Therapeutic use of dolls for people living with dementia: A critical review of the literature

Abstract

Background
There are a number of therapies currently available to assist health professionals and carers with non-pharmacological treatment for people living with dementia. One such therapy that has been growing in clinical practice is doll therapy. Providing dolls to some people living with dementia has the potential to enhance personal well-being through increased levels of communication and engagement with others. Despite its potential for benefits, the practice is currently under-developed in healthcare literature, probably due to varied ethical interpretations of its practice.

Aim
To undertake a critical review of the published literature on doll therapy, using the CASP tool, in order to determine the potential benefits and barriers of this therapy for people living with dementia.

Design
A comprehensive literature search, incorporating the CINAHL, Medline, Embase, PubMed, Joanna Briggs, Cochrane Library and PsycINFO data bases, was conducted.

Conclusions
Despite many commentaries and anecdotal accounts of the practice, this review identified only 11 empirical studies that were eligible. The majority of studies found that the use of dolls could be therapeutic for some people living with dementia by reporting increased levels of engagement, communication and reduction in episodes of distress. Some studies identified limitations to the therapy including; confusion over the ownership of the doll and healthcare professional uncertainty about issues pertaining to autonomy.

Relevance to Clinical Practice
According to this review, doll therapy has the potential to increase the well-being of some people living with dementia. This review illuminates that some health professionals feel
uncomfortable about its use in clinical practice. The operationalisation of doll therapy in clinical practice has been shown to be inconsistent with different approaches to the practice being advocated. This highlights the need for further empirical research to identify best practice and education to increase awareness in both health professional and carer populations.

**Key words:** Dementia, Alzheimer’s Disease, Doll Therapy, Person-Centred Care, Therapeutic Interventions, Non-Pharmacological Interventions.

**Introduction**

The number of people living with dementia is increasing globally. Indeed conservative estimates suggest that the number of people affected will increase almost three fold, from 40 million to 115 million people (Alzheimer’s Disease International, 2012). Due to the clinical manifestations of dementia, (which can include communication difficulties, distressed behaviours, despondency, withdrawal and anxiety), there has been a plethora of research around therapies and non-pharmacological interventions that can serve to increase the autonomy and well-being of those people living with dementia (Downs and Bowers, 2008).

The therapeutic use of dolls has been one such technique that has been growing in clinical practice over the last number of years. Doll therapy is usually led by the person living with dementia and includes behaviours like holding, talking to, feeding, cuddling or dressing the doll (Mitchell, 2014). Providing a baby doll seems to have the potential to greatly enhance the well-being of some people who are living with dementia (Gibson, 2005). This enhancement of well-being has been described as; increased engagement with others, increased dietary intake, improvement in communication and a reduction in anxiety (Mitchell and Templeton, 2014). These benefits to well-being have been supported by a range of anecdotal evidence (i.e. authors who have written on personal experiences of doll therapy for people living with dementia, but not carried out empirical investigation) and this includes work by Moore (2001), Verity (2006) and Heathcote and Clare (2014).

It has been postulated that the rationale for these improvements in wellbeing are associated with attachment needs. Many commentators have attributed John Bowlby’s work on attachment theory (Bowlby, 1969) as the central rationale as to why doll therapy has the potential to be therapeutic for people living with dementia (Mitchell and O’Donnell, 2013;
Stephens et al, 2013). Attachment has long been identified as a key psychological need for people living with dementia due to the new challenges, anxiety and uncertainties that are faced as a result of advancing disease (Miesen, 1993; Kitwood, 1997). Interestingly, Bowlby’s conceptual work on attachment theory was originally focused on child populations (Bowlby, 1969). In actual fact it was Bere Miesen (1993) who first applied attachment theory to people living with dementia. Miesen (1993) surmised that parent fixation, or the way some people living with dementia continually search for their parents, is an expression of an attachment need. This searching behaviour was perhaps evidence that the person living with dementia was in an unknown, insecure environment and sought reunion with a family in order to feel safe. If attachment needs are not met in times of anxiety or uncertainty, there is potential for that person to see their level of well-being diminish and in turn lead to distress (Miesen, 1993; Kitwood, 1997).

The theoretical underpinnings of doll therapy borrow the idea of attachment from Bowlby (1969) and the application of this to people living with dementia by Miesen (1993). With attention to the ‘doll’, the theoretical work of Winnicott (1953) is also utilized (Bisiani and Angus 2013; Mitchell and O’Donnell, 2013). Winnicott (1953), again basing his psychological theory on child populations, noted that a ‘transitional object’ is sometimes used by children when they are separated from their parents as it enables them to feel a greater level of security in an uncertain environment (Loboprabhu et al, 2007). Winnicott (1953) suggested that soft toys, blankets, or even repetitive behaviours or phrases were used by children as a transitional object during times of uncertainty. From the work of Bowlby (1969), Miesen (1993) and Winnicott (1953) there is some theory that can be useful at describing how doll therapy can work with people living with dementia.

