Aims and objectives. To provide evidence for the development of a physical domain attached to the well-known bio-psycho-social model of dementia. The objectives were to develop a set of international case studies that followed a trajectory approach, from prevention to end-of-life care.

Background. In the UK the bio-psycho-social model has informed the shape of the National Institute for Health and Clinical Excellence and the Social Care Institute for Excellence ‘dementia’ guideline. However, limited attention has been paid to outlining and describing a physical domain of dementia, a discrepancy that informed the rationale for this study.

Design. A collective case study design was used to address the research aim and objectives.

Methods. Case studies from along the trajectory of dementia were provided by an international team of contributors from an inter-disciplinary background comprising nursing (general and mental health), social work and social science.

Results. The team’s synthesis and analysis of the six case studies generated five repeating themes with each theme becoming components of a ‘physical’ domain of dementia. The five identified physical components were: (1) physical well-being, (2) physical health and examination, (3) physical care, (4) physical treatment and (5) physical environment.

Conclusions. The development of a bio-psycho-social-physical model of dementia presents a holistic and culturally sensitive approach to understanding the experience of living with dementia, and to providing care and support in a variety of situations and contexts.

Relevance to clinical practice. The physical domain of dementia has particular relevance to nursing and nursing practice, such as providing physical care at the end-of-life. The interplay between the biological-psychological-social-physical domains of dementia and the trajectory of dementia could form the basis of clinical decision-making and practice.

Key words: bio-psycho-social model, collective case study, dementia, physical, teaming

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Background

The bio-psycho-social model of health was first introduced in the mid 1970s by the American psychiatrist George Engel who argued that the traditional medical model was fundamentally limited in its scope and ability to provide practitioners with the rounded evidence-base necessary for clinical decision-making (Engel 1977). Instead, Engel put forward the idea that health was better viewed through interconnected systems of biological (focus on disease), psychological (thoughts, emotions, feelings with a focus on psychological testing and measurement) and sociological (the person’s social context) spectrums and that the ‘disruptive effects of (psychiatric) illness’ are an interplay within and between these fields (Engel 1977). It was a persuasive argument as issues of (psychiatric) presentation, diagnosis, treatment and follow-up could now be attributed to a bio-psycho-social approach with the model serving to explain a multitude of phenomena that immediately brought a more inclusive and multi-disciplinary agenda to psychiatry and psychiatric practice (Engel 1980).

As a heuristic device, the bio-psycho-social model continues to be used and aligned to areas of contemporary psychiatry (for a discussion see: Ghaemi 2010); however, the bio-psycho-social model has also branched out from its psychiatric roots and found an adoptive home in other areas of clinical practice and sociological understandings, such as that in chronic pain management (Manon 2001, Gatchel et al. 2003), diabetes self-care (Peyrot et al. 1999), family systems and genetic illness (Rolland & Williams 2005), pregnancy and postpartum care (Ross et al. 2004), as a theoretical base for gerontological nursing practice (Smith 2003) and in formulating an explanation of racist behaviour and actions (Clark et al. 1999). Borrell-Carrió et al. (2004) have also suggested that due to its extensive use and application, the bio-psycho-social model has morphed away from its systems routes and into a philosophy of care that neatly fits with the lexicon and narrative of clinical practice. In other words, to undertake a bio-psycho-social approach to practice is, de facto, to deliver holistic, evidence-based care.

The bio-psycho-social model has also been applied to dementia as an approach to ground practice, clinical understanding and evidence-based decision-making, such as expressed through the National Institute for Health and Clinical Excellence (NICE) and the Social Care Institute for Excellence (SCIE) guideline Dementia: supporting people with dementia and their carers in health and social care (NICE clinical practice guideline 42: NICE/SCIE 2007). As an illustration of its utility, Sabat (2008), when outlining the bio-psycho-social approach to dementia, aligns it in the following way: the biological domain to the depletion of certain transmitter substances within the human brain and the impact that this has for the person’s memory functioning and cognitive abilities, including visual identification of objects due to damage to the occipital lobe; the psychological domain to an opportunity to engage with the person with dementia as a person first and foremost whose behaviour is driven by the meaning that situations hold for him or her (i.e. as a ‘semiotic subject’; see also Sabat & Harré 1994); and the social domain to the importance of the person with dementia having a valued social identity, one where language is used positively to socially position the person as someone of intrinsic worth and value.

