adv Nurs, 70*(6), 1323-1333. Retrieved from https://onlinelibrary.wiley.com/doi/abs/10.1111/jan.12293. doi:10.1111/jan.12293

Alzheimer's Disease International. (2015). *World Alzheimer Report 2015 The Global Impact of Dementia: An analysis of prevalence, incid ence, cost and trends*. Retrieved from http://www.alz.co.uk/research/WorldAlzheimerReport2015.pdf

Alzheimer's Society. (2013a). *Eating and drinking Factsheet 511LP*. Retrieved from https://www.alzheimers.org.uk/sites/default/files/pdf/factsheet_eating_and_drinking.pdf

Alzheimer's Society. (2013b). *Pressure ulcers (bed sores) Factsheet 512LP*. Retrieved from https://www.alzheimers.org.uk/sites/default/files/2018-10/factsheet_pressure_ulcers_bedsores.pdf

Alzheimer’s Research UK (2014). Alzheimer's Research UK. Defeating Dementia. Retrieved from http://www.nhs.uk/ipgmedia/National/Alzheimer%27s%20Research%20UK/assets/Allaboutdementia.pdf.

Alzheimer’s Society. (2009). *Counting the cost Caring for people with dementia on hospital wards*. Retrieved from https://www.alzheimers.org.uk/site/scripts/download_info.php?fileID=787

Amato, C., Burridge, G., Basic, D., Huynh, D., Gibbons, E., Ní Chróinín, D., & Liu, K. P. Y. (2021). Assistance provided in daily tasks and difficulty experienced by caregivers for people living with dementia. *Australian occupational therapy journal*(Online Version of Record before inclusion in an issue). Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=33533025&site=eds-live&scope=site. doi:10.1111/1440-1630.12720

American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders: DSM-5* (Fifth edition. ed.). Washington, D.C: American Psychiatric Publishing.

Aminoff, B. Z., & Adunsky, A. (2005). Dying dementia patients: Too much suffering, too little palliation. *American Journal of Hospice and Palliative Medicine®, 22*(5), 344-348. Retrieved from https://journals.sagepub.com/doi/abs/10.1177/104990910502200507. doi:10.1177/104990910502200507

Aminzadeh, F., Byszewski, A., Molnar, F. J., & Eisner, M. (2007). Emotional impact of dementia diagnosis: Exploring persons with dementia and caregivers' perspectives. *AGING AND MENTAL HEALTH, 11*(3), 281-290. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=RN209835173&site=eds-live&scope=site.

Aminzadeh, F., & Dalziel, W. B. (2002). Older Adults in the Emergency Department: A Systematic Review of Patterns of Use, Adverse Outcomes, and Effectiveness of Interventions. *Annals of Emergency Medicine, 39*(3), 238-247. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=RN110183343&site=eds-live&scope=site.

Andrews, J. (2013). A guide to creating a dementia-friendly ward. *Nursing times*(8), 20-21. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=RN327846302&site=eds-live&scope=site.

Archibald, C. (2006). Meeting the nutritional needs of patients with dementia in hospital. *Nursing Standard (Royal College Of Nursing (Great Britain): 1987), 20*(45), 41-45. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=16881588&site=eds-live&scope=site.

Ashton, C., & Manthorpe, J. (2017). The views of domestic staff and porters when supporting patients with dementia in the acute hospital: An exploratory qualitative study. *Dementia (London, England), 18*(3), 1128–1145. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=28463027&site=eds-live&scope=site. doi:10.1177/1471301217707085

Àstrom, S., Nilsson, M., Norberg, A., & Winblad, B. (1990). Empathy, experience of burnout and attitudes towards demented patients among nursing staff in geriatric care. *J Adv Nurs, 15*(11), 1236-1244. Retrieved from https://doi.org/10.1111/j.1365-2648.1990.tb01738.x. doi:10.1111/j.1365-2648.1990.tb01738.x

Atwal, A., McIntyre, A., Craik, C., & Hunt, J. (2008). Older adults and carers' perceptions of pre-discharge occupational therapy home visits in acute care. *Age Ageing, 37*(1), 72-76. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=RN222355540&site=eds-live&scope=site.

Ayton, D., O'Brien, P., Treml, J., Soh, S. E., Morello, R., & Barker, A. (2017). Nurses' perceptions of preventing falls for patients with dementia in the acute hospital setting. *Australasian journal on ageing, 36*(4), E70-E72. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=ccm&AN=126564879&site=eds-live&scope=site. doi:10.1111/ajag.12474

Azermai, M., Petrovic, M., Elseviers, M. M., Bourgeois, J., Van Bortel, L. M., & Vander Stichele, R. H. (2012). Systematic appraisal of dementia guidelines for the management of behavioural and psychological symptoms. *Ageing Research Reviews, 11*(1), 78-86. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=edselp&AN=S1568163711000559&site=eds-live&scope=site. doi:10.1016/j.arr.2011.07.002

Babine, R. L., Hyrkäs, K. E., Bachand, D. A., Chapman, J. L., Fuller, V. J., Honess, C. A., & Wierman, H. R. (2016). Falls in A Tertiary Care Hospital—Association With Delirium: A Replication Study. *Psychosomatics, 57*(3), 273-282. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edselp&AN=S0033318216000049&site=eds-live&scope=site. doi:10.1016/j.psym.2016.01.003

Babine, R. L., Hyrkäs, K. E., Hallen, S., Wierman, H. R., Bachand, D. A., Chapman, J. L., & Fuller, V. J. (2018). Falls and delirium in an acute care setting: A retrospective chart review before and after an organisation-wide interprofessional education. *J Clin Nurs, 27*(7-8), e1429-e1441. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=psyh&AN=2018-18860-023&site=eds-live&scope=site

doi:10.1111/jocn.14259

Bahrmann, A., Benner, L., Christ, M., Bertsch, T., Sieber, C. C., Katus, H., & Bahrmann, P. (2019). The Charlson Comorbidity and Barthel Index predict length of hospital stay, mortality, cardiovascular mortality and rehospitalization in unselected older patients admitted to the emergency department. *Aging Clinical & Experimental Research, 31*, 1233-1242. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edo&AN=137907568&site=eds-live&scope=site.

Baillie, L., Cox, J., & Merritt, J. (2012a). Caring for older people with dementia in hospital. Part one: challenges. *Nursing Older People, 24*(8), 33-37. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=23189504&site=eds-live&scope=site.

Baillie, L., Cox, J., & Merritt, J. (2012b). Caring for older people with dementia in hospital. Part two: strategies. *Nursing Older People, 24*(9), 22-28. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=RN321281744&site=eds-live&scope=site.

Baillie, L., Gallini, A., Corser, R., Elworthy, G., Scotcher, A., & Barrand, A. (2014). Care transitions for frail, older people from acute hospital wards within an integrated healthcare system in England: a qualitative case study. *International Journal of Integrated Care, 14*(1), e009. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=24868193&site=eds-live&scope=site.

Bamford, C., Wheatley, A., Shaw, C., & Allan, L. M. (2019). Equipping staff with the skills to maximise recovery of people with dementia after an injurious fall. *Aging & Mental Health, 23*(11), 1524-1532. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=vdc.100088436074.0x000001&site=eds-live&scope=site.

Bångsbo, A., Dunér, A., & Lidén, E. (2014). Patient participation in discharge planning conference. *International Journal of Integrated Care, 14*(4), 1-11. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=25411572&site=eds-live&scope=site.

Banks, P., Waugh, A., Henderson, J., Sharp, B., Brown, M., Oliver, J., & Marland, G. (2014). Enriching the care of patients with dementia in acute settings? The Dementia Champions Programme in Scotland. *Dementia (London, England), 13*(6), 717-736. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=24339079&site=eds-live&scope=site. doi:10.1177/1471301213485084

Banovic, S., Zunic, L. J., & Sinanovic, O. (2018). Communication Difficulties as a Result of Dementia. *Materia socio-medica, 30*(3), 221-224. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=30515063&site=eds-live&scope=site. doi:10.5455/msm.2018.30.221-224

Barba, R., Marco, J., Canora, J., Plaza, S., Juncos, S. N., Hinojosa, J., . . . Zapatero, A. (2015). Prolonged length of stay in hospitalized internal medicine patients. *European Journal of Internal Medicine, 26*(10), 772-775. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edselp&AN=S0953620515003404&site=eds-live&scope=site. doi:10.1016/j.ejim.2015.10.011

Barker, H. R., Griffiths, P., Mesa-Eguiagaray, I., Pickering, R., Gould, L., & Bridges, J. (2016). Quantity and quality of interaction between staff and older patients in UK hospital wards: A descriptive study. *International Journal of Nursing Studies, 62*, 100-107. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=edselp&AN=S002074891630102X&site=eds-live&scope=site. doi:10.1016/j.ijnurstu.2016.07.018

Bartlett, A., & Clarke, B. (2012). An exploration of healthcare professionals' beliefs about caring for older people dying from cancer with a coincidental dementia. *Dementia, 11*(4), 559-565. Retrieved from https://journals.sagepub.com/doi/abs/10.1177/1471301212437824. doi:10.1177/1471301212437824

Bartlett, R., & O'Connor, D. (2007). From personhood to citizenship: Broadening the lens for dementia practice and research. *Journal of Aging Studies, 21*(2), 107-118. Retrieved from http://www.sciencedirect.com/science/article/pii/S0890406506000922. doi:https://doi.org/10.1016/j.jaging.2006.09.002

Bateni, H., & Maki, B. E. (2005). Assistive devices for balance and mobility: Benefits, demands, and adverse consequences. *Archives of Physical Medicine and Rehabilitation, 86*(1), 134-145. Retrieved from

https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=RN160996066&site=eds-live&scope=site.

Bauer, J. D., Isenring, E., Torma, J., Horsley, P., & Martineau, J. (2007). Nutritional status of patients who have fallen in an acute care setting. *JOURNAL OF HUMAN NUTRITION AND DIETETICS, 20*(6), 558-564. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=RN218911709&site=eds-live&scope=site.

Bauer, M., Fitzgerald, L., & Koch, S. (2011). Hospital discharge as experienced by family carers of people with dementia: a case for quality improvement. *Journal For Healthcare Quality: Official Publication Of The National Association For Healthcare Quality, 33*(6), 9-16. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=22103700&site=eds-live&scope=site. doi:10.1111/j.1945-1474.2011.00122.x

Bauer, M., Fitzgerald, L., Koch, S., & King, S. (2011). How family carers view hospital discharge planning for the older person with a dementia. *Dementia, 10*(3), 317-323. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=RN295748540&site=eds-live&scope=site.

Baumann, M., Evans, S., Perkins, M., Curtis, L., Netten, A., Fernandez, J. L., & Huxley, P. (2007). Organisation and features of hospital, intermediate care and social services in English sites with low rates of delayed discharge. *Health and Socical Care in the Community, 15*(4), 295-305. Retrieved from https://doi.org/10.1111/j.1365-2524.2007.00697.x. doi:10.1111/j.1365-2524.2007.00697.x

Baumeister, R. F., & Leary, M. R. (1997). Writing narrative literature reviews. *Review of general psychology, 1*(3), 311-320.

Baumgarten, M., Margolis, D. J., Localio, A. R., Kagan, S. H., Lowe, R. A., Kinosian, B., . . . Ruffin, A. (2006). Pressure ulcers among elderly patients early in the hospital stay. *Journals of Gerontology Series A: Biological Sciences & Medical Sciences, 61*(7), 749-754. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=ccm&AN=106004279&site=eds-live&scope=site.

Bayer, A. (2006). Death with dementia—the need for better care. *Age Ageing, 35*(2), 101-102. Retrieved from https://doi.org/10.1093/ageing/afj033. doi:10.1093/ageing/afj033

Beard, R. L. (2004). In their voices: Identity preservation and experiences of Alzheimer's disease. *Journal of Aging Studies, 18*(4), 415-428. Retrieved from http://www.sciencedirect.com/science/article/pii/S0890406504000441. doi:https://doi.org/10.1016/j.jaging.2004.06.005

Beard, R. L., & Fox, P. J. (2008). Resisting social disenfranchisement: Negotiating collective identities and everyday life with memory loss. *Social Science & Medicine, 66*(7), 1509-1520. Retrieved from http://www.sciencedirect.com/science/article/pii/S0277953607006831. doi:https://doi.org/10.1016/j.socscimed.2007.12.024

Beard, R. L., Knauss, J., & Moyer, D. (2009). Managing disability and enjoying life: How we reframe dementia through personal narratives. *Journal of Aging Studies, 23*(4), 227-235. Retrieved from http://www.sciencedirect.com/science/article/pii/S0890406508001412. doi:https://doi.org/10.1016/j.jaging.2008.01.002

Behuniak, S. M. (2011). The living dead? The construction of people with Alzheimer's disease as zombies. *Ageing and Society, 31*(1), 70-92. Retrieved from

https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=RN283511118&site=eds-live&scope=site.

Benner, M., Steiner, V., & Pierce, L. L. (2018). Family caregivers' reports of hospitalizations and emergency department visits in community-dwelling individuals with dementia. *Dementia: The International Journal of Social Research and Practice, 17*(5), 585-595. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=psyh&AN=2018-34101-003&site=eds-live&scope=site. doi:10.1177/1471301216653537

Berg, A., Hallberg, I. R., & Norberg, A. (1998). Nurses' reflections about dementia care, the patients, the care and themselves in their daily caregiving. *International Journal of Nursing Studies, 35*(5), 271-282. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=RN052389033&site=eds-live&scope=site.

Berg, A., & Hansson, U. W. (2000). Dementia care nurses' experiences of systematic clinical group supervision and supervised planned nursing care. *Journal of Nursing Management, 8*(6), 357-368. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=ccm&AN=107016854&site=eds-live&scope=site. doi:10.1046/j.1365-2834.2000.00191.x

Berg, A., Hansson, U. W., & Hallberg, I. R. (1994). Nurses' creativity, tedium and burnout during 1 year of clinical supervision and implementation of individually planned nursing care: comparisons between a ward for severely demented patients and a similar control ward. *J Adv Nurs, 20*(4), 742-749. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=asn&AN=8550086&site=eds-live&scope=site. doi:10.1046/j.1365-2648.1994.20040742.x

Bharath, S., Sadanand, S., Kumar, K. J., Balachandar, R., Joshi, H., & Varghese, M. (2017). Clinical and neuropsychological profile of persons with mild cognitive impairment, a hospital based study from a lower and middle income country. *Asian Journal of Psychiatry, 30*, 185-189. Retrieved from http://www.sciencedirect.com/science/article/pii/S1876201817303866. doi:https://doi.org/10.1016/j.ajp.2017.10.007

Birch, D., & Stokoe, D. (2010). Caring for people with end-stage dementia: The role of palliative care in the management of patients with dementia. *Nursing Older People, 22*(2), 31-36. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=RN266837032&site=eds-live&scope=site.

Blain, H., Dabas, F., Mekhinini, S., Picot, M.-C., Miot, S., Bousquet, J., . . . Bernard, P. L. (2019). Effectiveness of a programme delivered in a falls clinic in preventing serious injuries in high-risk older adults: A pre- and post-intervention study. *Maturitas, 122*, 80-86. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edselp&AN=S0378512218307862&site=eds-live&scope=site. doi:10.1016/j.maturitas.2019.01.012

Blattman, C., Jamison, J., Koroknay-Palicz, T., Rodrigues, K., & Sheridan, M. (2016). Measuring the measurement error: A method to qualitatively validate survey data. *Journal of Development Economics, 120*, 99-112. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edselp&AN=S0304387816000122&site=eds-live&scope=site. doi:10.1016/j.jdeveco.2016.01.005

Bloch, F., Blandin, M., Ranerison, R., Claessens, Y., Rigaud, A., & Kemoun, G. (2014). Anxiety after a fall in elderly subjects and subsequent risk of developing post traumatic stress disorder at two months. A pilot study. *Journal of Nutrition, Health & Aging, 18*(3), 303-306. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=ccm&AN=104043885&site=eds-live&scope=site. doi:10.1007/s12603-013-0415-y

Bloomer, M., Digby, R., Tan, H., Crawford, K., & Williams, A. (2014). The experience of family carers of people with dementia who are hospitalised. *Dementia, 15*(5), 1234-1245. Retrieved from https://doi.org/10.1177/1471301214558308. doi:10.1177/1471301214558308

Boaden, A. (2016). *Fix Dementia Care: Hospitals*. Retrieved from https://www.alzheimers.org.uk/sites/default/files/migrate/downloads/fix_dementia_care_-_hospitals.pdf

Bond, J. (1992). The medicalization of dementia. *Journal of Aging Studies, 6*(4), 397-403. Retrieved from http://www.sciencedirect.com/science/article/pii/0890406592900207. doi:https://doi.org/10.1016/0890-4065(92)90020-7

Booth, V., Logan, P., Harwood, R., & Hood, V. (2015). Falls prevention interventions in older adults with cognitive impairment: A systematic review of reviews. *International Journal of Therapy & Rehabilitation, 22*(6), 289-296. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=a9h&AN=103067819&site=eds-live&scope=site.

Borbasi, S., Jones, J., Lockwood, C., & Emden, C. (2006). Health Professionals' Perspectives of Providing Care to People with Dementia in the Acute Setting: Toward Better Practice. *Geriatric Nursing, 27*(5), 300. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edo&AN=22847117&site=eds-live&scope=site.

Borgert, M., Binnekade, J., Paulus, F., Goossens, A., & Dongelmans, D. (2017). A flowchart for building evidence-based care bundles in intensive care: based on a systematic review. *International Journal for Quality in Health Care, 29*(2), 163-175. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=RN384167664&site=eds-live&scope=site.

Bowling, A., Rowe, G., Adams, S., Sands, P., Samsi, K., Crane, M., . . . Manthorpe, J. (2015). Quality of life in dementia: a systematically conducted narrative review of dementia-specific measurement scales. *Aging & Mental Health, 19*(1), 13-31. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=a9h&AN=99462808&site=eds-live&scope=site. doi:10.1080/13607863.2014.915923

Brand, C. A., & Sundararajan, V. (2010). A 10-year cohort study of the burden and risk of in-hospital falls and fractures using routinely collected hospital data. *Quality and Safety in Health Care, 19*(6), e51. Retrieved from http://qualitysafety.bmj.com/content/19/6/e51.abstract. doi:10.1136/qshc.2009.038273

Brandt, H. E., Deliens, L., Steen, J. T. v. d., Ooms, M. E., Ribbe, M. W., & Wal, G. v. (2005). The last days of life of nursing home patients with and without dementia assessed with the Palliative care Outcome Scale. *Palliative Medicine, 19*(4), 334-342. Retrieved from https://doi.org/10.1191/0269216305pm1018oa. doi:10.1191/0269216305pm1018oa

Brannelly, T. (2011). Sustaining citizenship: People with dementia and the phenomenon of social death. *Nursing Ethics, 18*(5), 662-671. Retrieved from https://doi.org/10.1177/0969733011408049. doi:10.1177/0969733011408049

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative research in psychology, 3*(2), 77-101.

Bray, J., Evans, S., Bruce, M., Carter, C., Brooker, D., Milosevic, S., . . . Robinson, J. (2015). Improving the hospital environment for people with dementia. *Nursing Older People, 27*(9), 16-20. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=26511422&site=eds-live&scope=site. doi:10.7748/nop.27.9.16.s17

Bridges, J., Nicholson, C., Maben, J., Pope, C., Flatley, M., Wilkinson, C., . . . Tziggili, M. (2013). Capacity for care: meta-ethnography of acute care nurses' experiences of the nurse-patient relationship. *J Adv Nurs, 69*(4), 760-772. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=ccm&AN=104249234&site=eds-live&scope=site. doi:10.1111/jan.12050

Briggs, R., Dyer, A., Nabeel, S., Collins, R., Doherty, J., Coughlan, T., . . . Kennelly, S. P. (2017). Dementia in the acute hospital: the prevalence and clinical outcomes of acutely unwell patients with dementia. *QJM: An International Journal of Medicine, 110*(1), 33-37. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=RN385512593&site=eds-live&scope=site.

Brindle, N., & Holmes, J. (2004). Capacity and coercion: dilemmas in the discharge of older people with dementia from general hospital settings. *Age Ageing, 34*(1), 16-20. Retrieved from https://doi.org/10.1093/ageing/afh228. doi:10.1093/ageing/afh228

Brooke, J., & Herring, S. (2016). Development of an activities care crew to support patients. *Nursing Older People, 28*(8), 20-25. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=ccm&AN=118492686&site=eds-live&scope=site. doi:10.7748/nop.2016.e835

Brooke, J., & Semlyen, J. (2019). Exploring the impact of dementia-friendly ward environments on the provision of care: A qualitative thematic analysis. *Dementia: The International Journal of Social Research and Practice, 18*(2), 685-700. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=psyh&AN=2019-09124-017&site=eds-live&scope=site

doi:10.1177/1471301216689402

Brooker, D. (2003). What is person-centred care in dementia? *Reviews in clinical gerontology, 13*(3), 215-222.

Brorson, H., Plymoth, H., Örmon, K., & Bolmsjö, I. (2014). Pain Relief at the End of Life: Nurses' Experiences Regarding End-of-Life Pain Relief in Patients with Dementia. *Pain Management Nursing, 15*(1), 315-323. Retrieved from http://www.sciencedirect.com/science/article/pii/S1524904212001737. doi:https://doi.org/10.1016/j.pmn.2012.10.005

Bryan, K. (2010). Policies for reducing delayed discharge from hospital. *BRITISH MEDICAL BULLETIN, 95*(1), 33-46. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=RN280686357&site=eds-live&scope=site.

Bryman, A. (1988). *Quantity and quality in social research. [electronic resource]*: London ; Boston : Unwin Hyman, 1988.

Bryon, E., de CasterlÉ, B. D., & Gastmans, C. (2012). 'BECAUSE WE SEE THEM NAKED' - NURSES' EXPERIENCES IN CARING FOR HOSPITALIZED PATIENTS WITH DEMENTIA: CONSIDERING ARTIFICIAL NUTRITION OR HYDRATION (ANH). *Bioethics, 26*(6), 285-295. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=ccm&AN=104462059&site=eds-live&scope=site. doi:10.1111/j.1467-8519.2010.01875.x

Bryon, E., Gastmans, C., & de Casterlé, B. D. (2010). Involvement of hospital nurses in care decisions related to administration of artificial nutrition or hydration (ANH) in patients with dementia: A qualitative study. *International Journal of Nursing*

Studies, 47(9), 1105-1116. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=psyh&AN=2010-16828-008&site=eds-live&scope=site

doi:10.1016/j.ijnurstu.2010.01.011

Bryon, E., Gastmans, C., & de Casterlé, B. D. (2012). Nurse-physician communication concerning artificial nutrition or hydration (ANH) in patients with dementia: a qualitative study. *J Clin Nurs, 21*(19-20), 2975-2984. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=22642618&site=eds-live&scope=site. doi:10.1111/j.1365-2702.2011.04029.x

Bull, M. J., Hansen, H. E., & Gross, C. R. (2000). Differences in Family Caregiver Outcomes by Their Level of Involvement in Discharge Planning. *Applied Nursing Research, 13*(2), 76-82. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=RN078208077&site=eds-live&scope=site.

Bunn, D. K., Abdelhamid, A., Copley, M., Cowap, V., Dickinson, A., Howe, A., . . . Hooper, L. (2016). Effectiveness of interventions to indirectly support food and drink intake in people with dementia: Eating and Drinking Well IN dementiA (EDWINA) systematic review. *BMC Geriatr, 16*, 89. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=27142469&site=eds-live&scope=site. doi:10.1186/s12877-016-0256-8

Burgon, C., Darby, J., Pollock, K., van der Wardt, V., Peach, T., Beck, L., . . . Harwood, R. H. (2019). Perspectives of healthcare professionals in England on falls interventions for people with dementia: a qualitative interview study. *BMJ Open, 9*(2), 025702. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edb&AN=135146849&site=eds-live&scope=site.

Byers, D. C., & France, N. E. M. (2008). The lived experience of registered nurses providing care to patients with dementia in the acute care setting: a phenomenological study. *International Journal for Human Caring, 12*(4), 44-49. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=ccm&AN=105611530&site=eds-live&scope=site.

Caddell, L. S., & Clare, L. (2011). I'm still the same person: The impact of early-stage dementia on identity. *DEMENTIA -LONDON-, 10*(3), 379-398. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=RN295748586&site=eds-live&scope=site.

Callahan, C. M., Arling, G., Tu, W., Rosenman, M. B., Counsell, S. R., Stump, T. E., & Hendrie, H. C. (2012). Transitions in Care for Older Adults with and without Dementia. *J Am Geriatr Soc, 60*(5), 813-820. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=ccm&AN=104568223&site=ehost-live. doi:10.1111/j.1532-5415.2012.03905.x

Cameron, I. D., Dyer, S. M., Panagoda, C. E., Murray, G. R., Hill, K. D., Cumming, R. G., & Kerse, N. (2018). Interventions for preventing falls in older people in care facilities and hospitals. *The Cochrane database of systematic reviews, 9*, CD005465. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=30191554&site=eds-live&scope=site. doi:10.1002/14651858.CD005465.pub4

Care Quality Comission. (2018). The Royal Bournemouth and Christchurch Hospitals NHS Foundation Trust Inspection Report. Retrieved from https://api.cqc.org.uk/public/v1/reports/469b6fc3-9160-4514-b693-5bef02ac2823?20180618082006

Care Quality Commission. (2016). *The Royal Bournemouth and Christchurch Hospitals NHS Foundation Trust Quality Report*. Retrieved from http://www.cqc.org.uk/sites/default/files/new_reports/AAAE3564.pdf

Carroll, D. L., Dykes, P. C., & Hurley, A. C. (2010). Patients' perspectives of falling while in an acute care hospital and suggestions for prevention. *Applied Nursing Research, 23*(4), 238-241. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edselp&AN=S0897189708001134&site=eds-live&scope=site. doi:10.1016/j.apnr.2008.10.003

Carter, E. M., & Potts, H. W. (2014). Predicting length of stay from an electronic patient record system: a primary total knee replacement example. *BMC medical informatics and decision making, 14*(1), 26.

Carvajal, A., Haraldsdottir, E., Kroll, T., McCormack, B., Errasti-Ibarrondo, B., & Larkin, P. (2019). Barriers and facilitators perceived by registered nurses to providing person-centred care at the end of life. A scoping review. *International Practice Development Journal, 9*(2), 1-22. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=ccm&AN=140331434&site=eds-live&scope=site. doi:10.19043/ipdj.92.008

Catchpole, K., Sellers, R., Goldman, A., McCulloch, P., & Hignett, S. (2010). Patient handovers within the hospital: translating knowledge from motor racing to healthcare. *Quality & safety in health care, 19*(4), 318-322. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=20558474&site=eds-live&scope=site. doi:10.1136/qshc.2009.026542

Chaâbane, F. (2007). Falls prevention for older people with dementia. *Nursing Standard (Royal College Of Nursing (Great Britain): 1987), 22*(6), 50-55. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=17993185&site=eds-live&scope=site.

Chadwick, A., & Hearn, A. (2013). A cry for help: time to re-think the patient call bell in an ageing population. *British Journal Of Hospital Medicine (London, England: 2005), 74*(11), 642-643. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=24220528&site=eds-live&scope=site.

Challis, D., Hughes, J., Xie, C., & Jolley, D. (2014). An examination of factors influencing delayed discharge of older people from hospital. *INTERNATIONAL JOURNAL OF GERIATRIC PSYCHIATRY*

29(2), 160-168. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=RN345632199&site=eds-live&scope=site.

Chambaere, K., Loodts, I., Deliens, L., & Cohen, J. (2014). Forgoing artificial nutrition or hydration at the end of life: a large cross-sectional survey in Belgium. *Journal of Medical Ethics, 40*(7), 501-504. Retrieved from http://jme.bmj.com/content/40/7/501.abstract. doi:10.1136/medethics-2013-101527

Champion, E. (2017). What support do nurses need to provide palliative care for people with dementia? *Nursing Older People, 29*(7), 34-39. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=asn&AN=125590563&site=eds-live&scope=site. doi:10.7748/nop.2017.e934

Chater, K., & Hughes, N. (2013). Strategies to deliver dementia training and education in the acute hospital setting. *Journal of Research in Nursing, 18*(6), 578-593. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=RN350534385&site=eds-live&scope=site.

Chatfield, D. A., Lee, S., Cowley, J., Kitzinger, C., Kitzinger, J., & Menon, D. K. (2018). Is there a broader role for independent mental capacity advocates in critical care? An exploratory study. *NURSING IN CRITICAL CARE, 23*(2), 82-87. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=28247553&site=eds-live&scope=site. doi:10.1111/nicc.12290

Chatindiara, I., Allen, J., Popman, A., Patel, D., Richter, M., Kruger, M., & Wham, C. (2018). Dysphagia risk, low muscle strength and poor cognition predict malnutrition risk in older adults at hospital admission. *BMC Geriatr, 18*(1), 78. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=EPTOC129100698&site=eds-live&scope=site. doi:10.1186/s12877-018-0771-x

Chatzigianni, D., Tsounis, A., Markopoulos, N., & Sarafis, P. (2018). Occupational stress experienced by nurses working in a Greek Regional Hospital: A cross-sectional study. *Iranian journal of nursing and midwifery research*

23(6), 450-457. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=vdc.100091062745.0x000001&site=eds-live&scope=site.

Chen, X., Van Nguyen, H., Shen, Q., & Chan, D. K. Y. (2011). Characteristics associated with recurrent falls among the elderly within aged-care wards in a tertiary hospital: The effect of cognitive impairment. *Archives of gerontology and geriatrics, 53*(2), e183-e186. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edselp&AN=S0167494310002220&site=eds-live&scope=site. doi:10.1016/j.archger.2010.08.012

Chenoweth, L., Stein-Parbury, J., Wang, A., Williams, A., Lapkin, S., & Liu, Z. (2019). Effects of person-centered care at the organisational-level for people with dementia. A systematic review.

PLoS ONE, 14(2), e0212686. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=conedsqd6&AN=edsair.dedup.wf.001..01a43a231a1c6e454f39adc382149576&site=eds-live&scope=site. doi:10.1371/journal.pone.0212686

Cherryholmes, C. H. (1992). Notes on Pragmatism and Scientific Realism. *Educational Researcher, 21*(6), 13-17. Retrieved from https://doi.org/10.3102/0013189X021006013. doi:10.3102/0013189X021006013

Chung, M. C., McKee, K. J., Austin, C., Barkby, H., Brown, H., Cash, S., . . . Pais, T. (2009). Posttraumatic stress disorder in older people after a fall. *International Journal of Geriatric Psychiatry, 24*(9), 955-964. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=RN261364220&site=eds-live&scope=site.

Cintra, M. T. G., de Rezende, N. A., de Moraes, E. N., Cunha, L. C. M., & da Gama Torres, H. O. (2014). A comparison of survival, pneumonia, and hospitalization in patients with advanced dementia and dysphagia receiving either oral or enteral nutrition. *The journal of nutrition, health & aging, 18*(10), 894-899. Retrieved from https://doi.org/10.1007/s12603-014-0487-3. doi:10.1007/s12603-014-0487-3

Clague, F., Mercer, S. W., McLean, G., Reynish, E., & Guthrie, B. (2017). Comorbidity and polypharmacy in people with dementia: insights from a large, population-based cross-sectional analysis of primary care data. *Age Ageing, 46*(1), 33-39. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=28181629&site=eds-live&scope=site. doi:10.1093/ageing/afw176

Clare, L. (2002). We'll fight it as long as we can: Coping with the onset of Alzheimer's disease. *Aging & Mental Health, 6*(2), 139-148. Retrieved from https://doi.org/10.1080/13607860220126826. doi:10.1080/13607860220126826

Clare, L. (2003). Managing threats to self: awareness in early stage Alzheimer's disease. *Social Science & Medicine, 57*(6), 1017-1029. Retrieved from http://www.sciencedirect.com/science/article/pii/S0277953602004768. doi:https://doi.org/10.1016/S0277-9536(02)00476-8

Clarkson, J., Dean, J., Ward, J., Komashie, A., & Bashford, T. (2018). A systems approach to healthcare: from thinking to -practice. *Future healthcare journal, 5*(3), 151-155. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=31098557&site=eds-live&scope=site. doi:10.7861/futurehosp.5-3-151

Clissett, P., Porock, D., Harwood, R. H., & Gladman, J. R. F. (2013). The challenges of achieving person-centred care in acute hospitals: A qualitative study of people with dementia and their families. *International Journal of Nursing Studies, 50*(11), 1495-1503. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=edselp&AN=S0020748913000692&site=eds-live&scope=site. doi:10.1016/j.ijnurstu.2013.03.001

Clissett, P., Porock, D., Harwood, R. H., & Gladman, J. R. F. (2014). The responses of healthcare professionals to the admission of people with cognitive impairment to acute hospital settings: an observational and interview study. *J Clin Nurs, 23*(13/14), 1820-1829. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=ccm&AN=103962292&site=eds-live&scope=site. doi:10.1111/jocn.12342

Cole, M. G., Ciampi, A., Belzile, E., & Lihong, Z. (2009). Persistent delirium in older hospital patients: a systematic review of frequency and prognosis. *Age & Ageing, 38*(1), 19-26. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=a9h&AN=37157626&site=eds-live&scope=site. doi:10.1093/ageing/afn253

Collins, M. E. (2018). Occupational Therapists' Experience with Assistive Technology in Provision of Service to Clients with Alzheimer's Disease and Related Dementias. *Physical & Occupational Therapy in Geriatrics, 36*(2/3), 179-188. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=ccm&AN=134106318&site=eds-live&scope=site. doi:10.1080/02703181.2018.1458770

Connolly, M., Grimshaw, J., Dodd, M., Cawthorne, J., Hulme, T., Everitt, S., . . . Deaton, C. (2009). Systems and people under pressure: the discharge process in an acute hospital. *JOURNAL OF CLINICAL NURSING, 18*(4), 549-558. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=RN243763536&site=eds-live&scope=site.

Connolly, S., & O'Shea, E. (2015). The impact of dementia on length of stay in acute hospitals in Ireland. *Dementia, 14*(5), 650-658.

