**Attachment and coping of dementia care staff: The role of staff attachment style, geriatric nursing self-efficacy, and approaches to dementia in burnout**

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**Abstract**

Past research suggests that dementia care staff are vulnerable to the development of burnout, which has implications for staff well-being and hence the quality of care for people with dementia. Studying personal vulnerability factors in burnout is important as it can guide staff training and support. Attachment theory suggests that adult attachment styles affect caregiving relationships and individuals’ responses to stress, providing a framework for understanding caregivers’ styles of coping. This cross-sectional survey study examined relationships between staff attachment styles, geriatric nursing self-efficacy, and approaches to dementia in burnout. Seventy-seven members of dementia care staff working on inpatient wards for older people completed self-report questionnaires. Insecure attachment, lower levels of self-efficacy, and more optimistic attitudes in staff were related to higher levels of burnout. Staff training on the role of attachment in dementia care is recommended. Further research is required to explore mediating factors between adult attachment styles and burnout.

**Keywords** attachment; burnout; caregiving; dementia; staff

**Introduction**

An essential part of the role of dementia care staff is to form good caregiving relationships with people with dementia. Attachment theory (Bowlby, 1969, 1973, 1980) suggests that attachment styles that are formed early in life have an impact on people’s relationships with, and their ability to care for, other people. Caregivers’ attachment styles are also seen to influence their coping with the caregiving role (George & Solomon, 1999). Older people with dementia present with complex needs and the caregiving challenges at work may place staff at risk of developing burnout (Duffy, Oyebode & Allen, 2009). Research on personal vulnerability factors in burnout of dementia care staff is in its infancy, however, and the potential contribution of attachment theory in this area has not been fully examined.

**Burnout**

Burnout is a syndrome associated with emotional stresses experienced at work. A well-known conceptualisation of burnout was developed by Maslach, Jackson and Leiter (1996), who proposed a three-dimensional model. One key dimension of the burnout syndrome is increased feelings of emotional exhaustion resulting from reduced emotional resources available to the person. Another, related dimension is the development of depersonalisation, which leads the person to hold negative and cynical feelings towards the people they work with. The third dimension of reduced personal accomplishment refers to negative evaluation of oneself and reduced sense of achievement at work. The potential consequences of burnout include reduced staff well-being and personal dysfunction, absenteeism, low morale and deterioration in the quality of care provided (Maslach et al., 1996), thus highlighting the importance of studying burnout in dementia care.

Burnout is seen to develop when a person is unable to cope with the demands and stresses at work. Lazarus and his colleagues developed a process model of stress and coping (e. g. Lazarus, 1993). According to this model, stressrefers to a relationship between the person and the environment that is appraised by the person as significant for his or her well being and as taxing their available coping resources (Lazarus & Folkman, 1984). This process includes cognitive appraisal of the situation at hand as well as appraisal of one’s coping resources and options. Coping involves individuals' efforts in thought and action to manage specific demands.

Older people with dementia present with complex needs and the challenges of the caregiving role may make care staff vulnerable to the development of burnout (Duffy et al., 2009). While there have been few studies examining burnout in dementia care staff, related phenomena such as caregiver burden and psychological distress in family carers have been widely researched. This body of research has consistently shown high levels of caregiver burden in family caregivers for people with dementia (e.g. Schulz & Martire, 2004). In one of the few studies focusing on paid caregivers, MacPherson, Eastley, Richards and Mian (1994) measured psychological distress using the General Health Questionnaire (GHQ-30) in staff caring for elderly patients. These authors did not find elevated levels of distress in staff. Focusing on stress as well as psychological well-being, Baillon, Scothern, Neville and Boyle (1996) found higher levels of stress in dementia care staff as compared to a community sample. Looking specifically at burnout, Duffy et al. (2009) found moderate levels of burnout in staff working in care homes for older people with dementia, with 68.6 % of staff being emotionally exhausted at work. Similarly, Todd & Watts (2005) reported moderate to high levels of burnout amongst 64.7% of their participants, who were nurses and psychologists working in dementia care. Therefore, the research to date appears to indicate elevated levels of stress and burnout in dementia care staff.