More recently, Spector and Orrell (2010) used a single case study approach to craft a theoretical framework onto the trajectory of dementia (i.e. from onset to death) that is built squarely from the bio-psycho-social approach. This helpful development added in the dimensions of ‘fixed factors’, ‘tractable factors’ and ‘interventions’ to the biological and psychosocial domains (the authors joined together the psychological and social domains). So, in the psychosocial domain, ‘fixed factors’ would be represented by education, life events and personality traits, ‘tractable factors’ would include the person’s social psychology and environment, and ‘interventions’ would include cognitive and behaviour work and multi-sensory stimulation. The point here, of course, is that the biological progression of dementia will cause each of these psychosocial factors to be present at a different phase and with a different emphasis, dependent upon individual circumstances. In the model, increasing dependency is seen as an inevitable consequence of living with a progressive dementia, and Spector and Orrell (2010) represented physical aspects of care through ‘physical exercise’ (listed as a biological intervention) and ‘physical health’ (listed as a biological tractable factor).

However, although the theoretical model by Spector and Orrell (2010) holds much promise, from the lead authors’ practice perspectives of over 20 years experience (each) in mental health nursing and dementia care (JK; community mental health nursing, research and education) and LJ (NHS in-patient dementia assessment including specialist end-of-life care, physical complexity and behaviours that challenge), attention paid to the physical dimensions of care within a bio-psycho-social approach appeared inadequate and did not reflect practice reality. This criticism could equally be applied to the previous bio-psycho-social writings of Sabat (2008). By utilising a collective case study design (Stake 2000, 2005), we will provide practice-based evidence for the establishment of a bio-psycho-social-physical model.
of dementia and the need to further empirically test the components that comprise the inductively generated ‘physical’ domain.

Methods

Design and data selection

Following a number of preliminary discussions about the absence/dilution of a physical domain from within existing bio-psycho-social models of dementia, JK and LJ formulated the following three research questions:

- What are the physical components attributed to a physical domain of dementia and dementia care?
- How are these physical components perceived and/or understood in everyday clinical practice?
- Does the physical domain have an international application/context?

To address these questions and to gain a formative understanding about the physical domain of dementia and its associated components, the authors adopted a collective case study design (Stake 2000, 2005). This approach is initially built upon the examination of a particular (or ‘instrumental’) case with insights subsequently extended through the generation of several (or ‘collective’) cases. According to Stake (2000), analysis of the collective cases can be developed further by theorising about a ‘still larger collection of cases’ (p. 437); however, in the first instance, the primary goal of a collective case study design is the selection of cases that provide a range of characteristics that are defined by variety, yet are purposeful enough to explore the phenomenon and research questions (Stake 2000).

To start answering the generated research questions, therefore, JK and LJ wrote out an instrumental case (which became case study 3; see Appendix) that became a joint contribution to a ‘physical’ domain drawn directly from clinical practice, and also provided evidence that a physical domain/component was present in dementia care. JK and LJ then set the criteria for selecting the remaining contributors/case studies in that they were required to broadly cover the trajectory of dementia, namely from prevention through to end-of-life care. These criteria would illustrate the depth, diversity and complexity of the physical experience(s) encountered in living with dementia and provides an indication of the knowledge necessary to provide quality care. An international, multi-disciplinary team of case study contributors was then selected using JK and LJ’s networks and represented the fields of nursing (general and mental health), social work and social science. All selected team members had a long-standing clinical and/or research experience in dementia in areas of practice that included care home work, hospital in-patient care, community nursing, preventative work and palliative dementia care. All of those approached agreed to take part and became co-authors of this article (note: SW’s input remained solely methodological and analytical and he did not provide a case study).