Cook, J., Palesy, D., Lapkin, S., & Chenoweth, L. (2020). An observational study of older patient specialling in acute hospital settings. *Int J Older People Nurs, 15*(4), e12323. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=ccm&AN=147016070&site=eds-live&scope=site. doi:10.1111/opn.12323

Corbin, J. M., & Strauss, A. L. (2008). *Basics of qualitative research. [electronic resource] : techniques and procedures for developing grounded theory* (3e [ed.] / Juliet Corbin, Anselm Strauss. ed.): SAGE.

Correia, S. d. M., Morillo, L. S., Jacob Filho, W., & Mansur, L. L. (2010). Swallowing in moderate and severe phases of Alzheimer's disease. *Arquivos de Neuro-Psiquiatria,* *68*, 855-861. Retrieved from http://www.scielo.br/scielo.php?script=sci_arttext&pid=S0004-282X2010000600005&nrm=iso.

Cotter, V. T. (2005). Restraint free care in older adults with dementia. *The Keio Journal of Medicine, 54*(2), 80-84. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsjst&AN=edsjst.DN.JALC.00252522244&site=eds-live&scope=site. doi:10.2302/kjm.54.80

Couper, M. P. (2000). Review: Web Surveys: A Review of Issues and Approaches. *PUBLIC OPINION QUARTERLY, 64*(4), 464-494. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=RN092450120&site=eds-live&scope=site.

Couper, M. P., Tourangeau, R., Conrad, F. G., & Singer, E. (2006). Evaluating the Effectiveness of Visual Analog Scales: A Web Experiment. *SOCIAL SCIENCE COMPUTER REVIEW, 24*(2), 227-245. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=RN187351715&site=eds-live&scope=site.

Cowdell, F. (2010a). The care of older people with dementia in acute hospitals. *Int J Older People Nurs, 5*(2), 83-92. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=RN270929230&site=eds-live&scope=site.

Cowdell, F. (2010b). Care of older people with dementia in an acute hospital setting. *Nursing Standard, 24*(23), 42-48. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=ccm&AN=105135489&site=eds-live&scope=site.

Cox, C. (1996). Discharge planning for dementia patients: factors influencing caregiver decisions and satisfaction. *Health & Social Work, 21*(2), 97-104. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=eue&AN=507492375&site=eds-live&scope=site.

Cox, C., & Vassallo, M. (2015). Fear of falling assessments in older people with dementia. *Reviews in clinical gerontology, 25*(2), 98-106. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=psyh&AN=2015-28742-004&site=eds-live&scope=site

Michael.Vassallo@rbch.nhs.uk. doi:10.1017/S0959259815000106

Coyle, M. A., Wilson, V., Lapkin, S., & Traynor, V. (2020). What are we asking for when requesting 'Specialling' for the confused hospitalised older person? A concept analysis. *Int J Older People Nurs, 15*(2), e12302. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=vdc.100108008855.0x000001&site=eds-live&scope=site.

Creswell, J. W. (2009). *Research design: qualitative, quantitative, and mixed method approaches* (3rd ed. ed.). Los Angeles, Calif

London: SAGE.

Critical Appraisal Skills Programme. (2017). CASP (Qualitative Research) Checklist. Retrieved from http://docs.wixstatic.com/ugd/dded87_25658615020e427da194a325e7773d42.pdf

Critical Appraisal Skills Programme. (2018). Qualitative Studies Checklist. Retrieved from https://casp-uk.net/wp-content/uploads/2018/03/CASP-Qualitative-Checklist-2018_fillable_form.pdf

Cronin, P., Ryan, F., & Coughlan, M. (2008). Undertaking a literature review: a step-by-step approach. *BRITISH JOURNAL OF NURSING, 17*(1), 38-43. Retrieved from

https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=RN221993418&site=eds-live&scope=site.

Crowe, M. (2005). Discourse analysis: towards an understanding of its place in nursing. *Journal of Advanced Nursing (Wiley-Blackwell), 51*(1), 55-63. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=RN169295954&site=eds-live&scope=site.

Cuijpers, Y., & van Lente, H. (2015). Early diagnostics and Alzheimer's disease: Beyond ‘cure’ and ‘care’. *Technological Forecasting & Social Change, 93*, 54-67. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edselp&AN=S0040162514000985&site=eds-live&scope=site. doi:10.1016/j.techfore.2014.03.006

Cumming, R. G., Sherrington, C., Lord, S. R., Simpson, J. M., Vogler, C., Cameron, I. D., & Naganathan, V. (2008). Cluster randomised trial of a targeted multifactorial intervention to prevent falls among older people in hospital. *British Medical Journal, 336*(7647), 758-760. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=RN226647168&site=eds-live&scope=site.

Cummings, E., Maher, R., Showell, C. M., Croft, T., Tolman, J., Vickers, J., . . . Turner, P. (2011). Hospital coding of Dementia: is it accurate? *Health Information Management Journal, 40*(3), 5-11.

Dagar, S., Sahin, S., Yilmaz, Y., & Durak, U. (2016). Emergency Department During Long Public Holidays. *Turkish journal of emergency medicine, 14*(4), 165-171. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=27331186&site=eds-live&scope=site. doi:10.5505/1304.7361.2014.20438

Dahlke, S., Meherali, S., Chambers, T., Freund-Heritage, R., Steil, K., & Wagg, A. (2017). The Care of Older Adults Experiencing Cognitive Challenges: How Interprofessional Teams Collaborate. *Canadian Journal on Aging, 36*(4), 485-500. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=RN614013174&site=eds-live&scope=site.

Dauphinot, V., Ravier, A., Novais, T., Delphin-Combe, F., Moutet, C., Xie, J., . . . Krolak-Salmon, P. (2016). Relationship Between Comorbidities in Patients With Cognitive Complaint and Caregiver Burden: A Cross-Sectional Study. *Journal of the American Medical Directors Association, 17*(3), 232-237. Retrieved from http://www.sciencedirect.com/science/article/pii/S1525861015006489. doi:https://doi.org/10.1016/j.jamda.2015.10.011

Davies, N., Manthorpe, J., Sampson, E. L., Lamahewa, K., Wilcock, J., Mathew, R., & Iliffe, S. (2018). Guiding practitioners through end of life care for people with dementia: The use of heuristics. *Plos One, 13*(11), e0206422. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=30427873&site=eds-live&scope=site. doi:10.1371/journal.pone.0206422

Davies, S., & Nolan, M. (2003). 'Making the best of things': Relatives' experiences of decisions about care-home entry. *Ageing & Society, 23*(4), 429-450. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=psyh&AN=2003-99808-002&site=eds-live&scope=site

doi:10.1017/S0144686X03001259

de Vries, K., Drury-Ruddlesden, J., & Gaul, C. (2019). 'And so I took up residence': The experiences of family members of people with dementia during admission to an acute hospital unit. *Dementia, 18*(1), 36-54. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=ccm&AN=134312695&site=eds-live&scope=site. doi:10.1177/1471301216656097 de Vries, O. J., Peeters, G. M. E. E., Lips, P., & Deeg, D. J. H. (2013). Does frailty predict increased risk of falls and fractures? A prospective population-based study. *Osteoporosis International: A Journal Established As Result Of Cooperation Between The European Foundation For Osteoporosis And The National Osteoporosis Foundation Of The USA, 24*(9), 2397-2403. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=23430104&site=eds-live&scope=site. doi:10.1007/s00198-013-2303-z

De Witt Jansen, B., Brazil, K., Passmore, P., Buchanan, H., Maxwell, D., McIlfactrick, S. J., . . . Parsons, C. (2017). Nurses' experiences of pain management for people with advanced dementia approaching the end of life: a qualitative study. *J Clin Nurs, 26*(9-10), 1234-1244. Retrieved from https://onlinelibrary.wiley.com/doi/abs/10.1111/jocn.13442. doi:10.1111/jocn.13442

Deng, L., & Chan, W. (2017). Testing the Difference between Reliability Coefficients Alpha and Omega. *Educational and psychological measurement, 77*(2), 185-203. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=EJ1134136&site=eds-live&scope=site

http://dx.doi.org/10.1177/0013164416658325.

Denscombe, M. (2010). *Ground rules for social research: guidelines for good practice* (2nd ed. ed.). Maidenhead: McGraw-Hill/Open University Press.

Dewey, J. (1903). *Studies in logical theory*. United States: University of Chicago Press.

Dhalwani, N. N., Fahami, R., Sathanapally, H., Seidu, S., Davies, M. J., & Khunti, K. (2017). Association between polypharmacy and falls in older adults: a longitudinal study from England. *BMJ Open, 7*(10), e016358. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=29042378&site=eds-live&scope=site. doi:10.1136/bmjopen-2017-016358

Diaz-Gil, A., Brooke, J., Kozlowska, O., Pendlebury, S., & Jackson, D. (2020). Care needs of people with dementia in the peri-operative environment: A systematic review. *Dementia, 19*(6), 1889-1906. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=ccm&AN=146318269&site=eds-live&scope=site. doi:10.1177/1471301218809225

Digby, R., & Bloomer, M. J. (2014). People with dementia and the hospital environment: the view of patients and family carers. *Int J Older People Nurs, 9*(1), 34-43. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=ccm&AN=104033449&site=eds-live&scope=site. doi:10.1111/opn.12014

Digby, R., Moss, C., & Bloomer, M. (2012). Transferring from an acute hospital and settling into a subacute facility: the experience of patients with dementia. *Int J Older People Nurs, 7*(1), 57-64. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=RN307570073&site=eds-live&scope=site.

Dionyssiotis, Y. (2012). Analyzing the problem of falls among older people. *International Journal of General Medicine, 5*, 805-813. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsdoj&AN=edsdoj.6d37f953779541a681df8021ddde1878&site=eds-live&scope=site.

Donaldson, N., Bolton, L. B., Aydin, C., Brown, D., Elashoff, J. D., & Sandhu, M. (2005). Impact of California's licensed nurse-patient ratios on unit-level nurse staffing and patient outcomes. *Policy, Politics & Nursing Practice, 6*(3), 198-210. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edb&AN=106527865&site=eds-live&scope=site.

Donoghue, J., Graham, J., Mitten-Lewis, S., Murphy, M., & Gibbs, J. (2005). A volunteer companion-observer intervention reduces falls on an acute aged care ward. *INTERNATIONAL JOURNAL OF HEALTH CARE QUALITY ASSURANCE, 18*(1), 24-31. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=RN165013807&site=eds-live&scope=site.

Douglas-Dunbar, M., & Gardiner, P. (2007). Support for carers of people with dementia during hospital admission. *Nursing Older People, 19*(8), 27-30. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=ccm&AN=106201863&site=eds-live&scope=site.

Dowding, D., Lichtner, V., Allcock, N., Briggs, M., James, K., Keady, J., . . . José Closs, S. (2016). Using sense-making theory to aid understanding of the recognition, assessment and management of pain in patients with dementia in acute hospital settings. *International Journal of Nursing Studies, 53*, 152-162. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=edselp&AN=S002074891500259X&site=eds-live&scope=site. doi:10.1016/j.ijnurstu.2015.08.009

Downs, S. H., & Black, N. (1998). The Feasibility of Creating a Checklist for the Assessment of the Methodological Quality Both of Randomised and Non-Randomised Studies of Health Care Interventions. *Journal of Epidemiology and Community Health (1979-), 52*(6), 377-384. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsjsr&AN=edsjsr.25568695&site=eds-live&scope=site.

Dozier, M. E., & Ayers, C. R. (2020). Object attachment as we grow older. *Current opinion in psychology, 39*, 105-108. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=32971323&site=eds-live&scope=site. doi:10.1016/j.copsyc.2020.08.012

Dunne, T. J., Gaboury, I., & Ashe, M. C. (2014). Falls in hospital increase length of stay regardless of degree of harm. *JOURNAL OF EVALUATION IN CLINICAL PRACTICE, 20*(4), 396-400. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=RN355930001&site=eds-live&scope=site.

Dunton, N., Gajewski, B., Taunton, R. L., & Moore, J. (2004). Nurse staffing and patient falls on acute care hospital units. *Nurs Outlook, 52*(1), 53-59. Retrieved from http://www.sciencedirect.com/science/article/pii/S0029655403002306. doi:https://doi.org/10.1016/j.outlook.2003.11.006

Dwyer, R., Gabbe, B., Stoelwinder, J. U., & Lowthian, J. (2014). A systematic review of outcomes following emergency transfer to hospital for residents of aged care facilities. *Age Ageing, 43*(6), 759-766. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=25315230&site=eds-live&scope=site. doi:10.1093/ageing/afu117

Dykes, P. C., Carroll, D. L., Hurley, A. C., Benoit, A., & Middleton, B. (2009). Why Do Patients in Acute Care Hospitals Fall? Can Falls Be Prevented? *JOURNAL OF NURSING ADMINISTRATION, 39*(6), 299-304. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=RN253565352&site=eds-live&scope=site.

Ebell, M. H., Siwek, J., Weiss, B. D., Woolf, S. H., Susman, J., Ewigman, B., & Bowman, M. (2004). Strength of recommendation taxonomy (SORT): a patient-centered approach to grading evidence in the medical literature. *The Journal of the American Board of Family Practice, 17*(1), 59-67.

Eckstrom, E., Neal, M. B., Cotrell, V., Casey, C. M., McKenzie, G., Morgove, M. W., . . . Lasater, K. (2016). An Interprofessional Approach to Reducing the Risk of Falls

Through Enhanced Collaborative Practice. *JOURNAL- AMERICAN GERIATRICS SOCIETY, 64*(8), 1701-1707. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=RN380181597&site=eds-live&scope=site.

Edvardsson, D., Sandman, P.-O., & Rasmussen, B. (2012). Forecasting the ward climate: a study from a dementia care unit. *J Clin Nurs, 21*(7-8), 1136-1114. Retrieved from https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1365-2702.2011.03720.x. doi:10.1111/j.1365-2702.2011.03720.x

Edwards, E. (1972). Man and machine- Systems for safety(Man machine systems for flight safety, studying accidents, human factors in system design and implementation of personnel). *Outlook on safety*, 21-36.

Edwards, H. B., Ijaz, S., Whiting, P. F., Leach, V., Richards, A., Cullum, S. J., . . . Savović, J. (2018). Quality of family relationships and outcomes of dementia: a systematic review. *BMJ Open, 8*(1), e015538. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=29358414&site=eds-live&scope=site. doi:10.1136/bmjopen-2016-015538

Ekman, S. L., & Norberg, A. (1988). The autonomy of demented patients: interviews with caregivers. *Journal of Medical Ethics, 14*(4), 184-187. Retrieved from http://jme.bmj.com/content/14/4/184.abstract. doi:10.1136/jme.14.4.184

El-Jardali, F., Adam, T., Ataya, N., Jamal, D., & Jaafar, M. (2014). Constraints to Applying Systems Thinking Concepts in Health Systems: A Regional Perspective from Surveying Stakeholders in Eastern Mediterranean Countries. *International Journal of Health Policy and Management, 3*(7), 399-407. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsdoj&AN=edsdoj.36ffa51fb92e4af7a27a12fd62eb671f&site=eds-live&scope=site. doi:10.15171/ijhpm.2014.124

Elliot, R., & Adams, J. (2011). The creation of a Dementia Nurse Specialist role in an acute general hospital. *Journal of psychiatric and mental health nursing, 18*(7), 648-652. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=RN296730049&site=eds-live&scope=site.

Elvish, R., Burrow, S., Cawley, R., Harney, K., Graham, P., Pilling, M., . . . Keady, J. (2014). 'Getting to Know Me': the development and evaluation of a training programme for enhancing skills in the care of people with dementia in general hospital settings. *Aging & Mental Health, 18*(4), 481-488. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=24328360&site=eds-live&scope=site. doi:10.1080/13607863.2013.856860

Emmett, C., Poole, M., Bond, J., & Hughes, J. C. (2013). Homeward bound or bound for a home? Assessing the capacity of dementia patients to make decisions about hospital discharge: Comparing practice with legal standards. *International Journal of Law and Psychiatry, 36*(1), 73-82. Retrieved from http://www.sciencedirect.com/science/article/pii/S0160252712000957. doi:https://doi.org/10.1016/j.ijlp.2012.11.009

Emmett, C., Poole, M., Bond, J., & Hughes, J. C. (2014). A Relative Safeguard? The Informal Roles that Families and Carers Play when Patients with Dementia are Discharged from Hospital into Care in England and Wales. *International Journal of Law, Policy & the Family, 28*(3), 302-320. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=sih&AN=99563931&site=ehost-live. doi:10.1093/lawfam/ebu012

Ensrud, K. E., Ewing, S. K., Taylor, B. C., Fink, H. A., Stone, K. L., Cauley, J. A., . . . Cawthon, P. M. (2007). Frailty and risk of falls, fracture, and mortality in older women: The study of osteoporotic fractures. *The Journals of Gerontology: Series A: Biological Sciences and Medical Sciences, 62*(7), 744-751. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=psyh&AN=2007-11926-009&site=eds-live&scope=site

doi:10.1093/gerona/62.7.744

Eriksson, C., & Saveman, B.-I. (2002). Nurses' experiences of abusive/non-abusive caring for demented patients in acute care settings. *Scandinavian journal of caring sciences, 16*(1), 79-85. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=11985753&site=eds-live&scope=site.

Eriksson, S., Strandberg, S., Gustafson, Y., & Lundin-Olsson, L. (2009). Circumstances surrounding falls in patients with dementia in a psychogeriatric ward. *Archives of gerontology and geriatrics, 49*(1), 80-87. Retrieved from http://www.sciencedirect.com/science/article/pii/S0167494308001118. doi:https://doi.org/10.1016/j.archger.2008.05.005

Erkinjuntti, T., Haltia, M., Palo, J., Sulkava, R., & Paetau, A. (1988). Accuracy of the clinical diagnosis of vascular dementia: a prospective clinical and post-mortem neuropathological study. *Journal of Neurology, Neurosurgery & Psychiatry, 51*(8), 1037-1044.

Erkinjuntti, T., Ketonen, L., Sulkava, R., Sipponen, J., Vuorialho, M., & Iivanainen, M. (1987). Do white matter changes on MRI and CT differentiate vascular dementia from Alzheimer's disease? *Journal of Neurology, Neurosurgery & Psychiatry, 50*(1), 37-42.

Eshkoor, S. A., Hamid, T. A., Nudin, S. S. H., & Mun, C. Y. (2013). The Effects of Sleep Quality, Physical Activity, and Environmental Quality on the Risk of Falls in Dementia. *AMERICAN JOURNAL OF ALZHEIMERS DISEASE AND OTHER DEMENTIAS, 28*(4), 403-407. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=RN335926557&site=eds-live&scope=site.

Evron, L., Schultz-Larsen, K., & Fristrup, T. (2009). Barriers to participation in a hospital-based falls assessment clinic programme: an interview study with older people. *SCANDINAVIAN JOURNAL OF PUBLIC HEALTH, 37*(7), 728-735. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=RN257593186&site=eds-live&scope=site.

Feast, A. R., White, N., Lord, K., Kupeli, N., Vickerstaff, V., & Sampson, E. L. (2018). Pain and delirium in people with dementia in the acute general hospital setting. *Age & Ageing, 47*(6), 841-846. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=ccm&AN=132600592&site=eds-live&scope=site. doi:10.1093/ageing/afy112

Featherstone, K., Northcott, A., & Bridges, J. (2019). Routines of resistance: An ethnography of the care of people living with dementia in acute hospital wards and its consequences. *International Journal of Nursing Studies, 96*, 53-60. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edselp&AN=S0020748918302682&site=eds-live&scope=site. doi:10.1016/j.ijnurstu.2018.12.009

Fernando, T. J., Nguyen, D. D., & Baraff, L. J. (2012). Effect of Electronically Delivered Prescriptions on Compliance and Pharmacy Wait Time Among Emergency Department Patients. *ACADEMIC EMERGENCY MEDICINE, 19*(1), 102-105. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=RN305500213&site=eds-live&scope=site.

Ferry, O. R., Duffy, D. L., & Ferreira, M. A. R. (2014). Early life environmental predictors of asthma age-of-onset. *Immunity, Inflammation & Disease, 2*(3), 141-151. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=asn&AN=99638842&site=eds-live&scope=site. doi:10.1002/iid3.27

Fessey, V. (2007). Patients who present with dementia: exploring the knowledge of hospital nurses. *Nursing Older People, 19*(10), 29-33. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=ccm&AN=105947080&site=eds-live&scope=site.

Fetters, M. D., Curry, L. A., & Creswell, J. W. (2013). Achieving Integration in Mixed Methods Designs-Principles and Practices. *HEALTH SERVICES RESEARCH -CHICAGO-, 48*(6), 2134-2156. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=RN343366149&site=eds-live&scope=site.

Field, A. (2005). *Discovering statistics using SPSS*: Sage publications.

FitzGerald, J. M., O'Regan, N., Adamis, D., Timmons, S., Dunne, C. P., Trzepacz, P. T., & Meagher, D. J. (2017). Sleep-wake cycle disturbances in elderly acute general medical inpatients: Longitudinal relationship to delirium and dementia. *Alzheimer's & Dementia: Diagnosis, Assessment & Disease Monitoring, 7*(1), 61-68. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edselp&AN=S2352872916300781&site=eds-live&scope=site. doi:10.1016/j.dadm.2016.12.013

Fitzpatrick, L. (2018). Practical strategies to help develop dementia-friendly hospital wards. *Nursing Older People, 30*(2), 30-34. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=29480657&site=eds-live&scope=site. doi:10.7748/nop.2018.e982

Fleiner, T., Dauth, H., Gersie, M., Zijlstra, W., & Haussermann, P. (2017). Structured physical exercise improves neuropsychiatric symptoms in acute dementia care: a hospital-based RCT. *Alzheimer's Research & Therapy, 9*(1), 1-9. Retrieved from https://doi.org/10.1186/s13195-017-0289-z. doi:10.1186/s13195-017-0289-z

Fleiner, T., Gersie, M., Ghosh, S., Mellone, S., Zijlstra, W., & Haussermann, P. (2019). Prominent physical inactivity in acute dementia care: Psychopathology seems to be more important than the dose of sedative medication. *International Journal of Geriatric Psychiatry, 34*(2), 308-314. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=vdc.100099835007.0x000001&site=eds-live&scope=site.

Fogg, C., Meredith, P., Bridges, J., Gould, G. P., & Griffiths, P. (2017). The relationship between cognitive impairment, mortality and discharge characteristics in a large cohort of older adults with unscheduled admissions to an acute hospital: a retrospective observational study. *Age Ageing, 46*(5), 794-801.

Fox, N. C., Freeborough, P. A., & Rossor, M. N. (1996). Visualisation and quantification of rates of atrophy in Alzheimer's disease. *The Lancet, 348*(9020), 94-97.

Frohnhofen, H., Heuer, H. C., Willschrei, H. P., & Falkenhahn, C. (2011). Dementia among older in-hospital patients with obstructive airway disease. *Zeitschrift für Gerontologie und Geriatrie, 44*(4), 240-244. Retrieved from https://doi.org/10.1007/s00391-011-0223-0. doi:10.1007/s00391-011-0223-0

Fry, M., Arendts, G., & Chenoweth, L. (2017). Emergency nurses' evaluation of observational pain assessment tools for older people with cognitive impairment. *J Clin Nurs, 26*(9-10), 1281-1290. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=27680895&site=eds-live&scope=site. doi:10.1111/jocn.13591

Fry, M., Chenoweth, L., & Arendts, G. (2016). Assessment and management of acute pain in the older person with cognitive impairment: A qualitative study. *International Emergency Nursing, 24*, 54-60. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=edselp&AN=S1755599X15000579&site=eds-live&scope=site. doi:10.1016/j.ienj.2015.06.003

Fry, M., Chenoweth, L., MacGregor, C., & Arendts, G. (2015). Emergency nurses perceptions of the role of family/carers in caring for cognitively impaired older persons in pain: A descriptive qualitative study. *International Journal of Nursing Studies, 52*(8), 1323-1331. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=edselp&AN=S0020748915001339&site=eds-live&scope=site. doi:10.1016/j.ijnurstu.2015.04.013

Fukuda, R., Shimizu, Y., & Seto, N. (2015). Issues experienced while administering care to patients with dementia in acute care hospitals: A study based on focus group interviews. *INTERNATIONAL JOURNAL OF QUALITATIVE STUDIES ON HEALTH AND WELL-BEING, 10*(1), 1-13. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=edswss&AN=000350991400001&site=eds-live&scope=site.

Fuller, V. (2016). Delirium recall - an integrative review. *J Clin Nurs, 25*(11/12), 1515-1527. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=a9h&AN=115061916&site=eds-live&scope=site. doi:10.1111/jocn.13155

Gage, H., Cheynel, J., Williams, P., Mitchell, K., Stinton, C., Katz, J., . . . Sheehan, B. (2015). Service utilisation and family support of people with dementia: a cohort study in England. *International Journal of Geriatric Psychiatry, 30*(2), 166-177. Retrieved from https://onlinelibrary.wiley.com/doi/abs/10.1002/gps.4118. doi:10.1002/gps.4118

Gallagher, D., Mhaolain, A. N., Crosby, L., Ryan, D., Lacey, L., Coen, R. F., . . . Cunningham, C. (2011). Determinants of the Desire to Institutionalize in Alzheimer's Caregivers. *AMERICAN JOURNAL OF ALZHEIMERS DISEASE AND OTHER DEMENTIAS, 26*(3), 205-211. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=RN291366312&site=eds-live&scope=site.

Galvin, J. E., Kuntemeier, B., Al-Hammadi, N., Germino, J., Murphy-White, M., & McGillick, J. (2010). 'Dementia-friendly Hospitals: Care not Crisis': An Educational Program Designed to Improve the Care of the Hospitalized Patient With Dementia. *ALZHEIMER DISEASE AND ASSOCIATED DISORDERS, 24*(4), 372-379. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=RN283086056&site=eds-live&scope=site.

Gandesha, A., Souza, R., Chaplin, R., & Hood, C. (2012). Adequacy of training in dementia care for acute hospital staff. *Nursing Older People, 24*(4), 26-31. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=ccm&AN=104449035&site=eds-live&scope=site.

Gaugler, J. E., Duval, S., Anderson, K. A., & Kane, R. L. (2007). Predicting nursing home admission in the U.S: a meta-analysis. *BMC Geriatr, 7*(1), 1-14. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=17578574&site=eds-live&scope=site.

Gell, N. M., Wallace, R. B., LaCroix, A. Z., Mroz, T. M., & Patel, K. V. (2015). Mobility Device Use in Older Adults and Incidence of Falls and Worry About Falling: Findings from the 2011-2012 National Health and Aging Trends Study. *JOURNAL- AMERICAN GERIATRICS SOCIETY, 63*(5), 853-859. Retrieved from

https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=RN373105569&site=eds-live&scope=site.

Georgiadis, A., & Corrigan, O. (2017). The Experience of Transitional Care for Non-Medically Complex Older Adults and Their Family Caregivers. *Global Qualitative Nursing Research, 4*, 2333393617696687. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=28462358&site=eds-live&scope=site. doi:10.1177/2333393617696687

Gerrard, N. (2015). John's Campaign to transform dementia care is gaining powerful support. *The Guardian*. Retrieved from http://www.theguardian.com/society/commentisfree/2015/jul/25/johns-campign-dementia-care

Ghazavi, Feshangchi, Alavi, & Keshvari. (2016). Effect of a Family-Oriented Communication Skills Training Program on Depression, Anxiety, and Stress in Older Adults: A Randomized Clinical Trial. *Nursing and Midwifery Studies, 5*(1), e28550. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsdoj&AN=edsdoj.10ac95401eb4ebb982689682c8cf9e0&site=eds-live&scope=site. doi:10.17795/nmsjournal28550

Gibb, W. R., Esiri, M. M., & Lees, A. J. (1985). CLINICAL AND PATHOLOGICAL FEATURES OF DIFFUSE CORTICAL LEWY BODY DISEASE (LEWY BODY DEMENTIA). *Brain, 110*(5), 1131-1153. Retrieved from http://dx.doi.org/10.1093/brain/110.5.1131. doi:10.1093/brain/110.5.1131

Gignon, M., Ammirati, C., Mercier, R., & Detave, M. (2014). Compliance with Emergency Department Discharge Instructions. *Journal of Emergency Nursing, 40*(1), 51-55. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edselp&AN=S0099176712005181&site=eds-live&scope=site. doi:10.1016/j.jen.2012.10.004

Giles, L. C., Bolch, D., Rouvray, R., McErlean, B., Whitehead, C. H., Phillips, P. A., & Crotty, M. (2006). Can volunteer companions prevent falls among inpatients? A feasibility study using a pre-post comparative design. *BMC Geriatr, 6*(11), 1-7. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=16895609&site=eds-live&scope=site.

Glenner, G. G., & Wong, C. W. (1984). Reprint of "Alzheimer's disease: Initial report of the purification and characterization of a novel cerebrovascular amyloid protein". *Biochemical and biophysical research communications, 120*(3), 885-890. Retrieved from http://www.sciencedirect.com/science/article/pii/S0006291X12015173. doi:http://dx.doi.org/10.1016/j.bbrc.2012.08.020

Godfrey, M., Cornwell, P., Eames, S., Hodson, T., Thomas, T., & Gillen, A. (2019). Pre-discharge home visits: A qualitative exploration of the experience of occupational therapists and multidisciplinary stakeholders. *Australian occupational therapy journal, 66*(3), 249-257. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=vdc.100084326134.0x000001&site=eds-live&scope=site.

Goldberg, S. E., Whittamore, K. H., Harwood, R. H., Bradshaw, L. E., Gladman, J. R. F., & Jones, R. G. (2012). The prevalence of mental health problems among older adults admitted as an emergency to a general hospital. *Age & Ageing, 41*(1), 80-86. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=ccm&AN=104612629&site=eds-live&scope=site.

Goldberg, S. E., Whittamore, K. H., Pollock, K., Harwood, R. H., & Gladman, J. R. F. (2014). Caring for cognitively impaired older patients in the general hospital: A qualitative analysis of similarities and differences between a specialist Medical and Mental Health Unit and standard care wards. *International Journal of Nursing Studies, 51*(10), 1332-1343 Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=ccm&AN=103889300&site=ehost-live. doi:10.1016/j.ijnurstu.2014.02.002

Gonçalves-Bradley, D. C., Lannin, N. A., Clemson, L. M., Cameron, I. D., & Shepperd, S. (2016). Discharge planning from hospital. *The Cochrane database of systematic reviews*(1), CD000313. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=26816297&site=eds-live&scope=site. doi:10.1002/14651858.CD000313.pub5

Gordon, A., Hu, H., Byrne, A., & Stott, D. J. (2009). Dementia screening in acute medical and geriatric hospital admissions. *The Psychiatrist, 33*(2), 52-54. Retrieved from http://pb.rcpsych.org/content/pbrcpsych/33/2/52.full.pdf. doi:10.1192/pb.bp.107.016550

Goulding, L., Adamson, J., Watt, I., & Wright, J. (2015). Lost in hospital: a qualitative interview study that explores the perceptions of NHS inpatients who spent time on clinically inappropriate hospital wards. *Health Expectations, 18*(5), 982-994. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=ccm&AN=109969093&site=eds-live&scope=site. doi:10.1111/hex.12071

Graafmans, W. C., Lips, P., Wijlhuizen, G. J., Pluijm, S. M., & Bouter, L. M. (2003). Daily physical activity and the use of a walking aid in relation to falls in elderly people in a residential care setting. *Zeitschrift für Gerontologie und Geriatrie, 36*(1), 23-28. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=RN127460632&site=eds-live&scope=site.

Gray, E. A., Santiago, L., Dimalanta, M. I., Maxton, J., & Aronow, H. U. (2016). Discharge by 11:00 a.m.: The Significance Of Discharge Planning. *MEDSURG Nursing, 25*(6), 381-384. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=RN609384254&site=eds-live&scope=site.

Grealish, L., Chaboyer, W., Darch, J., Real, B., Phelan, M., Soltau, D., . . . Cooke, M. (2019). Caring for the older person with cognitive impairment in hospital: Qualitative analysis of nursing personnel reflections on fall events. *J Clin Nurs, 28*(7-8), 1346-1353. Retrieved from https://onlinelibrary.wiley.com/doi/abs/10.1111/jocn.14724. doi:10.1111/jocn.14724

Green, E., Bernoth, M., & Nielsen, S. (2016). Do nurses in acute care settings administer PRN analgesics equally to patients with dementia compared to patients without dementia? *Collegian, 23*(2), 233-239. Retrieved from http://www.sciencedirect.com/science/article/pii/S1322769615000086. doi:https://doi.org/10.1016/j.colegn.2015.01.003

Greenhalgh, T., Russell, J., & Swinglehurst, D. (2005). Narrative methods in quality improvement research. *Quality & safety in health care, 14*(6), 443-449. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=16326792&site=eds-live&scope=site.

Griffiths, A., Knight, A., Harwood, R., & Gladman, J. R. F. (2014). Preparation to care for confused older patients in general hospitals: a study of UK health professionals. *Age Ageing, 43*(4), 521-527. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=24165310&site=ehost-live. doi:10.1093/ageing/aft171

Griffiths, P., Bridges, J., Sheldon, H., & Thompson, R. (2015). The role of the dementia specialist nurse in acute care: a scoping review. *JOURNAL OF CLINICAL NURSING*

24(9-10), 1394-1405. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=RN375651334&site=eds-live&scope=site.

Groarke, J. D., Gallagher, J., Stack, J., Aftab, A., Dwyer, C., McGovern, R., & Courtney, G. (2008). Use of an admission early warning score to predict patient morbidity and mortality and treatment success. *EMERGENCY MEDICINE JOURNAL, 25*(12), 803-806. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=RN240651763&site=eds-live&scope=site.

Gu, Y.-Y., Balcaen, K., Ni, Y., Ampe, J., & Goffin, J. (2016). Review on prevention of falls in hospital settings. *Chinese Nursing Research, 3*(1), 7-10. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edselp&AN=S2095771816300202&site=eds-live&scope=site. doi:10.1016/j.cnre.2015.11.002

Guerin, M., Grimmer, K., & Kumar, S. (2013). Community services' involvement in the discharge of older adults from hospital into the community. *International Journal of Integrated Care, 13*(3), e032. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=24179455&site=eds-live&scope=site.