A major limitation in using these theoretical underpinnings to understand doll therapy is undoubtedly in their application to child populations. An alternative theoretical lens that has been considered for people living with dementia is the concept of personhood. Kitwood (1997) was an early champion with regards to promoting personhood in people living with dementia. Personhood is defined by Dewing (2008) as being the different parts of human beings that make them a person. With regards to people living with dementia personhood is arguably more concealed due to the clinical manifestations of the disease (Nolan et al, 2003; Smebye and Kirkevold, 2013). As a result of these clinical manifestations, Kitwood (1997) famously warned that people living with dementia were at a greater risk of having their
personhood eroded. This erosion was said to be perpetuated by, what Kitwood (1997) termed as, Malignant Social Psychology. Kitwood (1997) theorised that Malignant Social Psychology would not only reduce the personhood of a person living with dementia but also increase stigmatisation associated with the disease. Importantly Kitwood listed a number of depersonalising tendencies associated with Malignant Social Psychology, one of which was infantilisation, or treating people living with dementia like they were children. When considering the therapeutic use of dolls for people with dementia, it is pertinent that it is distinguished and differentiated from play therapy, which is associated with child populations. This differentiation is particularly important when considering, not only the therapy itself, but also the sparse theoretical underpinnings to its use in practice.

While some may argue that providing a doll to a person living with dementia has the potential to infantilise (Boas, 1998; Cayton; 2001 and Salari, 2002), there is evidence to suggest that if this therapy is understood, developed and utilised correctly, that it has the potential to recapture the personhood of individuals who are living with dementia. This assertion is based on Kitwood’s (1997) ideology of Positive Person Work, bioethical considerations (Mitchell and Templeton, 2014) and the very ethos of person-centred care (McCormack and McCance, 2010). When considering the work of Professor Tom Kitwood (1997), Malignant Social Psychology is juxtaposed to Positive Person Work. While Malignant Social Psychology has the potential to undermine personhood, Positive Person Work has the potential to build personhood when considering the person living with dementia. Positive Person Work corresponds to types of interaction that people living with dementia should be supported to have and include play, facilitation and validation (Kitwood, 1997). These positive interactions have the potential to occur during therapeutic engagement with dolls. With regards to play, which is differentiated from child's play, Kitwood (1997) suggests that people living with dementia should be supported to spontaneously express themselves by carrying out activities with no specific directed goal. When considering facilitation, Kitwood (1997) encouraged formal and informal caregivers to enable those living with dementia to do what they were otherwise not able to do. Facilitating therapeutic engagement with dolls has been suggested as fulfilling a maternal need for some people with dementia (Heathcote and Clare, 2014). Validation may also be important as it has been noted that a number of people living with dementia who engage with the doll therapy believe their doll to be a living baby for whom they care (Mitchell and O’Donnell, 2013). If these experiences with the doll are
validated, Kitwood (1997) states that the results can help the person living with dementia to become more connected with others and their life can be more meaningful.

When considering the bioethical principles associated with doll therapy for people living with dementia, Mitchell and Templeton (2014) noted the importance of autonomy and beneficence. Importantly they advocated that the rights of a person living with dementia should be upheld and so if the person living with dementia wished to engage with a doll they should be supported to do so (Mitchell and Templeton, 2014). If the effects of doll therapy were therapeutic, for example increased dietary intake, improved communication, reduction in episodes of distress (Mitchell, 2014), then the principle of beneficence was fulfilled. With these in mind, Mitchell and Templeton (2014) were the first authors to assert that doll therapy could be a person-centred approach to care.

Person-centred care is an approach that places an importance on the development of the therapeutic relationship between the patient and healthcare professionals (McCormack and McCance, 2006; McCormack and McCance, 2010). This approach to care is not only underpinned by mutual respect for the patient as a person, but also as an approach that seeks to consider the person’s holistic needs as opposed to previous medical models of care (Hill et al, 2010; Sidani and Fox, 2014; Evardsson et al, 2014). Through collaboration and negotiation with people living with dementia and their care partners, nursing professionals are able to facilitate shared decision-making about care, which may or may not include doll therapy. The decision of whether or not to engage with doll therapy should therefore always be with the person, or if this is not possible, with the person in mind.

**Aims**

To undertake a critical review of the published literature on doll therapy in order to determine the potential benefits and barriers of this therapy for people living with dementia.

**Rationale for Review**

On review of the existing evidence base, it would appear that no reviews of the literature have been carried out on doll therapy for people living with dementia. This review will serve to support nursing, and other healthcare professionals’ to understand the potential benefits and disadvantages of doll therapy identified from empirical evidence. In addition to this, the
review will also demonstrate how doll therapy has been utilised in different clinical settings to date.

**Methods**

*Search Strategy*
A comprehensive search of the literature was carried out in April 2014 using the following terms: dementia, Alzheimer’s Disease, people with dementia, doll therapy, doll, soft toy, baby doll, play therapy and residential care institutions. These terms were used in the following databases: CINAHL, PsycINFO, Medline, Embase, Internurse, Cochrane Library, Joanna Briggs Institute, PubMed and NHS Evidence.

*Inclusion Criteria and Exclusion Criteria*
There is a paucity of empirical evidence on the phenomenon of doll therapy for people living with dementia. As a result there were minimal exclusions applied to this review, except those studies that were not written in English language, those studies that were not carried out with people who are living with dementia and those which were not empirical. During the searching stage of this review it was found that Fernandez et al (2013) have published a systematic review protocol on the effect of doll therapy in managing behaviours that challenge in people living with dementia. This review has not yet been completed and appears to have a primary emphasis on measuring behaviour change, like “agitation, verbal aggression and physical aggression”, through validated scales. The purpose of this review differs as it seeks to explore the benefits and barriers of doll therapy for people living with dementia within a practice context. Figure 1 provides an overview of the results from the search strategy that found 11 studies eligible for inclusion.