To address the remaining two research questions, JK and LJ set the individual team members the following task: ‘Please provide a brief (around 250 word) case study drawn from clinical practice or research observation that comprises a physical aspect of dementia/dementia care’. JK and LJ were careful not to define exactly what they meant by ‘physical’ in this context as it was important that this interpretation was left to the recipients. Instruction was also provided to team members to ensure that the case studies were anonymous and a composite of clinical experience; however, if the case study contained any research material, then the provided case study was to have the appropriate ethical permission. All the case studies received are reproduced in the Appendix and are ordered following our trajectory criteria. Only case study 1 was based on a research study and included all the necessary ethical clearance; names are also changed in this case study to protect anonymity (see Ward et al. 2011).

Data analysis

The process of analysis in collective case study work is underpinned by ‘teaming’ which involves a number of researchers (in our instance, all authors named in this article) engaged in an integrated approach within and between cases. This required negotiation about the ‘pairing down’ of key elements of the cases to what can be comprehended by the ‘collection of the team members’ (Stake 2000, p. 445) with each team member then asked to ‘write up’ their part of the account. This process was then critiqued, in turn, by members of the team with the ordering of the authorship of this article reflective of this sequential process. The synthesis of this comparative team scrutiny of cases and emergent themes was written-up by the team leaders (JK and LJ) with this analysis once again critiqued, in turn, by the whole team. In essence, the analytical process is a transparent working through of cases to explore the research questions based on egalitarian values.

The identification of the components of the physical domains were informed by constant comparative analysis (Glaser & Strauss 1967, Glaser 1978) and focused on theme generation rather than category formation with the themes a ‘repeated pattern’ (Stake 2000) in the data. This teaming
exercise and analytical process generated five themes (which we have subsequently named components) of a physical domain attached to a bio-psycho-social model of dementia, namely: physical well-being; physical health and examination; physical care; physical treatment and physical environment. We will now expand on each of these physical domain components following collective case study analysis. The five components of a physical domain of dementia are not presented in any hierarchical order of significance.

Results: physical domain

Component: physical well-being

In one way or another, all the presented case studies revealed evidence of physical well-being, be that for the person with dementia, family carers and/or the community at large engaging in preventative strategies for vascular risk factors. In case study 1 for example, the experience of Bob and Monica’s referral to the Manchester Supporting Health Dementia Program revealed the benefits of a nurse-led community-based physical well-being strategy for people with dementia that included the provision of a health-check service. In such a community-based setting, public health becomes a crucial dimension of physical well-being. Moreover, in case study 4, the identification and alleviation of pain in Rhona, a person with advanced dementia and severely impaired (verbal) communication skills, was shown to increase her physical well-being. As the case study revealed, this was demonstrated through nonverbal responses and actions, such as Rhona attempting to mobilise once again after the source of the pain was identified. This attention to the physical well-being of a person with dementia was also seen in Tom’s end-of-life case study (6) when care staff identified Tom’s ineffective airway clearance and took remedial steps to increase his quality of life and, ultimately, his death. Moreover, in case study 5, George’s physical well-being was restored when he was able to re-connect with his geographical and biographical roots (being relocated ‘home’ to North Wales) and to continue his life-long passion for gardening. Such meaningful occupation for George increased markers of physical well-being which could be measured in terms of his reduced agitation and increase in physical activity.