Guest, G., Namey, E., & Chen, M. (2020). A simple method to assess and report thematic saturation in qualitative research. *Plos One, 15*(5), e0232076. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=32369511&site=eds-live&scope=site. doi:10.1371/journal.pone.0232076

Guise, V., & Wiig, S. (2017). Perceptions of telecare training needs in home healthcare services: a focus group study. *BMC Health Services Research, 17*(1), 164. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=28231852&site=eds-live&scope=site. doi:10.1186/s12913-017-2098-2

Habiger, T. F., Flo, E., Achterberg, W. P., & Husebo, B. S. (2016). The Interactive Relationship between Pain, Psychosis, and Agitation in People with Dementia: Results from a Cluster-Randomised Clinical Trial. *Behavioural Neurology, 2016*, 1-8. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=asn&AN=115217076&site=eds-live&scope=site. doi:10.1155/2016/7036415

Hagens, V., Dobrow, M. J., & Chafe, R. (2009). Interviewee Transcript Review: assessing the impact on qualitative research. *BMC medical research methodology, 9*(1), 47.

Hahn-Goldberg, S., Jeffs, L., Troup, A., Kubba, R., & Okrainec, K. (2018). "We are doing it together"; The integral role of caregivers in a patients' transition home from the medicine unit. *Plos One, 13*(5), e0197831. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=29795623&site=eds-live&scope=site. doi:10.1371/journal.pone.0197831

Haines, T. P., Bell, R. A. R., & Varghese, P. N. (2010). Pragmatic, cluster randomized trial of a policy to introduce low-low beds to hospital wards for the prevention of falls and fall injuries. *J Am Geriatr Soc, 58*(3), 435-441. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=20398112&site=eds-live&scope=site. doi:10.1111/j.1532-5415.2010.02735.x

Haines, T. P., Cornwell, P., Fleming, J., Varghese, P., & Gray, L. (2008). Documentation of in-hospital falls on incident reports: qualitative investigation of an imperfect process. *BMC Health Services Research, 8*(1), 254-261. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=19077252&site=eds-live&scope=site. doi:10.1186/1472-6963-8-254

Haines, T. P., Lee, D. C., O'Connell, B., McDermott, F., & Hoffmann, T. (2015). Why do hospitalized older adults take risks that may lead to falls? *Health Expectations, 18*(2), 233-249. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=RN369492133&site=eds-live&scope=site.

Hall, G. R., & Buckwalter, K. (1987). Progressively lowered stress threshold: a conceptual model for care of adults with Alzheimer's disease. *Archives Of Psychiatric Nursing, 1*(6), 399-406.

Hallberg, I. R., Hansson, U. W., & Axelsson, K. (1993). Satisfaction with nursing care and work during a year of clinical supervision and individualized care. Comparison between two wards for the care of severely demented patients. *Journal of Nursing Management, 1*(6), 297-307. Retrieved from https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1365-2834.1993.tb00231.x. doi:10.1111/j.1365-2834.1993.tb00231.x

Hallberg, I. R., & Norberg, A. (1993). Strain among nurses and their emotional reactions during 1 year of systematic clinical supervision combined with the implementation of individualized care in dementia nursing. *J Adv Nurs, 18*(12), 1860-1875. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=8132916&site=eds-live&scope=site.

Han, J. H., Bryce, S. N., Ely, E. W., Kripalani, S., Morandi, A., Shintani, A., . . . Schnelle, J. (2011). The Effect of Cognitive Impairment on the Accuracy of the Presenting Complaint and Discharge Instruction Comprehension in Older Emergency Department Patients. *Annals of Emergency Medicine, 57*(6), 662-671.e662. Retrieved from http://www.sciencedirect.com/science/article/pii/S0196064410018342. doi:https://doi.org/10.1016/j.annemergmed.2010.12.002

Handley, M., Bunn, F., & Goodman, C. (2015). Interventions that support the creation of dementia friendly environments in health care: protocol for a realist review. *Systematic reviews, 4*(1), 180.

Handley, M., Bunn, F., & Goodman, C. (2019). Supporting general hospital staff to provide dementia sensitive care: A realist evaluation. *International Journal of Nursing Studies, 96*, 61-71. Retrieved from http://www.sciencedirect.com/science/article/pii/S0020748918302499. doi:https://doi.org/10.1016/j.ijnurstu.2018.10.004

Hanger, H. C., Ball, M. C., & Wood, L. A. (1999). An Analysis of Falls in the Hospital: Can We Do Without Bedrails? *JOURNAL- AMERICAN GERIATRICS SOCIETY*

47(5), 529-531. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=RN061131735&site=eds-live&scope=site.

Hansen, L., Deteresa, R., Tobias, H., Alford, M., & Terry, R. (1988). Neocortical morphometry and cholinergic neurochemistry in Pick's disease. *The American journal of pathology, 131*(3), 507-518.

Hardy, J., & Higgins, G. (1992). Alzheimer's disease: the amyloid cascade hypothesis. *Science, 256*(5054), 184-185.

Härlein, J., Halfens, R. J., Dassen, T., & Lahmann, N. A. (2011). Falls in older hospital inpatients and the effect of cognitive impairment: a secondary analysis of prevalence studies. *J Clin Nurs, 20*(1-2), 175-183. Retrieved from https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1365-2702.2010.03460.x. doi:10.1111/j.1365-2702.2010.03460.x

Harris, D. D., Pacheco, A., & Lindner, A. S. (2010). Detecting Potential Pathogens on Hospital Surfaces: An Assessment of Carpet Tile Flooring in the Hospital Patient Environment. *INDOOR AND BUILT ENVIRONMENT, 19*(2), 239-249. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=RN270264590&site=eds-live&scope=site.

Harvey, L., Mitchell, R., Brodaty, H., Draper, B., & Close, J. (2016a). Differing trends in fall-related fracture and non-fracture injuries in older people with and without dementia. *Archives of gerontology and geriatrics, 67*, 61-67. Retrieved from http://www.sciencedirect.com/science/article/pii/S0167494316301157. doi:https://doi.org/10.1016/j.archger.2016.06.014

Harvey, L., Mitchell, R., Brodaty, H., Draper, B., & Close, J. (2016b). The influence of dementia on injury-related hospitalisations and outcomes in older adults. *Injury, 47*(1), 226-234. Retrieved from http://www.sciencedirect.com/science/article/pii/S0020138315005598. doi:https://doi.org/10.1016/j.injury.2015.09.021

Harvey, L., Toson, B., Mitchell, R., Brodaty, H., Draper, B., & Close, J. (2018). Incidence, timing and impact of comorbidity on second hip fracture: a population-based study. *ANZ Journal of Surgery, 88*(6), 577-581. Retrieved from https://onlinelibrary.wiley.com/doi/abs/10.1111/ans.14507. doi:10.1111/ans.14507

Hatahira, H., Hasegawa, S., Sasaoka, S., Kato, Y., Abe, J., Motooka, Y., . . . Nakamura, M. (2018). Analysis of fall-related adverse events among older adults using the Japanese Adverse Drug Event Report (JADER) database. *Journal of pharmaceutical health care and sciences, 4*, 32. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=30574336&site=eds-live&scope=site. doi:10.1186/s40780-018-0129-8

Hawkins, F. H. (1987). *Human factors in flight*. England: Gower Publishing Company,.

Hayakawa, T., Hashimoto, S., Kanda, H., Hirano, N., Kurihara, Y., Kawashima, T., & Fukushima, T. (2014). Risk factors of falls in inpatients and their practical use in identifying high-risk persons at admission: Fukushima Medical University Hospital cohort study. *BMJ Open, 4*(8), e005385. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=25232563&site=eds-live&scope=site.

Health Research Authority (2016). *Defining Research-Research Ethics Service guidance to help you decide if your project requires review by a Research Ethics Committee*. Retrieved from http://www.hra.nhs.uk/documents/2016/06/defining-research.pdf

Hefele, J. G., Acevedo, A., Nsiah-Jefferson, L., Bishop, C., Abbas, Y., Damien, E., & Ramos, C. (2016). Choosing a Nursing Home: What Do Consumers Want to Know, and Do Preferences Vary across Race/Ethnicity? *HEALTH SERVICES RESEARCH -CHICAGO-, 51*(SUPP/2), 1167-1187. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=RN377569414&site=eds-live&scope=site.

Hegney, D., McCarthy, A., de la Rue, M. B., Fahey, P., Gorman, D., Martin-McDonald, K., . . . Sundin-Huard, D. (2002). DISCHARGE PLANNING FROM THE ACUTE SECTOR FOR PEOPLE OVER THE AGE OF 65. *Collegian, 9*(3), 15-21. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=RN117323857&site=eds-live&scope=site.

Helm, L., Balzer, K., Behncke, A., Eisemann, N., & Köpke, S. (2018). Patients with dementia in acute care hospitals. *Zeitschrift für Gerontologie und Geriatrie, 51*(5), 501-508.

Retrieved from https://doi.org/10.1007/s00391-017-1349-5. doi:10.1007/s00391-017-1349-5

Hemsley, B., Steel, J., Worrall, L., Hill, S., Bryant, L., Johnston, L., . . . Balandin, S. (2019). A systematic review of falls in hospital for patients with communication disability: Highlighting an invisible population. *Journal of safety research*

68, 89-105. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=vdc.100077453320.0x000001&site=eds-live&scope=site.

Henderson, S., Moore, N., Lee, E., & Witham, M. D. (2008). Do the malnutrition universal screening tool (MUST) and Birmingham nutrition risk (BNR) score predict mortality in older hospitalised patients? *BMC Geriatr, 8*(1), 26. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=18847458&site=eds-live&scope=site. doi:10.1186/1471-2318-8-26

Hendy, P., Patel, J. H., Kordbacheh, T., Laskar, N., & Harbord, M. (2012). In depth analysis of delays to patient discharge: a metropolitan teaching hospital experience. *CLINICAL MEDICINE -LONDON- ROYAL COLLEGE OF PHYSICIANS-, 12*(4), 320-323. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=RN316570596&site=eds-live&scope=site.

Hesselink, G., Flink, M., Olsson, M., Barach, P., Dudzik-Urbaniak, E., Orrego, C., . . . Wollersheim, H. (2012). Are patients discharged with care? A qualitative study of perceptions and experiences of patients, family members and care providers. *BMJ QUALITY AND SAFETY*

21(SUPP/1), i39-i49. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=RN323131042&site=eds-live&scope=site.

Hill, A.-M., McPhail, S. M., Waldron, N., Etherton-Beer, C., Ingram, K., Flicker, L., . . . Haines, T. P. (2015). Fall rates in hospital rehabilitation units after individualised patient and staff education programmes: a pragmatic, stepped-wedge, cluster-randomised controlled trial. *The Lancet, 385*(9987), 2592-2599. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edselp&AN=S014067361461945 0&site=eds-live&scope=site. doi:10.1016/S0140-6736(14)61945-0

Hill, A.-M., Waldron, N., Francis-Coad, J., Haines, T., Etherton-Beer, C., Flicker, L., . . . McPhail, S. M. (2016). 'It promoted a positive culture around falls prevention': staff response to a patient education programme--a qualitative evaluation. *BMJ Open, 6*(12), e013414. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edb&AN=120395175&site=eds-live&scope=site.

Hodgins, M. J., Filiatreault, S., Keeping-Burke, L., & Logan, S. M. (2020). Patterns of patient coping following hospital discharge from medical and surgical units: A pilot study. *Nursing & Health Sciences, 22*(1), 118-125. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=ccm&AN=141997288&site=eds-live&scope=site. doi:10.1111/nhs.12658

Holland, A. L., McBurney, D. H., Moossy, J., & Reinmuth, O. (1985). The dissolution of language in Pick's disease with neurofibrillary tangles: a case study. *Brain and Language, 24*(1), 36-58.

Holmes, C., Boche, D., Wilkinson, D., Yadegarfar, G., Hopkins, V., Bayer, A., . . . Neal, J. W. (2008). Long-term effects of Aβ 42 immunisation in Alzheimer's disease: follow-up of a randomised, placebo-controlled phase I trial. *The Lancet, 372*(9634), 216-223.

Hong, T., Mitchell, P., Burlutsky, G., Samarawickrama, C., & Wang, J. J. (2014). Visual impairment and the incidence of falls and fractures among older people: longitudinal findings from the Blue Mountains Eye Study. *Investigative ophthalmology & visual science, 55*(11), 7589-7593. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=25370514&site=eds-live&scope=site. doi:10.1167/iovs.14-14262

Houghton, C., Murphy, K., Brooker, D., & Casey, D. (2016). Healthcare staffs' experiences and perceptions of caring for people with dementia in the acute setting: Qualitative evidence synthesis. *International Journal of Nursing Studies, 61*, 104-116. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=a9h&AN=117182582&site=eds-live&scope=site. doi:10.1016/j.ijnurstu.2016.06.001

Howard, R. W. (1972). *Discussion following Paper by Dr. Elwyn Edwards Loughborough University of Technology.* Paper presented at the 1972 Technical Symposium Outlook on Safety Towards Identifying Sources of Human Fallibility and System Error in Construction, Opertion and Regulation, Royal Garden Hotel, London.

Hsiao, H.-T., Lee, J.-J., Chen, H.-H., Wu, M.-K., Huang, C.-W., Chang, Y.-T., . . . Chang, C.-C. (2018). Adequacy of nutrition and body weight in patients with early stage dementia: The cognition and aging study. *Clinical Nutrition, 38*(5), 2187-2194. Retrieved from http://www.sciencedirect.com/science/article/pii/S0261561418324555. doi:https://doi.org/10.1016/j.clnu.2018.09.017

Hu, C.-J., Liao, C.-C., Chang, C.-C., Wu, C.-H., & Chen, T.-L. (2012). Postoperative adverse outcomes in surgical patients with dementia: a retrospective cohort study. *World Journal Of Surgery, 36*(9), 2051-2058. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=22535212&site=ehost-live. doi:10.1007/s00268-012-1609-x

Hung, L., Phinney, A., Chaudhury, H., & Rodney, P. (2018). Using Video-Reflexive Ethnography to Engage Hospital Staff to Improve Dementia Care. *Global Qualitative Nursing Research, 5*, 2333393618785095. Retrieved from https://journals.sagepub.com/doi/abs/10.1177/2333393618785095. doi:10.1177/2333393618785095

Hung, L., Phinney, A., Chaudhury, H., Rodney, P., Tabamo, J., & Bohl, D. (2017). 'Little things matter!' exploring the perspectives of patients with dementia about the hospital environment. *Int J Older People Nurs, 12*(3), e12153. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=psyh&AN=2017-17511-001&site=eds-live&scope=site. doi:10.1111/opn.12153

Hung, L., Son, C., & Hung, R. (2019). The experience of hospital staff in applying the Gentle Persuasive Approaches to dementia care. *Journal of psychiatric and mental health nursing, 26*(1-2), 19-28. Retrieved from https://onlinelibrary.wiley.com/doi/abs/10.1111/jpm.12504. doi:10.1111/jpm.12504

Hunter, K. F., Parke, B., Babb, M., Forbes, D., & Strain, L. (2017). Balancing safety and harm for older adults with dementia in rural emergency departments: healthcare professionals' perspectives. *Rural And Remote Health, 17*(1), 4055-4055. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=28186825&site=eds-live&scope=site.

Hynninen, N., Saarnio, R., & Isola, A. (2015). The care of older people with dementia in surgical wards from the point of view of the nursing staff and physicians. *J Clin Nurs, 24*(1-2), 192-201. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=25234824&site=eds-live&scope=site. doi:10.1111/jocn.12669

Hyslop, B. (2020). 'Not safe for discharge'? Words, values, and person-centred care. *Age & Ageing, 49*(3), 334-336. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=ccm&AN=142948385&site=eds-live&scope=site. doi:10.1093/ageing/afz170

Iecovich, E., & Rabin, B. (2014). Practices Used in Israel by Nurses Who Care During Hospitalization for Older Patients With Dementia or Who are Bedridden. *American Journal of Alzheimer's Disease & Other Dementias®, 29*(2), 166-176. Retrieved from https://journals.sagepub.com/doi/abs/10.1177/1533317513511287. doi:10.1177/1533317513511287

Iltanen-Tähkävuori, S., Wikberg, M., & Topo, P. (2011). Design and dementia: A case of garments designed to prevent undressing. *Dementia, 11*(1), 49-59.

Innes, A., Kelly, F., Scerri, C., & Abela, S. (2016). Living with dementia in hospital wards: a comparative study of staff perceptions of practice and observed patient experience. *Int J Older People Nurs, 11*(2), 94-106. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=RN377560199&site=eds-live&scope=site.

Innes, A., & Manthorpe, J. (2012). Developing theoretical understandings of dementia and their application to dementia care policy in the UK. *Dementia, 12*(6), 682-696. Retrieved from https://doi.org/10.1177/1471301212442583. doi:10.1177/1471301212442583

Institute for Healthcare Improvement. (2012). How-to guide: prevent ventilator-associated pneumonia. how-to guide: prevent ventilator-associated pneumonia Cambridge. *MA: Institute for Healthcare Improvement*. Retrieved from http://www.ihi.org/resources/Pages/Tools/HowtoGuidePreventVAP.aspx.

International Association for the Study of Pain. (2019). IASP's Proposed New Definition of Pain Released for Comment. Retrieved from https://www.iasp-pain.org/PublicationsNews/NewsDetail.aspx?ItemNumber=9218

Ishigaki, E. Y., Ramos, L. G., Carvalho, E. S., & Lunardi, A. C. (2014). Effectiveness of muscle strengthening and description of protocols for preventing falls in the elderly: a systematic review. *Brazilian Journal of Physical Therapy, 18*(2), 111-118. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edssci&AN=edssci.S1413.35552014000200111&site=eds-live&scope=site. doi:10.1590/S1413-35552012005000148

Ista, E., van der Hoven, B., Kornelisse, R. F., van der Starre, C., Vos, M. C., Boersma, E., & Helder, O. K. (2016). Effectiveness of insertion and maintenance bundles to prevent central-line-associated bloodstream infections in critically ill patients of all ages: a systematic review and meta-analysis. *The Lancet Infectious Diseases, 16*(6), 724-734. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edselp&AN=S1473309915004090&site=eds-live&scope=site. doi:10.1016/S1473-3099(15)00409-0

Izumi, S., Nagae, H., Sakurai, C., & Imamura, E. (2012). Defining end-of-life care from perspectives of nursing ethics. *Nursing Ethics, 19*(5), 608-618. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=RN351519136&site=eds-live&scope=site.

Jaakkola, J. J., Ieromnimon, A., & Jaakkola, M. S. (2006). Interior Surface Materials and Asthma in Adults: A Population-based Incident Case-Control Study. *AMERICAN JOURNAL OF EPIDEMIOLOGY, 164*(8), 742-749. Retrieved from

https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=RN196650621&site=eds-live&scope=site.

Jack-Waugh, A., Ritchie, L., & MacRae, R. (2018). Assessing the educational impact of the dementia champions programme in Scotland: Implications for evaluating professional dementia education. *Nurse Education Today, 71*, 205-210. Retrieved from http://www.sciencedirect.com/science/article/pii/S0260691718306828. doi:https://doi.org/10.1016/j.nedt.2018.09.019

Jacques, A., & Jackson, G. A. (2000). *Understanding dementia* (3rd ed. ed.). Edinburgh: Churchill Livingstone.

James, W. (1907). *Pragmatism : a new name for some old ways of thinking*: Floating Press.

Jenn, N. C. (2006). DESIGNING A QUESTIONNAIRE. *Malaysian Family Physician, 1*(1), 32-35. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsdoj&AN=edsdoj.6c1a39fe77274fc2913587148cf3911f&site=eds-live&scope=site.

Jennings, L. A., Turner, M., Keebler, C., Burton, C. H., Romero, T., Wenger, N. S., & Reuben, D. B. (2019). The Effect of a Comprehensive Dementia Care Management Program on End-of-Life Care. *J Am Geriatr Soc, 67*(3), 443-448. Retrieved from https://onlinelibrary.wiley.com/doi/abs/10.1111/jgs.15769. doi:10.1111/jgs.15769

Johnson, M., George, A., & Tran, D. T. (2011). Analysis of falls incidents: Nurse and patient preventive behaviours. *International Journal of Nursing Practice, 17*(1), 60-66. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=psyh&AN=2011-01381-008&site=eds-live&scope=site

doi:10.1111/j.1440-172X.2010.01907.x

Johnson, T. P., & Wislar, J. S. (2012). Response rates and nonresponse errors in surveys. *Jama, 307*(17), 1805-1806. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=22550194&site=ehost-live. doi:10.1001/jama.2012.3532

Julius, M., Kresevic, D., Burant, C., Turcoliveri, M., Pearson, M., Corlett, S. M., & Gable, E. (2015). Malnutrition's Role as a Fall Risk Factor: Eat Well, Fall Less. *JOURNAL-ACADEMY OF NUTRITION AND DIETETICS*

115(9), A20. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=RN372271711&site=eds-live&scope=site.

Jurgens, F. J., Clissett, P., Gladman, J. R. F., & Harwood, R. H. (2012). Why are family carers of people with dementia dissatisfied with general hospital care? A qualitative study. *BMC Geriatr, 12*, 57. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=23006826&site=eds-live&scope=site. doi:10.1186/1471-2318-12-57

Kable, A., Chenoweth, L., Pond, D., & Hullick, C. (2015). Health professional perspectives on systems failures in transitional care for patients with dementia and their carers: a qualitative descriptive study. *BMC Health Services Research, 15*, 567. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=conedsqd6&AN=edsair.od.......908..df12fac0a5316c4f022922a0673338e4&site=eds-live&scope=site. doi:10.1186/s12913-015-1227-z

Kamdar, B. B., Niessen, T., Colantuoni, E., King, L. M., Neufeld, K. J., Bienvenu, O. J., . . . Needham, D. M. (2015). Delirium Transitions in the Medical ICU: Exploring the Role of Sleep Quality and Other Factors*. *Critical Care Medicine, 43*(1), 135-141. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=vdc.100036767495.0x000001&site=eds-live&scope=site.

Kanak, M. F., Titler, M., Shever, L., Fei, Q., Dochterman, J., & Picone, D. M. (2008). The effects of hospitalization on multiple units. *Applied Nursing Research, 21*(1), 15-22. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edselp&AN=S0897189706000802&site=eds-live&scope=site. doi:10.1016/j.apnr.2006.07.001

Kang, Y., Moyle, W., & Venturato, L. (2011). Korean nurses- attitudes towards older people with dementia in acute care settings. *Int J Older People Nurs, 6*(2), 143-152. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=RN292912417&site=eds-live&scope=site.

Kasteridis, P., Goddard, M. K., Jacobs, R., Santos, R., & Mason, A. (2015). “The impact of primary care quality on inpatient length of stay for people with dementia: an analysis by discharge destination”, CHE Research Paper No. 113, Centre for Health Economics, University of York, York. Retrieved from http://eprints.whiterose.ac.uk/88496/1/CHERP113_primary_care_quality_LoS_dementia_discharge.pdf.

Kelley, A. S., Siegler, E. L., & Reid, M. C. (2008). Pitfalls and Recommendations Regarding the Management of Acute Pain Among Hospitalized Patients with Dementia. *Pain Medicine, 9*(5), 581-586. Retrieved from https://doi.org/10.1111/j.1526-4637.2008.00472.x. doi:10.1111/j.1526-4637.2008.00472.x

Kelley, K., Clark, B., Brown, V., & Sitzia, J. (2003). Good practice in the conduct and reporting of survey research. *International Journal for Quality in Health Care, 15*(3), 261-266. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=RN131662130&site=eds-live&scope=site.

Kelly, F. (2010). Recognising and supporting self in dementia: a new way to facilitate a person-centred approach to dementia care. *Ageing and Society, 30*(1), 103-124. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=RN264650287&site=eds-live&scope=site.

Kelly, F., & Innes, A. (2013). Human rights, citizenship and dementia care nursing. *Int J Older People Nurs, 8*(1), 61-70. Retrieved from https://doi.org/10.1111/j.1748-3743.2011.00308.x. doi:10.1111/j.1748-3743.2011.00308.x

Kilpatrick, C., Burns, R., & Blumbergs, P. C. (1983). Identical twins with Alzheimer's disease. *Journal of Neurology, Neurosurgery & Psychiatry, 46*(5), 421-425.

Kim, C., Berta, W. B., & Gagliardi, A. R. (2021). Exploring approaches to identify, incorporate and report patient preferences in clinical guidelines: Qualitative interviews with guideline developers. *Patient Education and Counseling, 104*(4), 703-708. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edselp&AN=S073839912030536X&site=eds-live&scope=site. doi:10.1016/j.pec.2020.10.001

Kimura, N. R. S., Maffioletti, V. L. R., Santos, R. L., Baptista, M. A. T., & Dourado, M. C. N. (2015). Psychosocial impact of early onset dementia among caregivers / Impacto psicossocial da demência de início precoce em cuidadores. *Trends in Psychiatry and Psychotherapy, 37*(4), 213-219. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edssci&AN=edssci.S2237.60892015003400213&site=eds-live&scope=site. doi:10.1590/2237-6089-2015-0038

Kinderman, P., Butchard, S., Bruen, A., J., Wall, A., Goulden, N., Hoare, Z., . . . Edwards, R. (2018). A randomised controlled trial to evaluate the impact of a human rights based approach to dementia care in inpatient ward and care home settings. *Health Services and Delivery Research, 6*(13). Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsdoj&AN=edsdoj.f29f23a7652b49e78e6c508e216f3b98&site=eds-live&scope=site. doi:10.3310/hsdr06130

King, B., Pecanac, K., Krupp, A., Liebzeit, D., & Mahoney, J. (2018). Impact of Fall Prevention on Nurses and Care of Fall Risk Patients. *Gerontologist, 58*(2), 331-340. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=ccm&AN=128652224&site=eds-live&scope=site. doi:10.1093/geront/gnw156

Kitwood, T. (1990). The Dialectics of Dementia: With Particular Reference to Alzheimer's Disease. *Ageing & Society, 10*(2), 177-196. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=sih&AN=56775335&site=eds-live&scope=site. doi:10.1017/S0144686X00008060

Klimek, L., Bergmann, K. C., Biedermann, T., Bousquet, J., Hellings, P., Jung, K., . . . Pfaar, O. (2017). Visual analogue scales (VAS): Measuring instruments for the documentation of symptoms and therapy monitoring in cases of allergic rhinitis in everyday health care. *ALLERGO JOURNAL INTERNATIONAL, 26*, 16-24. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=RN382386034&site=eds-live&scope=site.

Knapp, M., Chua, K.-C., Broadbent, M., Chang, C.-K., Fernandez, J.-L., Milea, D., . . . Hayes, R. D. (2016). Predictors of care home and hospital admissions and their costs for older people with Alzheimer's disease: findings from a large London case register. *BMJ Open, 6*(11), e013591. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=27864252&site=eds-live&scope=site. doi:10.1136/bmjopen-2016-013591

Kobayashi, N., Soga, Y., Maekawa, K., Kanda, Y., Kobayashi, E., Inoue, H., . . . Fujiwara, Y. (2017). Prevalence of oral health-related conditions that could trigger accidents for patients with moderate-to-severe dementia. *Gerodontology, 34*(1), 129-134. Retrieved from https://onlinelibrary.wiley.com/doi/abs/10.1111/ger.12235. doi:10.1111/ger.12235

Kogut, S. J., Goldstein, E., Charbonneau, C., Jackson, A., & Patry, G. (2014). Improving medication management after a hospitalization with pharmacist home visits and electronic personal health records: an observational study. *Drug, Healthcare and Patient Safety, 6*, 1-6. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsdoj&AN=edsdoj.47f55b4702b4fd787949a65a75e2a53&site=eds-live&scope=site.

Koivula, U.-M., Karttunen, S.-L., Dickinson, H., & Hujala, A. (2014). Volunteers in a hospital - opportunity or threat? Exploratory study from Finland. *Journal of Health Organization and Management, 28*(5), 674-695. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsemr&AN=edsemr.10.1108.JHOM.10.2013.0218&site=eds-live&scope=site. doi:10.1108/JHOM-10-2013-0218

Komashie, A., Ward, J., Bashford, T., Dickerson, T., Kaya, G. K., Liu, Y., . . . Clarkson, P. J. (2021). Systems approach to health service design, delivery and improvement: a systematic review and meta-analysis. *BMJ Open, 11*(1), e037667. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=33468455&site=eds-live&scope=site. doi:10.1136/bmjopen-2020-037667

Kralik, D. (2005). Patients with comorbidities perceived that acute care services did not fully acknowledge or accommodate the comprehensive care that they required. *Evidence-based nursing, 8*(1), 30. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=15688504&site=eds-live&scope=site.

Krauss, M. J., Evanoff, B., Hitcho, E., Ngugi, K. E., Dunagan, W. C., Fischer, I., . . . Fraser, V. J. (2005). A Case-control Study of Patient, Medication, and Care-related Risk Factors for Inpatient Falls. *JOURNAL OF GENERAL INTERNAL MEDICINE, 20*(2), 116-122. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=RN166264647&site=eds-live&scope=site.

Kroll, T., & Morris, J. (2009). Challenges and Opportunities in Using Mixed Method Designs in Rehabilitation Research. *Archives of Physical Medicine and Rehabilitation, 90*(11), S11-S16. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edselp&AN=S0003999309004572&site=eds-live&scope=site. doi:10.1016/j.apmr.2009.04.023

Krupic, F., Eisler, T., Sköldenberg, O., & Fatahi, N. (2016). Experience of anaesthesia nurses of perioperative communication in hip fracture patients with dementia. *Scandinavian journal of caring sciences, 30*(1), 99-107. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=25867040&site=eds-live&scope=site. doi:10.1111/scs.12226

Krutter, S., Schaffler-Schaden, D., Essl-Maurer, R., Wurm, L., Seymer, A., Kriechmayr, C., . . . Flamm, M. (2020). Comparing perspectives of family caregivers and healthcare professionals regarding caregiver burden in dementia care: results of a mixed methods study in a rural setting. *Age & Ageing, 49*(2), 199-207. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=ccm&AN=142126378&site=eds-live&scope=site. doi:10.1093/ageing/afz165

Kydd, A. (2008). The patient experience of being a delayed discharge. *Journal of Nursing Management, 16*(2), 121-126. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=RN223430920&site=eds-live&scope=site.

Lackoff, A. S., Hickling, D., Collins, P. F., Stevenson, K. J., Nowicki, T. A., & Bell, J. J. (2020). The association of malnutrition with falls and harm from falls in hospital inpatients: Findings from a 5-year observational study. *J Clin Nurs, 29*(3-4), 429-436. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=vdc.100099774128.0x000001&site=eds-live&scope=site.

Lang, P. O., Hasso, Y., Dramé, M., Vogt-Ferrier, N., Prudent, M., Gold, G., & Michel, J. P. (2010). Potentially inappropriate prescribing including under-use amongst older patients with cognitive or psychiatric co-morbidities. *Age & Ageing, 39*(3), 373-381. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=ccm&AN=105190513&site=eds-live&scope=site. doi:ageing/afq031

Lawal, A. K., Rotter, T., Kinsman, L., Machotta, A., Ronellenfitsch, U., Scott, S. D., . . . Groot, G. (2016). What is a clinical pathway? Refinement of an operational definition to identify clinical pathway studies for a Cochrane systematic review. *BMC Medicine, 14*, 35. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=26904977&site=eds-live&scope=site. doi:10.1186/s12916-016-0580-z

Leslie, S. W., Sajjad, H., & Sharma, S. (2019). Prevention of Inappropriate Self-Extraction of Foley Catheters. *StatPearls*. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=29489183&site=eds-live&scope=site.

Leung, D., & Todd, J. (2010). Dementia care in the acute district general hospital. *CLINICAL MEDICINE -LONDON- ROYAL COLLEGE OF PHYSICIANS-, 10*(3), 220-222. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=RN272503586&site=eds-live&scope=site.

Levin, K. A. (2006). Study design III: Cross-sectional studies. *EVIDENCE BASED DENTISTRY, 7*(1), 24-25. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=RN184472490&site=eds-live&scope=site.

Li, F., Wang, F., & Jia, J. (2013). Evaluating the prevalence of dementia in hospitalized older adults and effects of comorbid dementia on patients' hospital course. *Aging Clinical and Experimental Research, 25*(4), 393-401. Retrieved from https://doi.org/10.1007/s40520-013-0068-z. doi:10.1007/s40520-013-0068-z

Li, J. Y., Yong, T. Y., Hakendorf, P., Ben-Tovim, D., & Thompson, C. H. (2013). Timeliness in discharge summary dissemination is associated with patients' clinical outcomes. *JOURNAL OF EVALUATION IN CLINICAL PRACTICE*

19(1), 76-79. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=RN326232269&site=eds-live&scope=site.

Librero, J., Peiró, S., & Ordiñana, R. (1999). Chronic comorbidity and outcomes of hospital care: length of stay, mortality, and readmission at 30 and 365 days. *Journal of Clinical Epidemiology, 52*(3), 171-179. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=10210233&site=eds-live&scope=site.

Lichtner, V., Dowding, D., Allcock, N., Keady, J., Sampson, E. L., Briggs, M., . . . Closs, S. J. (2016). The assessment and management of pain in patients with dementia in hospital settings: a multi-case exploratory study from a decision making perspective. *BMC Health Services Research, 16*(1), 427. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=27553364&site=eds-live&scope=site. doi:10.1186/s12913-016-1690-1

Lichtner, V., Dowding, D., & Closs, S. J. (2015). The relative meaning of absolute numbers: the case of pain intensity scores as decision support systems for pain management of patients with dementia. *BMC medical informatics and decision making, 15*, 111. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=26703244&site=eds-live&scope=site. doi:10.1186/s12911-015-0233-8

Liddle, J., & Gilleard, C. (1995). The emotional consequences of falls for older people and their families. *Clinical rehabilitation, 9*(2), 110-114. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=psyh&AN=1995-45116-001&site=eds-live&scope=site. doi:10.1177/026921559500900204

Lim, S. C., Mamun, K., & Lim, J. K. H. (2014). Comparison between elderly inpatient fallers with and without dementia. *Singapore Medical Journal, 55*(2), 67-71. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=24570314&site=eds-live&scope=site.