High levels of burnout in staff have been found to be associated with the behavioural and psychological symptoms of dementia, potentially leading to cycles of negative interactions between staff and the people they are caring for (Ballard, Lowery, & Powell, 2000). There is evidence to suggest that caregiver burnout influences staff behaviour towards people with dementia. MacPherson et al. (1994) found that staff with higher levels of distress were more likely to perceive a lack of support at work and to ‘shout back’ at residents who were displaying aggressive behaviour. A strong relationship between psychological distress in staff and aggression from residents was also reported. Using questionnaires and an interview Todd & Watts (2005) asked 25 nurses and 25 psychologists to rate their responses to clients with dementia displaying challenging behaviour. Burnout in staff was found to be associated with less willingness to help, low optimism, and negative emotional responses to clients’ behaviour. Burnout in nursing and residential staff has also been associated with lower empathy, less positive attitudes and reduced interactions with clients (e. g. Astrom, Nilsson, Norberg, Sandman, & Winblad, 1991). As Ballard et al. (2000) note, high levels of burnout lead to heightened distress in staff and reduced quality of life for patients, and potentially lead to poor care practice in dementia care.

Burnout research has largely focused on contextual conditions, such as job demands and resources, in explaining burnout (e. g. Maslach & Leiter, 1997). As a consequence, less attention has been paid to individual vulnerabilities (Pines, 2004). Improved understanding of personal vulnerability factors may inform interventions that help to reduce the cost of burnout to staff and to people with dementia being cared for. A potentially useful framework for understanding individual differences in staff behaviour and coping is attachment theory, which examines how people respond and react in caregiving relationships. Attachment theory will next be outlined, and its relevance to dementia care discussed.

**Attachment theory**

Attachment theory, originally developed by John Bowlby (1969, 1973, 1980), has been widely applied to understand social and emotional development and close relationships across the life span (Cassidy & Shaver, 2008). One of the main tenets of attachment theory is that human infants are born with an innate ‘attachment system’ which regulates the infant’s proximity to ‘attachment figures’ (Bowlby, 1982). In times of perceived threat or distress, attachment behaviour occurs which is aimed at increasing proximity to the caregiver. Caregivers’ responsiveness and sensitivity to the child’s affective signals provide a critical context within which the child organizes emotional experience. Good caregiving, i.e. interactions with attachment figures who are available and responsive in times of need lead to a sense of security in the infant and allow for safe exploration of the world. In contrast, interactions with unavailable and non-sensitive attachment figures may lead to a sense of insecurity in the infant, and doubts about one’s self-worth and others’ love may develop. The child’s experiences with caregivers are internalised over time so that the child comes to form mental representations of self and others. These internalised working models (IWM s) characterise individuals’ attachment style through patterns of relational expectations, feelings and behaviours in close relationships (Mikulincer & Shaver, 2007). Bowlby (1973) proposed that an individual’s attachment style has a profound influence on his or her functioning and relationships throughout the life-span in that it constitutes a set of strategies for how people cope with stress, conflict and emotional demands in their lives.

While the original work of Bowlby and his colleagues were focused on infant-caregiver relationships, attachment theory has since generated a wealth of research examining the relationship between attachment orientations and emotional and social adaptation in adulthood (Mikulincer & Shaver, 2007), thus making it relevant to the study of caregivers’ coping. This research has diverged into two streams: a developmental perspective and a social-personality psychology perspective (Shaver & Mikulincer, 2002). While the developmental perspective on adult attachment investigates adults’ mental representations of attachment to their parents during childhood, social personality research has focused on exploring attachment within adult relationships. It is important to note that the two approaches differ in their conceptualisation of adult attachment and there has been little cross-fertilisation between the two research areas (George & West, 1999). Therefore, despite advances in the study of adult attachment, a number of conceptual and methodological controversies remain to be resolved (Crowell, Fraley & Shaver, 2008).

Social personality research suggests that adult attachment can be measured along two major dimensions, namely attachment-related anxiety and attachment-related avoidance. Thus, adult attachment styles are conceptualised as regions in a two-dimensional space (see Figure 1; Bartholomew, 1990; Brennan, Clark, & Shaver, 1998). Attachment-related anxiety and ambivalence is concerned with the degree to which a person worries and is angry about the attachment figure’s availability. People scoring high on this dimension oscillate between an excessive need for approval from others, coupled with angry derogation of others, along with fear and anger at possible rejection and abandonment. Attachment-related avoidance is concerned with the level of self-reliance and emotional distance, as well as comfort with closeness. People scoring high on this dimension tend to have a negative image of others and a fear of depending on them (Brennan et al., 1998). People who score low on both of these dimensions are seen to have a secure attachment style (Shaver & Mikulincer, 2009).