*Study Characteristics*

*Study Setting*
Over half of the included studies were carried out in the UK. Six studies were carried out in England and one in Scotland. In addition to this, two studies were carried out in the USA, while one study was identified in Japan and one in Australia. It is also interesting to note that, five studies (Mackenzie et al, 2006; James et al 2006; Ellingford et al, 2007; Fraser and James, 2008; Alander et al, 2013) were carried out by personnel from the same centre; the Newcastle Challenging Behaviour Service (UK). This concentration of studies in the United Kingdom may raise some questions over generalisability.
The settings for the included studies, which incorporated people living with dementia, were most often long-term care facilities or nursing homes (Tamura et al, 2001; Mackenzie et al, 2006; James et al, 2006; Ellingford et al, 2007; Cohen-Mansfield et al, 2010; Stephens et al, 2013; Bisiani and Angus; 2013). Only two studies investigated doll therapy within a hospital setting (Minshull, 2009; Green et al, 2011).

**Research Design**

The majority of studies sought to investigate the phenomenon of doll therapy through observational data collection of people engaging with doll therapy (Tamura et al, 2001; Cohen-Mansfield et al, 2010; Green et al, 2011; Stephens et al; 2013 and Bisiani and Angus, 2013). Four studies sought to examine healthcare professional perceptions on the use of doll therapy through the administration of questionnaires (Mackenzie et al, 2006; James et al, 2006) and semi-structured or focus-group interviews (Frazer and James, 2008; Alander et al, 2013). The one remaining study conducted a retrospective analysis of case notes pre and post doll therapy (Ellingford et al, 2007).

**Sampling**

Across the eleven included studies a total of 448 people living with dementia and 49 health professionals were recruited (n=497). It should be noted that the study conducted by Cohen-Mansfield (2010) examined the impact of different stimuli (one of which was doll therapy) for people living with dementia. It is the only study that is included in the review that does not explicitly evaluate doll therapy and included 193 people living with dementia which is almost half of the participants of this review. In relation to the number of participants in this review, the mode was 14 participants, the median was 14 participants and the mean number of participants was 45. Seven of the eleven studies included in this review were conducted with 16 participants or less (Tamura et al, 2001; Mackenzie et al, 2006; James et al, 2006; Frazer and James, 2009; Minshull, 2009; Stephens et al, 2013; Bisiani and Angus, 2013; Alander et al, 2013). There were no studies that sought to investigate the phenomenon from the perspective of care partners (relatives or informal carers).

For a comprehensive overview of the included studies see table 1.

**Study Appraisal**
All studies included in this review were appraised using the Critical Appraisal Skills Programme Checklist (CASP), which was developed in the United Kingdom. Based on the checklist questions, each study was given a score and placed into the category of low, medium or high quality. With regards to this review, seven studies were deemed to be high quality (Mackenzie et al, 2006; James et al, 2006; Frazer and James, 2008; Cohen-Mansfield et al, 2010; Stephens et al, 2013; Bisiani and Angus, 2013; Alander et al, 2013), one study was medium quality (Tamura et al, 2001) and three were low quality (Ellingford et al, 2007; Minshull, 2009; Green et al, 2011). With regards to the lower quality studies, the rationale for this scoring was mostly due to limited details about methodological approach. It is worth acknowledging that the three lower quality studies included 190 participants of the 497 participants included in the review, which is almost 40%. It is also worth highlighting again that, while Cohen-Mansfield et al (2010) were judged to have a high quality study based on the CASP, their study used a variety of stimuli interventions, which included dolls, and this accounted for almost 40% (193 participants). In total then, there were 101 participants (20%) included in this review, which were deemed to be high quality and concentrated solely on the use of doll therapy.

Findings

Benefits of doll therapy
All studies included in this review clearly articulated a number of benefits that were associated with doll therapy. The most common reported benefit was improvement in communication between the person living with dementia and other residents or care staff (Tamura et al, 2001; Mackenzie et al, 2006; James et al, 2006; Ellingford et al, 2007; Fraser and James, 2008; Minshull, 2009; Stephens et al, 2013; Bisiani and Angus, 2013; Alander, 2013). The use of dolls gave people living with dementia a means to engage with care staff or residents. In the study by James et al (2006), it was reported that a group of women who engaged with their dolls began to sit together and connect as a group. James et al (2006) reported that this group began what was affectionately known as the “mother’s group” [pg. 1095]. In addition to this, Minshull (2009) reported that some of her participants actually began to better articulate their language and as a result express themselves more clearly to others. In one example, Minshull (2009) recalls how one particular person living with dementia was “normally incoherent in speech” [pg. 37] pre-doll therapy. Post-doll therapy
Minshull (2009) reported that this same person was able to better articulate their language through the doll by communicating phrases like “baby...tickle her toes...oh pretty colours [regarding doll’s pink cardigan]” [pg. 37]. The re-establishment of these communication channels is arguably essential when considering the therapeutic relationship between the person living with dementia and healthcare professionals. This notion was supported in the findings of Fraser and James (2008) who conducted semi-structured interviews with health professionals, which included representation from nursing, psychology, occupational therapy and psychiatry. Fraser and James (2008) identified communication as an important theme as healthcare professionals were able to establish new communication channels with people in their care. Fraser and James (2008) proposed that healthcare professionals could frequently use the doll as a starting point for communication and even talk to the doll and the person living with dementia as means of further developing the therapeutic relationship.