Liu, S., Li, C., Shi, Z., Wang, X., Zhou, Y., Liu, S., . . . Ji, Y. (2017). Caregiver burden and prevalence of depression, anxiety and sleep disturbances in Alzheimer's disease caregivers in China. *J Clin Nurs, 26*(9-10), 1291-1300. Retrieved from https://onlinelibrary.wiley.com/doi/abs/10.1111/jocn.13601. doi:10.1111/jocn.13601

Livingston, G., Leavey, G., Manela, M., Livingston, D., Rait, G., Sampson, E., . . . Cooper, C. (2010). Making decisions for people with dementia who lack capacity: qualitative study of family carers in UK. *BMJ: British Medical Journal, 341*, c4184. Retrieved from http://www.bmj.com/content/341/bmj.c4184.abstract. doi:10.1136/bmj.c4184

Lloyd-Williams, M. (1996). An audit of palliative care in dementia. *EUROPEAN JOURNAL OF CANCER CARE, 5*(1), 53-55. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=RN004544663&site=eds-live&scope=site.

Lockwood, K. J., Taylor, N. F., & Harding, K. E. (2015). PRE-DISCHARGE HOME ASSESSMENT VISITS IN ASSISTING PATIENTS' RETURN TO COMMUNITY LIVING: A SYSTEMATIC REVIEW AND META-ANALYSIS. *Journal of Rehabilitation Medicine (Stiftelsen Rehabiliteringsinformation), 47*(4), 289-299. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edb&AN=102382950&site=eds-live&scope=site.

Loizou, L., Kendall, B., & Marshall, J. (1981). Subcortical arteriosclerotic encephalopathy: a clinical and radiological investigation. *Journal of Neurology, Neurosurgery & Psychiatry, 44*(4), 294-304.

Lord, K., Livingston, G., Robertson, S., & Cooper, C. (2016). How people with dementia and their families decide about moving to a care home and support their needs: development of a decision aid, a qualitative study. *BMC Geriatr, 16*, 68. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=27001704&site=eds-live&scope=site. doi:10.1186/s12877-016-0242-1

Luchins, D. J., & Hanrahan, P. (1993). What is appropriate health care for end-stage dementia? *J Am Geriatr Soc, 41*(1), 25-30. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=psyh&AN=1993-27007-001&site=eds-live&scope=site. doi:10.1111/j.1532-5415.1993.tb05943.x

Luppa, M., Luck, T., Weyerer, S., König, H., Brähler, E., & Riedel-Heller, S. G. (2010). Prediction of institutionalization in the elderly. A systematic review. *Age & Ageing, 39*(1), 31-38. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=ccm&AN=105288764&site=eds-live&scope=site. doi:ageing/afp202

Luxford, K., Axam, A., Hasnip, F., Dobrohotoff, J., Strudwick, M., Reeve, R., . . . Viney, R. (2015). Improving clinician–carer communication for safer hospital care: a study of the ‘TOP 5’ strategy in patients with dementia. *International Journal for Quality in Health Care, 27*(3), 175-182. Retrieved from https://doi.org/10.1093/intqhc/mzv026. doi:10.1093/intqhc/mzv026

Luz, C., Bush, T., & Shen, X. (2017). Do Canes or Walkers Make Any Difference? NonUse and Fall Injuries. *GERONTOLOGIST*

57(2), 211-218. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=RN383905540&site=eds-live&scope=site.

Lyman, K. A. (1989). Bringing the Social Back in: A Critique of the Biomedicalization of Dementia. *The Gerontologist, 29*(5), 597-605. Retrieved from https://doi.org/10.1093/geront/29.5.597. doi:10.1093/geront/29.5.597

Maben, J., Griffiths, P., Penfold, C., Simon, M., Anderson, J. E., Robert, G., . . . Barlow, J. (2016). One size fits all? Mixed methods evaluation of the impact of 100% single-room accommodation on staff and patient experience, safety and costs. *BMJ*

Quality & Safety, 25(4), 241-256. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsswe&AN=edsswe.oai.prod.swepub.kib.ki.se.133193737&site=eds-live&scope=site. doi:10.1136/bmjqs-2015-004265

Manias, E. (2015). Communication relating to family members' involvement and understandings about patients' medication management in hospital. *Health Expectations, 18*(5), 850-866. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=ccm&AN=109969006&site=eds-live&scope=site. doi:10.1111/hex.12057

Mansutti, I., Venturini, M., & Palese, A. (2019). Episodes of psychomotor agitation among medical patients: findings from a longitudinal multicentre study. *Aging Clinical and Experimental Research, 32*, 1101–1110. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=31378845&site=eds-live&scope=site. doi:10.1007/s40520-019-01293-5

Maravic, M., Ostertag, A., Urena, P., & Cohen-Solal, M. (2016). Dementia is a major risk factor for hip fractures in patients with chronic kidney disease. *Osteoporosis International, 27*(4), 1665-1669. Retrieved from https://doi.org/10.1007/s00198-015-3429-y. doi:10.1007/s00198-015-3429-y

Marcucci, M., Damanti, S., Germini, F., Apostolo, J., Bobrowicz-Campos, E., Gwyther, H., . . . Cano, A. (2019). Interventions to prevent, delay or reverse frailty in older people: a journey towards clinical guidelines. *BMC Medicine, 17*(1), 193. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=31660959&site=eds-live&scope=site. doi:10.1186/s12916-019-1434-2

Marfil-Garza, B. A., Belaunzarán-Zamudio, P. F., Gulias-Herrero, A., Zuñiga, A. C., Caro-Vega, Y., Kershenobich-Stalnikowitz, D., & Sifuentes-Osornio, J. (2018). Risk factors associated with prolonged hospital length-of-stay: 18-year retrospective study of hospitalizations in a tertiary healthcare center in Mexico. *Plos One, 13*(12), e0207203. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=EPTOC132928120&site=eds-live&scope=site. doi:10.1371/journal.pone.0207203

Marks, D., & Yardley, L. (2004). *Research methods for clinical and health psychology. [electronic resource]*: SAGE.

Marquardt, G. (2011). Wayfinding for People with Dementia: A Review of the Role of Architectural Design. *HERD: Health Environments Research & Design Journal, 4*(2), 75-90. Retrieved from https://doi.org/10.1177/193758671100400207. doi:10.1177/193758671100400207

Marquié, M., Castilla-Martí, M., Valero, S., Martínez, J., Sánchez, D., Hernández, I., . . . Boada, M. (2019). Visual impairment in aging and cognitive decline: experience in a Memory Clinic. *Scientific reports, 9*, 8698. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=31213626&site=eds-live&scope=site. doi:10.1038/s41598-019-45055-9

Marshall, J. C., Gurd, J. M., & Kischka, U. (2012). *Handbook of clinical neuropsychology* (2nd ed. ed.). Oxford: Oxford University Press.

Marshall, M. (1999). "They should not really be here"--people with dementia in the acute sector. *Age Ageing, 28 Suppl 2*, 9-11. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=10560002&site=eds-live&scope=site.

Martin, B. J., Valiyaparambath, N., & Gray, J. (2013). Patient outcomes using revised guidance NHS Continuing Care Eligibility Criteria, Scotland (CEL 2008). *SCOTTISH MEDICAL JOURNAL, 58*(1), 16-19. Retrieved from

https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=RN331007996&site=eds-live&scope=site.

Martinsson, L., Lundström, S., & Sundelöf, J. (2018). Quality of end-of-life care in patients with dementia compared to patients with cancer: A population-based register study. *Plos One, 13*(7), e0201051. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=30059515&site=eds-live&scope=site. doi:10.1371/journal.pone.0201051

Matiti, M. R., & Trorey, G. M. (2008). Patients' expectations of the maintenance of their dignity. *J Clin Nurs, 17*(20), 2709-2717.

Mayrhofer, A., Goodman, C., & Smeeton, N. (2016). The role of Dementia Champion in dementia care: Its aspirations, development and training needs (innovative practice). *Dementia: The International Journal of Social Research and Practice, 15*(5), 1306-1312. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=psyh&AN=2016-43718-027&site=eds-live&scope=site

doi:10.1177/1471301216631448

Mc Carroll, G., & Cooke, M. (2019). Is there a correlation between cognition and the ability to remember how to use assistive devices? *Irish Journal of Occupational Therapy, 47*(1), 58-72. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edo&AN=138188041&site=eds-live&scope=site.

McCarthy, B. (2017). Appreciative inquiry: an alternative to behaviour management. *Dementia, 16*(2), 249-253.

McCusker, K., & Gunaydin, S. (2015). Research using qualitative, quantitative or mixed methods and choice based on the research. *Perfusion, 30*(7), 537-542. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=ccm&AN=110353127&site=eds-live&scope=site. doi:10.1177/0267659114559116

McHugh, M. D., Kutney-Lee, A., Cimiotti, J. P., Sloane, D. M., & Aiken, L. H. (2011). Nurses' widespread job dissatisfaction, burnout, and frustration with health benefits signal problems for patient care. *Health affairs (Project Hope), 30*(2), 202-210. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=21289340&site=eds-live&scope=site. doi:10.1377/hlthaff.2010.0100

McInroy, L. B. (2016). Pitfalls, Potentials, and Ethics of Online Survey Research: LGBTQ and Other Marginalized and Hard-to-Access Youths. *Social Work Research, 40*(2), 83-93. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=ccm&AN=115590123&site=ehost-live. doi:10.1093/swr/svw005

McKeith, I. G., Galasko, D., Kosaka, K., Perry, E., Dickson, D. W., Hansen, L., . . . Byrne, E. (1996). Consensus guidelines for the clinical and pathologic diagnosis of dementia with Lewy bodies (DLB) Report of the consortium on DLB international workshop. *Neurology, 47*(5), 1113-1124.

McPhail, C., Traynor, V., Wikstrom, D., Brown, M., & Quinn, C. (2009). Improving outcomes for dementia care in acute aged care: Impact of an education programme. *DEMENTIA -LONDON-, 8*(1), 142-147. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=RN245203366&site=eds-live&scope=site.

McPherson, S., Hiskey, S., & Alderson, Z. (2016). Distress in working on dementia wards – A threat to compassionate care: A grounded theory study. *International Journal of Nursing Studies, 53*, 95-104. Retrieved from http://www.sciencedirect.com/science/article/pii/S0020748915002631. doi:http://dx.doi.org/10.1016/j.ijnurstu.2015.08.013

Mehta, S. S., Siegler, E. L., Henderson, C. R., Jr, & Reid, M. C. (2010). Acute Pain Management in Hospitalized Patients with Cognitive Impairment: A Study of Provider Practices and Treatment Outcomes. *Pain Medicine, 11*(10), 1516-1524. Retrieved from https://doi.org/10.1111/j.1526-4637.2010.00950.x. doi:10.1111/j.1526-4637.2010.00950.x

Menachemi, N., & Collum, T. (2011). Benefits and drawbacks of electronic health record systems. *Risk Management and Healthcare Policy, 2011*(4), 47-55. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsdoj&AN=edsdoj.4926d100c4544309e782a9705bc2f47&site=eds-live&scope=site.

Mendes, A., & Palmer, S. J. (2018). Adapting hospital wards to the needs of patients with dementia. *British Journal Of Nursing (Mark Allen Publishing), 27*(16), 953-954. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=30187797&site=eds-live&scope=site. doi:10.12968/bjon.2018.27.16.953

Miller, E. A., Schneider, L. S., & Rosenheck, R. A. (2011). Predictors of nursing home admission among Alzheimer's disease patients with psychosis and/or agitation. *International Psychogeriatrics, 23*(1), 44-53. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=RN283978446&site=eds-live&scope=site.

Mizuma, K., Amitani, M., Mizuma, M., Kawazu, S., Sloan, R. A., Ibusuki, R., . . . Owaki, T. (2020). Clarifying differences in viewpoints between multiple healthcare professionals during discharge planning assessments when discharging patients from a long-term care hospital to home. *Evaluation and program planning, 82*, 101848. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edselp&AN=S014971892030152X&site=eds-live&scope=site. doi:10.1016/j.evalprogplan.2020.101848

Moazez, M., Miri, S., Foroughameri, G., & Farokhzadian, J. (2020). Nurses' perceptions of systems thinking and safe nursing care: A cross-sectional study. *Journal of Nursing Management, 28*(4), 822-830. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=vdc.100110352088.0x000001&site=eds-live&scope=site.

Moehead, A., DeSouza, K., Walsh, K., & Pit, S. W. (2020). A Web-Based Dementia Education Program and its Application to an Australian Web-Based Dementia Care Competency and Training Network: Integrative Systematic Review. *Journal of Medical Internet Research, 22*(1), e16808. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=32012077&site=eds-live&scope=site. doi:10.2196/16808

Möllers, T., Stocker, H., Wei, W., Perna, L., & Brenner, H. (2019). Length of hospital stay and dementia: A systematic review of observational studies. *International Journal of Geriatric Psychiatry, 34*(1), 8-21. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=ccm&AN=133626966&site=eds-live&scope=site. doi:10.1002/gps.4993

Moon, F., McDermott, F., & Kissane, D. (2018). Systematic review for the quality of end-of-life care for patients with dementia in the hospital setting. *American Journal of Hospice & Palliative Medicine, 35*(12), 1572-1583. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=psyh&AN=2018-58390-015&site=eds-live&scope=site

doi:10.1177/1049909118776985

Moonga, J., & Likupe, G. (2016). A systematic literature review on nurses' and health care support workers' experiences of caring for people with dementia on orthopaedic wards. *J Clin Nurs, 25*(13/14), 1789-1804. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=edb&AN=115831124&site=eds-live&scope=site.

Morello, R. T., Barker, A. L., Watts, J. J., Haines, T., Zavarsek, S. S., Hill, K. D., . . . Stoelwinder, J. U. (2015). The extra resource burden of in-hospital falls: a cost of falls study. *Medical Journal of Australia, 203*(9), 367.e361-367.e368. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edo&AN=110655114&site=eds-live&scope=site.

Morin, L., Beaussant, Y., Aubry, R., Fastbom, J., & Johnell, K. (2016). Aggressiveness of End-of-Life Care for Hospitalized Individuals with Cancer with and without Dementia: A Nationwide Matched-Cohort Study in France. *J Am Geriatr Soc, 64*(9), 1851-1857. Retrieved from https://onlinelibrary.wiley.com/doi/abs/10.1111/jgs.14363. doi:10.1111/jgs.14363

Morin, L., Calderon Larrañaga, A., Welmer, A.-K., Rizzuto, D., Wastesson, J. W., & Johnell, K. (2019). Polypharmacy and injurious falls in older adults: a nationwide nested case-control study. *Clinical Epidemiology, 11*, 483-493. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsswe&AN=edsswe.oai.DiVA.org.su.171206&site=eds-live&scope=site. doi:10.2147/CLEP.S201614

Morris, R., & O'Riordan, S. (2017). Prevention of falls in hospital. *Clinical medicine (London, England), 17*(4), 360-362. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=28765417&site=eds-live&scope=site. doi:10.7861/clinmedicine.17-4-360

Morrison, L. (2017). Do red zimmers decrease the risk of falls in people with dementia? *Physiotherapy, 103*, e129-e130. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=vdc.100052604118.0x000001&site=eds-live&scope=site.

Morrison, R. S., & Siu, A. L. (2000a). A Comparison of Pain and Its Treatment in Advanced Dementia and Cognitively Intact Patients with Hip Fracture. *JOURNAL OF PAIN AND SYMPTOM MANAGEMENT, 19*(4), 240-248. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=RN078250124&site=eds-live&scope=site.

Morrison, R. S., & Siu, A. L. (2000b). Survival in end-stage dementia following acute illness. *JAMA: JOURNAL- AMERICAN MEDICAL ASSOCIATION, 284*(1), 47-52. Retrieved from https://doi.org/10.1001/jama.284.1.47. doi:10.1001/jama.284.1.47

Morse, J. M. (1995). The significance of saturation. *Qualitative Health Research, 5*(2), 147-149.

Mossello, E., Ceccofiglio, A., Rafanelli, M., Riccardi, A., Mussi, C., Bellelli, G., . . . Ungar, A. (2018). Differential diagnosis of unexplained falls in dementia: Results of “Syncope & Dementia” registry. *European Journal of Internal Medicine, 50*, 41-46. Retrieved from http://www.sciencedirect.com/science/article/pii/S0953620517304466. doi:https://doi.org/10.1016/j.ejim.2017.11.006

Motzek, T., Bueter, K., & Marquardt, G. (2016). Environmental Cues in Double-Occupancy Rooms to Support Patients With Dementia. *HERD: Health Environments Research & Design Journal, 9*(3), 106-115. Retrieved from https://journals.sagepub.com/doi/abs/10.1177/1937586715619740. doi:10.1177/1937586715619740

Moyle, W., Borbasi, S., Wallis, M., Olorenshaw, R., & Gracia, N. (2011). Acute care management of older people with dementia: a qualitative perspective. *J Clin Nurs, 20*(3-4), 420-428. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=RN285632843&site=eds-live&scope=site.

Moyle, W., Bramble, M., Bauer, M., Smyth, W., & Beattie, E. (2016). -They rush you and push you too much - and you can't really get any good response off them-: A qualitative examination of family involvement in care of people with dementia in acute care. *Australasian journal on ageing, 35*(2), E30-E34. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=RN379010440&site=eds-live&scope=site.

Mukadam, N., & Sampson, E. L. (2011). A systematic review of the prevalence, associations and outcomes of dementia in older general hospital inpatients. *International Psychogeriatrics, 23*(3), 344-355. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=ccm&AN=104830717&site=eds-live&scope=site. doi:10.1017/S1041610210001717

Murray, G. R., Cameron, I. D., & Cumming, R. G. (2007). The Consequences of Falls in Acute and Subacute Hospitals in Australia That Cause Proximal Femoral Fractures. *JOURNAL- AMERICAN GERIATRICS SOCIETY, 55*(4), 577-582. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=RN205342850&site=eds-live&scope=site.

Myers, H., & Nikoletti, S. (2003). Fall risk assessment: A prospective investigation of nurses' clinical judgement and risk assessment tools in predicting patient falls. *International Journal of Nursing Practice, 9*(3), 158-165. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=RN134357193&site=eds-live&scope=site.

Naef, R., Ernst, J., Bürgi, C., & Petry, H. (2018). Quality of acute care for persons with cognitive impairment and their families: A scoping review. *International Journal of Nursing Studies, 85*, 80-89. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edselp&AN=S0020748918301184&site=eds-live&scope=site. doi:10.1016/j.ijnurstu.2018.05.006

Nakagawa, Y., Maki, S., Yamanaka, T., Ogomori, K., Ichimiya, A., Nakagawa, C., . . . Tashiro, N. (2002). Circumstances Related to Falls in the Dementia Special Care Unit of Geriatric Care Facility in Japan. *Psychogeriatrics, 2*(2), 113-119. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edo&AN=ejs23641202&site=eds-live&scope=site.

Nardi, R., Scanelli, G., Tragnone, A., Lolli, A., Kalfus, P., Baldini, A., . . . Ciommo, S. (2007). Difficult hospital discharges in internal medicine wards. *INTERNAL AND EMERGENCY MEDICINE, 2*(2), 95-99. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=RN212346676&site=eds-live&scope=site.

Natalwala, A., Potluri, R., Uppal, H., & Heun, R. (2008). Reasons for hospital admissions in dementia patients in Birmingham, UK, during 2002–2007. *Dementia and Geriatric Cognitive Disorders, 26*(6), 499-505.

Naylor, M. D., Hirschman, K. B., Hanlon, A. L., Bowles, K. H., Bradway, C., McCauley, K. M., & Pauly, M. V. (2016). Effects of alternative interventions among hospitalized, cognitively impaired older adults. *Journal Of Comparative Effectiveness Research, 5*(3), 259-272. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=27146416&site=eds-live&scope=site. doi:10.2217/cer-2015-0009

Neary, D., Snowden, J., Northen, B., & Goulding, P. (1988). Dementia of frontal lobe type. *Journal of Neurology, Neurosurgery & Psychiatry, 51*(3), 353-361.

NHS Confidentiality Code of Practice. (2003). *NHS Confidentiality Code of Practice*. Retrieved from https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/200146/Confidentiality_-_NHS_Code_of_Practice.pdf

NHS Digital Data Dictionary. (2017a). ADMISSION METHOD. Retrieved from http://www.datadictionary.nhs.uk/data_dictionary/attributes/a/add/admission_method_de.asp

NHS Digital Data Dictionary. (2017b). DISCHARGE METHOD. Retrieved from http://www.datadictionary.nhs.uk/data_dictionary/attributes/d/disc/discharge_method_de.asp?shownav=1?query=%22discharge+method%22&rank=100&shownav=1

NHS Digital Data Dictionary. (2017c). SEX OF PATIENTS CODE. Retrieved from http://www.datadictionary.nhs.uk/data_dictionary/data_field_notes/s/set/sex_of_patients_code_de.asp?shownav=1

NICE. (2007). *Acute illness in adults in hospital: recognising and respondind to deterioration. NICE clinical guideline 50*. Retrieved from https://www.nice.org.uk/guidance/cg50/resources/acute-illness-in-adults-in-hospital-recognising-and-responding-to-deterioration-975500772037

Nichols, E., Szoeke, C. E. I., Vollset, S. E., Abbasi, N., Abd-Allah, F., Abdela, J., . . . Murray, C. J. L. (2019). Global, regional, and national burden of Alzheimer's disease and other dementias, 1990-2016: a systematic analysis for the Global Burden of Disease Study 2016. *Lancet Neurology, 18*(1), 88-106. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsswe&AN=edsswe.oai.DiVA.org.umu.166521&site=eds-live&scope=site. doi:10.1016/S1474-4422(18)30403-4

Nielsen, L. M., Gregersen Østergaard, L., Maribo, T., Kirkegaard, H., & Petersen, K. S. (2019). Returning to everyday life after discharge from a short-stay unit at the Emergency Department—a qualitative study of elderly patients' experiences. *International Journal of Qualitative Studies on Health & Well-Being, 14*(1), 1-12. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=asn&AN=140354697&site=eds-live&scope=site. doi:10.1080/17482631.2018.1563428

Nilsson, A., Lindkvist, M., Rasmussen, B. H., & Edvardsson, D. (2012). Staff attitudes towards older patients with cognitive impairment: need for improvements in acute care. *Journal of Nursing Management, 20*(5), 640-647 648p. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=ccm&AN=104480983&site=eds-live&scope=site. doi:10.1111/j.1365-2834.2012.01406.x

Nilsson, A., Rasmussen, B. H., & Edvardsson, D. (2013). Falling behind: a substantive theory of care for older people with cognitive impairment in acute settings. *J Clin Nurs, 22*(11-12), 1682-1691. Retrieved from https://onlinelibrary.wiley.com/doi/abs/10.1111/jocn.12177. doi:doi:10.1111/jocn.12177

Nilsson, A., Rasmussen, B. H., & Edvardsson, D. (2016). A threat to our integrity - Meanings of providing nursing care for older patients with cognitive impairment in acute care settings. *Scandinavian journal of caring sciences, 30*(1), 48-56. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=ccm&AN=1,13306729&site=ehost-live. doi:10.1111/scs.12220

Niu, H., Álvarez-Álvarez, I., Guillén-Grima, F., & Aguinaga-Ontoso, I. (2017). Prevalence and incidence of Alzheimer's disease in Europe: A meta-analysis. *Neurología (English Edition), 32*(8), 523-532. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edselp&AN=S2173580817301232&site=eds-live&scope=site. doi:10.1016/j.nrleng.2016.02.009

Noh, J.-W., Kim, K.-B., Lee, J. H., Lee, B.-H., Kwon, Y. D., & Heui Lee, S. (2017). The elderly and falls: Factors associated with quality of life A cross-sectional study using large-scale national data in Korea. *Archives of gerontology and geriatrics, 73*, 279-283. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edselp&AN=S016749431730273X&site=eds-live&scope=site. doi:10.1016/j.archger.2017.08.008

Nolan, L. (2006). Caring connections with older persons with dementia in an acute hospital setting -- A hermeneutic interpretation of the staff nurse's experience. *Int J Older People Nurs, 1*(4), 208-215. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=psyh&AN=2007-06889-003&site=eds-live&scope=site. doi:10.1111/j.1748-3743.2006.00033.x

Nolan, L. (2007). Caring for people with dementia in the acute setting: a study of nurses' views. *BRITISH JOURNAL OF NURSING -LONDON- MARK ALLEN PUBLISHING LIMITED-, 16*(7), 419-422. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=RN206207036&site=eds-live&scope=site.

Nonnemacher, M., Stausberg, J., Bartoszek, G., Lottko, B., Neuhaeuser, M., & Maier, I. (2009). Predicting pressure ulcer risk: a multifactorial approach to assess risk factors in a large university hospital population. *J Clin Nurs, 18*(1), 99-107. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=RN242074619&site=eds-live&scope=site.

Norman, R. (2006). Observations of the experiences of people with dementia on general hospital wards. *Journal of Research in Nursing, 11*(5), 453-465.

Normann, Asplund, & Norberg. (1999). Attitudes of Registered Nurses towards patients with severe dementia. *J Clin Nurs, 8*(4), 353-359. Retrieved from https://onlinelibrary.wiley.com/doi/abs/10.1046/j.1365-2702.1999.00261.x. doi:10.1046/j.1365-2702.1999.00261.x

Nuremberg Code. (1949). The Nuremberg Code. *Trials of war criminals before the Nuremberg military tribunals under control council law.* Retrieved from https://history.nih.gov/research/downloads/nuremberg.pdf

Nygård, L., Grahn, U., Rudenhammar, A., & Hydling, S. (2004). Reflecting on practice: are home visits prior to discharge worthwhile in geriatric inpatient care? *Scandinavian journal of caring sciences, 18*(2), 193-203. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=asn&AN=13125430&site=eds-live&scope=site. doi:10.1111/j.1471-6712.2004.00270.x

O'Connor, D. T., Rawson, H., & Redley, B. (2020). Nurse-to-nurse communication about multidisciplinary care delivered in the emergency department: An observation study of nurse-to-nurse handover to transfer patient care to general medical wards. *Australasian Emergency Care, 23*(1), 37-46. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edo&AN=142186778&site=eds-live&scope=site.

O'Connor, S., Deaton, C., Nolan, F., & Johnston, B. (2018). Nursing in an age of multimorbidity. *BMC Nursing, 17*(1), 1-9. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=30519145&site=eds-live&scope=site. doi:10.1186/s12912-018-0321-z

O'Keeffe, S., Jack, C. I. A., & Lye, M. (1996). Use of Restraints and Bedrails in a British Hospital. *JOURNAL- AMERICAN GERIATRICS SOCIETY, 44*(9), 1086-1088. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=RN013525997&site=eds-live&scope=site.

O’Shea, E., Timmons, S., Kennelly, S., Siún, A. d., Gallagher, P., & O’Neill, D. (2015). Symptom Assessment for a Palliative Care Approach in People With Dementia

Admitted to Acute Hospitals:Results From a National Audit. *Journal of Geriatric Psychiatry and Neurology, 28*(4), 255-259. Retrieved from https://journals.sagepub.com/doi/abs/10.1177/0891988715588835. doi:10.1177/0891988715588835

Öhman, H., Savikko, N., Strandberg, T. E., & Pitkälä, K. H. (2014). Effect of Physical Exercise on Cognitive Performance in Older Adults with Mild Cognitive Impairment or Dementia: A Systematic Review. *Dementia & Geriatric Cognitive Disorders, 38*(5/6), 347-365. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=a9h&AN=98952418&site=eds-live&scope=site. doi:10.1159/000365388

Okazaki, H., Lipkin, L. E., & Aronson, S. M. (1961). Diffuse intracytoplasmic ganglionic inclusions (Lewy type) associated with progressive dementia and quadriparesis in flexion. *Journal of Neuropathology & Experimental Neurology, 20*(2), 237-244. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=edb&AN=113795740&site=eds-live&scope=site.

Oliveira, M. R. M., Fogaça, K. C. P., & Leandro-Merhi, V. A. (2009). Nutritional status and functional capacity of hospitalized elderly. *Nutrition Journal, 8*, 54. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=19919711&site=eds-live&scope=site. doi:10.1186/1475-2891-8-54

Oliver, D., Connelly James, B., Victor Christina, R., Shaw Fiona, E., Whitehead, A., Genc, Y., . . . Kurrle. (2007). Strategies to Prevent Falls and Fractures in Hospitals and Care Homes and Effect of Cognitive Impairment: Systematic Review and Meta-Analyses. *BMJ: British Medical Journal, 334*(7584), 82-85. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsjsr&AN=edsjsr.20506101&site=eds-live&scope=site. doi:10.1136/bmj.39049.706493.55

Oliver, P. (2010). *The student's guide to research ethics. [electronic resource]*: Maidenhead, England : Open University Press, 2010. 2nd ed.

Ooms, S., & Ju, Y. E. (2016). Treatment of Sleep Disorders in Dementia. *CURRENT TREATMENT OPTIONS IN NEUROLOGY*

8(9), 1-17. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=RN378796865&site=eds-live&scope=site.

Oosterman, J. M., Hendriks, H., Scott, S., Lord, K., White, N., & Sampson, E. L. (2014). When Pain Memories Are Lost: A Pilot Study of Semantic Knowledge of Pain in Dementia. *Pain Medicine, 15*(5), 751-757. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=s3h&AN=96095105&site=ehost-live.

Palmer, A. D., Newsom, J. T., & Rook, K. S. (2016). How does difficulty communicating affect the social relationships of older adults? An exploration using data from a national survey. *Journal of Communication Disorders, 62*, 131-146. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edselp&AN=S0021992416300582&site=eds-live&scope=site. doi:10.1016/j.jcomdis.2016.06.002

Palmer, J. L., Lach, H. W., McGillick, J., Murphy-White, M., Carroll, M. B., & Armstrong, J. L. (2014). The Dementia Friendly Hospital Initiative Education Program for Acute Care Nurses and Staff. *Journal of Continuing Education in Nursing, 45*(9), 416-424. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=eue&AN=98210820&site=eds-live&scope=site. doi:10.3928/00220124-20140825-20

Papendick, M., & Bohner, G. (2017). "Passive victim - strong survivor"? Perceived meaning of labels applied to women who were raped. *Plos One, 12*(5), e0177550-e0177550.

Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsdoj&AN=edsdoj.fa1548c3d5f4d67a637b363a33aa607&site=eds-live&scope=site. doi:10.1371/journal.pone.0177550

Parsons, C., McCorry, N., Murphy, K., Byrne, S., O'Sullivan, D., O'Mahony, D., . . . Hughes, C. (2014). Assessment of factors that influence physician decision making regarding medication use in patients with dementia at the end of life. *International Journal of Geriatric Psychiatry, 29*(3), 281-290. Retrieved from https://onlinelibrary.wiley.com/doi/abs/10.1002/gps.4006. doi:10.1002/gps.4006

Pei-Chao, L., Mei-Hui, H., & Li-Chan, L. (2012). Hospital Nurse Knowledge of and Approach to Dementia Care. *Journal of Nursing Research (Lippincott Williams & Wilkins), 20*(3), 197-207. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=ccm&AN=108151226&site=eds-live&scope=site. doi:10.1097/jnr.0b013e318263d82e

Peixoto, R. I., da Silveira, V. M., Zimmermann, R. D., & de M. Gomes, A. (2018). End-of-life care of elderly patients with dementia: A cross-sectional study of family carer decision-making. *Archives of gerontology and geriatrics, 75*, 83-90. Retrieved from http://www.sciencedirect.com/science/article/pii/S0167494317303345. doi:https://doi.org/10.1016/j.archger.2017.11.011

Pethybridge, J. (2004). How team working influences discharge planning from hospital: a study of four multi-disciplinary teams in an acute hospital in England. *JOURNAL OF INTERPROFESSIONAL CARE*

18(1), 29-41. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=RN143704670&site=eds-live&scope=site.

Phillips, K., & Clauw, D. J. (2011). Central pain mechanisms in chronic pain states – Maybe it is all in their head. *Best Practice & Research Clinical Rheumatology, 25*(2), 141-154. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edselp&AN=S1521694211000295&site=eds-live&scope=site. doi:10.1016/j.berh.2011.02.005

Phillips, V. L., & Diwan, S. (2003). The Incremental Effect of Dementia-Related Problem Behaviors on the Time to Nursing Home Placement in Poor, Frail, Demented Older People. *J Am Geriatr Soc, 51*(2), 188-193. Retrieved from https://doi.org/10.1046/j.1532-5415.2003.51057.x. doi:10.1046/j.1532-5415.2003.51057.x

Pinkert, C., Faul, E., Saxer, S., Burgstaller, M., Kamleitner, D., & Mayer, H. (2018). Experiences of nurses with the care of patients with dementia in acute hospitals: A secondary analysis. *J Clin Nurs, 27*(1-2), 162-172. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=psyh&AN=2017-30225-001&site=eds-live&scope=site. doi:10.1111/jocn.13864

Pinzon, L. C. E., Claus, M., Perrar, K. M., Zepf, K. I., Letzel, S., & Weber, M. (2013). Dying with dementia: symptom burden, quality of care, and place of death. *Deutsches Arzteblatt international, 110*(12), 195-202. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=23589742&site=eds-live&scope=site. doi:10.3238/arztebl.2013.0195

Polit, D. F., & Beck, C. T. (2010). Generalization in quantitative and qualitative research: Myths and strategies. *International Journal of Nursing Studies, 47*(11), 1451-1458.

Poole, M., Bond, J., Emmett, C., Greener, H., Louw, S. J., Robinson, L., & Hughes, J. C. (2014). Going home? An ethnographic study of assessment of capacity and best interests in people with dementia being discharged from hospital. *BMC Geriatr, 14*,

56. Retrieved from https://doi.org/10.1186/1471-2318-14-56. doi:10.1186/1471-2318-14-56

Poradzisz, M., & Florczak, K. L. (2019). Collaboration: Does It Require Pragmatic Thought? *Nursing Science Quarterly, 32*(4), 271-275. Retrieved from https://doi.org/10.1177/0894318419864336. doi:10.1177/0894318419864336

Porock, D., Clissett, P., Harwood, R. H., & Gladman, J. R. F. (2015). Disruption, control and coping: responses of and to the person with dementia in hospital. *Ageing and Society, 35*(1), 37-63. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=RN363606090&site=eds-live&scope=site.

Prasad, M., Christie, J. D., Bellamy, S. L., Rubenfeld, G. D., & Kahn, J. M. (2010). The availability of clinical protocols in US teaching intensive care units. *Journal of Critical Care, 25*(4), 610-619. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edselp&AN=S0883944110000699&site=eds-live&scope=site. doi:10.1016/j.jcrc.2010.02.014

Proctor, S. (1998). Linking philosophy and method in the research process: the case for realism. *NURSE RESEARCHER, 5*(4), 73-90. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=RN047329504&site=eds-live&scope=site.