**Figure 1** The two-dimensional model of theoretical types of attachment styles in adult attachment



**Attachment and caregiving**

Attachment theory views attachment and caregiving as two distinct, but closely related, behavioural systems that operate reciprocally (Bowlby, 1982). A person’s caregiving behaviour is influenced by his or her own prior attachment experiences, as the IWMs of attachment are likely to be closely related to the IWMs of caregiving (George & Solomon, 1999). Having witnessed good caregiving behaviour from their own attachment figures, adults with secure attachment orientation perceive themselves as efficacious caregivers (i.e. have positive IWMs of self) and others as deserving of respect and support (i.e. have positive IWMs of others). In addition, the good emotional regulation skills of a person with secure attachment helps to prevent them from becoming overwhelmed by their own distress, when faced with other people’s suffering (Mikulincer & Shaver, 2007). Adult attachment studies indicate that a secure attachment is associated with positive and responsive caregiving (Kunce & Shaver, 1994) and greater willingness to provide care for others (Feeney & Hohaus, 2001).

**Attachment and burnout**

Attachment theory proposes that internal working models function as inner structures which influence people’s perceptions of the social world and their strategies for dealing with distress (Bowlby, 1973, 1988), thus suggesting a link between attachment styles and caregivers’ ability to cope with the stresses of caregiving. Bowlby (1973) argued that a history of secure attachment in childhood helps people as adults to positively appraise stressful situations and cope with them constructively, whereas insecure attachment is a risk factor that reduces people’s resilience in times of stress. Two studies to date have specifically examined the relationship between adult attachment styles and burnout. Pines (2004) found a negative correlation between a secure attachment style and burnout, and a positive correlation between insecure attachment styles (avoidant or anxious/ambivalent) and burnout. More recently, Ronen & Mikulincer (2009) examined adult attachment and burnout in a sample of Israeli employees and found attachment avoidance and anxiety to be related to higher levels of burnout. Based on their findings, Ronen and Mikulincer (2009) proposed that negative working models of self and others that characterise attachment anxiety and avoidance negatively biased participants’ appraisals of contextual factors at work. These biased appraisals were seen to contribute to the development of burnout.

While insecure attachment generally appears to be associated with stress and burnout, there are differences in the coping strategies adopted by individuals with different attachment styles. People who score high on attachment-related anxiety tend to focus on their own distress and adopt emotion-focused coping strategies (Mikulincer & Florian, 1995). As a consequence, attachment anxiety is related to negative appraisals of oneself and of one’s coping resources. People who score high on attachment-related avoidance tend to distance themselves cognitively and emotionally from the source of distress. The avoidant defences involve blocking awareness of, and cognitive access to, anything distressing as well as devaluing their need for others (Mikulincer, Shaver, Cassidy & Berant, 2009). However, chronic and intense stress may lead to the breakdown of such defences and consequently strong negative emotion may result (Berant, Mikulincer & Shaver, 2008). It can therefore be suggested that adult attachment styles affect caregivers’ ways of dealing with stress and distress, and hence their likelihood of developing burnout in dementia care settings.

**Attachment theory and dementia**

In recent years several authors have discussed the particular relevance of attachment theory to dementia care (e. g. Browne & Shlosberg, 2006). According to Bowlby (1969), attachment behaviour is particularly evident in times of ill health and loss. People with dementia become increasingly unable to orientate themselves (Perren, Schmid, Herrmann, & Wettstein, 2007) which may lead to experiences of loss, feelings of insecurity, and separation (Browne & Shlosberg, 2005). These fragmented experiences lead to an increase in attachment-seeking behaviour, in an attempt to restore feelings of security. Accordingly, proximity-seeking behaviours, such as calling out to, and shadowing and clinging to staff, are common in people with dementia (Bradley & Cafferty, 2001; Browne & Shlosberg, 2005). Miesen (2006) suggested that the way in which paid caregivers are able to respond to the attachment needs of their patients is of utmost importance for the quality of the caregiving relationship. He argued that formal caregivers’ attachment style is fundamental to the care that they provide, and also affects the way they cope with the challenges of the caregiving role. Furthermore, the carers’ own attachment needs may interfere with their ability to attend to their clients’ needs sensitively and responsively. Studying attachment within dementia care, therefore, appears to be of utmost importance.

A wealth of research has examined the role of attachment in dementia caregiving relationships within families (e. g. Cooper, Owens, Katona, & Livingston, 2008; Crispi, Schiaffino, & Berman, 1997; Markiewich et al., 1997; Perren et al., 2007). This body of literature is largely supportive of an association between higher attachment-related anxiety and avoidance in carers and lower caregiver well-being. While the research on caregiver attachment and coping has focused on family carers, a literature search encompassing a number of databases revealed no published studies examining attachment and caregiving in paid dementia caregivers. However, a handful of recent studies have looked at attachment in other health care professionals and provide equivocal support for a relationship between formal caregivers’ attachment style and their coping. For example, Leiper & Casares (2000) found that insecurely attached clinical psychologists were more likely to experience difficulty in therapeutic practice and feel less supported at work. More recently, Berry et al. (2008) found attachment avoidance in psychiatric care staff to be associated with poorer staff psychological mindedness and greater discrepancies in staff and patient ratings of patient’s interpersonal problems. Finally, Hawkins, Howard and Oyebode (2007) explored the impact of 84 hospice nurses’ attachment on stress and coping. The study found partial support for the hypothesis that insecurely attached nurses experience more stress than securely attached nurses.