Component: physical health and examination

All the case studies gave overlapping and at times distinct examples about the importance of physical health and examination within the experience of living with dementia. For example, Florrerie’s case study (3) clearly demonstrates the importance of the role of the nurse in providing skilled intervention, observation and recognition of symptoms that indicated deterioration and which required interventions/treatment. As Florrrie was no longer able to recognise or respond to potential trigger symptoms of physical illness/deterioration due to the progression of her dementia, this role needed to be undertaken by the administering nurses. Without this skilled observation/assessment and care, Florrrie’s condition would have quickly deteriorated and she would have become acutely unwell. Aligned to this, the remaining case studies of Bob and Monica (1), Millie (2), Rhona (4), George (5) and Tom (6) all highlighted the numerous physical conditions which can coexist alongside a person’s diagnosis of dementia, such as osteoarthritis, hypertension, heart failure, ischemic attacks, impaired renal functioning, constipation, impaired skin integrity and unstable diabetes. These case studies specifically evidence and illustrate this complex presentation and the fact that it is often impossible to separate the ‘physical’ and ‘psychological’ in everyday care. Rhona’s case study (4) also identifies the importance of undertaking physical examinations in advanced dementia when an individual’s presentation can quickly change. Without this examination occurring, an assumption may have been made that Rhona’s change in presentation was simply as a result of her ‘dementia progressing’ and her symptoms discounted. However, the physical examination and subsequent investigations unearthed a treatable cause for Rhona’s distress which reduced her pain and increased her comfort. The value of clinical reasoning is a balancing act between each of the four domains.

Component: physical care

Embedded within the case studies of Millie (2), Florrrie (3), Rhona (4) and Tom (6) is the importance of attending to physical care needs. As these case studies reveal, physical care needs encompass a myriad of areas that are often very personal in nature and involve helping with hygiene, hair and nail care, attending to bowel and bladder needs, assisting with food and fluid intake and assisting with dressing, in amongst other tasks. Herein, there is a correlation between the act of giving physical care and intervening with the person with dementia’s body. Physical care is done to, with and on a person and as the case studies reveal, this can be invasive as well as preventative and enabling. For example, Millie’s case study (2) highlighted how the nurse had, after assessment, arranged for meals to be delivered to her home and on visits would prompt Millie about her eating habits. This enabling and supervisory approach helped Millie to gain support/assistance with dietary
provision, yet still feel that she has retained independence and agency. In contrast, due to the advanced nature of their dementia, both Florrie (3) and Tom (6) were dependent upon nursing staff to sensitively and skilfully anticipate, maintain and respect their individual physical care needs. Tom’s case study in particular (6) highlights how, when he stopped eating and drinking, a reassessment of his physical care needs led to a palliative approach being adopted. This physical care emphasis then became one of comfort, with Tom relying upon nursing staff to maintain tissue viability and promote good oral hygiene.

Component: physical treatment

The case studies of Millie (2), Florrie (3), Rhona (4) and Tom (6) all highlight the relationship between physical treatment and a caring role; in these instances, such duties mainly undertaken by nursing staff. The case studies demonstrate how nurses worked with people with dementia in assessing and implementing treatment regimes, took into account the impact of competing and co-existing health conditions whilst also balancing such needs against the overall presentation of the person living with dementia. In the case of Millie (case study 2) for example, this was expressed through overseeing the safe self-administration of medicines coupled to upholding Millie’s sense of independence. In contrast, Florrie’s experience (case study 3) highlights how nursing staff would rely upon their observational skills as cues for identifying changes in Florrie’s physical health condition, changes that required physical treatment such as breathlessness requiring oxygen and changes in mental health (aggression, visual hallucinations) as indicators of acute infection. Similarly, Tom’s case study (6) highlights the role of the nurse in observing physical changes and alerting others to the need for a physical health and treatment review. Moreover, the case studies of Millie (2), Florrie (3) and Tom (6) also demonstrate nurses using their skills and knowledge to administer medication/treatment based on a complex assessment formulated through accessing previous life/medical history, processing reports from other professionals and in-depth observation. The importance and meaning of physical treatment was also seen in case study 1 with Bob and Monica when the couple received visits from the health check nurse, visits that led to a change of diet for Bob and more exercise for the couple.