Puts, M. T. E., Toubasi, S., Andrew, M. K., Ashe, M. C., Ploeg, J., Atkinson, E., . . . McGilton, K. (2017). Interventions to prevent or reduce the level of frailty in community-dwelling older adults: a scoping review of the literature and international policies. *Age Ageing, 46*(3), 383-392. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=28064173&site=eds-live&scope=site. doi:10.1093/ageing/afw247

Ragavan, M. V., Svec, D., & Shieh, L. (2017). Barriers to timely discharge from the general medicine service at an academic teaching hospital. *Postgraduate medical journal, 93*(1103), 528-533. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=28450581&site=eds-live&scope=site. doi:10.1136/postgradmedj-2016-134529

Randall, E. W., & Clissett, P. C. (2016). What are the relative merits of interventions used to reduce the occurrences of disruptive vocalisation in persons with dementia?—A systematic review. *Int J Older People Nurs, 11*(1), 4-17. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=psyh&AN=2016-09239-003&site=eds-live&scope=site. doi:10.1111/opn.12083

Rantala, M., Hartikainen, S., Kvist, T., & Kankkunen, P. (2015). Registered Nurses' Knowledge about Adverse Effects of Analgesics when Treating Postoperative Pain in Patients with Dementia. *Pain Management Nursing, 16*(4), 544-551. Retrieved from http://www.sciencedirect.com/science/article/pii/S1524904214001635. doi:https://doi.org/10.1016/j.pmn.2014.10.003

Rantala, M., Kankkunen, P., Kvist, T., & Hartikainen, S. (2012). Post-operative pain management practices in patients with dementia - the current situation in Finland. *The open nursing journal, 6*, 71-81. Retrieved from https://www.ncbi.nlm.nih.gov/pubmed/22723810

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3379530/. doi:10.2174/1874434601206010071

Rantala, M., Kankkunen, P., Kvist, T., & Hartikainen, S. (2014). Barriers to Postoperative Pain Management in Hip Fracture Patients with Dementia as Evaluated by Nursing Staff. *Pain Management Nursing, 15*(1), 208-219. Retrieved from http://www.sciencedirect.com/science/article/pii/S1524904212001415. doi:https://doi.org/10.1016/j.pmn.2012.08.007

Reader, T. W., Gillespie, A., & Roberts, J. (2014). Patient complaints in healthcare systems: a systematic review and coding taxonomy. *BMJ Quality & Safety, 23*(8), 678-689. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=24876289&site=eds-live&scope=site. doi:10.1136/bmjqs-2013-002437

Reason, J. (1990). *Human error*. Cambridge: Cambridge University Press.

Reilly, J. C., & Houghton, C. (2019). The experiences and perceptions of care in acute settings for patients living with dementia: A qualitative evidence synthesis. *International Journal of Nursing Studies, 96*, 82-90. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edselp&AN=S0020748919301245&site=eds-live&scope=site. doi:10.1016/j.ijnurstu.2019.04.018

Rello, J., Chastre, J., Cornaglia, G., & Masterton, R. (2011). A European care bundle for management of ventilator-associated pneumonia. *Journal of Critical Care, 26*(1), 3-10. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edselp&AN=S0883944110000833&site=eds-live&scope=site. doi:10.1016/j.jcrc.2010.04.001

Renner, S. W., Cauley, J. A., Brown, P. J., Boudreau, R. M., Bear, T. M., Blackwell, T., . . . Glynn, N. W. (2020). Higher Fatigue Prospectively Increases the Risk of Falls in Older Men. *Innovation in aging, 5*(1), igaa061. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=33442567&site=eds-live&scope=site. doi:10.1093/geroni/igaa061

Resar, R., Griffin, F., Haraden, C., & Nolan, T. (2012). Using care bundles to improve health care quality. *IHI innovation series white paper. Cambridge, Massachusetts: Institute for Healthcare Improvement*. Retrieved from http://www.ihi.org/resources/Pages/IHIWhitePapers/UsingCareBundles.aspx.

Reynish, E. L., Hapca, S. M., De Souza, N., Cvoro, V., Donnan, P. T., & Guthrie, B. (2017). Epidemiology and outcomes of people with dementia, delirium, and unspecified cognitive impairment in the general hospital: prospective cohort study of 10,014 admissions. *BMC Medicine, 15*(1), 140. Retrieved from https://doi.org/10.1186/s12916-017-0899-0.

Rhynas, S. J., Garrido, A. G., Burton, J. K., Logan, G., & MacArthur, J. (2018). New care home admission following hospitalisation: How do older people, families and professionals make decisions about discharge destination? A case study narrative analysis. *Int J Older People Nurs, 13*(3), e12192. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=psyh&AN=2018-13012-001&site=eds-live&scope=site

doi:10.1111/opn.12192

Richardson, S. S., Sullivan, G., Hill, A., & Yu, W. (2007). Use of Aggressive Medical Treatments Near the End of Life: Differences between Patients with and without Dementia. *Health Services Research, 42*(1p1), 183-200. Retrieved from https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1475-6773.2006.00608.x. doi:10.1111/j.1475-6773.2006.00608.x

Ritchie, J., Spencer, L., & O'Connor, W. (2003). Qualitative research practice: a guide for social science students and researchers. In J. L. Ritchie, J. (Ed.), (pp. -). London: SAGE.

Roberts, H. C., De Wet, S., Porter, K., Rood, G., Diaper, N., Robison, J., . . . Cooper, C. (2014). The feasibility and acceptability of training volunteer mealtime assistants to help older acute hospital inpatients: the Southampton Mealtime Assistance Study. *Journal of Clinical Nursing,, 23*(21-22), 3240-3249. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=RN361320217&site=eds-live&scope=site.

Roberts, N., Curran, S., Minogue, V., Shewan, J., Spencer, R., & Wattis, J. (2010). A Pilot Study of the Impact of NHS Patient Transportation on Older People with Dementia. *International Journal of Alzheimer's Disease, 2010*, 348065. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=asn&AN=56530361&site=eds-live&scope=site. doi:10.4061/2010/348065

Robins Wahlin, T.-B., & Byrne, G. J. (2011). Personality changes in Alzheimer's disease: a systematic review. *International Journal of Geriatric Psychiatry, 26*(10), 1019-1029. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=a9h&AN=65278218&site=eds-live&scope=site. doi:10.1002/gps.2655

Robinson, L., Dickinson, C., Rousseau, N., Beyer, F., Clark, A., Hughes, J., . . . Exley, C. (2012). A systematic review of the effectiveness of advance care planning interventions for people with cognitive impairment and dementia. *Age & Ageing, 41*(2), 263-269. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=a9h&AN=72441527&site=eds-live&scope=site.

Rojas-García, A., Turner, S., Pizzo, E., Hudson, E., Thomas, J., & Raine, R. (2018). Impact and experiences of delayed discharge: A mixed-studies systematic review. *Health Expectations, 21*(1), 41-56. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=ccm&AN=127191699&site=eds-live&scope=site. doi:10.1111/hex.12619

Rooddehghan, Z., Yekta, Z. P., & Nasrabadi, A. N. (2018). Ethics of rationing of nursing care. *Nursing Ethics, 25*(5), 591-600. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=psyh&AN=2018-40224-005&site=eds-live&scope=site

doi:10.1177/0969733016664973

Rorty, R. (2000). Pragmatism. *The International Journal of Psychoanalysis, 81*(4), 819-823. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=psyh&AN=2000-02437-010&site=eds-live&scope=site. doi:10.1516/0020757001600057

Rösler, A., Pfeil, S., Lessmann, H., Höder, J., Befahr, A., & von Renteln-Kruse, W. (2015). Dysphagia in Dementia: Influence of Dementia Severity and Food Texture on the Prevalence of Aspiration and Latency to Swallow in Hospitalized Geriatric Patients. *Journal of the American Medical Directors Association, 16*(8), 697-701. Retrieved from http://www.sciencedirect.com/science/article/pii/S1525861015002443. doi:https://doi.org/10.1016/j.jamda.2015.03.020

Rosman, M., Rachminov, O., Segal, O., & Segal, G. (2015). Prolonged patients' In-Hospital Waiting Period after discharge eligibility is associated with increased risk of infection, morbidity and mortality: a retrospective cohort analysis. *BMC Health Services Research, 15*(1), 1-5. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=asn&AN=108276574&site=eds-live&scope=site. doi:10.1186/s12913-015-0929-6

Røsvik, J., & Rokstad, A. M. M. (2020). What are the needs of people with dementia in acute hospital settings, and what interventions are made to meet these needs? A systematic integrative review of the literature. *BMC Health Services Research, 20*(1), 723. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=32767987&site=eds-live&scope=site. doi:10.1186/s12913-020-05618-3

Rotter, T., Kinsman, L., James, E., Machotta, A., & Steyerberg Ewout, W. (2012). The quality of the evidence base for clinical pathway effectiveness: Room for improvement in the design of evaluation trials. *BMC medical research methodology, 12*(1), 80.

Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsdoj&AN=edsdoj.25438d482a3450998128c9c424d87e3&site=eds-live&scope=site. doi:10.1186/1471-2288-12-80

Rowley, J., & Slack, F. (2004). Conducting a literature review. *Management Research News, 27*(6), 31-39. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsemr&AN=edsemr.10.1108.01409170410784185&site=eds-live&scope=site. doi:10.1108/01409170410784185

Royal College of Physicians. (2015). *National Audit of Inpatient Falls: audit report 2015*. Retrieved from London: file:///H:/National%20Audit%20of%20Inpatient%20Falls%20audit%20report%202015.pdf

Royal College of Psychiatrists. (2019). *National Audit of Dementia care in general hospitals 2018–19: Round Four audit report.* Retrieved from London: https://www.hqip.org.uk/wp-content/uploads/2019/07/ref-113-national-audit-of-dementia-round-4-report-final-online-v4.pdf

Rundqvist, E. M., & Severinsson, E. I. (1999). Caring relationships with patients suffering from dementia - an interview study. *J Adv Nurs, 29*(4), 800-807. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=RN059695861&site=eds-live&scope=site.

Ryan, A., & McKenna, H. (2013). 'Familiarity' as a key factor influencing rural family carers' experience of the nursing home placement of an older relative: a qualitative study. *BMC Health Services Research, 13*(1), 252-261. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=asn&AN=89707723&site=eds-live&scope=site. doi:10.1186/1472-6963-13-252

Ryan, T., Gardiner, C., Bellamy, G., Gott, M., & Ingleton, C. (2012). Barriers and facilitators to the receipt of palliative care for people with dementia: The views of medical and nursing staff. *Palliative Medicine, 26*(7), 879-886. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=RN351450914&site=eds-live&scope=site.

Sabat, S. R., & Harré, R. (1992). The construction and deconstruction of self in Alzheimer's disease. *Ageing and Society, 12*(04), 443-461.

Sadak, T., Zdon, S. F., Ishado, E., Zaslavsky, O., & Borson, S. (2017). Potentially preventable hospitalizations in dementia: family caregiver experiences. *International Psychogeriatrics, 29*(7), 1201-1211. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=RN611508747&site=eds-live&scope=site.

Saka, B., Kaya, O., Ozturk, G. B., Erten, N., & Karan, M. A. (2010). Malnutrition in the elderly and its relationship with other geriatric syndromes. *Clinical Nutrition, 29*(6), 745-748. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edselp&AN=S0261561410000841&site=eds-live&scope=site. doi:10.1016/j.clnu.2010.04.006

Sakaguchi, F. H., & Lenert, L. A. (2015). Improving Continuity of Care via the Discharge Summary. *AMIA ... Annual Symposium proceedings. AMIA Symposium, 2015*, 1111-1120. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=26958250&site=eds-live&scope=site.

Sampson, E. L., Blanchard, M. R., Jones, L., Tookman, A., & King, M. (2009). Dementia in the acute hospital: prospective cohort study of prevalence and mortality. *British Journal of Psychiatry, 195*(1), 61-66. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=edswsc&AN=000267962100011&site=eds-live&scope=site.

Sampson, E. L., Candy, B., & Jones, L. (2009). Enteral tube feeding for older people with advanced dementia. *Cochrane Database of Systematic Reviews*(2). Retrieved from https://doi.org//10.1002/14651858.CD007209.pub2. doi:10.1002/14651858.CD007209.pub2

Sampson, E. L., Gould, V., Lee, D., & Blanchard, M. R. (2006). Differences in care received by patients with and without dementia who died during acute hospital admission: a retrospective case note study. *Age Ageing, 35*(2), 187-189. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=RN182870236&site=eds-live&scope=site.

Sampson, E. L., White, N., Lord, K., Leurent, B., Vickerstaff, V., Scott, S., & Jones, L. (2015). Pain, agitation, and behavioural problems in people with dementia admitted to general hospital wards: a longitudinal cohort study. *Pain, 156*(4), 675-683. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=asn&AN=102886688&site=eds-live&scope=site. doi:10.1097/j.pain.0000000000000095

Sanders, S. (2005). Is the Glass Half Empty or Half Full? Reflections on Strain and Gain in Caregivers of Individuals with Alzheimer's Disease. *SOCIAL WORK IN HEALTH CARE*

40(3), 57-73. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=RN168923970&site=eds-live&scope=site.

Saunders, A. M., Strittmatter, W. J., Schmechel, D., George-Hyslop, P. S., Pericak-Vance, M. A., Joo, S., . . . Alberts, M. (1993). Association of apolipoprotein E allele ϵ4 with late-onset familial and sporadic Alzheimer's disease. *Neurology, 43*(8), 1467-1467.

Scandol, J. P., Toson, B., & Close, J. C. T. (2013). Fall-related hip fracture hospitalisations and the prevalence of dementia within older people in New South Wales, Australia: An analysis of linked data. *Injury, 44*(6), 776-783. Retrieved from http://www.sciencedirect.com/science/article/pii/S0020138312005219. doi:https://doi.org/10.1016/j.injury.2012.11.023

Scerri, A., Innes, A., & Scerri, C. (2015). Discovering what works well: exploring quality dementia care in hospital wards using an appreciative inquiry approach. *J Clin Nurs, 24*(13-14), 1916-1925. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=25940022&site=eds-live&scope=site. doi:10.1111/jocn.12822

Scherder, E. J. A., Bogen, T., Eggermont, L. H. P., Hamers, J. P. H., & Swaab, D. F. (2010). The more physical inactivity, the more agitation in dementia. *International Psychogeriatrics, 22*(8), 1203-1208. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=RN281043947&site=eds-live&scope=site.

Schoeb, V., Staffoni, L., & Keel, S. (2019). Influence of interactional structure on patient's participation during interprofessional discharge planning meetings in rehabilitation centers. *Journal of interprofessional care*

33(5), 536-545. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=vdc.100089352899.0x000001&site=eds-live&scope=site.

Schoonenboom, J., & Johnson, R. B. (2017). How to Construct a Mixed Methods Research Design. *KOLNER ZEITSCHRIFT FUR SOZIOLOGIE UND SOZIALPSYCHOLOGIE, 69*(2), 107-131. Retrieved from

https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=RN385474373&site=eds-live&scope=site.

Schwendimann, R., Bühler, H., De Geest, S., & Milisen, K. (2006). Falls and consequent injuries in hospitalized patients: effects of an interdisciplinary falls prevention program. *BMC Health Services Research, 6*, 69. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=16759386&site=eds-live&scope=site.

Selman, L., Robinson, V., Klass, L., Khan, S., George, R., Shepherd, K., . . . Koffman, J. (2016). Improving confidence and competence of healthcare professionals in end-of-life care: an evaluation of the 'Transforming End of Life Care' course at an acute hospital trust. *BMJ supportive & palliative care, 6*(2), 231-236. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=26597902&site=eds-live&scope=site. doi:10.1136/bmjspcare-2015-000879

Seppala, L. J., Wermelink, A., de Vries, M., Ploegmakers, K. J., van de Glind, E. M. M., Daams, J. G., & van der Velde, N. (2018). Fall-Risk-Increasing Drugs: A Systematic Review and Meta-Analysis: II. Psychotropics. *Journal of the American Medical Directors Association, 19*(4), 371.e311-371.e317. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsswe&AN=edsswe.oai.prod.swepub.kib.ki.se.137880716&site=eds-live&scope=site. doi:10.1016/j.jamda.2017.12.098

Sharma, S., Mueller, C., Stewart, R., Veronese, N., Vancampfort, D., Koyanagi, A., . . . Stubbs, B. (2018). Predictors of Falls and Fractures Leading to Hospitalization in People With Dementia: A Representative Cohort Study. *Journal of the American Medical Directors Association, 19*(7), 607-612. Retrieved from http://www.sciencedirect.com/science/article/pii/S1525861018301336. doi:https://doi.org/10.1016/j.jamda.2018.03.009

Shaw, F. E., Bond, J., Richardson, D. A., Dawson, P., Steen, I. N., McKeith, I. G., & Kenny, R. A. (2003). Multifactorial intervention after a fall in older people with cognitive impairment and dementia presenting to the accident and emergency department: randomised controlled trial. *BMJ: British Medical Journal, 326*(7380), 73-75. Retrieved from http://www.bmj.com/content/326/7380/73.abstract. doi:10.1136/bmj.326.7380.73

Shea, B. J., Reeves, B. C., Wells, G., Thuku, M., Hamel, C., Moran, J., . . . Henry, D. A. (2017). AMSTAR 2: a critical appraisal tool for systematic reviews that include randomised or non-randomised studies of healthcare interventions, or both. *BMJ (Clinical Research Ed.), 358*, j4008. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=28935701&site=eds-live&scope=site. doi:10.1136/bmj.j4008

Sherrington, C., Michaleff, Z. A., Fairhall, N., Paul, S. S., Tiedemann, A., Whitney, J., . . . Lord, S. R. (2017). Exercise to prevent falls in older adults: an updated systematic review and meta-analysis. *British Journal of Sports Medicine, 51*(24), 1750-1758. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edb&AN=126358722&site=eds-live&scope=site.

Sherrington, C., Whitney, J. C., Lord, S. R., Herbert, R. D., Cumming, R. G., & Close, J. C. (2008). Effective Exercise for the Prevention of Falls: A Systematic Review and Meta-Analysis. *JOURNAL OF THE AMERICAN GERIATRICS SOCIETY*

56(12), 2234-2243. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=RN241563727&site=eds-live&scope=site.

Shever, L. L., Titler, M. G., Mackin, M. L., & Kueny, A. (2011). Fall Prevention Practices in Adult Medical-Surgical Nursing Units Described by Nurse Managers. *WESTERN JOURNAL OF NURSING RESEARCH, 33*(3), 385-397. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=RN288365816&site=eds-live&scope=site.

Sima, A., Clark, A., Sternberger, N., & Sternberger, L. (1986). Lewy body dementia without Alzheimer changes. *Canadian Journal of Neurological Sciences/Journal Canadien des Sciences Neurologiques, 13*(S4), 490-497.

Simon, M., Maben, J., Murrells, T., & Griffiths, P. (2016). Is single room hospital accommodation associated with differences in healthcare-associated infection, falls, pressure ulcers or medication errors? A natural experiment with non-equivalent controls. *Journal of Health Services Research & Policy, 21*(3), 147-155. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsjsr&AN=edsjsr.26746951&site=eds-live&scope=site.

Simpson, R. G., Scothern, G., & Vincent, M. (1995). Survey of carer satisfaction with the quality of care delivered to in-patients suffering from dementia. *Journal of Advanced Nursing (Wiley-Blackwell), 22*(3), 517-527. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=ccm&AN=107422196&site=eds-live&scope=site. doi:10.1046/j.1365-2648.1995.22030517.x

Singh, I., Okeke, J., & Edwards, C. (2015). Outcome of in-patient falls in hospitals with 100% single rooms and multi-bedded wards. *Age Ageing, 44*(6), 1032-1035. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=26399649&site=eds-live&scope=site. doi:10.1093/ageing/afv124

Singleton, D., Mukadam, N., Livingston, G., & Sommerlad, A. (2017). How people with dementia and carers understand and react to social functioning changes in mild dementia: a UK-based qualitative study. *BMJ Open, 7*(7), e016740. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=28706105&site=eds-live&scope=site. doi:10.1136/bmjopen-2017-016740

Sinkowitz-Cochran, R. L. (2013). Survey Design: To Ask or Not to Ask? That is the Question…. *CLINICAL INFECTIOUS DISEASES -CHICAGO-, 56*(8), 1159-1164. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=RN374651650&site=eds-live&scope=site.

Skär, L., & Söderberg, S. (2018). Patients' complaints regarding healthcare encounters and communication. *Nursing Open, 5*(2), 224-232. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsswe&AN=edsswe.oai.DiVA.org.bth.16105&site=eds-live&scope=site. doi:10.1002/nop2.132

Slatyer, S., Aoun, S. M., Hill, K. D., Walsh, D., Whitty, D., & Toye, C. (2019). Caregivers' experiences of a home support program after the hospital discharge of an older family member: a qualitative analysis. *BMC Health Services Research, 19*(1), 220. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=30971236&site=eds-live&scope=site. doi:10.1186/s12913-019-4042-0

Smith, S. J., Parveen, S., Sass, C., Drury, M., Oyebode, J. R., & Surr, C. A. (2019). An audit of dementia education and training in UK health and social care: a comparison with national benchmark standards. *BMC Health Services Research, 19*, 711. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=31638974&site=eds-live&scope=site. doi:10.1186/s12913-019-4510-6

Snowden, J. (2012). Handbook of clinical neuropsychology. In J. C. Marshall, J. M. Gurd, & U. Kischka (Eds.), *Handbook of clinical neuropsychology* (2nd ed. ed., pp. -). Oxford: Oxford University Press.

Snowdon, D. A., Hau, R., Leggat, S. G., & Taylor, N. F. (2016). Does clinical supervision of health professionals improve patient safety? A systematic review and meta-analysis. *INTERNATIONAL JOURNAL FOR QUALITY IN HEALTH CARE*

28(4), 447-455. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=RN380681533&site=eds-live&scope=site.

Snowdon, D. A., Leggat, S. G., & Taylor, N. F. (2017). Does clinical supervision of healthcare professionals improve effectiveness of care and patient experience? A systematic review. *BMC Health Services Research, 17*(1), 786. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=29183314&site=eds-live&scope=site. doi:10.1186/s12913-017-2739-5

Sochalski, J. (2001). Quality of care, nurse staffing, and patient outcomes. *Policy, Politics & Nursing Practice, 2*(1), 9-18. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edb&AN=107058345&site=eds-live&scope=site.

Sockalingam, S., Tan, A., Hawa, R., Pollex, H., Abbey, S., & Hodges, B. D. (2014). Interprofessional education for delirium care: a systematic review. *Journal of Interprofessional Care, 28*(4), 345-351. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=a9h&AN=96408114&site=eds-live&scope=site. doi:10.3109/13561820.2014.891979

Sokoloff, C., Daoust, R., Paquet, J., & Chauny, J.-M. (2014). Is adequate pain relief and time to analgesia associated with emergency department length of stay? A retrospective study. *BMJ Open, 4*(3), e004288. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=24667382&site=eds-live&scope=site. doi:10.1136/bmjopen-2013-004288

Souza, A. C. d., Alexandre, N. M. C., & Guirardello, E. d. B. (2017). Propriedades psicométricas na avaliação de instrumentos: avaliação da confiabilidade e da validade / Psychometric properties in instruments evaluation of reliability and validity. *Epidemiologia e Serviços de Saúde, 26*(3), 649-659. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edssci&AN=edssci.S2237.96222017000300649&site=eds-live&scope=site. doi:10.5123/s1679-49742017000300022

Souza, R., Gandesha, A., Hood, C., Chaplin, R., Young, J., Crome, P., & Crawford, M. J. (2014). Quality of care for people with dementia in general hospitals: national cross-sectional audit of patient assessment. *CLINICAL MEDICINE -LONDON- ROYAL COLLEGE OF PHYSICIANS-, 14*(5), 490-494. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=RN360679717&site=eds-live&scope=site.

Spencer, K., Foster, P., Whittamore, K. H., Goldberg, S. E., & Harwood, R. H. (2013). Delivering dementia care differently--evaluating the differences and similarities between a specialist medical and mental health unit and standard acute care wards: a qualitative study of family carers' perceptions of quality of care. *BMJ Open, 3*(12), e004198. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=24362015&site=eds-live&scope=site. doi:10.1136/bmjopen-2013-004198

Spencer, K., Foster, P. E., Whittamore, K. H., Goldberg, S. E., & Harwood, R. H. (2014). Staff confidence, morale and attitudes in a specialist unit for general hospital patients with dementia and delirium-a qualitative study. *International Journal of Geriatric*

Psychiatry, 29(12), 1315-1317. Retrieved from https://www.nottingham.ac.uk/mcop/documents/papers/issue15-mcop-issn2044-4230.pdf.

Spillantini, M. G., Schmidt, M. L., Lee, V. M., Trojanowski, J. Q., Jakes, R., & Goedert, M. (1997). Alpha-synuclein in Lewy bodies. *Nature, 388*(6645), 839-840. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=9278044&site=eds-live&scope=site.

Spitznagel, M. B., Tremont, G., Davis, J. D., & Foster, S. M. (2006). Psychosocial Predictors of Dementia Caregiver Desire to Institutionalize: Caregiver, Care Recipient, and Family Relationship Factors. *Journal of Geriatric Psychiatry and Neurology, 19*(1), 16-20. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=RN183025260&site=eds-live&scope=site.

Stallibrass, G. W. (1972). *Discussion following Paper by Dr. Elwyn Edwards Loughborough University of Technology.* Paper presented at the 1972 Technical Symposium Outlook on Safety Towards Identifying Sources of Human Fallibility and System Error in Construction, Opertion and Regulation, Royal Garden Hotel, London.

Starks, H., & Trinidad, S. B. (2007). Choose your method: A comparison of phenomenology, discourse analysis, and grounded theory. *Qualitative Health Research, 17*(10), 1372-1380. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=psyh&AN=2007-18556-007&site=eds-live&scope=site

ORCID: 0000-0002-5956-6557. doi:10.1177/1049732307307031

Stevens, L., Fry, M., Browne, M., & Barnes, A. (2019). Fast track patients' satisfaction, compliance and confidence with emergency department discharge planning. *Australasian Emergency Care, 22*(2), 87-91. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edselp&AN=S2588994X19300041&site=eds-live&scope=site. doi:10.1016/j.auec.2019.01.004

Stewart, R., Bartlett, P., & Harwood, R. H. (2005). Mental capacity assessments and discharge decisions. *Age Ageing, 34*(6), 549-550. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=16267176&site=eds-live&scope=site.

Stockwell-Smith, G., Adeleye, A., Chaboyer, W., Cooke, M., Phelan, M., Todd, J. a., & Grealish, L. (2020). Interventions to prevent in-hospital falls in older people with cognitive impairment for further research: A mixed studies review. *Journal of Clinical Nursing,, 29*, 3445-3460. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=vdc.100110351984.0x000001&site=eds-live&scope=site.

Stockwell-Smith, G., Moyle, W., Marshall, A. P., Argo, A., Brown, L., Howe, S., . . . Grealish, L. (2018). Hospital discharge processes involving older adults living with dementia: An integrated literature review. *J Clin Nurs, 27*(5-6), e712-e725. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=psyh&AN=2018-02127-001&site=eds-live&scope=site

doi:10.1111/jocn.14144

Stratton, R. J., King, C. L., Stroud, M. A., Jackson, A. A., & Elia, M. (2006). `Malnutrition Universal Screening Tool' predicts mortality and length of hospital stay in acutely ill elderly. *BRITISH JOURNAL OF NUTRITION, 95*(2), 325-330. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=RN183623653&site=eds-live&scope=site.

Struksnes, S., Bachrach-Lindström, M., Hall-Lord, M. L., Slaasletten, R., & Johansson, I. (2011). The nursing staff's opinion of falls among older persons with dementia. a cross-sectional study. *BMC Nursing, 10*(1), 13-21. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=asn&AN=63967668&site=eds-live&scope=site. doi:10.1186/1472-6955-10-13

Stubbs, B., Binnekade, T., Eggermont, L., Sepehry, A. A., Patchay, S., & Schofield, P. (2014). Pain and the Risk for Falls in Community-Dwelling Older Adults: Systematic Review and Meta-Analysis. *Archives of Physical Medicine and Rehabilitation, 95*(1), 175-187. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edselp&AN=S0003999313008927&site=eds-live&scope=site. doi:10.1016/j.apmr.2013.08.241

Sue, V. M., & Ritter, L. A. (2016). *Conducting online surveys* (Second edition. ed.): SAGE.

Suhonen, R., Stolt, M., Habermann, M., Hjaltadottir, I., Vryonides, S., Tonnessen, S., . . . Scott, P. A. (2018). Ethical elements in priority setting in nursing care: A scoping review. *International Journal of Nursing Studies, 88*, 25-42. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edselp&AN=S0020748918301895&site=eds-live&scope=site. doi:10.1016/j.ijnurstu.2018.08.006

Sullivan, G. M., & Artino, A. R., Jr. (2013). Analyzing and interpreting data from likert-type scales. *Journal of graduate medical education, 5*(4), 541-542. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=24454995&site=eds-live&scope=site. doi:10.4300/JGME-5-4-18

Surr, C. A., Smith, S. J., Crossland, J., & Robins, J. (2016). 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. *International Journal of Nursing Studies, 53*, 144-151. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=26421910&site=eds-live&scope=site. doi:10.1016/j.ijnurstu.2015.09.009

Swinkels, A., & Mitchell, T. (2009). Delayed transfer from hospital to community settings: the older person's perspective. *HEALTH AND SOCIAL CARE IN THE COMMUNITY*

17(1), 45-53. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=RN242317373&site=eds-live&scope=site.

Tadokoro, K., Sasaki, R., Wakutani, Y., Takao, Y., & Abe, K. (2018). Clinical characteristics of patients with dementia in a local emergency clinic in Japan. *Geriatrics & Gerontology International, 18*(9), 1383-1387. Retrieved from https://onlinelibrary.wiley.com/doi/abs/10.1111/ggi.13496. doi:10.1111/ggi.13496

Takayama, K., Hirayama, K., Hirao, A., Kondo, K., Hayashi, H., Kadota, K., . . . Terada, S. (2017). Survival times with and without tube feeding in patients with dementia or psychiatric diseases in Japan. *Psychogeriatrics, 17*(6), 453-459. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=ccm&AN=126419105&site=eds-live&scope=site. doi:10.1111/psyg.12274

Takenoshita, S., Kondo, K., Okazaki, K., Hirao, A., Takayama, K., Hirayama, K., . . . Middle Western Japan-Dementia, S. (2017). Tube feeding decreases pneumonia rate in patients with severe dementia: comparison between pre- and post-intervention. *BMC Geriatr, 17*, 267. Retrieved from https://doi.org/10.1186/s12877-017-0662-6. doi:10.1186/s12877-017-0662-6

Tängman, S., Eriksson, S., Gustafson, Y., & Lundin-Olsson, L. (2010). Precipitating factors for falls among patients with dementia on a psychogeriatric ward. *International Psychogeriatrics, 22*(4), 641-649. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=RN271389253&site=eds-live&scope=site.

Tanner, D., Ward, L., & Ray, M. (2018). ‘Paying our own way’: Application of the capability approach to explore older people’s experiences of self-funding social care. *Critical Social Policy, 38*(2), 262-282. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=asn&AN=128682988&site=eds-live&scope=site. doi:10.1177/0261018317724344

Tariq, S., & Woodman, J. (2013). Using mixed methods in health research. *JRSM short reports, 4*(6), 1-8. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=23885291&site=eds-live&scope=site. doi:10.1177/2042533313479197

Tay, F. H. E., Thompson, C. L., Nieh, C. M., Nieh, C. C., Koh, H. M., Tan, J. J. C., & Yap, P. L. K. (2018). Person-centered care for older people with dementia in the acute hospital. *Alzheimer's & Dementia: Translational Research & Clinical Interventions, 4*, 19-27. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edselp&AN=S2352873717300719&site=eds-live&scope=site. doi:10.1016/j.trci.2017.11.003

Teitcher, J. E. F., Bockting, W. O., Bauermeister, J. A., Hoefer, C. J., Miner, M. H., & Klitzman, R. L. (2015). Detecting, Preventing, and Responding to 'Fraudsters' in Internet Research: Ethics and Tradeoffs. *Journal of Law, Medicine & Ethics, 43*(1), 116-133. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=ccm&AN=103782584&site=ehost-live. doi:10.1111/jlme.12200

Teles, S., Paúl, C., Sosa Napolskij, M., & Ferreira, A. (2020). Dementia caregivers training needs and preferences for online interventions: A mixed-methods study. *J Clin Nurs*(Online Version of Record before inclusion in an issue). Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=psyh&AN=2020-65468-001&site=eds-live&scope=site

doi:10.1111/jocn.15445

Tetreault, L., Nater, A., Garwood, P., Badhiwala, J. H., Wilson, J. R., & Fehlings, M. G. (2019). Development and Implementation of Clinical Practice Guidelines: An Update and Synthesis of the Literature With a Focus in Application to Spinal Conditions. *Global Spine Journal, 9*(1_suppl), 53S-64S. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edb&AN=136903757&site=eds-live&scope=site.

The Department of Health. (2013). *Information: To share or not to share. Government Response to the Caldicott Review*. Retrieved from https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/251750/9731-2901141-TSO-Caldicott-Government_Response_ACCESSIBLE.PDF

Theisen, S., Drabik, A., & Stock, S. (2012). Pressure ulcers in older hospitalised patients and its impact on length of stay: a retrospective observational study. *J Clin Nurs, 21*(3-4), 380-387. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=RN304719629&site=eds-live&scope=site.

Thomas, D. W. (2008). Ukrainian inpatient dementia care: a case study of two neuropsychiatric hospitals. *Dementia, 7*(2), 239-249. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=ccm&AN=105645224&site=eds-live&scope=site.

Thompson, S. B. N. (2006). *Dementia and memory: a handbook for students and professionals*. Aldershot: Ashgate.

Thuathail, A. N., & Welford, C. (2011). Pain assessment tools for older people with cognitive impairment. *Nursing Standard, 26*(6), 39-46. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=ccm&AN=104705405&site=eds-live&scope=site.