Using an attachment theoretical framework to examine burnout in dementia care raises two further areas of potential relevance to the coping of care staff: caregiver self-efficacy, and carer attitudes towards people with dementia.

**Attachment, self-efficacy and burnout**

Attachment theory suggests that an individual’s attachment style is related to their caregiver self-efficacy, as the mental representation of self includes confidence in one’s own worth, competence and mastery (Mikulincer & Shaver, 2008). Research indicates that securely attached people have higher self-esteem, and view themselves as more competent and efficacious than more insecurely attached individuals (Shaver & Mikulincer, 2009). George & Solomon (1999) discuss the relationship between attachment styles and caregivers’ perceived efficacy, suggesting a need to explore this area further. Self-efficacy as a concept was developed by Bandura (1977), who defined it as an individual’s belief in their ability to accomplish specific goals. Self-efficacy beliefs influence an individual’s emotional response to the situation, and determine whether coping behaviours are initiated, how much effort is expended, and how long they are sustained in the face of aversive experiences (Zeiss, Gallagher-Thompson, Lovett, Rose & McKibbin, 1999). Caregiver self-efficacy, therefore, appears relevant to the study of burnout.

Research on family caregivers for people with dementia supports the relationship between self-efficacy and caregiver well-being (e. g. Fortinsky, Kercher, & Burant, 2002; Zeiss et al., 1999). However, there is a paucity of self-efficacy research in paid caregivers for people with dementia with only three published studies to date. Evers, Tomic and Brouwers (2001) surveyed professional caregivers working in elderly care homes in the Netherlands. Using a hierarchical regression analysis they demonstrated that the perceived self-efficacy of staff positively predicted the personal accomplishment dimension of the Maslach Burnout Inventory (MBI). This finding was replicated by Mackenzie and Peragine (2003), who also developed a measure of geriatric nursing self-efficacy for paid dementia care staff and implemented an intervention aimed at increasing self-efficacy at work. More recently, Duffy et al. (2009) examined the roles of self-efficacy, reciprocity and organizational factors in burnout in 61 members of staff working in care homes. Higher levels of self-efficacy were found to be associated with lower levels of emotional exhaustion and depersonalisation, and with higher levels of personal accomplishment in staff. Self-efficacy was found to be the greatest predictor for burnout out of all the variables examined. The role of self-efficacy in burnout, as well as its potential relationship to caregiver attachment, therefore warrants further investigation.

**Attachment, paid carers’ attitudes to dementia and burnout**

Attachment theory also postulates that a person’s attachment style has an impact on their attitudes to other people’s distress and needs. While securely attached caregivers perceive others and their needs more positively, insecure attachment is related to less empathy and more negative views of other people (George & Solomon, 1999). Staff attitudes towards their patients are important as they have been found to be related to staff caregiving behaviour (Lintern, 2001). Lintern and her colleagues developed a measure to assess staff approaches to dementia (Approaches to Dementia Questionnaire – ADQ; Lintern, Woods & Phair, 2000) and found a significant relationship between certain aspects of staff attitudes and staff behaviour. Specifically, staff with more positive attitudes were more likely to engage socially with residents, to engage them in purposeful activities and to offer qualitatively better physical care interventions. Staff attitudes, therefore, may affect the quality of care provided.

Staff attitudes to dementia may also have a role in the stress and burnout of dementia care staff. Astrom et al. (1991) examined burnout, empathy and attitudes to dementia in nursing staff working in geriatric care. The study found lower empathy and less positive attitudes in staff to be associated with higher levels of burnout. More recently, Zimmerman et al. (2005) explored dementia-related attitudes (using the ADQ), stress and satisfaction in 154 direct care providers. Person-centred attitudes were found to be significantly associated with staff satisfaction, which in turn was negatively correlated with stress. The limited research to date suggests that staff attitudes to dementia may affect caregivers’ behaviour and coping, and consequently have a role in burnout of dementia care staff.