Component: physical environment

In the presented case studies, the physical environment is revealed to be an important component of the physical domain of dementia. This was evident in the first case study when the physical environment included engagement with (nondementia specific) community-based facilities such as the ‘healthy hips and hearts’ class close to Bob and Monica’s home. The silent narrative in this case study is that the couple would have had to engage with outdoor, public spaces to be present at the class and to interact with the world and physical landscape outside their home to undertake health improvement exercises, such as walking, jogging and so on. For Millie, in case study 2, the removal of out-of-date medicines in her home and the provision of orientation and ‘reminder’ signage (a series of ‘post-it’ notes attached to the refrigerator door as a prompt to self-medicate) were important practical and visual changes to her environment that enabled independent living to continue. The importance of a familiar physical environment is also a theme in the remaining case studies. For example, in case study 3, Florrie found herself transferred from an acute hospital bed to a specialist in-patient assessment unit for people with dementia where she would have little familiarity with the physical environment or (any) control over it. This is similar to Tom’s end-of-life experience (case study 6) where he would die in a place which was not his own. Case studies 4 (Rhona) and 5 (George) also demonstrate the importance of the physical environment in a care home setting, with George and staff in the care home peppering his new physical environment with familiar objects and possessions to ground his sense of belonging.

Discussion

These six case studies and the teaming approaching integral to a collective case study design (Stake 2000, 2005) amply demonstrate that a physical domain is present in dementia and adds weight to establishing a bio-psycho-social-physical model of dementia. In our study, the physical domain was represented by five components: physical well-being, physical health and examination, physical care, physical treatment and physical environment. As the instrumental and collective case studies reveal, these physical components were not discreet events, but co-existed alongside one other with their emphasis rising and falling in importance as the situation and context demanded. However, they were always present. For example, in case study 6, the consensus decision to adopt a palliative approach to Tom’s care once he stopped eating and drinking, heightened the presence of each of these components whilst emphasising the importance of physical care as Tom entered the last 2 weeks of his life. The case study also draws into the fold the importance of an intrinsic factor underlying the physical domain, namely applying in practice an ethical framework to under-
pin decision-making (Brannelly 2006). Interestingly, a recent report on this topic area by the Nuffield Council on Bioethics (2009) suggests that this decision-making should be carried out through a ‘case-based approach’ (p. 21) (in reality, a process not dissimilar to the case studies and analysis presented in the article) which respects the person’s overall quality of life, autonomy and well-being. Arguably, such ethical issues are raised to the fore during end-of-life care (Small et al. 2007) and requires care workers to have a moral and ethic of care that takes into account ‘everyday interactions’ (Kitwood 1998, p. 23), a phenomenon seen in the provided case studies.

Aligned to the above, the study findings also pose an interesting question, namely does the balance and interplay within and between the four domains (the biological, the psychological, the social and the physical) provide a platform for establishing and maintaining holistic, person-centred dementia care? At present, and as the case studies in this article illustrate, practitioners seem to have ‘slices’ of knowledge without ‘owning’ this whole, balanced perspective. So, to take an hypothetical example, it is of dubious relevance and professional ethics for a psychologist to deliver an evidence-based, one-to-one cognitive stimulation therapy session to a person with advanced dementia living at home if, unbeknown to the therapist, that person is experiencing pain and requires physical examination, treatment and care. In a similar vein, the case studies also reveal that people with dementia live with co-morbidities other than dementia which, again, points towards the importance of a balanced knowledge (and skills set) across the bio-psycho-social-physical domains. The fact that older people are at an increased risk of living with one or more long-term condition should not be a surprise. To take the findings of just one major epidemiological study, a report on The State of Aging and Health in America (Centers for Disease Control and Prevention and The Merck Company Foundation 2007) suggests that at least 80% of older Americans are living with at least one chronic condition, for example cancer, coronary heart disease, Alzheimer’s disease, diabetes, stroke and ‘50% have at least two’ (p. 4). Again, knowledge of the physical domain would appear crucial in helping to balance and determine clinical and practice priorities. However, additional work is necessary to begin to unpack some of these questions and start to develop an education and practice agenda that is built squarely from the needs of people with dementia.