While improvements in communication were important, other activities of daily living were shown to be enhanced through engagement with dolls (Roper et al, 2000). Considering maintenance of a safe environment, many studies reported reductions in distressing behaviour experienced by people living with dementia (Mackenzie et al, 2006; James et al, 2006; Fraser and James, 2008; Stephens et al, 2013; Bisiani and Angus, 2013). This distressing behaviour has been mainly described in the literature as: agitation, wandering, anxiety, despondency and disengagement from others. During a single-case study on the phenomenon, Bisiani and Angus illustrated how one resident’s (Mary) previous daily experiences of “trying to leave the facility and asking for attachment/child were all together eradicated” by doll therapy [pg. 456]. This was supported by the work of Green et al (2011), who noted that prescription of certain anti-psychotic medications was reduced in populations who engaged with dolls.

An improvement in dietary intake, or the activity of eating and drinking, was also identified as a potential benefit of doll therapy (Mackenzie et al, 2006; Stephens et al, 2013; Bisiani and Angus, 2013). This increased dietary intake was as a result of a better dining experience (as the doll provided immediate company) and increased awareness about food (as the person would sometimes give their own doll food). The studies in this review also found that residents who were previously reluctant to be assisted with elimination and washing/dressing needs, were more approachable when engaging with a doll (Mackenzie et al, 2006; James et al, 2006; Fraser and James, 2008; Stephens et al, 2013; Bisiani and Angus, 2013). The rationale behind this was related to the calming affect that the doll appeared to have on users.
Indeed, through analysis of questionnaires administered to healthcare professionals, Mackenzie et al (2006) found that the most common change in “emotional status” observed in people engaging with doll therapy was that of being “calmer” [pg. 443].

Finally, benefits associated with working and playing, sleeping and mobilisation were also described in the literature. According to the findings of this review, therapeutic engagement with dolls has given rise to a number of behaviours including touch, cradling, cuddling, kissing, carrying, talking and singing (Tamura et al, 2001; Mackenzie et al, 2006; James et al, 2006; Ellingford et al, 2007; Fraser and James 2008; Minshull, 2009; Cohen-Mansfield, 2010; Stephens et al, 2013; Bisiani and Angus, 2013; Alander et al, 2013). These behaviours are most perceived as therapeutic and fulfilment of behaviour associated with play. However, as illuminated by Bisiani and Angus (2013), some people who engage with doll therapy are also meeting working needs. For example, Mary was observed to be asking healthcare professionals to “babysit” when she had other tasks that needed to be carried out [pg. 456]. Improvement in the quality of sleep was another benefit identified by two studies in the literature (Stephens et al, 2013; Bisiani and Angus, 2013). Presumably, a person with dementia (with increased general well-being as a result of doll therapy), is more likely to settle into a better quality of sleep; however this was poorly explored in the evidence. Interestingly one study (Bisiani and Angus, 2013) even identified better mobilisation of a resident, (Mary, the resident living with a dementia observed in their single case-study). This was attributed to reduction in episodes of anxiety that manifested as hyper-ventilation and tremors (which had previously been so severe that they had caused falls).

**Potential Challenges of Doll Therapy**

While there were a number of benefits that were associated with doll therapy, a number of challenges were also identified. According to this review, the therapeutic use of dolls for people living with dementia was approached in two main ways; either as an intervention or a therapy. In the case of an intervention, which corresponds to dolls being offered to people for a set period of time, this was less common (Tamura et al, 2001; Minshull, 2009; Cohen-Mansfield, 2010). Naturally, these studies could not assess the long-term impact of dolls in the way that the other studies could. The therapeutic engagement of dolls was deemed as a ‘therapy’ when it was provided to people living with dementia over a longer period of time (i.e. months-permanent). As a long-term ‘therapy’, healthcare professionals were not required to engage directly with the doll therapy (i.e. people living with dementia used the
dolls without direction) (Mackenzie et al, 2006; James et al, 2006; Ellingford et al, 2007; Stephens et al, 2013; Bisiani and Angus, 2013; Alander et al, 2013). This was in contrast to the interventional studies, where healthcare professionals guided or led people living with dementia, on how to use the dolls. These differing approaches raise questions about how best to operationalise doll therapy in practice.

Considering the person living with dementia, there were no studies identified in this review that directly reported any limitations to doll therapy. However some authors alluded to some potential problems associated with the use of dolls. While doll therapy has clear benefits associated with its use, its effect is not always long-term. Indeed, a few studies suggested that some people who engage with dolls appeared to lose interest over time (Tamura et al, 2001; Stephens et al, 2013). Ironically, while one of the key attributes of doll therapy was reduction in distressing behaviour, there were some instances where doll use caused distress for people living with dementia (Mackenzie et al, 2006; James et al, 2006; Stephens et al, 2013; Bisiani and Angus, 2013; Alander et al, 2013). In particular, people who engaged with dolls could become possessive of their doll and refuse to be parted from it (James et al, 2006; Stephens et al, 2013). This possessive behaviour can manifest as either desirable, because the person living with dementia has forged a therapeutic attachment with their doll, or undesirable, because the person can become distressed if they are separated from their doll. While these findings were not consistently reported, they are important none the less.