Thuné-Boyle, I. C. V., Sampson, E. L., Jones, L., King, M., Lee, D. R., & Blanchard, M. R. (2010). Challenges to improving end of life care of people with advanced dementia in the UK. *Dementia, 9*(2), 259-284. Retrieved from https://journals.sagepub.com/doi/abs/10.1177/1471301209354026. doi:10.1177/1471301209354026

Ticinesi, A., Nouvenne, A., Lauretani, F., Prati, B., Cerundolo, N., Maggio, M., & Meschi, T. (2016). Survival in older adults with dementia and eating problems: To PEG or not to PEG? *Clinical Nutrition, 35*(6), 1512-1516. Retrieved from http://www.sciencedirect.com/science/article/pii/S0261561416300176. doi:https://doi.org/10.1016/j.clnu.2016.04.001

Timmons, S., Manning, E., Barrett, A., Brady, N. M., Browne, V., O'Shea, E., . . . Cahill, S. (2015). Dementia in older people admitted to hospital: a regional multi-hospital observational study of prevalence, associations and case recognition. *Age Ageing, 44*(6), 993-999.

Timmons, S., O'Shea, E., O'Neill, D., Gallagher, P., de Siún, A., McArdle, D., . . . Kennelly, S. (2016). Acute hospital dementia care: results from a national audit. *BMC Geriatr, 16*, 113. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=27245979&site=eds-live&scope=site. doi:10.1186/s12877-016-0293-3

Todres, L., Galvin, K., & Holloway, I. (2009). The humanization of healthcare: A value framework for qualitative research. *INTERNATIONAL JOURNAL OF QUALITATIVE STUDIES ON HEALTH AND WELL BEING, 4*(2), 68-77. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=RN250700706&site=eds-live&scope=site.

Toepoel, V. (2016). *Doing surveys online*: SAGE.

Toh, H. J., Lim, Z. Y., Yap, P., & Tang, T. (2017). Factors associated with prolonged length of stay in older patients. *Singapore Medical Journal, 58*(3), 134-138. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=27609507&site=eds-live&scope=site. doi:10.11622/smedj.2016158

Tolson, D., Smith, M., & Knight, P. (1999). An investigation of the components of best nursing practice in the care of acutely ill hospitalized older patients with coincidental dementia: a multi-method design. *J Adv Nurs, 30*(5), 1127-1136. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=RN068744544&site=eds-live&scope=site.

Toye, C., Slatyer, S., Kitchen, S., Ingram, K., Bronson, M., Edwards, D., . . . Hill, K. D. (2019). Bed Moves, Ward Environment, Staff Perspectives and Falls for Older People with High Falls Risk in an Acute Hospital: A Mixed Methods Study. *Clinical interventions in aging, 14*, 2223-2237. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsdoj&AN=edsdoj.78c577dbf55549fb94e804029137f7ed&site=eds-live&scope=site.

Trajkovski, S., Schmied, V., Vickers, M., & Jackson, D. (2013). Implementing the 4D cycle of appreciative inquiry in health care: a methodological review. *Journal of Advanced Nursing (Wiley-Blackwell), 69*(6), 1224-1234. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=RN330456989&site=eds-live&scope=site.

Travers, C., Byrne, G. J., Pachana, N. A., Klein, K., & Gray, L. C. (2014). Prospective observational study of dementia in older patients admitted to acute hospitals. *Australasian journal on ageing, 33*(1), 55-58.

Trentino, K. M., Swain, S. G., Burrows, S. A., Sprivulis, P. C., & Daly, F. F. (2013). Measuring the incidence of hospital-acquired complications and their effect on length of stay using CHADx. *Med J Aust, 199*(8), 543-547.

Tropea, J., LoGiudice, D., Liew, D., Gorelik, A., & Brand, C. (2016). Poorer outcomes and greater healthcare costs for hospitalised older people with dementia and delirium: a retrospective cohort study. *International Journal of Geriatric Psychiatry, 32*(5), 539-547.

Tsai, I. P., Jeong, S. Y.-S., & Hunter, S. (2018). Pain assessment and management for older patients with dementia in hospitals: An integrative literature review. *Pain Management Nursing, 19*(1), 54-71. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=psyh&AN=2018-05662-008&site=eds-live&scope=site. doi:10.1016/j.pmn.2017.10.001

Tschannen, D., & Kalisch, B. J. (2009). The Effect of Variations in Nurse Staffing on Patient Length of Stay in the Acute Care Setting. *WESTERN JOURNAL OF NURSING RESEARCH, 31*(2), 153-170. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=RN245433497&site=eds-live&scope=site.

Turner, A., Eccles, F., Keady, J., Simpson, J., & Elvish, R. (2017). The use of the truth and deception in dementia care amongst general hospital staff. *Aging & Mental Health, 21*(8), 862-869. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=27141988&site=eds-live&scope=site. doi:10.1080/13607863.2016.1179261

Turner, A., Eccles, F. J. R., Elvish, R., Simpson, J., & Keady, J. (2017). The experience of caring for patients with dementia within a general hospital setting: a meta-synthesis of the qualitative literature. *Aging & Mental Health, 21*(1), 66-76. Retrieved from https://doi.org/10.1080/13607863.2015.1109057. doi:10.1080/13607863.2015.1109057

Tzeng, H. M., Prakash, A., Brehob, M., Anderson, A., Devecsery, D. A., & Yin, C. Y. (2013). How Feasible Was a Bed-Height Alert System? *CLINICAL NURSING RESEARCH, 22*(3), 300-309. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=RN343377266&site=eds-live&scope=site.

Tzeng, H. M., Yin, C.-Y., Anderson, A., & Prakash, A. (2012). Nursing Staff's Awareness of Keeping Beds in the Lowest Position to Prevent Falls and Fall Injuries In an Adult Acute Surgical Inpatient Care Setting. *MEDSURG Nursing, 21*(5), 271-274. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=ccm&AN=104420941&site=eds-live&scope=site.

Ullrich, S., McCutcheon, H., & Parker, B. (2014). Nursing practice in nutritional care: a comparison between a residential aged care setting and a hospital setting. *J Adv Nurs, 70*(8), 1845-1855. Retrieved from https://onlinelibrary.wiley.com/doi/abs/10.1111/jan.12345. doi:10.1111/jan.12345

van der Linde, R. M., Stephan, B. C. M., Savva, G. M., Dening, T., & Brayne, C. (2012). Systematic reviews on behavioural and psychological symptoms in the older or demented population. *Alzheimer's Research & Therapy, 4*(4), 1-23. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=a9h&AN=79827754&site=eds-live&scope=site. doi:10.1186/alzrt131

van Gennip, I. E., W. Pasman, H. R., Oosterveld-Vlug, M. G., Willems, D. L., & Onwuteaka-Philipsen, B. D. (2016). How Dementia Affects Personal Dignity: A Qualitative Study on the Perspective of Individuals With Mild to Moderate Dementia. *JOURNALS OF GERONTOLOGY SERIES B, 71*(3), 491-501. Retrieved from

https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=RN377984351&site=eds-live&scope=site.

van Walraven, C., Seth, R., Austin, P. C., & Laupacis, A. (2002). Effect of Discharge Summary Availability During Post-discharge Visits on Hospital Readmission. *JOURNAL OF GENERAL INTERNAL MEDICINE*

17(3), 186-192. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=RN110718512&site=eds-live&scope=site.

van Wijngaarden, E., van der Wedden, H., Henning, Z., Komen, R., & The, A.-M. (2018). Entangled in uncertainty: The experience of living with dementia from the perspective of family caregivers. *Plos One, 13*(6), e0198034. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=29897922&site=eds-live&scope=site. doi:10.1371/journal.pone.0198034

Varnam, W. (2011). How to mobilise patients with dementia to a standing position. *Nursing Older People, 23*(8), 31-36.

Vassallo, M., Poynter, L., Sharma, J. C., Kwan, J., & Allen, S. C. (2008). Fall risk-assessment tools compared with clinical judgment: an evaluation in a rehabilitation ward. *Age Ageing, 37*(3), 277-281. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=RN229123750&site=eds-live&scope=site.

Vassallo, M., Vignaraja, R., Sharma, J. C., Briggs, R., & Allen, S. C. (2004). Predictors for falls among hospital inpatients with impaired mobility. *JOURNAL OF THE ROYAL SOCIETY OF MEDICINE*

97(6), 266-269. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=RN151029589&site=eds-live&scope=site.

Vernooij-Dassen, M., Moniz-Cook, E., Verhey, F., Chattat, R., Woods, B., Meiland, F., . . . de Vugt, M. (2019). Bridging the divide between biomedical and psychosocial approaches in dementia research: The 2019 interdem manifesto. *Aging & Mental Health*, 1-7. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=psyh&AN=2019-73904-001&site=eds-live&scope=site

doi:10.1080/13607863.2019.1693968

Vetrano, D. L., Landi, F., De Buyser, S. L., Carfì, A., Zuccalà, G., Petrovic, M., . . . Onder, G. (2014). Predictors of length of hospital stay among older adults admitted to acute care wards: a multicentre observational study. *European Journal of Internal Medicine, 25*(1), 56-62. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edselp&AN=S0953620513009187&site=eds-live&scope=site. doi:10.1016/j.ejim.2013.08.709

Vincent, C. (2004). Analysis of clinical incidents: a window on the system not a search for root causes. *Quality and Safety in Health Care, 13*(4), 242-243.

Vincent, C., Taylor-Adams, S., & Stanhope, N. (1998). Framework for analysing risk and safety in clinical medicine. *BMJ: British Medical Journal, 316*(7138), 1154-1157.

Waelde, L. C., Thompson, L., & Gallagher-Thompson, D. (2004). A Pilot Study of a Yoga and Meditation Intervention for Dementia Caregiver Stress. *JOURNAL OF CLINICAL PSYCHOLOGY, 60*(6), 677-687. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=RN151120100&site=eds-live&scope=site.

Waller, S. (2012). REDESIGNING WARDS TO SUPPORT PEOPLE WITH DEMENTIA IN HOSPITAL. *Nursing Older People, 24*(2), 16-21. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=ccm&AN=104531024&site=eds-live&scope=site.

Waller, S., & Masterson, A. (2015). Designing dementia-friendly hospital environments. *Future hospital journal, 2*(1), 63-68. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=31098081&site=eds-live&scope=site. doi:10.7861/futurehosp.2-1-63

Wang, H.-K., Hung, C.-M., Lin, S.-H., Tai, Y.-C., Lu, K., Liliang, P.-C., . . . Li, Y.-C. (2014). Increased risk of hip fractures in patients with dementia: a nationwide population-based study. *BMC Neurology, 14*, 175. Retrieved from https://doi.org/10.1186/s12883-014-0175-2. doi:10.1186/s12883-014-0175-2

Wang, J.-J., Hsieh, P.-F., & Wang, C.-J. (2013). Long-term Care Nurses' Communication Difficulties with People Living with Dementia in Taiwan. *Asian Nursing Research, 7*(3), 99-103. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edselp&AN=S1976131713000340&site=eds-live&scope=site. doi:10.1016/j.anr.2013.06.001

Wang, J. W., Smith, P., Sarker, S.-J., Elands, S., Oliveira, A., Barratt, C., . . . Lynch, M. (2019). Can Waterlow score predict 30-day mortality and length of stay in acutely admitted medical patients (aged ≥65 years)? Evidence from a single centre prospective cohort study. *BMJ Open, 9*(11), e032347. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=31727661&site=eds-live&scope=site. doi:10.1136/bmjopen-2019-032347

Warren, G. (2016). CONTINUING PROFESSIONAL DEVELOPMENT. Moving and handling: reducing risk through assessment. *Nursing Standard, 30*(40), 49-58. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=asn&AN=115826702&site=eds-live&scope=site. doi:10.7748/ns.30.40.49.s45

Weaver, L., Beebe, T. J., & Rockwood, T. (2019). The impact of survey mode on the response rate in a survey of the factors that influence Minnesota physicians' disclosure practices. *BMC medical research methodology, 19*, 73. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=30940087&site=eds-live&scope=site. doi:10.1186/s12874-019-0719-7

Webster, J., Gavin, N., Nicholas, C., Coleman, K., & Gardner, G. (2010). Validity of the Waterlow scale and risk of pressure injury in acute care. *BRITISH JOURNAL OF NURSING, 19*(6), S14-S22. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=ccm&AN=105161054&site=eds-live&scope=site. doi:10.12968/bjon.2010.19.sup2.47246

Were, M. C., Li, X., Kesterson, J., Cadwallader, J., Asirwa, C., Khan, B., & Rosenman, M. B. (2009). Adequacy of Hospital Discharge Summaries in Documenting Tests with Pending Results and Outpatient Follow-up Providers. *JOURNAL OF GENERAL INTERNAL MEDICINE*

24(9), 1002-1006. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=RN256107270&site=eds-live&scope=site.

Wesson, L., & Chapman, B. (2010). A dementia education scheme. *Nursing Older People, 22*(2), 22-25. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=ccm&AN=105136521&site=eds-live&scope=site.

Whittamore, K. H., Goldberg, S. E., Bradshaw, L. E., & Harwood, R. H. (2014). Factors Associated with Family Caregiver Dissatisfaction with Acute Hospital Care of Older Cognitively Impaired Relatives. *JOURNAL- AMERICAN GERIATRICS SOCIETY, 62*(12), 2252-2260. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=RN365072023&site=eds-live&scope=site.

Wilkinson, H., Whittington, R., Perry, L., & Eames, C. (2017). Examining the relationship between burnout and empathy in healthcare professionals: A systematic review. *Burnout Research, 6*, 18-29. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edselp&AN=S2213058617300025&site=eds-live&scope=site. doi:10.1016/j.burn.2017.06.003

Wilkinson, I., Coates, A., Merrick, S., & Lee, C. (2016). Junior doctor dementia champions in a district general hospital (innovative practice). *Dementia (London, England), 15*(2), 263-272. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=25924617&site=ehost-live. doi:10.1177/1471301215584083

Williams, C. M. (2005). The identification of family members' contribution to patients' care in the intensive care unit: a naturalistic inquiry. *NURSING IN CRITICAL CARE*

10(1), 6-14. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=RN161176861&site=eds-live&scope=site.

Williams, M., & May, T. (1996). *An Introduction To The Philosophy Of Social Research*. London: Routledge.

Wilson, L., Atwal, A., Richards, C., & McIntyre, A. (2012). Do occupational therapy pre-discharge home visits affect the longer term outcomes of the discharge process? *International Journal of Therapy & Rehabilitation, 19*(6), 335-342. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=ccm&AN=104468036&site=eds-live&scope=site.

Wimo, A., Jönsson, L., Bond, J., Prince, M., Winblad, B., & Alzheimer Disease International. (2013). The worldwide economic impact of dementia 2010. *Alzheimer's & Dementia: The Journal of the Alzheimer's Association, 9*(1), 1-11. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edselp&AN=S1552526012025307&site=eds-live&scope=site. doi:10.1016/j.jalz.2012.11.006

Wittenberg, R., Hu, B., Barraza-Araiza, L., & Rehill, A. (2019). *Projections of Older People Living with Dementia and Costs of Dementia Care in the United Kingdom 2019-2040*. Retrieved from https://www.lse.ac.uk/cpec/assets/documents/Working-paper-5-Wittenberg-et-al-dementia.pdf

Wong, A., Burford, S., Wyles, C. L., Mundy, H., & Sainsbury, R. (2008). Evaluation of strategies to improve nutrition in people with dementia in an assessment unit. *The Journal of Nutrition Health and Aging, 12*(5), 309-312. Retrieved from https://doi.org/10.1007/BF02982660. doi:10.1007/BF02982660

Wong, E. L., Yam, C. H., Cheung, A. W., Leung, M. C., Chan, F. W., Wong, F. Y., & Yeoh, E.-K. (2011). Barriers to effective discharge planning: a qualitative study investigating the perspectives of frontline healthcare professionals. *BMC Health Services Research, 11*(1), 242. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=21955544&site=eds-live&scope=site.

Wong, F. K., Chow, S., Chung, L., Chang, K., Chan, T., Lee, W. M., & Lee, R. (2008). Can home visits help reduce hospital readmissions? Randomized controlled trial. *JOURNAL OF ADVANCED NURSING*

62(5), 585-595. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=RN229715561&site=eds-live&scope=site.

Wong, F. K., Chow, S. K., Chan, T. M., & Tam, S. K. (2014). Comparison of effects between home visits with telephone calls and telephone calls only for transitional discharge support: a randomised controlled trial. *Age Ageing, 43*(1), 91-97. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=RN344453523&site=eds-live&scope=site.

World Health Organisation. (2010). International Statistical Classification of Diseases and Related Health Problems 10th Revision,. Retrieved from http://apps.who.int/classifications/icd10/browse/2010/en

World Health Organization. (1992). *The ICD-10 classification of mental and behavioural disorders: clinical descriptions and diagnostic guidelines*. Geneva: World Health Organization.

Wynaden, D., Tohotoa, J., Heslop, K., & Al Omari, O. (2016). Recognising falls risk in older adult mental health patients and acknowledging the difference from the general older adult population. *Collegian, 23*(1), 97-102. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edselp&AN=S1322769614001164&site=eds-live&scope=site. doi:10.1016/j.colegn.2014.12.002

Xidous, D., Grey, T., Kennelly, S., McHale, C., & O'Neill, D. (2019). Dementia Friendly Hospital Design: Key Issues for Patients and Accompanying Persons in an Irish Acute Care Public Hospital. *HERD: Health Environments Research & Design Journal, 13*(1), 48-67.

Yam, C. H. K., Wong Eliza, L. Y., Cheung Annie, W. L., Chan Frank, W. K., Wong Fiona, Y. Y., & Yeoh, E.-k. (2012). Framework and components for effective discharge planning system: a delphi methodology. *BMC Health Services Research, 12*(1), 396-396. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsdoj&AN=edsdoj.912f2799ef4e3da6035a50a2281674&site=eds-live&scope=site. doi:10.1186/1472-6963-12-396

Yamaguchi, Y., Greiner, C., Ryuno, H., & Fukuda, A. (2019). Dementia nursing competency in acute care settings: A concept analysis. *International Journal of Nursing Practice, 25*(3), e12732. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=psyh&AN=2019-32203-005&site=eds-live&scope=site

doi:10.1111/ijn.12732

Yang, Y., Hu, X., Zhang, Q., & Zou, R. (2016). Diabetes mellitus and risk of falls in older adults: a systematic review and meta-analysis. *Age and Ageing,, 45*(6), 761-767. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=edsbl&AN=RN384388231&site=eds-live&scope=site.

Zakrajsek, A. G., Schuster, E., Guenther, D., & Lorenz, K. (2013). Exploring Older Adult Care Transitions From Hospital to Home: A Participatory Action Research Project. *Physical & Occupational Therapy in Geriatrics, 31*(4), 328-344. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=ccm&AN=104157102&site=eds-live&scope=site. doi:10.3109/02703181.2013.825362

Zecevic, A. A., Chesworth, B. M., Zaric, G. S., Huang, Q., Salmon, A., McAuslan, D., . . . Brunton, D. (2012). Estimating the Cost of Serious Injurious Falls in a Canadian Acute Care Hospital. *Canadian Journal on Aging, 31*(2), 139-147. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=sih&AN=76329193&site=ehost-live. doi:10.1017/S0714980812000037

Zecevic, A. A., Salmoni, A. W., Lewko, J. H., & Vandervoort, A. A. (2007). Seniors Falls Investigative Methodology (SFIM): a systems approach to the study of falls in seniors. *Canadian Journal On Aging = La Revue Canadienne Du Vieillissement, 26*(3), 281-290. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=18238732&site=ehost-live. doi:10.3138/cja.26.3.281

Zekry, D., Herrmann, F. R., Grandjean, R., Vitale, A.-M., De Pinho, M.-F., Michel, J.-P., . . . Krause, K.-H. (2009). Does dementia predict adverse hospitalization outcomes? A prospective study in aged inpatients. *Int J Geriatr Psychiatry, 24*(3), 283-291.

Zhang, W., Barriball, K. L., & While, A. E. (2014). Nurses' attitudes towards medical devices in healthcare delivery: a systematic review. *J Clin Nurs, 23*(19/20), 2725-2739. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=ccm&AN=103896030&site=ehost-live. doi:10.1111/jocn.12601

Zhao, E. J., Yeluru, A., Manjunath, L., Zhong, L. R., Hsu, H.-T., Lee, C. K., . . . Shieh, L. (2018). A long wait: barriers to discharge for long length of stay patients. *Postgraduate medical journal, 94*(1116), 546-550. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=30301835&site=eds-live&scope=site. doi:10.1136/postgradmedj-2018-135815

Zuliani, G., Galvani, M., Sioulis, F., Bonetti, F., Prandini, S., Boari, B., . . . Gallerani, M. (2012). Discharge diagnosis and comorbidity profile in hospitalized older patients with dementia. *International Journal of Geriatric Psychiatry, 27*(3), 313-320. Retrieved from https://onlinelibrary.wiley.com/doi/abs/10.1002/gps.2722. doi:10.1002/gps.2722

Appendix 1: **<u>Details of the 10 studies that were excluded from the literature review</u>**

Author	**Outcome/Purpose**	**Reason for exclusion or inclusion**	**Shea et al. (2017) scores on research methods**	**Ebell et al. (2004)** **3 categories of ranking research evidence with level 1 as the best, level 2 as limited and 3 as other**
A)Cole, Ciampi, Belzile, and Lihong (2009)	Reviewed studies that have evaluated the occurrence of adverse health events amongst people with chronic delirium.	Excluded because it focuses on chronic delirium	5/16	3
B)Bowling et al. (2015)	Reviewed studies that have evaluated the use of a wide-range of scales that measure the quality of life amongst people with dementia.	Excluded because it assesses the general well-being of people with dementia	7/16	3
C)Fuller (2016)	Reviewed studies that have examined the experiences of people who have a formal episode of delirium.	Excluded because the study mainly focuses on transient loss of memory without any emphasis on dementia.	5/16	3
D)Handley, Bunn, and Goodman (2015)	The study intends to seek how the hospital environment can be improved.	Excluded because it is a research proposal.	Not Applicable	Not Applicable

Author	**Outcome/Purpose**	**Reason for exclusion or inclusion**	**Shea et al. (2017) scores on research methods**	**Ebell et al. (2004)** **3 categories of ranking research evidence with level 1 as the best, level 2 as limited and 3 as other**
E) Robinson et al. (2012)	Reviewed studies that have investigated the use of advanced care plans amongst people with cognitive impairment.	Excluded because it focused on care homes where people usually reside on a long-term basis.	8/16	2
F)Robins Wahlin and Byrne (2011)	Examines studies that have analysed personality impairments amongst people with dementia using valid scales.	Excluded because of its strong emphasis on general psychological principles.	5/16	3
G)Sockalingam et al. (2014)	Reviewed studies that have explored the benefits of delirium educational programmes on patient care.	Excluded because it focuses on educational packages which targets people who are experiencing delirium.	7/16	3

Author	**Outcome/Purpose**	**Reason for exclusion or inclusion**	**Shea et al. (2017) scores on research methods**	**Ebell et al. (2004)** **3 categories of ranking research evidence with level 1 as the best.**
H)Öhman, Savikko, Strandberg, and Pitkälä (2014)	Reviewed studies that have investigated the potential benefits of exercise amongst people with cognitive impairment.	Excluded because majority of the studies reviewed involved people with dementia in non-acute settings.	5/16	2
I)Randall and Clissett (2016)	Reviewed evidence for the best way of managing the behavioural symptoms of dementia.	Excluded because all of the studies reviewed involved people with dementia in non-acute settings.	6/16	2
J) van der Linde, Stephan, Savva, Dening, and Brayne (2012)	Mainly examines systematic studies that have looked at the incidence rates, risk factors and the health outcomes for the behavioural and psychological symptoms amongst people with or without cognitive impairment.	Excluded because of its main attention to prevalence rates, risk factors and general health outcomes.	Not Applicable	3

Appendix 2: Descriptive statistics of patients with and without dementia (n=35,792)

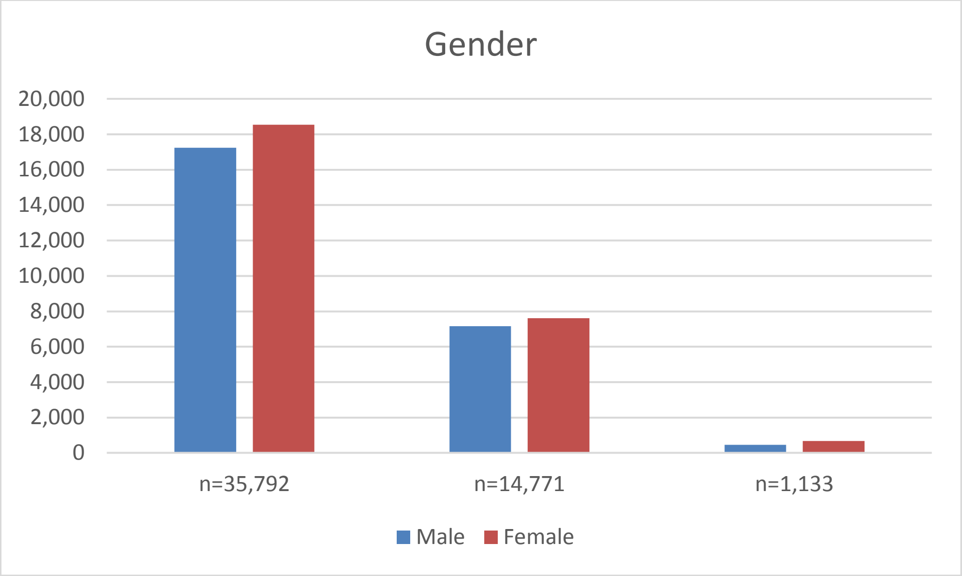
Variable	**Dementia (n=1,950)/ n%**	**No Dementia (n=33,842)/ n%**
Gender		
Male	807 (41.4)	16,439(48.6)
Female	1,143 (58.6)	17,403(51.4)
Admission methods		
Attendance at Emergency unit	1,296 (66.5)	20,301(59.9)
Referral from a medical practitioner	604 (30.9)	11,193(33.1)
Referral from a consultant	6 (0.3)	430(1.3)
Other (e.g. hospital)	44(2.3)	1,918 (5.7)
Readmission		
Yes	406(20.8)	6,995(20.7)
No	1,544((79.2)	26,847(79.3)
Discharge methods		
Based on clinical advice	1,748(89.6)	32,068 (94.8)
Self-discharge	2 (0.1)	445 (1.3)
Discharged by institution (e.g. court)	0	13(0.04)
Death	200 (10.3)	1,316 (3.9)
Admissions from a care home		
Yes	753(38.6)	2,107(6.2)
No	1,197(61.4)	31,735(93.8)
Discharges to a care home		
Yes	808 (41.4)	2,261 (6.7)
No	1,142 (58.6)	31,581 (93.3)
First Early Warning Signal		
High(>6)	85(4.4)	904 (2.7)
Medium(5-6)	137(7.0)	1,352 (4)
Low(0-4)	1,188 (60.9)	18,676 (55.2)
Missing	540 (27.7)	12,910 (38.1)

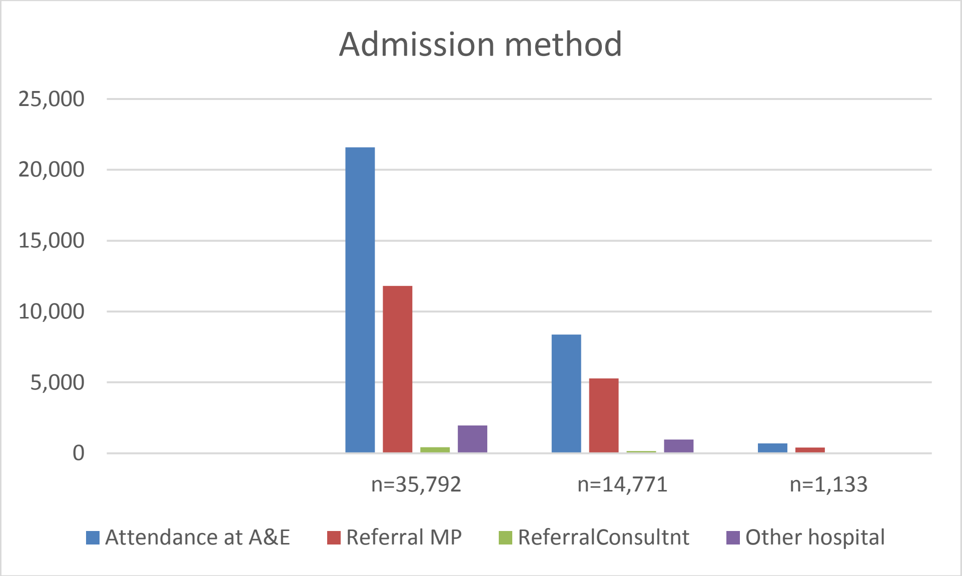
Variable	**Dementia (n=1950)/**	**No Dementia (n=33842)/ n%**
Falls without harm		
Yes	143 (7.3)	526(1.6)
No	1,807(92.7)	33,316 (98.4)
Falls with minor harm		
Yes	61(3.1)	318(0.9)
No	1,889 (96.9)	33,524(99.1)
Falls major and moderate		
Yes	10 (0.5)	25(0.1)
No	1,940 (99.5)	33,817 (99.9)
Category 1 Preadmission pressure sores		
Yes	125 (6.4)	514 (1.5)
No	1,825 (93.6)	33,328 (98.5)
Category 2 Preadmission pressure sores		
Yes	154 (7.9)	895 (2.6)
No	1,796 (92.1)	32,947 (97.4)
Category 3 Preadmission pressure sores		
Yes	42 (2.2)	276(0.8)
No	1,908 (97.8)	33,566 (99.2)
Category 4 Preadmission pressure sores	18(0.9)	84 (0.2)
Yes	1,932 (99.1)	33,758 (99.8)
No		
Unstageable Preadmission pressure sores		
Yes	6 (0.3)	54(0.2)
No	1,944(99.7)	33,788(99.8)

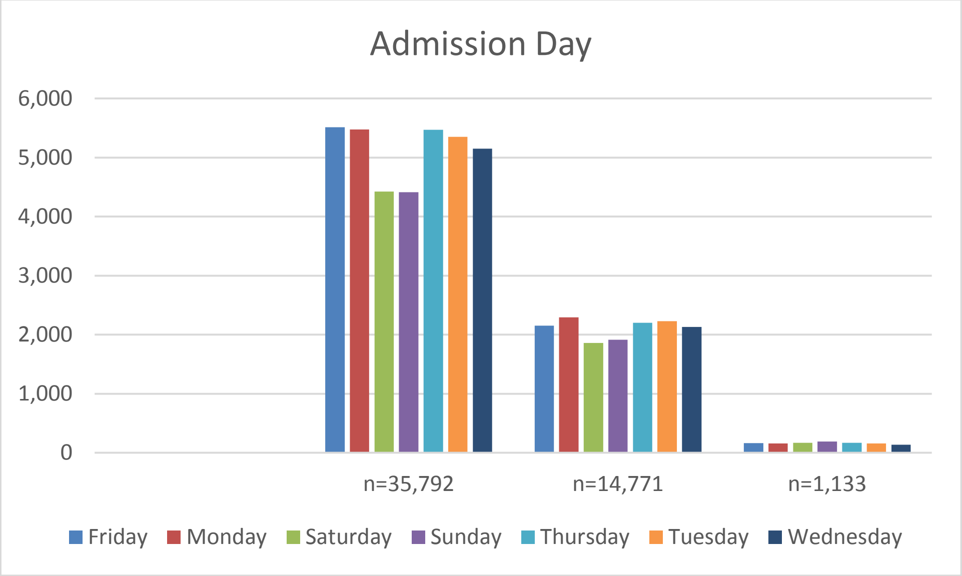
Variable	**Dementia (n=1950)/ n%**	**No Dementia (n=33842)/ n%**
Category 1 Postadmission pressure sores		
Yes	79(4.1)	373(1.1)
No	1,871(95.9)	33,469(98.9)
Category 2 Postadmission pressure sores		
Yes	101(5.2)	464(1.4)
No	1,849(94.8)	33,378(98.6)
Category 3 Postadmission pressure sores		
Yes	13 (0.7)	99 (0.3)
No	1,937 (99.3)	33,743(99.7)
Category 4 Postadmission pressure sores		
Yes	5(0.3)	20(.06)
No	1,945(99.7)	33,822(99.94)
Unstageable Postadmission pressure sores		
Yes	4 (0.2)	50 (0.2)
No	1,946 (99.8)	33,792 (99.8)
MUST scores		
High(>1)	347(17.8)	2,062 (6.1)
Medium (1)	70(3.6)	1,061(3.1)
Low (0)	1,188(60.9)	18,723(55.3)
Missing	345 (17.7)	11,996(35.5)
Discharge Age	Mean= 85 Median=86	Mean=62 Median=66
Waterlow scores		
High (>15)	1,236 (63.4)	8,189(24.2)
Medium (11-15)	269(13.8)	4,857(14.4)
Low (0-10)	100 (5.1)	8,733(25.8)
Missing	345(17.7)	12,063 (35.6)

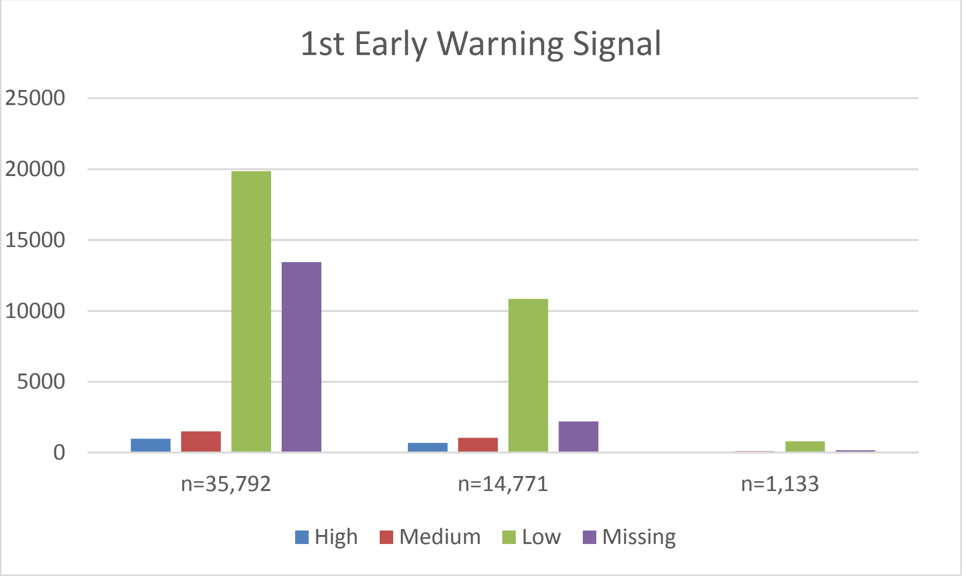
Variable	**Dementia (n=1950)/ n%**	**No Dementia (n=33842)/ n%**
Admission day		
Friday	271(13.9)	5,243 (15.5)
Monday	273 (14)	5,204 (15.4)
Saturday	274(14)	4,147 (12.3)
Sunday	304 (15.6)	4,107 (12.1)
Thursday	306 (15.7)	5,164 (15.3)
Tuesday	273 (14)	5,077 (15)
Wednesday	249 (12.8)	4,900 (14.4)
Admission is a bank holiday	42 (2.2)	651(1.9)