In the presented six case studies, the nursing profession was seen to play a pivotal part in care delivery, be that from a domestic, primary care, community, or hospital-based setting. At one level, this is perhaps not an unexpected finding as a recent literature review by Traynor et al. (2011) on nursing competence in dementia care found that 10 competencies were present in practice, these included: assisting with daily living activities, promoting a positive environment, ethical and person-centred care, therapeutic work (interventions) and preventative work and health promotion. Indeed, a recent UK report on improving hospital care for people with dementia (The NHS Confederation 2010) suggests that up to 70% of acute hospital beds in the UK are occupied by older people (p. 6). As illustrated in the case studies of Florrie (3) and Rhona (4), acute care nurses will regularly come into contact with people with dementia and that care will be predominantly be ‘physical’ in nature, although knowledge of each of the other domains is essential for effective communication and care to take place.

As these case studies also intimate and outline, the physical domain opens up work with the body and the embodied experience of people living with dementia. As Eyers and Adams (2008) discuss, dealing with bodily fluids and eliminations is important nursing work, but is often misappropriated as ‘basic care’. It is unglamorous work but, arguably, it is the very essence of nursing through the act of upholding (in another person) a sense of their dignity and worth as a human being. Putting the body back into dementia and dementia care is best achieved through a physical domain, whilst acknowledging the sociological manifestations of the body and its expression through the situated self, such as through gestures and movement (Kontos 2005, Millett 2011).

Finally, case study 1 draws attention to the outside world and how people with dementia and their carers navigate around their physical environment and make sense of their physical surrounding once cognitive capacity is compromised (Brittain et al. 2010). In England, the National Dementia Strategy (Department of Health 2009) has drawn attention to the importance of preventative strategies to reduce the risk of acquiring a dementia such as by ‘eating a healthy diet, stopping smoking, exercising regularly, drinking less alcohol and protecting the brain from injury’ (p. 29). Similarly, maintaining physical health and well-being are important manifestations of living well with dementia, an act that is supported through physical activity and exercise (Price & Keady 2010). The meanings attached to a physical domain are manifold, yet so necessary if dementia and dementia care practice is to provide people living with the condition with balanced lives.

**Relevance to clinical practice**

The addition of a physical domain to the bio-psycho-social model of dementia opens up new avenues for practice and decision-making. The physical components of a physical
domain of dementia identified in this study (well-being, health and examination, care, treatment and physical environment) have resonance with nursing practice and offers opportunities for engagement and evaluation from preventative strategies through to end-of-life care. The physical domain also opens up the importance and value of body work in dementia and the role of staff in providing and enabling such support and care.

**Study limitations**

The study was organised around the issue of exploring a physical domain in dementia to augment the bio-psycho-social model consistent with Stake’s (2000) approach to case study work and its ‘attention to ordinary experience’ (p. 440). Arguably, a weakness of using a collective case study design is its development based on a foreshadowed ‘problem’ about the inclusivity of the bio-psycho-social model. However, the team’s concerns were grounded not only experientially, but also practically through a review of contemporary literature. Similarly, the invitation of the case study contributors to explore the set research questions could be seen as ‘leading’. However, Stake (2000) provides clear guidance on the appropriateness of purposefully selecting cases that provide insight into the researcher’s concerns. Nonetheless, the components that emerged from the collective case study require further sampling and elaboration consistent with the collective approach based on an increasingly wider testing through further collective cases (Stake 2000).

**Conclusion**

The use of a collective case study design (Stake 2000, 2005) provided an innovative and relevant framework for investigating the research questions as empirical data was chiefly derived from observation in practice. Adding a physical domain to the accepted bio-psycho-social model of dementia enables clear priorities for care to be set through informed and balanced understanding of each domain. Arguably, such an approach needs to be reinforced by an education strategy that facilitates knowledge and skills across the bio-psycho-social-physical domains and that such breadth is a necessary precursor to practice and holistic, person-centred dementia care. Additional work is necessary to further test and refine each of the five identified components of the physical domain and the proposed bio-psycho-social-physical model of dementia.