Healthcare professional attitudes were found to be a potential barrier to engagement with doll therapy (Mackenzie et al, 2006; James et al, 2006; Minshull, 2009). In the study carried out by Mackenzie et al (2006), the authors found, through use of questionnaires, that some people thought the use of dolls was “babyish…demeaning…patronising…inappropriate” [pg. 442]. These attitudes were observed in practice through the work of Minshull who noted that during her doll therapy intervention, “nursing assistants were sniggering” [pg. 37]. Interestingly, the authors who identified staff scepticism as a potential issue appeared to correct this through education (Mackenzie et al, 2006; Minshull, 2009). Administration of literature, information sessions and on-the job experience were shown to increase healthcare professional awareness and practice with doll therapy.

Of the 11 studies identified in the review, only 4 were explicit their theoretical underpinnings to study (Frazer and James, 2008; Stephens et al, 2013; Bisiani and Angus, 2013; Alander et
al, 2013). All underpinning theories blended Bowlby’s attachment theory (1969) and the enhancement of personhood by Kitwood (1997). Stephens et al (2013) was the only author to utilise Winnicott’s transitional object theory (1953). Interestingly the studies identified in this review that do underpin their research with theory are the more recent which perhaps illuminates the emerging development of the phenomenon. Undoubtedly a sound theoretical basis is important with regards to doll therapy because, as demonstrated, health professionals may be resistive about the therapy.

The findings of these empirical studies have illuminated a number of potential benefits in the use of doll therapy for people living with dementia. In particular the studies have associated therapeutic engagement with dolls as a means to promote the wellbeing of people living with dementia, particularly through improvements in activities of living. The empirical studies included in this review provide some insight to potential challenges associated with doll therapy but in less depth when compared to the benefits of the practice. Limited professional awareness about appropriate utilisation of the therapy, problems pertaining to doll ownership and negative pre-existing ideologies about the therapy appear to be the main challenges of the therapy according to the review.

Discussion
There is evidence in the literature to suggest that the use of dolls can provide therapeutic gains for some people living with dementia. The empirical evidence appears to provide limited direction on how best to utilise doll therapy. Clear division exists on whether dolls should be used as an intervention or as a therapy and also whether this should be in a nursing home facility or on a hospital ward. The only guidelines that exist on the use of doll therapy were reported by the authors from the Newcastle Challenging Behaviour Service (Mackenzie et al, 2006), who admittedly are best placed to provide these, given that they have conducted 5 of the 11 empirical studies in this area (Mackenzie et al, 2006; James et al, 2006; Ellingford et al, 2007; Fraser and James 2008; Alander et al, 2013). Despite their expertise and enterprising work, there are obvious questions pertaining to the transferability of doll therapy to other clinical settings. Ostensibly then, many healthcare professionals associate doll therapy as controversial or contentious (Mitchell, 2014). The utilisation of doll therapy in clinical practice is not automatically right or wrong, however if the therapy is practiced or utilised in a meaningful way, it has the potential to be truly person-centred. Person-centred
care is underpinned by respect, understanding and an enablement of practices that facilitate self-determination (McCormack et al, 2010a; McCormack et al, 2010b). Due to the paucity of literature on doll therapy it is important that knowledge about appropriate practices and underpinning theory is delivered effectively. As demonstrated in this review one of the key challenges to doll therapy was preconceptions or education of healthcare professionals who are key in enablement of the therapy. The learning culture of a clinical environment is particularly important and McCormack et al (2011) assert that any sustained learning will only occur in a supportive context.

The application of doll therapy to the person-centred nursing (PCN) framework, developed by McCormack and McCance (2006; 2010) from their previous work on person-centred practice with older people (McCormack, 2003) and the experience of caring in nursing (McCance, 2006), is particularly useful when considering the contents of this review. McCormack and McCance’s (2010) PCN framework comprises four constructs: pre-requisites, the care environment, person-centred processes and outcomes (McCormack and McCance, 2010; McCormack et al, 2010a; McCormack et al, 2010b; McCance et al, 2011; McCormack et al, 2012). The PCN can be an effective tool for nurses to operationalise the practice of doll therapy and are considered as follows:

1. Pre-requisites: This construct focuses on the attributes of the nurse, which should include professional competence, well-developed interpersonal skills and commitment to their role. When considering doll therapy, engagement with dolls can only work if this is facilitated by the nurse. This review has demonstrated that the people living with dementia who are likely to glean benefits from doll therapy must be enabled or empowered by others. As all of these studies were conducted in clinical settings the enablement is likely to be facilitated by a nurse.

2. Care Environment: This construct focuses on the context in which care is delivered and should provide organisational systems that are supportive, facilitate a sharing of power between person and nurse and there is potential for innovation and risk-taking. Building upon the previous construct, the care environment should be equipped in a manner to allow nurses to engage with doll therapy. Given the limited, but encouraging, evidence that is on offer, doll therapy might be considered as an innovative approach for some people living with dementia. For those practitioners who are less convinced, the therapy may represent an
opportunity of a balanced risk given the potential benefits for the person living with dementia.

3. Person-Centred Processes: This construct focuses on delivering care through a range of therapeutic avenues that incorporate the person’s (patient) beliefs, values, shared decision-making and the provision of physical care. This construct is also underpinned by sympathetic presence. As demonstrated, doll therapy can facilitate and support person-centred processes because of the potential for improvement in many facets of daily living activities that have been identified in this review.