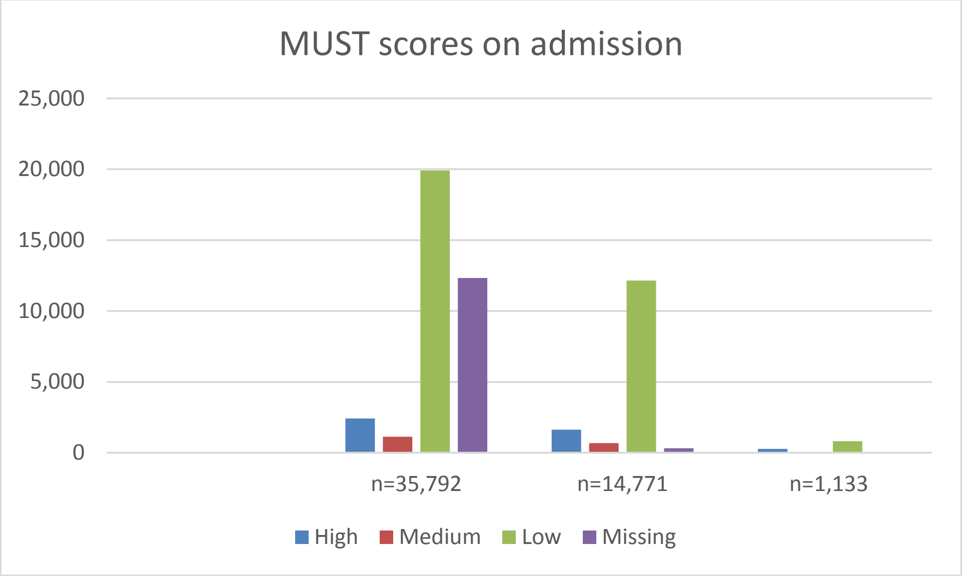
Appendix 3: Graphs for the descriptive statistics

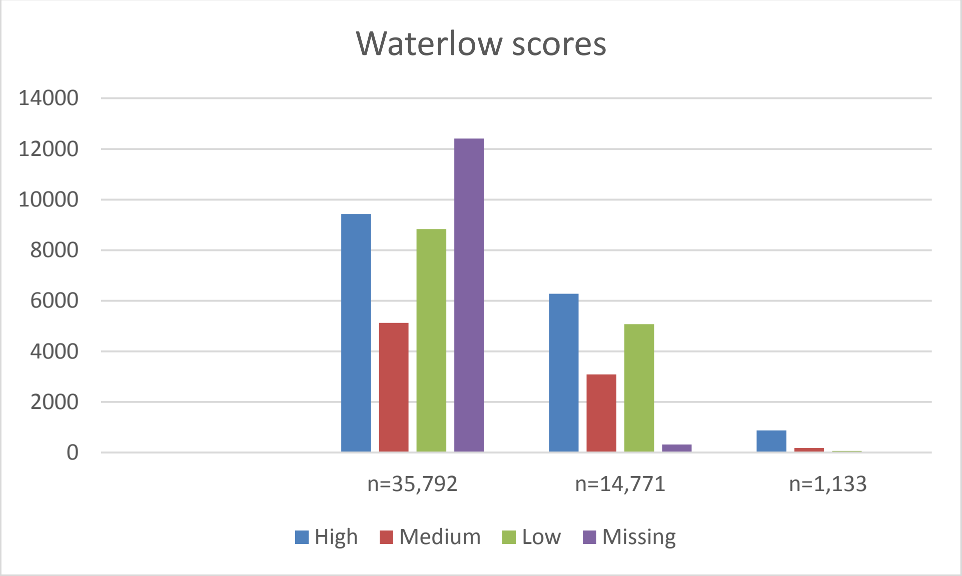





Admission Day
6,000
5,000
4,000
3,000
2,000
1,000
0
n=35,792
n=14,771
n=1,133
Friday
Monday
Saturday
Sunday
Thursday
Tuesday
Wednesday


1st Early Warning Signal
25000
20000
15000
10000
5000
0
n=35,792
n=14,771
n=1,133
High
Medium
Low
Missing


MUST scores on admission
25,000
20,000
15,000
10,000
5,000
0
n=35,792
n=14,771
n=1,133
High
Medium
Low
Missing


Waterlow scores
14000
12000
10000
8000
6000
4000
2000
0
n=35,792
n=14,771
n=1,133
High
Medium
Low
Missing

Appendix 4: Participant information sheet for carers

Bournemouth University

The Royal Bournemouth and Christchurch Hospitals
NHS Foundation Trust

The Royal Bournemouth Hospital

Castle Lane East
Bournemouth
Dorset
United Kingdom
BH7 7DW

Tel: 01202 303626
www.rbch.nhs.uk

Participant information sheet for carers

A systems approach to falls and discharge planning

Invitation

We would like to invite you to take part in a study that investigates the factors that influences falls and the discharge planning process of people with dementia.

You have been selected because you are a carer for someone who has been diagnosed with dementia.

First of all, it is important to know why this research is being conducted and what is needed before you decide to get involved.

Please do not hesitate to contact us should you have any questions

Why this study?

The NHS is striving to improve care for patients with dementia. Your views on how to improve care is essential in this process. Therefore, we would like to know the factors that affect falls and the discharge planning process of people with dementia.

This study is being conducted by Bournemouth University as part of a PhD research degree. Your decision to take part in this study or not, will in no way affect the care that is received by the person you care for on the ward.

How will taking part affect me?

If you agree to take part in this study, an appointment will be made for a researcher to interview you. The interview will last approximately 30 minutes and will be conducted in a private space. The interviews will be focused on you and your experiences in hospital as a carer.

The interviews will be recorded for accuracy. Once the notes from the interviews have been written, the tapes will be erased. Anything you say during the interviews will be confidential. Any written notes will be anonymised; your name will not appear on them, though the researcher will assign a code number to help with interpretation later. The researcher will need your details if you choose to cross-check the accuracy of the interview transcript or want a copy of the results of this study posted or emailed to you.

Do I have to take part?

You can choose whether to take part in this study or not. You can also decide to stop taking part in this study at any time. You can choose to refuse to answer any questions you are not comfortable with.

Are there any possible benefits?

There are no direct benefits in terms of the current care and treatment that the patient is receiving in this hospital. Staff will also not receive any benefits.

The results from this study may be published and may be presented at conferences. These may include direct quotes from the interviews, though all these will be anonymous.

Whilst there are no immediate benefits, it is hoped the findings from this research will widen the current understanding on how to improve care for people with dementia in hospitals.

Are there any possible disadvantages?

You may stop the interview at any time if you are finding it difficult or stressful. If you wish to receive additional support, the researcher will put you in touch with a specialist nurse or consultant physician.

Will my personal details be kept privately?

The Royal Bournemouth and Christchurch Hospitals will keep your name and contact details confidential and will not pass this information to Bournemouth University. The Royal Bournemouth and Christchurch Hospitals will use this information as needed, to contact you about the research study, and make sure that relevant information about the study is recorded for your care, and to oversee the quality of the study. Bournemouth University will only receive information without any identifying information. The people who analyse the information will not be able to identify you and will not be able to find out your name or contact details.

The Royal Bournemouth and Christchurch Hospitals will keep identifiable information about you from this study for 3-6 months.

The original audio recording and paper field notes will be stored in a locked cabinet at my supervisor's office in the Royal Bournemouth and Christchurch Hospitals. The tape recording of the interview will be destroyed after the notes have been written. A study number only will identify any written notes, this is to assist in analysis of the data, and the notes will not contain your name or any other details, which may identify you. A copy of your signed consent sheet will be given to you, another copy will be kept on the hospital record of the person you care for, and a final copy will be kept in a locked cabinet at the Royal Bournemouth and Christchurch Hospitals NHS Foundation Trust.

Bournemouth University is the sponsor for this study based in the United Kingdom. We will be using information from you in order to undertake this study and will act as the data controller for this study. This means that we are responsible for looking after your information and using it properly. Bournemouth University will keep research data for 5 years after the study has finished

Your rights to access, change or move your information are limited, as we need to manage your information in specific ways in order for the research to be reliable and accurate. If you withdraw from the study, we will keep the information about you that we have already obtained. To safeguard your rights, we will use the minimum personally identifiable information possible.

You can find out more about how we use your information by contacting James Stevens, Chief Data Officer on researchgovernance@bournemouth.ac.uk or for more enquiries that are general: DPO@bournemouth.ac.uk.

Your name and contact details will not be passed to Bournemouth University. If you have provided contact information this will only be used to contact you about this study. Staff from Bournemouth University may need to crosscheck the accuracy of the research study. These staff will only receive anonymous information in which you cannot be identified.

BU's Research Participant Privacy Notice sets out more information about how we fulfil our responsibilities as a data controller and about your rights as an individual under the data protection legislation. We ask you to read this Notice so that you can fully understand the basis on which we will process your information.

How will the findings of this study be used?

The findings of the study will be presented as part of a PhD thesis. The findings from the study will be shared by publication in professional journals and presentations at scientific conferences If you do not want the researcher to use anything you say when compiling the information, please let the team know at any time (prior to publication), contact details are below. Also, contact the team if you wish to be informed of the findings of the study when it is complete.

Who is responsible for this study?

The Royal Bournemouth and Christchurch Hospitals NHS foundation Trust and Bournemouth University are funding this study.

Professor Michael Vassallo, a consultant physician employed by the Royal Bournemouth Hospital, is supervising this research.

The two other supervisors for this research are: Dr. Samuel Nyman, Bournemouth University, and Dr. Fiona Kelly, Queen Margaret University.

Name of Researcher: Mary Duah-Owusu White

Phone number: 07923269758

Email address: mduahowusuwhite@bournemouth.ac.uk

Postal address: Bournemouth University, Dementia Institute, fifth Floor Executive Business Centre, 89 Holdenhurst Road, Bournemouth, BH8 8EB.

Name of Supervisor: Samuel Nyman

Phone number: 01202968179

Email address: snyman@bournemouth.ac.uk

Postal address: Bournemouth University, Dept. of Psychology, Faculty of Science and Technology, BH12 5BB

Except where it has been anonymised your personal information will be accessed and used only by appropriate, authorised individuals and when this is necessary for the purposes of the research or another purpose identified in the Privacy Notice. This may include giving access to BU staff or others responsible for monitoring and/or audit of the study, who need to ensure that the research is complying with applicable regulations.

Complaints

If you have any concerns about the conduct of the study, or your involvement in it you can contact the study team.

If the study team has not answered your concerns you should contact Professor Tiantian Zhang, Deputy Dean for Research & Professional Practice, Faculty of Science and Technology, Bournemouth University by email to researchgovernance@bournemouth.ac.uk.

For concerns separate to the study, please contact the hospital PALS team, contact details below.

The Patient Advisory Liaison Service in this hospital can be contacted by calling 01202 704886 or 01202 704301

Finally

If you decide to take part, you will be given a copy of the information sheet and a signed participant consent form to keep. Another copy will be kept on the hospital record of the person you care for.

Thank you for considering taking part in this research project.

Mary Duah-Owusu White

Appendix 5: Participant information sheet for staff

The Royal Bournemouth and Christchurch Hospitals
NHS Foundation Trust

The Royal Bournemouth Hospital
Castle Lane East
Bournemouth
Dorset
United Kingdom
BH7 7DW

Tel: 01202 303626
www.rbch.nhs.uk

Participant information sheet for staff (nursing, medical, allied healthcare professionals, support staff)

A systems approach to falls and discharge planning

Invitation

We would like to invite you to take part in a study that is seeking to identify the factors that influence falls and the discharge planning process of people who have been diagnosed with dementia in hospital.

The research is interested in the views of staff on how to improve care for people with dementia. Therefore, we need your consent in order to participate in an interview on the ward.

First of all, it is important to know why this research is being conducted and what is needed before you decide to get involved.

Please do not hesitate to contact us should you have any questions

Why this study?

The NHS is striving to improve care for patients with dementia. Your views on how to improve care is essential in this process. Therefore, we would like to know your views about the factors that influences falls and the discharge planning process of people with dementia.

This study is being conducted by Bournemouth University as part of a PhD research degree. Your decision to take part in this study or not will remain confidential.

What is needed?

This study will involve an interview which is expected to take approximately thirty minutes. The interviews will be focused on your thoughts about the factors that influences falls and the discharge planning process of people with dementia. I should like to record the interview with your permission.

How will taking part affect me?

If you agree to take part in this study an appointment will be made for a researcher to interview you. The interview will last approximately thirty minutes and will be conducted in a private space.

The interviews will be audio-recorded for accuracy. Also, a sub-sample of the interview transcripts will be cross-checked for accuracy by the research team. The researcher will need your details if you choose to cross-check the accuracy of the interview transcript or want a copy of the results of this study posted or emailed to you.

Once the transcribed interviews have been confirmed to be accurate, the audio record will be deleted. Anything you say during the interviews will be confidential. Any written notes will be anonymised; your name will not appear on them, though the researcher will assign you with a research number to help with interpretation later.

Do I have to take part?

You can choose whether to take part in this study or not. You can also decide to stop taking part in this study at any time. You can choose to refuse to answer questions that you are not comfortable with.

Whether you decide to take part or not will not affect your role on the ward.

Are there any possible benefits?

There are no direct benefits for you, the ward or hospital by taking part in this study. The results from this study may be published in peer reviewed journals and presented at scientific meetings. These may include direct quotes from the interviews, though all these will be anonymised.

Whilst there are no immediate benefits, it is hoped the findings from this research will widen the current understanding on how to improve care for people with dementia in hospitals.

Are there any possible disadvantages?

You may stop the interview at any time if you are finding it difficult or stressful. If you wish additional support from the employee support programme,-Care First, you can telephone 01452 623243, open 24hrs per day, or online at www.carefirst-lifestyle.co.uk

Will my personal details be kept confidential?

The Royal Bournemouth and Christchurch Hospitals will keep your name and contact details confidential and will not pass this information to Bournemouth University. The Royal Bournemouth and Christchurch Hospitals will use this information as needed, to contact you about the research study, and make sure that relevant information about the study is recorded for your care, and to oversee the quality of the study. Bournemouth University will only receive information without any identifying information. The people who analyse the information will not be able to identify you and will not be able to find out your name or contact details.

The Royal Bournemouth and Christchurch Hospitals will keep identifiable information about you from this study for 3-6 months.

The original audio recording and paper field notes will be stored in a locked cabinet at my supervisor's office in the Royal Bournemouth and Christchurch Hospitals. The audio record of the interview will be destroyed after confirmation of the accuracy of the transcribed notes. Any written notes will be identified by a study number only, this is to assist with the analysis of the data, and the notes will not contain any details which may identify you.

A copy of your signed consent sheet will be given to you and one copy will be kept in a locked cabinet at the Royal Bournemouth and Christchurch NHS Foundation Trust. Any papers published or conference presentations used to share the findings of this study will not include the names of, or any means of identifying the participants.

Bournemouth University is the sponsor for this study based in the United Kingdom. We will be using information from you in order to undertake this study and will act as the data controller for this study. This means that we are responsible for looking after your information and using it properly. Bournemouth University will keep research data for 5 years after the study has finished.

Your rights to access, change or move your information are limited, as we need to manage your information in specific ways in order for the research to be reliable and accurate. If you withdraw from the study, we will keep the information about you that we have already obtained. To safeguard your rights, we will use the minimum personally-identifiable information possible.

You can find out more about how we use your information by contacting James Stevens, Chief Data Officer on researchgovernance@bournemouth.ac.uk or for more general enquiries: DPO@bournemouth.ac.uk.

Your name and contact details will not be passed to Bournemouth University. If you have provided contact information this will only be used to contact you about this study. Staff from Bournemouth University may need to cross-check the accuracy of the research study. These staff will only receive anonymous information in which you cannot be identified.

BU’s Research Participant Privacy Notice sets out more information about how we fulfil our responsibilities as a data controller and about your rights as an individual under the data protection legislation. We ask you to read this Notice so that you can fully understand the basis on which we will process your information.

How will the findings of this study be used?

The findings of the study will be presented as part of a PhD thesis. The findings of the study may be published in peer reviewed journals and presented at scientific meetings. If you do not want the researcher to use anything you say when compiling the information, please inform the research team at any time (prior to analysis). If you are interested in the findings of this study, please let me know.

Who is responsible for this study?

This study is being funded by the Royal Bournemouth and Christchurch Hospitals NHS foundation Trust and Bournemouth University.

This research is being supervised by consultant physician, Professor Michael Vassallo.

The two other supervisors for this research are: Dr. Samuel Nyman, Bournemouth University, and Dr. Fiona Kelly, Queen Margaret University.

Name of Researcher: Mary Duah-Owusu White

Phone number: 01202962539

Email address: mduahowusuwhite@bournemouth.ac.uk

Postal address: Bournemouth University Dementia Institute, 5th Floor Executive Business Centre, 89 Holdenhurst Road, Bournemouth, BH8 8EB.

Name of Supervisor: Samuel Nyman

Phone number: 01202968179

Email address: snyman@bournemouth.ac.uk

Postal address: Bournemouth University, Dept. of Psychology, Faculty of Science and Technology, BH12 5BB

Except where it has been anonymised your personal information will be accessed and used only by appropriate, authorised individuals and when this is necessary for the purposes of the research or another purpose identified in the Privacy Notice. This may include giving access to BU staff or others responsible for monitoring and/or audit of the study, who need to ensure that the research is complying with applicable regulations.

Complaints

If you have any concerns about the conduct of the study, or your involvement in it you can contact the study team.

If your concerns have not been answered by the study team you should contact Professor Tiantian Zhang, Deputy Dean for Research & Professional Practice, Faculty of Science and Technology, Bournemouth University by email to

researchgovernance@bournemouth.ac.uk.

Finally

If you decide to take part, you will be given a copy of the information sheet and a signed participant consent form to keep.

Thank you for considering taking part in this research project.

Mary Duah-Owusu White

Appendix 6: Consent sheet for carers

Bournemouth University

The Royal Bournemouth and
Christchurch Hospitals
NHS Foundation Trust
NHS

The Royal Bournemouth Hospital
Castle Lane East
Bournemouth
Dorset
United Kingdom
BH7 7DW

Tel: 01202 303626
www.rbch.nhs.uk

Consent Sheet for interviews with carer: A systems approach to falls and discharge planning

Carer's ID number for this study:

Ward:

REC Number:

Name of Researcher: Mary Duah-Owusu White

Please **initial** each box below

I confirm that I have read and understand the information sheet dated ……… **Version No. 3** for the above study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily. ☐

I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason, without my position or legal rights being affected. ☐

I give consent for Mary to record the interview and I am happy for a member of the research team to cross-check the accuracy of my interview transcript. ☐

.

I confirm that I understand the information gathered about me in this study may be used without any mention of my name in a public document. ☐

I confirm that I am happy to cross-check the accuracy of the interview transcript. ☐

I confirm that I want a copy of the results of this study posted or emailed to me. ☐

I agree to take part in the above study. ☐

______________________	______________________	______________________
Name of Participant	Date	Signature

______________________	______________________	______________________
Name of Person taking consent	Date	Signature

1 Copy for participant, 1 Copy for researcher, 1 Copy for hospital records

Appendix 7: Consent sheet for staff

Bournemouth University

The Royal Bournemouth and Christchurch Hospitals
NHS Foundation Trust

The Royal Bournemouth Hospital
Castle Lane East
Bournemouth
Dorset
United Kingdom
BH7 7DW

Tel: 01202 303626
www.rbch.nhs.uk

Consent Sheet for interviews with staff: A systems approach to falls and discharge planning

Staff ID number for this study:

Ward:

REC Number:

Name of Researcher: Mary Duah-Owusu White

Please **initial** each box below

I confirm that I have read and understand the information sheet dated ……… **Version No. 3** for the above study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily. ☐

I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason, without my position or legal rights being affected. ☐

I give consent for Mary to record the interview I am happy for a member of the research team to cross-check the accuracy of my interview transcript. ☐

I confirm that I understand the information gathered about me in this study may be used without any mention of my name in a public document. ☐

I confirm that I am happy to cross-check the accuracy of the interview transcript. ☐

I confirm that I want a copy of the results of this study posted or emailed to me. ☐

I agree to take part in the above study. ☐

______________________ ______________________ ______________________

Name of Participant Date Signature

______________________ ______________________ ______________________

Name of Person Date Signature

taking consent

1 Copy for participant, 1 Copy for researcher

Appendix 8: Semi-structured interview guide for carers

Interview guide for carers using a system framework (human interactions, environment, equipment, paperwork):

Introduction

Researcher: My name is Mary Duah-Owusu White. I am a student from Bournemouth University. How should I address you?

Carer: Wait for response.

Researcher: How are you today?

Carer: If the person is feeling OK, the researcher will continue with this introduction. If the person is not feeling too great, the research will ask if it is ok to continue or rebook the meeting).

Researcher: I am currently researching on how to improve the health concerns or the positive aspects of care for people with dementia. This interview will take approximately 30 minutes. Please interrupt this interview at any point should you feel uncomfortable. In the event that you say something that indicates significant harm such as abuse, I will be obligated to report to the hospital safeguarding team. I would like to record this interview on a tape if that is ok. The recorder will be securely locked and the researcher will delete everything after she has transferred results on to paper. “You can refuse to answer any questions that you are uncomfortable with. Your name will not be linked to what you say. Is that OK?”

Carer: If the carer accepts, then I will proceed.

Researcher: I will read through the study’s information sheet with you so you know in detail what the research is all about. Please stop me at any point whilst I read if you have any concerns. I will go through the consent sheet with you to confirm that you are happy to continue with this study.

What has been your experience of being a carer for a patient with dementia on a hospital ward?

What has been your experience of discharge planning and what slows it down?

Prompts

Do you find it helpful involving staff in the discharge planning process?

How can the hospital environment be improved to help with the discharge planning process?

How does the use of patient equipment affect the discharge planning process?

Do Trust documents help with the discharge planning process?

Are you aware of any Trust (hospital) document on the care of patients with dementia?

What has been your experience of falls and what are the factors that influences it?

Prompts

Do you find it helpful involving patients and other carers in the reduction of falls?

In what ways do you utilise members of staff in order to help with the reduction of falls?

How can the hospital environment be improved to help with the reduction of falls?

How does the use of patient equipment affect the reduction of falls?

Do Trust documents help with the reduction of falls?

Appendix 9: Semi-structured interview guide for staff

Interview guide for staff (nursing, medical, allied healthcare professionals, support staff) using a system framework (human interactions, environment, equipment, paperwork):

Introduction

Researcher: My name is Mary Duah-Owusu White. I am a student from Bournemouth University. How should I address you?

Staff: Wait for response.

Researcher: How are you feeling today?

Staff: If the person is feeling OK, the researcher will continue with this introduction. If the person is not feeling too great, the researcher will ask if it is ok to continue or re-book the meeting).

Researcher: I am currently researching on the discharge planning process and the reduction of falls amongst people with dementia. This interview will take approximately thirty minutes. Please interrupt this interview at any point should you feel uncomfortable. In the event that you say something that indicates significant harm such as abuse, I will be obligated to report to the hospital safeguarding team. I would like to audio-record this interview if that is ok. The recorder will be locked in a cabinet and the researcher will delete everything after she has transcribed the interview herself. The researcher's supervisors will cross-check a sub-set of the transcripts for accuracy. "You can refuse to answer any questions that you are uncomfortable with. Your name will not be linked to what you say. Is that OK?"

Staff: If the member of staff accepts, then I will proceed.

Researcher: Please read through the study's information sheet so that you know in detail what the research is all about. Please ask me questions if you have any concerns. Please sign the consent sheet to confirm that you are happy to continue with this study.

What is your role in the hospital?

How long have you worked in this role in the hospital?

What has been your experience of talking with or meeting patients who have dementia in this hospital?

Do you find it helpful involving family or paid (home) carers in the discharge planning process?

In what ways do you utilise other members of staff in order to help with the discharge planning process?

How can the hospital environment be improved to help with the discharge planning?

How does the use of patient equipment affect the discharge planning process?

Are you aware of any Trust (hospital) document on the care of patients with dementia?

Do Trust documents help with the discharge planning process?

Do you find it helpful involving family or paid (home) carers in the reduction of falls?

In what ways do you utilise other members of staff in order to help with the reduction of falls?

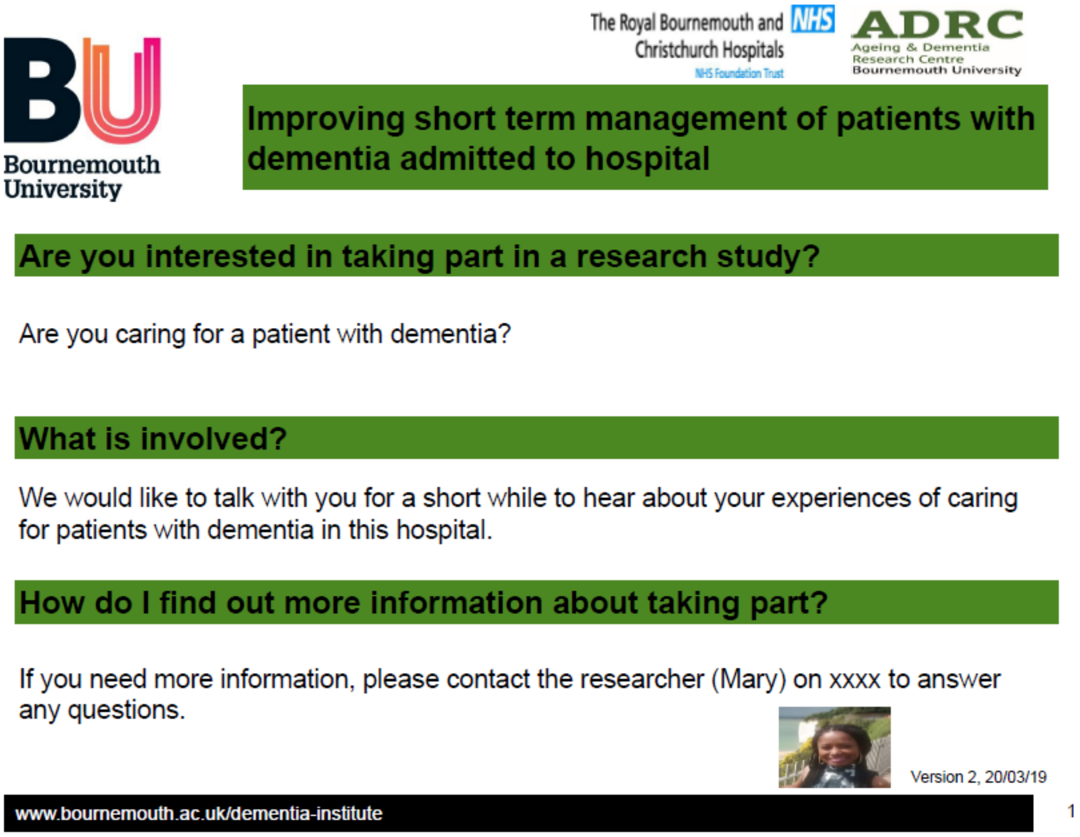
How can the hospital environment be improved to help with the reduction of falls?

How does the use of patient equipment affect the reduction of falls?

Are you aware of any Trust (hospital) document on the care of patients with dementia?

Do Trust documents help with the reduction of falls?

Appendix 10: Flyer and Poster



Bournemouth University

The Royal Bournemouth and Christchurch Hospitals NHS Foundation Trust

ADRC Ageing & Dementia Research Centre Bournemouth University

Improving short term management of patients with dementia admitted to hospital

Are you interested in taking part in a research study?

Are you caring for a patient with dementia?

What is involved?

We would like to talk with you for a short while to hear about your experiences of caring for patients with dementia in this hospital.

How do I find out more information about taking part?

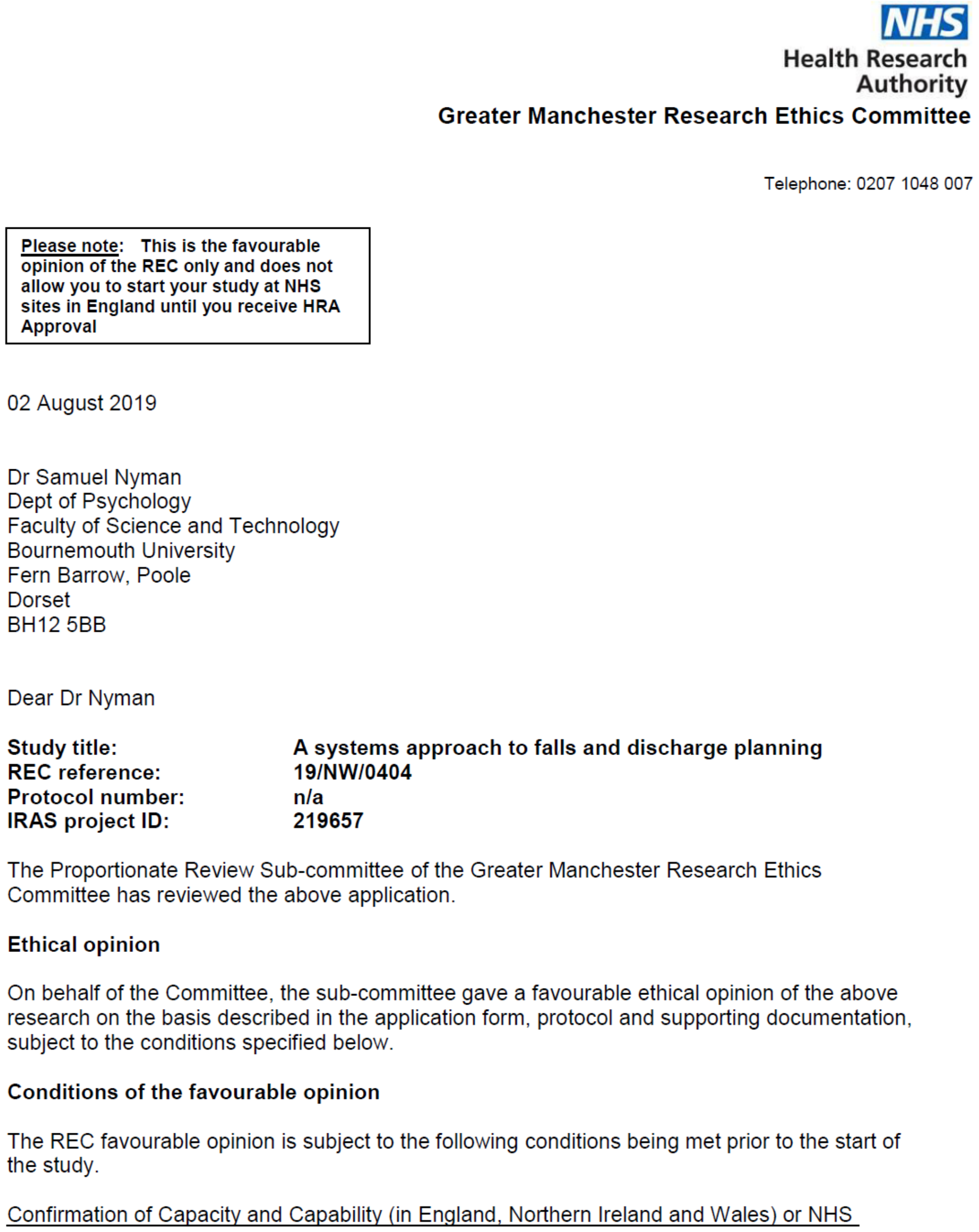
If you need more information, please contact the researcher (Mary) on xxxx to answer any questions.

Version 2, 20/03/19

www.bournemouth.ac.uk/dementia-institute

1

Appendix 11: Ethics Approval



Health Research
Authority
Greater Manchester Research Ethics Committee

Telephone: 0207 1048 007

Please note: This is the favourable opinion of the REC only and does not allow you to start your study at NHS sites in England until you receive HRA Approval

02 August 2019

Dr Samuel Nyman
Dept of Psychology
Faculty of Science and Technology
Bournemouth University
Fern Barrow, Poole
Dorset
BH12 5BB

Dear Dr Nyman

Study title:	**A systems approach to falls and discharge planning**
REC reference:	**19/NW/0404**
Protocol number:	**n/a**
IRAS project ID:	**219657**

The Proportionate Review Sub-committee of the Greater Manchester Research Ethics Committee has reviewed the above application.

Ethical opinion

On behalf of the Committee, the sub-committee gave a favourable ethical opinion of the above research on the basis described in the application form, protocol and supporting documentation, subject to the conditions specified below.

Conditions of the favourable opinion

The REC favourable opinion is subject to the following conditions being met prior to the start of the study.

Confirmation of Capacity and Capability (in England, Northern Ireland and Wales) or NHS management permission (in Scotland) should be sought from all NHS organisations involved in the study in accordance with NHS research governance arrangements.

Each NHS organisation must confirm through the signing of agreements and/or other documents that it has given permission for the research to proceed (except where explicitly specified otherwise).

Guidance on applying for HRA and HCRW Approval (England and Wales)/ NHS permission for research is available in the Integrated Research Application System.

For non-NHS sites, site management permission should be obtained in accordance with the procedures of the relevant host organisation.

Sponsors are not required to notify the Committee of management permissions from host organisations.