**Contributions**


**References**


Approaches to patient care


Appendix

Case studies

Case study 1: ‘Bob and Monica’ – health checks and advice

Bob lives with his wife Monica and their dog in a suburb of a large city in Northwest England. Both in their mid 70s, they've lived in their home for the whole of their married life and have family nearby. Bob received his diagnosis of dementia four years ago and has a history of problems with his heart and blood circulation. As a person living with dementia and who has vascular problems, Bob’s general practitioner referred him to the Manchester Supporting Health Dementia Program. The programme’s health check nurse visits Bob and Monica on a regular basis. The visits involve what Monica describes as a ‘general MOT’ for Bob. His weight is checked, blood pressure taken, waistline measured and any health concerns are discussed. The nurse discusses diet and healthy eating with the couple and enquires about their current level of physical activity. She provides information on local opportunities for health improvement and invites the couple to attend a ‘health hips and hearts’ class not far from where they live. The health check visits have ensured that Bob has appropriate and timely access to health services when needed. Bob and Monica reported that the visits from the health check nurse had led to a number of positive changes to their everyday lives. Monica ensures that she buys fresh fruit and vegetables regularly and encourages Bob to take less salt with his meals. Bob takes daily walks with their dog and they both enjoy accompanying their grandchildren to the park.

Case study 2: ‘Millie’ – self management of medicines

Millie is an 82-year old woman who was referred by her general practitioner to the community nursing service for assessment of safe self medicine management. Millie lives alone in a large house with support from her daughter.
Pam, who lives a 45 minutes drive away. Millie has a history of Alzheimer’s disease and Type 2 diabetes. She has 10 prescribed medicines for her multiple health conditions and two inhalers. Pam is becoming increasingly concerned about her mother’s use of medicines and her confusional state and has noticed that medicines are not being taken, despite protests from Millie to the contrary. Risks identified: potential for errors in medicines related to memory loss; impaired eyesight; hoarding of old and unused medicines. The care plan developed with Millie and Pam included: a medicine review by the pharmacist and which medicines could be administered once a day; out-of-date medicines removed by the pharmacist; discussion with general practitioner clarified that if Millie did not receive her evening inhaler this would not compromise her health; cues for evening medicines left by Millie’s bed to prompt her to administer the evening inhaler; community nurse attended once a day to prompt Millie in the taking of her medicines and in the use of a dose administration aid (Webster pack); community nurses to monitor and prompted Millie about her meals, especially during visits; home delivery of meals; Pam to shop for her mother once a week; improved signage in the home; delivery of medicines and refilling of prescriptions devolved to the pharmacist, thus alleviating the (specific) stressor for Pam; and appointment made to have Millie’s eyes tested.

Case study 3: ‘Florrie’ – specialist dementia in-patient assessment

Florrie is a 70-year old woman who, after a fall at home, was admitted to a district general hospital in the Northwest of England where she was verbally and physically aggressive to staff, noncompliant with medication and resistive to care. A brain scan and assessment led to a provisional diagnosis of ‘vascular dementia’ and Florrie was transferred to a specialist dementia in-patient assessment ward. On the specialist ward, Florrie initially continued to display resistive behaviour, she was disorientated to time, place and person and her memory was impaired. Significant word finding difficulties were also evident which caused Florrie much anxiety and frustration. Medical history and physical examination revealed Florrie’s problems to be: osteoarthritis; hypertension; heart failure; impaired renal functioning; constipation, diabetes (tablet controlled, but Florrie would often refuse medication) and susceptibility to chest infections and urinary tract infections. Staff had to closely observe and monitor Florrie for any changes in her condition/presentation as she would not recognise these herself. This included increased breathlessness requiring oxygen, pain, signs of fluid overload, urinary tract infection or chest infection (preceded by increased irritability, aggression, visual hallucinations) and BM monitoring. As her heart failure progressed, Florrie’s physical condition could quickly deteriorate. Florrie did not have the capacity to make decisions about her physical treatment and this had to be undertaken in her ‘best interests’ with the multi-disciplinary team and her nephew. A palliative approach to care was adopted which aimed at treating symptoms as they arise and trying to maintain comfort.