**Rationale for the current study**

Past research indicates that dementia care staff may be at risk of developing burnout, with potential implications for staff well-being as well as quality of care for people with dementia. Identifying personal vulnerability factors in burnout is important, as it might inform staff training and support, and thus reduce the cost of burnout to staff, clients and services. Attachment theory provides a promising, although not yet fully researched, theoretical framework for understanding caregiving behaviour and coping of paid dementia caregivers. The literature reviewed suggests that staff attachment styles, feelings of self-efficacy and attitudes to dementia may be linked to burnout. Therefore, the role of these factors in levels of burnout reported by dementia care staff is examined.

**Aims**

The study aims to examine the relationships between staff attachment style, geriatric nursing self-efficacy, approaches to dementia, and burnout in paid caregivers for people with dementia.

**Hypotheses**

This study investigates the following hypotheses:

1. Insecure attachment (higher levels of attachment-related anxiety and attachment-related avoidance) will be associated with higher levels of burnout (higher levels of emotional exhaustion and depersonalisation, and lower levels of personal accomplishment).
2. Insecure attachment will be associated with lower levels of geriatric nursing self-efficacy in staff.
3. Insecure attachment will be associated with less positive attitudes (lower levels of hope and recognition of personhood on the Approaches to Dementia Questionnaire) in staff.
4. Higher levels of geriatric nursing self-efficacy and approaches to dementia will be associated with lower levels of burnout.
5. Staff attachment style, geriatric nursing self-efficacy, and approaches to dementia will be significant predictors for burnout.
6. Staff attachment style will be a significant predictor for burnout even when the other predictors have been controlled for.

**Method**

**Design**

The study employed a cross-sectional survey design. Validated and well-established questionnaires measuring staff attachment style, geriatric nursing self-efficacy, approaches to dementia and burnout were distributed to dementia care staff working on National Health Service (NHS) inpatient wards for older people.

**Participants**

Participants were recruited from nine inpatient wards for older people across two large NHS Trusts in the United Kingdom. Permanent members of care staff of NHS bands 2 to 8a were invited to take part in the study. Bank staff were not included. A total of 174 questionnaire packs were distributed. Eight of the participating wards cared solely for clients with dementia. On one of the wards 60% of clients had a diagnosis of dementia at the time of the study. The bed sizes of the wards ranged from 9 to 24, with a mean of 14.3.

Participants were asked to provide information about their gender, age, job title and length of time working with people with dementia. Table 1 shows the demographic information for the participants. Seventy-seven members of staff returned their questionnaires (response rate of 44.3 %). Two respondents failed to return their MBI, resulting in seventy-five participants for tests considering burnout. Sixty-one of the participants were female and sixteen of the participants were male. The majority of the participants were health care assistants/support workers (46.8 %) or staff nurses (41.5 %). The mean length of time working with people with dementia was 11.6 years (SD=9.1). Across the nine participating wards the proportion of staff from black and ethnic minority backgrounds ranged from 4% to 28%, with an average of 16%.

INSERT TABLE ONE HERE

Table 1 **Demographic details for participants in relation to gender, age, job title and length of time working with people with dementia (N=77)**

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | **Number of participants** | **%** |
| Gender | Female | 61 | 79.2 |
|  | Male | 16 | 20.8 |
|  |  |  |  |
| Age (years) | 18-29 | 14 | 18.2 |
|  | 30-39 | 12 | 15.6 |
|  | 40-49 | 24 | 31.2 |
|  | 50-59 | 22 | 28.6 |
|  | 60-69 | 5 | 6.5 |
|  |  |  |  |
| Job title | Care/nursing assistant | 36 | 46.8 |
|  | Staff nurse | 32 | 41.5 |
|  | Ward manager | 5 | 6.5 |
|  | Other | 4 | 5.2 |
|  |  |  |  |
| Time working with | ≤ 5 | 26 | 34.2 |
| dementia (years) | 6-15 | 26 | 34.2 |
|  | 16-25 | 19 | 25.0 |
|  | ≥26 | 5 | 6.6 |
|  |  |  |  |

A power analysis using Sample Power 2 indicates that with five independent variables, for a medium effect size (f2=.15), significance level of 0.05 and power of 0.80, the required sample size for multiple regression is seventy-nine. With seventy-five participants the study is powered to detect medium-to-large effect sizes.

**Measures**

**Experiences in Close Relationships – Revised** (ECR-R; Fraley, Waller & Brennan, 2000).

This is a self-report measure on attachment consisting of 36 items assessing ways to relate to others in close relationships. The respondent is asked to rate each item on a 7-point Likert scale, ranging from 1 (strongly disagree) to 7 (strongly agree). There are two 18-item subscales, designed to assess individual differences in attachment-related avoidance and attachment-related anxiety. The reported internal consistency of the two scales is above .90 and the measure has good test-retest reliability (Sibley, Fischer & Liu, 2005). ECR-R is currently one of the most commonly used questionnaire measures of adult attachment, and is often recommended as the primary self-report instrument for assessing adult attachment patterns (Fraley & Phillips, 2009).