4. Outcomes: This is the central component of the PCN model and should include outcomes like; satisfaction with care, involvement in care, increased wellbeing and promotion of the therapeutic environment. Doll therapy has the potential to enhance meaningful engagement with people who are living with dementia and in addition it has the ability to connect with the innate caring quality of the person (i.e. caring for a baby).

Limitations
One factor that was unclear from the empirical studies included in this review was the kinds of people living with dementia who benefited from the therapy. When considering the illness trajectory associated with dementia (Lunney et al, 2003; Murtagh et al, 2004; WHO, 2004), there is no obvious place (for example in early or advanced dementia) where engagement with dolls is the most therapeutic. That being stated, given the nature of the findings, it is probably a therapy that is most utilised by people in the medium to advanced stages of the illness. Another limitation identified through this review pertains to the theoretical underpinnings on doll therapy for people living with dementia. From the review there were inconsistent references as to how doll therapy had the potential to enhance the wellbeing of people living with dementia and those that studies that did, opted to use theory based on attachment and personhood. This is understandable given the paucity of reported investigation on the phenomenon.

Conclusion
The number of people living with dementia who are benefiting from therapeutic engagement with dolls is increasing. While empirical investigation has been limited, there are a number of encouraging results as well as many anecdotal accounts of its success. The results of doll therapy are unique to the person and so it is impossible to predict what benefits a person living with dementia will have, if any, when engaging with a doll but the this review suggests
improvements in overall communication, engagement with others, dietary intake and general well-being. Despite the growing evidence of potential benefits to people living with dementia, doll therapy is still broached with caution by some. The main barrier to doll therapy appears to due to pre-existing ideas from healthcare professionals who are crucial to enablement of it in practice. These pre-existing ideas are often due to a result of limited education on the therapy and its appropriate application to Positive Person Work (Kitwood, 1997); the bioethical principles of autonomy and beneficence (Mitchell and Templeton, 2014) and most importantly the concept of person-centred care (McCormack and McCance, 2010). While the Person-Centred Nursing framework offers a very useful structured approach to facilitating doll therapy in a person-centred way, one must still acknowledge the paucity of high-quality empirical evidence. There is a pressing need for further empirical study so as healthcare professionals can be provided greater evidence for the use of dolls in clinical practice. While any type of empirical investigation would be extremely useful, a pertinent aspect that is missing in this review at present is the voice of the care partner.

Relevance to Clinical Practice

1. What does this research add to existing knowledge in gerontology?
   - This review provides evidence to suggest that therapeutic engagement with dolls can be extremely beneficial to some people living with dementia.
   - The review has highlighted that many health professionals have poor education on the use of dolls for people living with dementia.
   - It demonstrates the lack of robust empirical studies focusing on the effectiveness of doll therapy.

2. What are the implications of this new knowledge for nursing care with older people?
   - Some people living with dementia have been supported through doll therapy to maximize their levels of independence and wellbeing.
   - A number of the activities of daily living were enhanced through use of dolls, particularly communication, eating/drinking, maintaining a safe environment and sleep.
   - Utilisation of doll therapy has the potential to be a person-centred practice.

3. How could the findings be used to influence policy or practice or research or education?
• Further empirical research on the phenomenon is particularly pertinent, especially with informal carers and family members.

• This knowledge should equip nursing professionals with knowledge and confidence so as to maximize this non-pharmacological, low-risk, cost-effective therapy.
References


Boas, I. (1998) ‘Why do we have to give the name “therapy” to companionship and activities that are, or should be, a part of normal relationships?’ Journal of Dementia Care, 6 (6), pp. 13.


Fraser, F. and James, I. (2008) ‘Why does doll therapy improve the well-being of some older adults with dementia?’ PSIGE Newsletter, 105, October.


Figure 1: Results from the search strategy

- Records identified through database searching (n=125)
  - Records after duplicates removed (n=86)
  - Records screened (n=86)
    - Preliminary exclusion of all papers not relating to doll therapy (n=66)
      - Reasons for Exclusion:
        - Not ‘doll therapy’ (n=42)
        - Reporting on child populations. (n=16)
        - Reporting on ‘play therapy’. (n=6)
        - Non-English Language (n=2)
  - Full-text articles assessed for eligibility (n=20)
    - Studies included (n=7)
      - Secondary exclusion (n=13)
        - Reasons for Exclusion:
          - Commentaries and anecdotal papers on doll therapy (n=13)
  - Hand searching of all full-text papers and google scholar search (n=4)
    - Studies included in this review (n=11)
Table 1: Summary of included studies