Case study 4: ‘Rhona’ – pain in acute care

Rhona is a 90-year old lady with a diagnosis of mixed dementia in its advanced stage who resides in a care home. Rhona’s ability to verbally communicate is severely impaired and she always seems to respond well to smiles and touch. Over a two week period staff noticed a change in Rhona’s usual presentation. She became more irritable, her diet and fluid intake decreased, she became resistive to care and more withdrawn spending increased period of time in bed. If staff attempted interventions she became increasingly resistive and aggressive. After assessment by her general practitioner, Rhona was transferred to hospital for further investigation. Whilst there, Rhona was re-hydrated and as the change in her presentation had been so rapid a decision was made to undertake some investigations in an attempt to ascertain a treatable cause of her presentation. By this time, nursing staff on the ward had noted that Rhona became more resistive at personal care interventions, particularly those which involved her reaching out her left arm or moving her left side. After examination, Rhona was sent for x-ray which revealed she had fractured two of her ribs. Rhona was commenced on regular analgesia, which was reviewed and increased in line with WHO guidance on pain relief. After a number of days staff began to notice an improvement in Rhona’s presentation. Her periods of restlessness and aggression had greatly reduced, her appetite had improved, she was responding more positively to smiles and touch and was trying to get out of bed and mobilise.

Case study 5: ‘George’ – care home work

George is a 75-year old gentleman who has a diagnosis of vascular dementia. Born and raised in a rural town in North Wales, he was well known and respected within the local community, in particular playing an active role in the community gardening project. Following the death of his wife, Elizabeth, a year earlier, he had moved to Leicestershire to live with one of his three sons and his daughter-in-law.
However, George had been admitted to hospital for assessment following a series of falls as a result of an increasing number of ischemic attacks and unstable diabetes. It was during this period in hospital that George increasingly voiced his wish to return to Wales, becoming distressed and trying to leave the ward repeatedly to ‘get home to his wife’ and tend to his garden. Ultimately, the family decided that his quality of life would be better served by a return to North Wales. With the support of his social circle and family members, he was admitted to a care home for an initial period of assessment prior to becoming a permanent resident. It was an important consideration for George and his family that he was to have his own bedroom with en-suite shower and toilet facilities that also afforded him the privacy of a sitting area and television. A ground floor room with direct access to a secure garden enabled George to pursue his love of gardening which reduced his agitation and engaged him in meaningful activity. To aid orientation, George’s room was personalised with items from his own home that held meaning for him.

Case study 6: ‘Tom’ – end-of-life care

Tom was diagnosed with Alzheimer’s disease at the age of 61. Tom’s wife, Anna, supported and cared for him at home for 12 years. At the age of 73 Tom moved into a group home in the same community. Two weeks before his death, staff at the group home observed noticeable changes in his health, such as mottling of the lower extremities with his skin being very cold. One day Tom stopped eating or drinking. A physical examination revealed Tom’s problems to be: imbalanced nutrition; constipation; impaired oral mucous membrane; and impaired skin integrity. The nurse at the group home contacted the responsible medical doctor and planned for a meeting with Tom’s wife. At the meeting they reached a consensus that a palliative approach would be adopted which meant for Tom that staff would help him to be as comfortable as possible. Tom stayed in his bed for the last two weeks of his life. Staff observed for any signs of pain or distress by regularly looking for changes in facial expression, posture etc. They used appropriate positioning techniques and special mattress pads to relieve pressure and kept his skin clean and dry and provided mouth care. During the last two days of his life, Tom had an ineffective airway clearance and he appeared restless at times. Staff interpreted that he was in pain and was also experiencing respiratory secretions for which he received morphine and glycopyrrolate injections. They also explained the death process for Tom’s wife and why his skin looked grey and that his Cheyne-Stokes respirations may be a sign of the impending death. Tom died one afternoon very peacefully with his wife at his side.

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