**Approaches to Dementia Questionnaire** (ADQ; Lintern, Woods & Phair, 2000).

The ADQ consists of 19 statements about people with dementia and their care, for which degrees of agreement or disagreement are sought on a five-point Likert scale. It has two sub-scales: ‘Hope’ consisting of eight items and ‘Recognition of personhood’ consisting of eleven items, which have been derived from factor analyses on two large samples of care-home staff in the U.K. (Lintern, 2001). These scales indicate the staff member’s degree of hopefulness about dementia and the extent to which a person-centred approach is espoused. The ADQ has good psychometric properties with Cronbach’s Alpha of 0.83 and test-retest reliability of 0.76. The ADQ has been validated against the Dementia Care Styles Questionnaire (Brooker et al., 1998) as well as observed staff behaviour (Lintern, 2001), and therefore provides a valid, easy to administer, self-report measure of staff attitudes towards people with dementia.

**Inventory of Geriatric Nursing Self-Efficacy** (MacKenzie & Peragine, 2003).

This inventory was developed to measure paid caregivers’ self-efficacy in managing challenges associated with providing nursing care for geriatric populations. The inventory consists of nine items: three teamwork scenarios, three resident scenarios and three family scenarios. The participant is asked to rate each item on a 7-point scale ranging from 1 (not at all confident) to 7 (very confident). The inventory has good psychometric properties, including Cronbach’s Alpha of 0.96 and average item-total correlation of 0.83. It is the only self-report self-efficacy measure available that has been specifically developed for dementia care staff.

**Maslach Burnout Inventory, 3rd edition** (MBI; Maslach, Jackson & Leiter, 1996).

The Human Services Survey of the MBI consists of 22 items that are designed to assess burnout in health care occupations such as nursing. Each statement is assessed on a 7-point Likert scale ranging from 0 (never) to 6 (every day). The measure contains three separate subscales: Emotional Exhaustion, Depersonalisation and Personal Accomplishment. The nine items in the Emotional Exhaustion scale assess feelings of being emotionally overextended and exhausted by one’s work. The five items of the Depersonalisation scale measure an unfeeling and impersonal response toward patients. The eight items of the Personal Accomplishment scale assess feelings of competence and successful achievement in one’s work with people. High levels of emotional exhaustion and depersonalisation and low levels of personal accomplishment are indicative of burnout. The MBI has good reliability and validity, and is considered to be the leading measure of burnout (Maslach et al., 1996).

**Procedure**

Formal ethical approval was gained from a local NHS Research Ethics Committee and the study was registered with the appropriate NHS Research and Development Departments. The managers of the inpatient wards for older people were contacted and the purpose of the study was explained to them. The researcher offered to visit the wards, to attend a handover to discuss the research with staff. Four of the managers declined this offer and opted to speak to their staff about the study themselves. The questionnaire packs, which consisted of a participant information sheet, the questionnaires and a return envelope, were posted to these managers, followed up with regular reminders about the study.

The first author attended staff meetings on the five remaining wards. Participant confidentiality and anonymity were assured and staff members were encouraged to ask questions. The packs were then distributed to the attending staff by the researcher and to the remaining staff by the ward manager. Reminders about the research were sent to the ward managers one week, and again two weeks, after each visit. All staff returned their completed questionnaires by post, in stamped addressed envelopes provided.

**Results**

**Data analysis**

All analyses were performed using PASW Statistics 18. The data were first checked for outliers and normality. Two outliers were identified and adjusted to a value that was one unit larger than the next most extreme value, as recommended by Tabachnick and Fidell (2007). The main variables were screened for normality using Kolmogorov-Smirnov tests. A conventional but conservative alpha level (p=.001) was used as the sample is small. The depersonalisation scale of the MBI violated the assumption of normality with a strong positive skewness. Transformations were attempted but they did not improve the skewness and kurtosis of the distribution. Therefore, non-parametric tests were used for this variable.

Table 2 shows the descriptive statistics for levels of burnout, self-efficacy, approaches to dementia, attachment-related anxiety, and attachment-related avoidance.