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<th>Author/Year/Country</th>
<th>Aim</th>
<th>Method</th>
<th>Sample</th>
<th>Key Findings</th>
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<td>1</td>
<td>Tamura et al (2001) Japan Miyazaki</td>
<td>To assess if dolls could be therapeutic for people with advanced dementia.</td>
<td>Following presentation of 3 dolls, by an Occupational Therapist, people living with dementia were observed (by OT). Results were categorized into 4 categories (no reaction, close observation, taking care of the doll or communication with other patients).</td>
<td>13 people living with dementia (3 male and 10 female) living in a long-term care facility.</td>
<td>People living with dementia in this study preferred the more ‘realistic’ baby doll. This was reported as those which were “made of silicon, which mimics the texture of a real baby” [pg. 117]. Most people living with dementia believed the dolls were real babies. People living with dementia who will engage with a doll will do so within around 90 seconds. The most common observed behaviours from engagement were: “carrying while supporting the dolls neck, clasping the dolls hand, calling out to dolls” [pg. 115]. While there were brief accounts of men engaging with dolls, the phenomenon was mainly applicable</td>
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| 2 | Mackenzie et al (2006) England Newcastle | Pilot study to examine the impact of the introduction of dolls on people living in a dementia care unit. | Dolls offered to all residents with dementia. If a resident selected a doll, his or her interaction was monitored by staff over a 3-6 week period.  
5-item questionnaire for all care staff.  
In addition, key workers of those who engaged with doll therapy were asked to complete a 14-item questionnaire. This sought to assess impact of doll on person (i.e. level of activity, agitation). | 37 people living with dementia offered doll.  
14 people living with dementia (12 women and 2 men) used the doll.  
Non-probability sample (all 37 residents were included in this study).  
46 care staff completed 5-item questionnaire (96% response in care home 1 and 79% response in care home 2).  
100% response to second questionnaire from 14 key workers. | 14 dolls out of the 20 were used by residents. This represented 38% of the care unit population.  
35% of carers reported some problems with the dolls, namely “arguments between residents over ownership, residents trying to feed their dolls and dolls being misled” [pg. 442].  
In relation to initial impressions on doll therapy, 9 staff had either major/minor concerns, 16 were neutral and 21 were minor/majorly positive. In relation to concerns quotes include “thought it was babyish, totally demeaning, patronizing, inappropriate and could confuse residents further” [pg. 442]. |
(1) Doll therapy affected people living with dementia.  
(2) If residents had preference of either 15 dolls and 15 teddy bears were offered to people living with dementia in one care facility.  
2 members of staff selected by home manager to monitor residents prior to 34 people living with dementia offered doll or teddy bear.  
14 people living with dementia engaged with dolls (12 women and 2 men). | Neither home employed “qualified staff” [pg. 441] | Well-being of the people who used dolls was judged to be either a little better (30%) or much better (70%) by carers. In particular staff perceived the dolls to be calming [pg. 443].  
Well-being increases were associated with the following; “greater levels of interaction with staff, fellow residents, appeared happier, less agitated and more amenable to personal-care activities” [pg. 442].  
Care staff only predicted with 56% accuracy, which residents would use the doll. The 2 care staff members however were more accurate in relation to residents they felt would not use the doll (82% accuracy).  
14 Residents out of 34 residents (41%) engaged with doll therapy. |
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<th>doll or teddy bear.</th>
<th>therapy.</th>
<th>Non-probability sample (all 33 residents were eligible)</th>
<th>13 out of 14 residents (93%) opted for a doll as opposed to a teddy bear when offered the choice.</th>
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<td>(3) If care staff could predict which residents would opt to engage with dolls.</td>
<td>(1) They would complete a prediction sheet (i.e. to predict which residents who engage with the therapy)</td>
<td>2 members of staff were selected by care home manager.</td>
<td>General wellbeing increase was noted for those using dolls in the form of “activity, interaction, happiness” [pg. 1095] One resident referred to her doll by a name, one (a former GP) regularly examined the body of the doll. A group of women sat together with their dolls and interacted with one another “staff labelled these as the mothers group” [pg. 1095]</td>
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<td>(2) They would complete an impact questionnaire (Likert scale) to access therapy. This impact questionnaire was the 5-point questionnaire used in the Mackenzie et al (2006) pilot. These impact sheets were completed at weeks 1, 2, 4, 8 and 12 post-introduction of toys.</td>
<td></td>
<td></td>
<td>Some residents were noted to have obtained “little, if any beneficial effects from doll usage” [pg. 1095]. However the authors go on to comment that doll therapy did not worsen the well-being of anyone with dementia during their study.</td>
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One resident became possessive of her doll and would take other people’s dolls which caused some distress. Other examples of ownership problems were noted, despite all residents having their own personal dolls. Another challenge pertained to staff and relative opinions on dolls. One relative removed the doll from his mother, while some staff felt the therapy was demeaning.

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<th>4</th>
<th>Ellingford et al (2007)</th>
<th>To examine the impact of doll therapy by retrospective analysis of case notes of residents before and after the introduction of dolls.</th>
<th>Retrospective audit of resident’s case notes, examining data over a 6-month period (3 months pre-doll therapy and 3 months post-doll therapy).</th>
<th>66 people living with dementia from 4 care homes already using doll therapy. (34 residents used doll therapy and 32 did not)</th>
<th>92% of doll users were female. All those who used a doll showed “significant improvement in all of the behavioural measures” [pg. 37]</th>
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| 5 | Frazer and James (2008) | To develop an understanding of why doll therapy improves the well-being of some people living | 2 semi-structured interviews with 8 health professionals. | 8 health professionals (included: 2 psychologists, two nurses, two care assistants, one | Participants perceived that doll therapy could meet a number of individual needs for people living with dementia which included “attachment, comfort, inclusion, ...
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<th>Place</th>
<th>With dementia.</th>
<th>First interview was exploratory while the second was designed to receive feedback on a model the authors constructed based on the first round of interviews.</th>
<th>Psychiatrist and one occupational therapist)</th>
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<td>Newcastle</td>
<td>First interview was exploratory while the second was designed to receive feedback on a model the authors constructed based on the first round of interviews.</td>
<td>Psychiatrist and one occupational therapist)</td>
<td>activity, communication, interaction, identity and fantasy” [pg. 56]</td>
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<td>In relation to attachment, “when residents move into a care home, they often lose figures and/or objects of meaningful attachment, such as family members [dolls could offer support this emerging need] ” [pg. 56]</td>
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<td>In relation to communication, healthcare professionals suggested that common conversation could be shared between health professional and person with dementia.</td>
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<td>6 Minshull (2009) Edinburgh</td>
<td>To identify whether doll therapy improved well-being for people living with dementia.</td>
<td>Unstructured doll therapy sessions carried out on a hospital ward by an occupational therapist once a week for one month.</td>
<td>9 people living with dementia engaged with dolls along with an unspecified number of nursing professionals.</td>
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<td>For the 9 people engaging in doll therapy, there was a notable increase in the well-being of 7.</td>
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<td>The authors observed that healthcare staff appeared to</td>
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The Bradford Dementia Group Well-being Profiling Tool (2002) was used to assess reactions of people pre/post doll therapy. Well-being profiling was carried out by the author and verified by a student OT.