Registration of Clinical Trials

It is a condition of the REC favourable opinion that all clinical trials are registered on a publicly accessible database. For this purpose, clinical trials are defined as the first four project categories in IRAS project filter question 2. For clinical trials of investigational medicinal products (CTIMPs), other than adult phase I trials, registration is a legal requirement.

Registration should take place as early as possible and within six weeks of recruiting the first research participant at the latest. Failure to register is a breach of these approval conditions, unless a deferral has been agreed by or on behalf of the Research Ethics Committee (see here for more information on requesting a deferral:
https://www.hra.nhs.uk/planning-and-improving-research/research-planning/research-registration-research-project-identifiers/

As set out in the UK Policy Framework, research sponsors are responsible for making information about research publicly available before it starts e.g. by registering the research project on a publicly accessible register. Further guidance on registration is available at:
https://www.hra.nhs.uk/planning-and-improving-research/research-planning/transparency-responsibilities/

You should notify the REC of the registration details. We routinely audit applications for compliance with these conditions.

Publication of Your Research Summary

We will publish your research summary for the above study on the research summaries section of our website, together with your contact details, no earlier than three months from the date of this favourable opinion letter. Should you wish to provide a substitute contact point, make a request to defer, or require further information, please visit:
https://www.hra.nhs.uk/planning-and-improving-research/application-summaries/research-summaries/

It is the responsibility of the sponsor to ensure that all the conditions are complied with before the start of the study or its initiation at a particular site (as applicable).

After ethical review: Reporting requirements

The attached document "After ethical review – guidance for researchers" gives detailed guidance on reporting requirements for studies with a favourable opinion, including:

- Notifying substantial amendments
- Adding new sites and investigators
- Notification of serious breaches of the protocol
- Progress and safety reports
- Notifying the end of the study, including early termination of the study
- Final report

The latest guidance on these topics can be found at https://www.hra.nhs.uk/approvals-amendments/managing-your-approval/.

Ethical review of research sites

The favourable opinion applies to all NHS sites taking part in the study, subject to management permission being obtained from the NHS/HSC R&D office prior to the start of the study (see "Conditions of the favourable opinion").

Approved documents

The documents reviewed and approved were:

Document	*Version*	*Date*
Copies of advertisement materials for research participants [Flyer /Poster]	2	20 March 2019
Evidence of Sponsor insurance or indemnity (non-NHS Sponsors only) [Insurance Certificate]	2	16 July 2018
Initial Assessment for REC [IAfREC]		03 June 2019
Interview schedules or topic guides for participants [Interview guide]	2	20 March 2019
Interview schedules or topic guides for participants [Interview guide-staff]	2	20 March 2019
IRAS Application Form [IRAS_Form_03062019]		03 June 2019
Letter from sponsor [Sponsorship letter]		08 May 2019
Other [Comments from Laura (Research Monitor)]		
Other [Feedback from the Initial Review]		
Other [Demographic Variables]	1	12 August 2016
Other [Indemnity]		02 July 2018
Other [Unfavourable opinion letter]		
Other [Cover letter]		
Participant consent form [Consent form]	2	20 March 2019
Participant consent form [Consent Sheet for Interviews-Staff]	2	20 March 2019
Participant information sheet (PIS) [Participant information sheet-staff]	2	20 March 2019
Participant information sheet (PIS) [Participant information sheet]	2	20 March 2019
Research protocol or project proposal [Research Protocol]	2	20 March 2019

Summary CV for Chief Investigator (CI) [Chief Investigator's CV]		
Summary CV for student [Mary's CV]	2	
Summary CV for supervisor (student research) [Samuel's CV]		
Summary CV for supervisor (student research) [Mike's CV]		
Summary CV for supervisor (student research) [Fiona's CV]		

Membership of the Proportionate Review Sub-Committee

The members of the Sub-Committee who took part in the review are listed on the attached sheet.

Statement of compliance

The Committee is constituted in accordance with the Governance Arrangements for Research Ethics Committees and complies fully with the Standard Operating Procedures for Research Ethics Committees in the UK.

User Feedback

The Health Research Authority is continually striving to provide a high quality service to all applicants and sponsors. You are invited to give your view of the service you have received and the application procedure. If you wish to make your views known please use the feedback form available on the HRA website:
http://www.hra.nhs.uk/about-the-hra/governance/quality-assurance/

HRA Learning

We are pleased to welcome researchers and research staff to our HRA Learning Events and online learning opportunities– see details at:
https://www.hra.nhs.uk/planning-and-improving-research/learning/

With the Committee's best wishes for the success of this project.

19/NW/0404	**Please quote this number on all correspondence**

Yours sincerely

Elaine Hutchings

pp
Dr George Gkimpas
Chair Email: nresommittee.northwest-gmcentral@nhs.net

Enclosures: List of names and professions of members who took part in the review

"After ethical review – guidance for researchers"

Copy to: Mrs Julie Northam

Members of the Committee taking part in the review

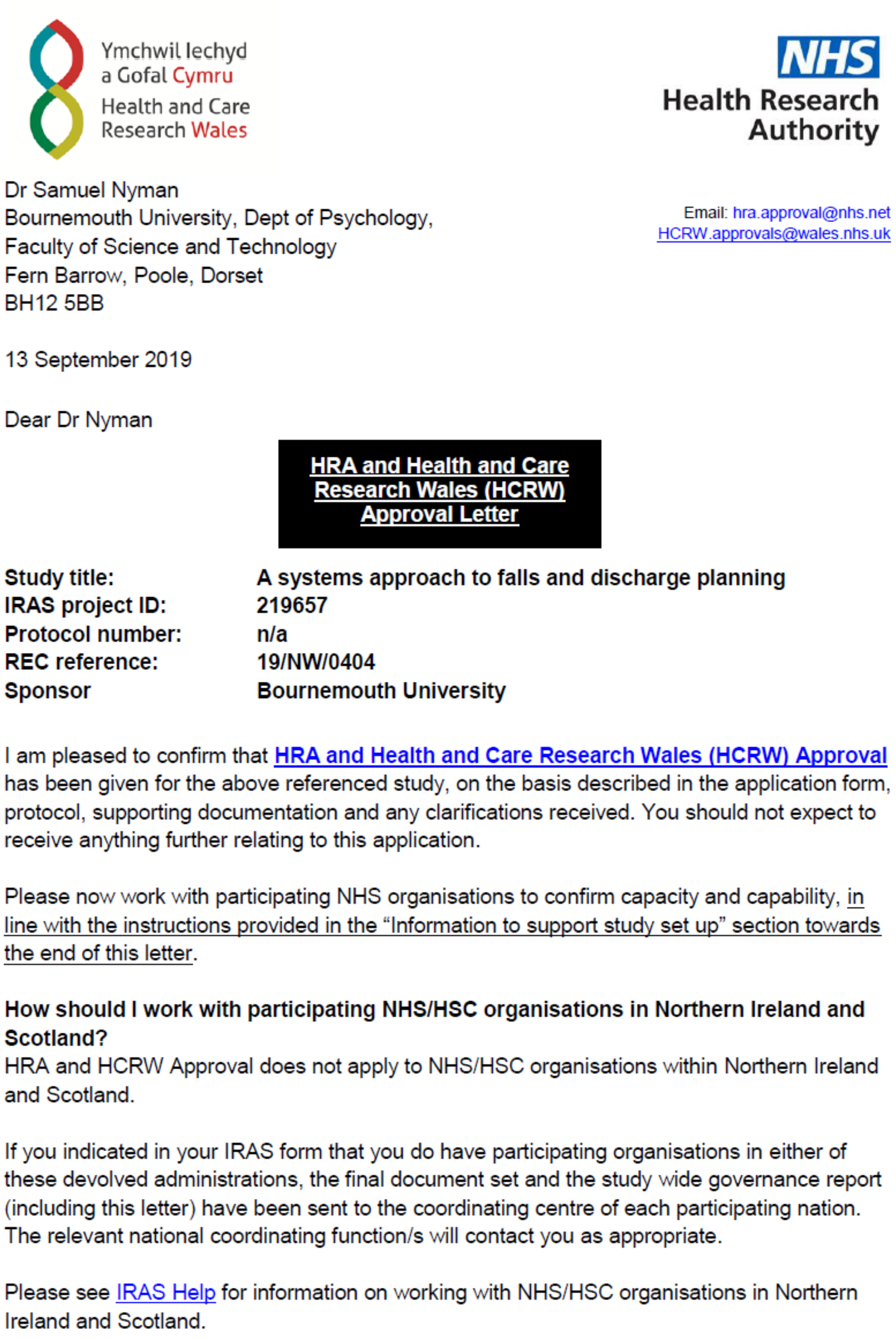
Committee Members:

Name	*Profession*	*Present*	*Notes*
Dr Peter Klimiuk	Consultant Rheumatologist	Yes	Chairing
Mr Rodney Lighton	Retired Software Engineer	Yes	

Also in attendance:

Name	*Position (or reason for attending)*
Elaine Hutchings	Approvals Officer

Appendix 12: HRA Approval



Ymchwil Iechyd
a Gofal Cymru
Health and Care
Research Wales

NHS
Health Research
Authority

Dr Samuel Nyman
Bournemouth University, Dept of Psychology,
Faculty of Science and Technology
Fern Barrow, Poole, Dorset
BH12 5BB

Email: hra.approval@nhs.net
HCRW.approvals@wales.nhs.uk

13 September 2019

Dear Dr Nyman

HRA and Health and Care Research Wales (HCRW) Approval Letter

Study title:	**A systems approach to falls and discharge planning**
IRAS project ID:	**219657**
Protocol number:	**n/a**
REC reference:	**19/NW/0404**
Sponsor	**Bournemouth University**

I am pleased to confirm that **HRA and Health and Care Research Wales (HCRW) Approval** has been given for the above referenced study, on the basis described in the application form, protocol, supporting documentation and any clarifications received. You should not expect to receive anything further relating to this application.

Please now work with participating NHS organisations to confirm capacity and capability, in line with the instructions provided in the "Information to support study set up" section towards the end of this letter.

How should I work with participating NHS/HSC organisations in Northern Ireland and Scotland?

HRA and HCRW Approval does not apply to NHS/HSC organisations within Northern Ireland and Scotland.

If you indicated in your IRAS form that you do have participating organisations in either of these devolved administrations, the final document set and the study wide governance report (including this letter) have been sent to the coordinating centre of each participating nation. The relevant national coordinating function/s will contact you as appropriate.

Please see IRAS Help for information on working with NHS/HSC organisations in Northern Ireland and Scotland.

How should I work with participating non-NHS organisations?
HRA and HCRW Approval does not apply to non-NHS organisations. You should work with your non-NHS organisations to obtain local agreement in accordance with their procedures.

What are my notification responsibilities during the study?

The document "*After Ethical Review – guidance for sponsors and investigators*", issued with your REC favourable opinion, gives detailed guidance on reporting expectations for studies, including:

- Registration of research
- Notifying amendments
- Notifying the end of the study

The HRA website also provides guidance on these topics, and is updated in the light of changes in reporting expectations or procedures.

Who should I contact for further information?
Please do not hesitate to contact me for assistance with this application. My contact details are below.

Your IRAS project ID is **219657**. Please quote this on all correspondence.

Yours sincerely,
Lauren Allen

Email: hra.approval@nhs.net

Copy to: *Mrs Julie Northam*

List of Documents

The final document set assessed and approved by HRA and HCRW Approval is listed below.

Document	*Version*	*Date*
Copies of advertisement materials for research participants [Flyer /Poster]	2	20 March 2019
Evidence of Sponsor insurance or indemnity (non NHS Sponsors only) [Insurance Certificate]	2	16 July 2018
HRA Schedule of Events [SoE]	1	06 June 2019
Interview schedules or topic guides for participants [Interview guide]	2	20 March 2019
Interview schedules or topic guides for participants [Interview guide-staff]	2	20 March 2019
IRAS Application Form [IRAS_Form_03062019]		03 June 2019
Letter from sponsor [Sponsorship letter]		08 May 2019
Organisation Information Document		
Other [HRAassessment queries]		12 August 2019
Other [HRA assessment queries 2]		21 August 2019
Other [Comments from Laura (Research Monitor)]		
Other [Feedback from the Initial Review]		
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Summary CV for student [Mary's CV]	2	
Summary CV for supervisor (student research) [Samuel's CV]		
Summary CV for supervisor (student research) [Mike's CV]		
Summary CV for supervisor (student research) [Fiona's CV]		

Information to support study set up

The below provides all parties with information to support the arranging and confirming of capacity and capability with participating NHS organisations in England and Wales. This is intended to be an accurate reflection of the study at the time of issue of this letter.

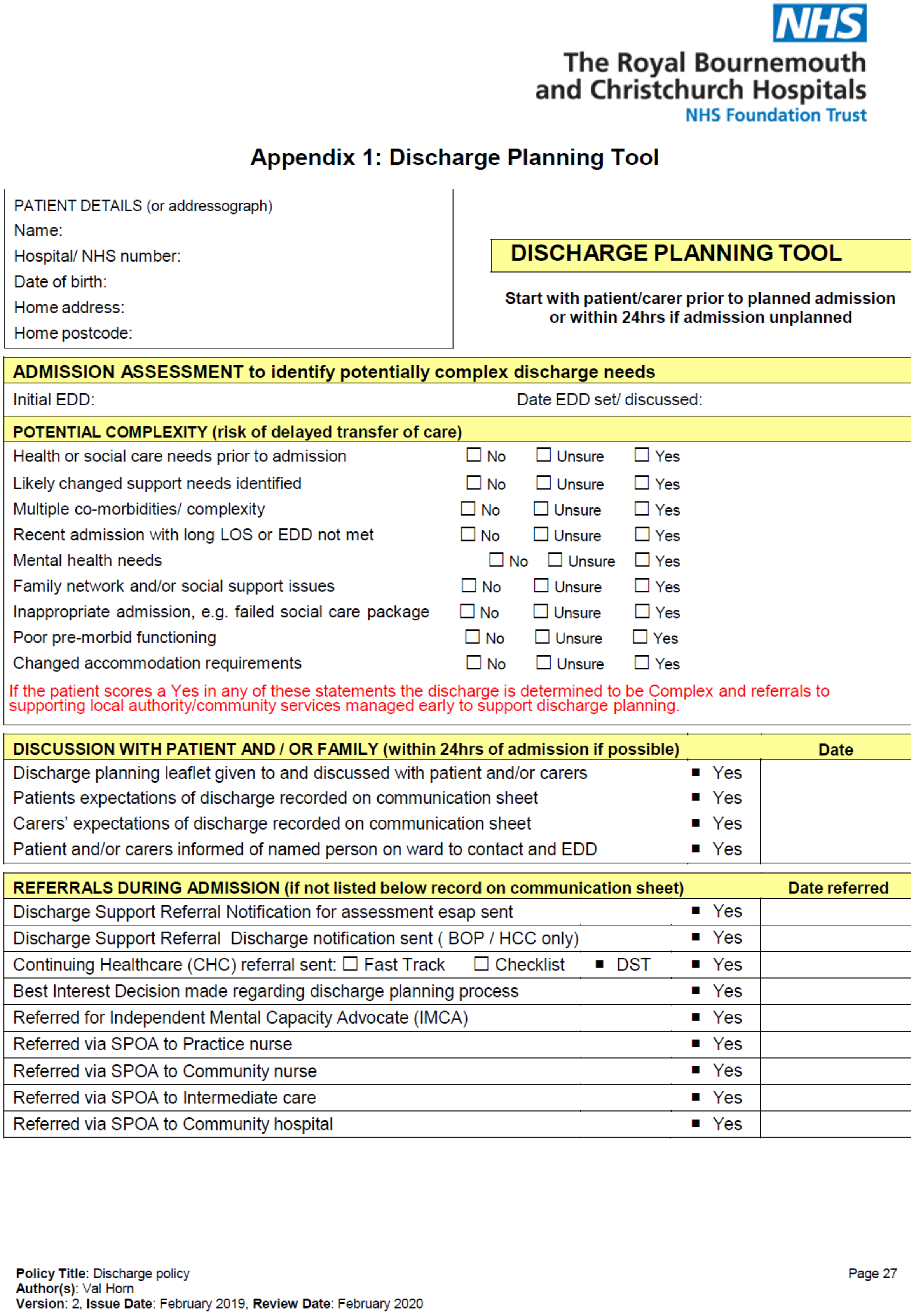
Types of participating NHS organisation	Expectations related to confirmation of capacity and capability	Agreement to be used	Funding arrangements	Oversight expectations	HR Good Practice Resource Pack expectations
This is a non-commercial study with a single participating NHS organisation.	Research activities should not commence at participating NHS organisations in England or Wales prior to their formal confirmation of capacity and capability to deliver the study.	An Organisation Information Document has been submitted and the sponsor is not requesting and does not expect any other site agreement to be used.	No application for external funding has been made. As per the Organisation Information Document, no funding will be provided to the participating organisation.	A Local Collaborator is expected to be in place at the participating organisation.	For research team members that do not have existing contractual relationships with the participating organisation, Letters of Access should be in place if the activities undertaken at the NHS site involve contact with patients (e.g. to take consent), on the basis of Research Passports (if University employed) or NHS to NHS confirmation of pre-engagement checks letters (if NHS employed). The pre-engagement checks should include standard DBS checks and Occupational Health Clearance. No specific pre-engagement checks are required to have taken place if the members of the research team are only accessing

					patients' data.

Other information to aid study set-up and delivery

This details any other information that may be helpful to sponsors and participating NHS organisations in England and Wales in study set-up.
The applicant has stated that they do not intend to apply to the CRN Portfolio.

Appendix 13: Discharge policy



NHS
The Royal Bournemouth
and Christchurch Hospitals
NHS Foundation Trust

Appendix 1: Discharge Planning Tool

PATIENT DETAILS (or addressograph)
Name:
Hospital/ NHS number:
Date of birth:
Home address:
Home postcode:

DISCHARGE PLANNING TOOL

Start with patient/carer prior to planned admission or within 24hrs if admission unplanned

ADMISSION ASSESSMENT to identify potentially complex discharge needs	
Initial EDD:	Date EDD set/ discussed:

POTENTIAL COMPLEXITY (risk of delayed transfer of care)			
Health or social care needs prior to admission	☐ No	☐ Unsure	☐ Yes
Likely changed support needs identified	☐ No	☐ Unsure	☐ Yes
Multiple co-morbidities/ complexity	☐ No	☐ Unsure	☐ Yes
Recent admission with long LOS or EDD not met	☐ No	☐ Unsure	☐ Yes
Mental health needs	☐ No	☐ Unsure	☐ Yes
Family network and/or social support issues	☐ No	☐ Unsure	☐ Yes
Inappropriate admission, e.g. failed social care package	☐ No	☐ Unsure	☐ Yes
Poor pre-morbid functioning	☐ No	☐ Unsure	☐ Yes
Changed accommodation requirements	☐ No	☐ Unsure	☐ Yes

If the patient scores a Yes in any of these statements the discharge is determined to be Complex and referrals to supporting local authority/community services managed early to support discharge planning.

DISCUSSION WITH PATIENT AND / OR FAMILY (within 24hrs of admission if possible)		**Date**
Discharge planning leaflet given to and discussed with patient and/or carers	■ Yes	
Patients expectations of discharge recorded on communication sheet	■ Yes	
Carers' expectations of discharge recorded on communication sheet	■ Yes	
Patient and/or carers informed of named person on ward to contact and EDD	■ Yes	

REFERRALS DURING ADMISSION (if not listed below record on communication sheet)		**Date referred**
Discharge Support Referral Notification for assessment esap sent	■ Yes	
Discharge Support Referral Discharge notification sent (BOP / HCC only)	■ Yes	
Continuing Healthcare (CHC) referral sent: ☐ Fast Track ☐ Checklist ■ DST	■ Yes	
Best Interest Decision made regarding discharge planning process	■ Yes	
Referred for Independent Mental Capacity Advocate (IMCA)	■ Yes	
Referred via SPOA to Practice nurse	■ Yes	
Referred via SPOA to Community nurse	■ Yes	
Referred via SPOA to Intermediate care	■ Yes	
Referred via SPOA to Community hospital	■ Yes	

Policy Title: Discharge policy
Author(s): Val Horn
Version: 2, **Issue Date**: February 2019, **Review Date**: February 2020

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Appendix 2: Discharge Planning Checklist

PATIENT DETAILS (or addressograph)
Name:
Hospital/ NHS number: Date of birth:
Home address:
Home postcode:

DISCHARGE CHECKLIST

Date of discharge/ transfer

Prior to or on day of discharge		**Sign & date**
Discharge address confirmed	☐ Yes	
Communication with patient and / or family		**Sign & date**
Details of power of attorney / court of protection documented in notes	☐ Yes ☐ N/A	
Discharge destination, plans and follow-up discussed with Carer/s	☐ Yes ☐ No	
Access: Keys/ key holder available or key safe number:	☐ Yes ☐ N/A	
Safety: If house is empty, heating etc checked prior to discharge	☐ Yes ☐ N/A	
Date: Next of kin or representative informed of confirmed discharge date	☐ Yes ☐ N/A	
Transport: Patient or representative asked to arrange transport	☐ Yes ☐ N/A	
Communication with community health and social care services		**Sign & date**
Any complex issues discussed with community nurse/GP surgery	☐ Yes ☐ N/A	
Signed prescription chart provided for community nurses/hospital if required	☐ Yes ☐ N/A	
CHC, S/S or family have confirmed funding and care in place	☐ Yes ☐ N/A	
MDT actions		**Sign & date**
Patient or relative unable to arrange transport, so transport arranged	☐ Yes ☐ N/A	
Mobility aids and/or equipment with patient or in situ	☐ Yes ☐ N/A	
Follow-up appointments arranged if required	☐ Yes ☐ N/A	
Medication		**Sign & date**
Medication / consumables to take away ready and available	☐ Yes ☐ N/A	
Medication to take away checked	☐ Yes ☐ N/A	
Warfarin (yellow book) updated and community nurse referral completed if needed	☐ Yes ☐ N/A	
Medication counselling undertaken	☐ Yes ☐ N/A	
Day of discharge		**Sign & date**
Property checked and returned	☐ Yes ☐ N/A	
Cannula removed	☐ Yes ☐ N/A	
Documentation		**Sign & date**
Advice leaflet given if required	☐ Yes ☐ N/A	
Patient or carers given copy of discharge summary (eIDF)	☐ Yes	
GP sent copy of discharge summary (eIDF)	☐ Yes	
Discharging Nurse (name, designation and contact details)		
Signed:	Contact details:	
Print name:	Date:	

Appendix 14: Falls policy

8.0 Roles and responsibilities

8.1 Falls Steering Group

A Trust wide falls steering group is a requirement as determined by National Falls Audit. Please refer to appendix 1 for the terms of reference.

8.2 Quality and Risk: Patient Safety Team

- Responsibility for ensuring that the Trust is aware of and complies with its requirements.
- Responsible for the Prevention and Management Falls Policy and subsequent dissemination.
- Network with peers and share best practice both regionally and nationally, continue to participate in the regional falls group.
- Design educational content and deliver training in various formats and mediums.
- Establish and maintain a network of Moving and Handling and Falls Champions.
- Assists with incident investigations when required.
- Support the implementation of relevant actions post incident and ensure that any learning is disseminated across the Trust.

8.3 Moving and Handling and Falls Champions

- Attend the Champions training course and successfully complete the required assessment. Champions must attend annual updates in order to maintain their competency.
- Attend Falls Steering Group and feedback to area.
- Actively promote falls prevention culture that ensures best practice in post falls management is adopted and adhered to within their areas.
- Act as a positive role model, demonstrating safe good practice at all times
- Attend Falls incident panels when relevant to clinical area.
- Raise any concerns with their line manager and the Falls Lead so that support can be provided.
- Assist when required in the evaluation of falls prevention and management devices/ equipment/ techniques relevant to their area of practice.
- Should the Champion change role or locality then it their responsibility to inform the Falls Lead enabling the register to be updated.

9.0 Document Standards

9.1 Strategy for falls prevention.

9.1.1 Risk Assessment

It is a requirement that all in-patients must have a Falls Risk assessment completed within 6 hours of admission, 12 hours of internal transfer and post fall. Please refer to appendix 2 for the SOP. If, following the reassessment, there is no change to the actions then ‘no change’ must be documented in the medical records to provide evidence of update.

- All inpatient areas will use electronic Nurse Assessments (eNA).
- Emergency Department complete a Falls Risks Assessment on their ED Assessment Sheet and then provide a handover to all receiving areas.
- Surgical Pre Assessment do not complete a falls risk assessment but do provide a falls prevention leaflet; however a falls risk assessment will be completed electronically on day of admission.
- Outpatient departments do not complete a falls risk assessment.

The eNA falls risk assessment is a series of questions requiring yes or no answers, and depending on the answers the patient will be assessed as ‘not a falls risk’, ‘a falls risk’ or ‘a high falls risk’.

9.1.2 Medication

Identification of the medications that may increase a patients’ risk of falling is included within the multifactorial risk assessment. To support the recognition of the most commonly used culprit medications please refer to appendix 3, this list can also be accessed via the Falls section of the intranet. Please note this is not an exhaustive list, contact Pharmacy for advice if required.

9.1.3 Lying and Standing blood pressures (L&S B/P)

NICE CG 161 states that a lying and standing blood pressure is included in the multifactorial risk assessment for:

- Patients 65 years or older
- Patients 50 years or older with a predisposing medical condition that may increase their risk of falling

The Trust has superseded this guidance by determining the following criteria which underpins the eNA prompts:

- Patients <50 years with no postural symptoms – L&S B/P not indicated.
- Patients <50 years with postural symptoms – L&S B/P indicated.
- Patients >50 years – L&S B/P indicated.

Completing the measurement, understanding the results and recognising when to escalate for a medical review, see appendix 4. This is also covered in the falls eLearning and lanyard card prompts are available from the Falls team.

If a lying and standing blood pressure cannot be performed the following options are available:

- Patient too unwell – perform when patient is deemed fit.
- Patient bed bound – perform if mobility allows.
- Other – if choosing this option a reason must be recorded in the patients’ medical records or care plan.

9.1.4 Patient Information Leaflet

This leaflet should be given to patients and/or carers as indicated by the advice notice on completion of the falls risk assessment.

The leaflets are available to order via PowerGate (RBCH0027), only printed originals should be used to ensure correct version control, individual copies can be accessed via the Patient Information Leaflets section of the intranet.

At the end of the eNA Falls risk assessment there will be a ‘Core Care Bundle’ which offers guidance on what should be considered to prevent the patient from Falling.

Guidance documents can also be found in the Falls information section of the intranet.

9.1.5 Bed rails

Consideration must be given to the safe and appropriate use of bedrails on trolleys as well as beds.

The Trust uses electric profiling beds (Enterprise 5000) that have integrated bed rails and are compliant with NPSA (safety standards) regarding patient entrapment. These bed rails are not interchangeable with other bed frames.

Bed rail protectors (padded enveloping covers) should be considered if there is a risk to impact injuries or harm caused by arms or legs becoming caught between the rails. Bed rail protectors are located locally.

Maintenance

If the bed rails are to be used there is a prompt at the end of the risk assessment to undertake a visual inspection, ensuring the bed rails are in good working order. Any faults should be reported to the Estates Department via Docket Line.

Cleaning

The beds, including the bed rails, should be cleaned before and after use. Appropriate decontamination should be undertaken in accordance with the Infection Control and Decontamination Policy Infection Control policies.

Training

Training and awareness on the correct use of bedrails is included in moving and handling training. Falls awareness training is included on clinical induction and clinical essential core skills.

9.1.6 Floor level beds

Hiring floor level beds

- When required the Trust hires in specialist equipment in order to meet clinical need.
- All hired equipment must be documented in the patients’ medical records.
- The Patient Safety Team are available to support and guide clinical decision making.

9.2 Footwear

The use of appropriate footwear can reduce the risk of patient falls. Whenever possible, use the patient's own footwear if it is in good condition and fit for purpose. Ask the patient's family to bring in appropriate footwear, if none is available then provide the patient with the non-slip red socks. These are available on top-up in all areas. If using non-slip red socks ensure they are changed at least daily or before if visibly dirty. Document in patient care plan when the socks are changed.

9.3 Post falls management

- A fall is defined as an unintentional or unexpected loss of balance resulting in coming to rest on the floor, the ground or an object below knee level (NICE, 2015).
- Incidents where a patient intentionally places themselves on the floor or collapses are not considered to be fall events.

Documentation

- All the following documents have been designed to enable staff in the safe recovery of a patient from the floor. Providing guidance on ongoing monitoring requirements, clinical escalation and policy adherence:
    - Post Falls Protocol Flowchart (appendix 5)
    - Immediate Assessment of a Fallen Patient (appendix 6)
    - Post Fall Record (appendix 7)

  All of these must be completed and filed in the patients' medical records.

- As directed during the above protocols a yellow falls sticker must be completed and stuck in to the patients' medical records. Books of these stickers can be obtained from the Patient Safety Team (Quality and Risk Department).

Equipment

- Staff must only use moving and handling equipment they have received training on and deemed to be competent
- Clinical Site and Critical Care Outreach teams receive training on triple immobilisation and use of the Ferno Scoop
- Training on the use of flat lifting equipment is included in level 2 moving and handling sessions. Please refer to appendix 8 for locations of the flat lifting equipment and supporting guidance

10.0 Training

- Falls prevention and management training is mandatory for all clinical staff.
- eLearning is accessed via BEAT VLE, all other training can be booked via Electronic Staff Record (ESR).
- Trust compliance with Essential Core Skills is overseen by the Essential Core Skills Group.

- See table below for training requirements:

Training Session	Method	Frequency	Delivered by
Trust Induction	eLearning	Once only	Self-directed
Essential Core Skills	eLearning	Two yearly	Self-directed
Health Care Support Worker Induction	Face to face	Once only	Patient Safety Team
Preceptors	Face to face	Once only	Patient Safety Team
International and Return to Practice	Face to face	Once only	Patient Safety Team
Moving and Handling and Falls Champions	Two day practical and theory	Once only	Patient Safety Team
Moving and Handling and Falls Champions update	One day practical and theory	Annually	Patient Safety Team
Bespoke training	Face to face	As required	Patient Safety Team

11.0 Monitoring and Compliance

11.1 Incident Reporting and Investigation

Completing a LERN form:

- A Learning Event Reporting Notification (LERN) **must** be completed for any patient fall regardless of whether any injury was sustained.
- All mandatory fields have to be completed. In order to investigate the adverse incident fully it is important to ensure that as much information as possible is recorded on the LERN Report.
- On investigation of the incident you must always consider whether there are any safeguarding concerns which should be raised with regards to the fall.
- Refer to Falls Incident Toolkit for supporting information.

For further information on incident reporting and investigation refer to the LERN Policy, including serious incidents and RCA Investigation Toolkit which can be located on the Quality & Risk section of the intranet.

Appendix 15: Illustrated summary of falls

How can we prevent falls in patients with dementia?

Retrieved from https://www.rn.com/featured-stories/patient-falls/

Nutrition?

Retrieved from https://rcni.com/nursing-standard/features/how-a-hospital-food-plan-can-tackle-more-nutrition-144711

Sleep?

Retrieved from https://www.nursingtimes.net/news/public-health/sleeping-patient-waking-ban-suggested-in-new-green-paper-23-07-2019/

Pain?

Retrieved from https://www.inquirer.com/health/pain-rank-scale-emergency-room-doctor-20190716.html

Medication?

Retrieved from https://www.diabetes.co.uk/diabetes-medication/

How can we prevent falls in patients with dementia?

Retrieved from https://www.rn.com/featured-stories/patient-falls/

Physical activity?

Retrieved from https://www.woodlandshospice.org/musical-chairs-at-woodlands-patient-exercise-group

Environmental hazards?

Retrieved from http://www.dchs.nhs.uk/assets/public/online_resources/NHS_Falls_Awareness/individual-patient-risks.html

Mobility aides?

Retrieved from https://en.wikipedia.org/wiki/Walker_(mobility)

One to one nursing?

Retrieved from

https://www.myimprovementnetwork.com/

How can we prevent falls in patients with dementia?

Retrieved from https://www.rn.com/featured-stories/patient-falls/

Training?

Retrieved from

https://develop.thebeacon.kent.sch.uk/

Falls team?

Retrieved from

https://www.royalfree.nhs.uk/news-media/news/leading-the-way-in-falls-prevention/

Ward transfers?

Retrieved from

https://rcni.com/nursing-standard/covid-19

Appendix 16: Illustrated summary of discharge

How can we help people with dementia to leave hospital?

Retrieved from

https://www.healthwatch.co.uk/news/2017-02-21/why-hospital-discharge-everyone%E2%80%99s-problem-and-how-new-plans-can-help

Home or care home?

Retrieved from https://www.trustedcare.co.uk/help-and-advice/difference-care-home-nursing-home

Family involvement?

Retrieved from https://oncohemakey.com/13-discharge-planning/

Funding?

Retrieved from https://ukcareguide.co.uk/care-home-costs/

Community Referral?

Retrieved from https://org.vghks.gov.tw/IMSC/cp.aspx?n=A0FAA2DE4EB53D3C

How can we help people with dementia to leave hospital?

Retrieved from

https://www.healthwatch.co.uk/news/2017-02-21/why-hospital-discharge-everyone%E2%80%99s-problem-and-how-new-plans-can-help

Arrangement to go home?

Retrieved from https://www.kewcaregroup.co.uk/our-care-homes/green-willow-residential-home

Delivery of equipment to patient home?

Retrieved from https://www.newsshopper.co.uk/news/11031326.elderly-bromley-man-told-to-dump-zimmer-frame-by-princess-royal-university-hospital-after-offering-to-return/

Medication?

Retrieved from

https://firstaidforlife.org.uk/understanding-managing-medication/

How can we help people with dementia to leave hospital?

Retrieved from

https://www.healthwatch.co.uk/news/2017-02-21/why-hospital-discharge-everyone%E2%80%99s-problem-and-how-new-plans-can-help

Patient property?

Retrieved from https://www.vox.com/health-care/2020/1/29/21075388/medicare-for-all-what-countries-have-universal-health-care

Discharge letter?

Retrieved from

https://geekymedics.com/how-to-write-a-discharge-summary/

Transport?

Retrieved from

https://www.stgeorges.nhs.uk/patients-and-visitors/patient-transport/