INSERT TABLE TWO HERE

Table 2 **Levels of burnout, self-efficacy, approaches to dementia, attachment-related anxiety and attachment-related avoidance in staff caring for people with dementia**

|  |  |  |  |
| --- | --- | --- | --- |
| **Factor** | **Variable** | **Mean** | **Standard deviation** |
| Dimensions of burnout | Emotional exhaustion | 16.21 | 11.68 |
|  | Depersonalisation | 2.80 | 2.96 |
|  | Personal accomplishment | 38.75 | 6.00 |
|  |  |  |  |
| Self-efficacy | Geriatric nursing self-efficacy | 53.02 | 7.31 |
|  |  |  |  |
| Approaches to  | Hope | 29.57 | 3.71 |
| dementia | Recognition of personhood | 50.33 | 3.90 |
|  | Total | 79.82 | 6.46 |
|  |  |  |  |
| Attachment | Attachment-related anxiety | 50.68 | 7.31 |
|  | Attachment-related avoidance | 65.20 | 17.86 |

The mean scores for the three dimensions of burnout were all within the low degree of burnout symptoms, as indicated by the MBI manual (Maslach et al., 1996). Moderate levels of burnout were found in 41.3% of the participants for emotional exhaustion (score of 17+), 14.7% of the participants for depersonalisation (score of 7+), and 44% of the participants for personal accomplishment (score of 38 or less).

The mean score for geriatric nursing self-efficacy was 53 (SD=7.31) out of a total of 63. Currently there are no normative data available for the Inventory of Geriatric Nursing Self-efficacy. However, the authors of the measure reported a self-efficacy mean score of 50 in care staff for people with dementia, and Duffy et al. (2009) reported a mean score of 51 in their sample. The current sample report similar, moderately high levels of self-efficacy in managing challenges with providing care for people with dementia.

The mean overall score for the Approaches to Dementia Questionnaire was 79.82 (SD=6.46) out of a total of 95. Lintern (2001) reported a mean score of 74.65 (SD=8.03) in her sample of 123 respondents of staff caring for people with dementia. MacDonald & Woods (2005) administered the ADQ to 158 nurses working in dementia care homes and reported a mean score of 75.86. Therefore, the current sample appears to report slightly more positive attitudes to dementia than staff in previous studies.

An independent samples t-test was conducted to compare burnout scores (emotional exhaustion and personal accomplishment) between males and females, and between healthcare/nursing assistants and staff nurses. A Mann-Whitney U-test was used for depersonalisation. There were no significant differences on emotional exhaustion between male (M=17.10, SD=11.28) and female care staff [M=16.00, SD=11.90; t(73)=0.32, p>.05]. For personal accomplishment no difference between males (M=38.70, SD=7.00) and females [M=38.78, SD=5.73; t(73)=-.06, p>.05] was found. A Mann Whitney U-test indicated that depersonalisation scores were significantly higher for males (n=15) than for females [n=60; *U*=262.00, p<.05, r=.30]. There were no significant differences on levels of burnout between healthcare/nursing assistants and staff nurses.

**Hypothesis 1 –** Insecure attachment (higher levels of attachment-related anxiety and attachment-related avoidance) will be associated with higher levels of emotional exhaustion and depersonalisation, and lower levels of personal accomplishment in staff

Table 3 shows correlations between attachment and emotional exhaustion, and between attachment and personal accomplishment. Attachment-related anxiety was found to be significantly positively correlated with emotional exhaustion (r=.26, p<.05, N=75) and negatively correlated with personal accomplishment (r=-.44, p<.000, N=75). Thus, higher levels of attachment anxiety were associated with higher levels of emotional exhaustion and with lower levels of personal accomplishment in staff, as hypothesised.

Attachment-related avoidance was significantly positively correlated with emotional exhaustion (r=.27, p=.01, N=75), indicating that higher levels of attachment avoidance in staff were associated with higher levels of emotional exhaustion. There was a small negative correlation between attachment avoidance and personal accomplishment (r=.-16, p=.085, N=75) which failed to reach significance.

Spearman’s Rank Order Correlation was used to examine relationships between attachment and depersonalisation (see Table 4). Significant positive correlations were found between depersonalisation and attachment anxiety (r=.30, p<.01, N=75), and attachment avoidance (r=.20, p<.05, N=75). Therefore, higher levels of attachment insecurity were associated with higher levels of depersonalisation, as hypothesised.