Healthcare staff commented that prior education on doll therapy was extremely limited and additional reading material, provided by the authors prior to the study, was very beneficial.

Post-study, the author states that the doll therapy sessions have continued and that the department has purchased a pram in order to further doll activities.

<p>| 7 | Cohen-Mansfield et al (2010) USA Maryland | To examine the impact of different stimuli on people living with dementia. While not explicitly based on doll therapy, this study did post findings on the | Each person was presented with 23 predetermined different engagement stimuli (e.g. life-like baby doll, a robotic animal, a real baby, a real dog, a magazine, a ball etc.) | 193 people living with dementia residing in 7 nursing homes. Average age of 86 years old. (151 female, 42 male) | With specific attention to the phenomenon of doll therapy, residents who chose to engage with dolls were considerably more likely spend longer with life-like dolls. The authors also found that residents preferred dolls as opposed |</p>
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<th>Study</th>
<th>Country</th>
<th>City</th>
<th>Methodology</th>
<th>Participants</th>
<th>Observations</th>
<th>Results</th>
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<td>Green et al (2011)</td>
<td>USA</td>
<td>Chicago</td>
<td>To determine the effects of doll therapy on geriatric patients related to PRN prescriptions of Haloperidol.</td>
<td>All patients admitted to the 21 bed geropsychiatric unit over a period of 3 months. (115 patients, 72 women, 43 men). Mean age of 69 years.</td>
<td>Staff observations were recorded in a log book.</td>
<td>39% of these participants had a clinical diagnosis of dementia. The authors found that people engaging in doll therapy were more likely to receive less PRN Haloperidol prescriptions as opposed to those who didn’t.</td>
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<td>Stephens et al (2013)</td>
<td>England</td>
<td>Bristol</td>
<td>To explore the relationship people living with dementia have with physical objects using focused ethnography.</td>
<td>21 people living with dementia and 27 staff members.</td>
<td>21 residents and the staff of a care home were observed over a 2-month period. 30 hours of observation were completed over a 2-month period.</td>
<td>Person with dementia was observed to carry a plastic doll in the style of a young baby, “she would not let go of it, and would become distressed if she thought it was being taken” [pg. 701] Attachment was considered as a need that could be met through dolls. In another observation, one resident would not relinquish her doll even when it needed washed. Even when</td>
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<td>10</td>
<td>Bisiani and Angus (2013)</td>
<td>To examine the therapeutic effect of a life-like baby doll on a person living with dementia.</td>
<td>Observation alongside Aged Care Funding Instrument (ACFI) to evaluate wellbeing.</td>
<td>Case-study of 1 female participant with moderately advanced Alzheimer’s Disease.</td>
<td>Prior to doll therapy Mary was socially withdrawn and did not communicate with many people, she wandered and became easily distressed. Following introduction of a doll, these behaviours were noted to have decreased.</td>
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“Reduction in appearance of anxiety, panic, tremors, hyperventilation and searching” [pg. 456]
| 1 | Alander et al (2013) England Newcastle | To understand how people in care, doll-users and non-doll users make sense of a doll in their setting. | Focus-Group interview with 5 participants and semi-structured interviews with 11 people. | 16 participants (11 of which had dementia, 4 were actively using dolls). 2 Doll users were male and 2 were female. | “Improvement in dining experience, social interaction with staff and other residents, improved self-esteem as Mary was so proud to be the ‘one’ with the doll” [pg. 457] Both doll users and non-doll users believed that a doll represented a sense of ownership, which promoted a sense of control.  It also filled people with a sense of pride. One doll user remarked, “I’m bringing them up marvelous you see” [pg. 5] Almost all participants believed engagement with doll give a sense of purpose and provided an activity to keep the person occupied. Some participants perceived that this would protect doll users from becoming lonely, bored or isolated. |
Dolls could promote a sense of attachment or bonding as evidenced by “carrying, feeding, bathing, dressing” [pg. 6]
Figure 2: Reported benefits of doll therapy

- Provides healthcare professionals with an avenue to communicate with some people living with dementia.
- Reduction in episodes of distress; including anxiety, calling and wandering.
- Improvement in activities of daily living which include communicating, eating/drinking and sleeping.
- Fulfilment of attachment needs. Provides stimuli and a sense of purpose.

Therapeutic use of dolls for people living with dementia.