Table 3 **Pearson product moment correlation coefficient analysis between attachment and burnout (emotional exhaustion and personal accomplishment)**

|  |  |  |
| --- | --- | --- |
|  | Emotional exhaustion | Personal accomplishment |
| Attachment anxiety | .26\* | -.44\*\* |
| Attachment avoidance | .27\*\* | -.16 |

\*Correlation significant at the 0.05 level \*\*Correlation significant at the 0.01 level (one-tailed)

Table 4 **Spearman rank order correlation analysis between attachment and burnout (depersonalisation)**

|  |  |
| --- | --- |
|  | Depersonalisation |
| Attachment anxiety  | .30\*\* |
| Attachment avoidance | .20\* |

\*Correlation significant at the 0.05 level \*\*Correlation significant at the 0.01 level (one-tailed)

**Hypothesis 2 –** Insecure attachment will be associated with lower levels of geriatric nursing self-efficacy in staff

**Hypothesis 3** – Insecure attachment will be associated with lower levels of hope and recognition of personhood (approaches to dementia) in staff

Correlations between attachment and self-efficacy, and between attachment and approaches to dementia are shown in Table 5. Attachment anxiety was significantly negatively correlated with geriatric nursing self-efficacy (r=-.33, p<.01, N=77), indicating that higher levels of attachment anxiety were associated with less self-efficacy in staff. There was a small, positive correlation between attachment avoidance and self-efficacy which was not statistically significant (r=.10, p>.05, N=77). Therefore, hypothesis 2 is partially supported.

Attachment anxiety was significantly negatively correlated with recognition of personhood (r=-.32, p<.01, N=77), suggesting that higher levels of attachment anxiety were associated with less person-centred attitudes in staff. There was a negative correlation between attachment anxiety and hope (r=-.14, p>.05, N=77), which failed to reach significance. The correlations between attachment avoidance and approaches to dementia (hope and recognition of personhood) were not statistically significant. Hypothesis 3, therefore, is only partially supported.

Table 5 **Pearson product moment coefficient analysis between attachment, self-efficacy and approaches to dementia**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Self-efficacy | Hope | Recognition of personhood |
| Attachment anxiety | -.29\*\* | -.14 | -.32\*\* |
| Attachment avoidance | -.10 | -.00 | -.05 |

\*\* Correlation significant at the 0.01 level (one-tailed)

**Hypothesis 4** – Higher levels of geriatric nursing self-efficacy and approaches to dementia will be related to lower levels of burnout.

Tables 6 and 7 show correlational analyses between self-efficacy and burnout, and between approaches to dementia and burnout. Both emotional exhaustion (r=-.20, p<.05, N=75) and depersonalisation (r=-.28, p<.01, N=75) were significantly negatively correlated with self-efficacy, indicating that lower levels of self-efficacy were associated with higher levels of exhaustion and depersonalisation in staff. There was a significant positive correlation between self-efficacy and personal accomplishment (r=.37, p<.01, N=75).

Hope and emotional exhaustion were significantly positively correlated (r=.36, p<.01, N=75), suggesting that more optimistic attitudes in staff regarding people with dementia were associated with more exhaustion. The opposite result had been hypothesised. Both hope (r=.24, p<.05, N=75) and recognition of personhood (r=.22, p<.05, N=75) were significantly positively correlated with personal accomplishment. Thus, more optimistic and person-centred attitudes in staff were associated with a higher sense of accomplishment at work, as hypothesised.

Table 6 **Pearson product moment coefficient analysis between self-efficacy and burnout (emotional exhaustion and personal accomplishment), and approaches to dementia and burnout**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Self-efficacy | Hope | Recognition of personhood |
| Emotional exhaustion | -20\* | .36\*\* | .04 |
| Personal accomplishment | .37\*\* | .24\* | .22\* |

\* Correlation is significant at the 0.05 level \*\*Correlation is significant at the 0.01 level (one-tailed)

Table 7 **Spearman rank order correlation analysis between self-efficacy, approaches to dementia and burnout (depersonalisation)**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Self-efficacy | Hope | Recognition of personhood |
| Depersonalisation | -.28\*\* | .02 | .05 |

\* Correlation is significant at the 0.01 level (one-tailed)

**Hypothesis 5 –** Staff attachment style, geriatric nursing self-efficacy, and approaches to dementia will be significant predictors for burnout.

**Hypothesis 6** – Staff attachment style will be a significant predictor for burnout even when self-efficacy and approaches to dementia have been controlled for.

Hierarchical regression analyses were used to further examine the relationship between attachment, self-efficacy, approaches to dementia and burnout (emotional exhaustion and personal accomplishment).

Data were checked for multivariate outliers, multicollinearity and homescedasticity of residuals, with no violations noted. Before examining the relationship between the predictor variables and burnout possible effects of confounding demographic variables were tested for using Pearson Product Moment Coefficient. No significant correlations between the demographic variables and the two dimensions of burnout were found.

Separate linear regression analyses were conducted for emotional exhaustion and personal accomplishment as dependent variables. Nursing self-efficacy, hope, and recognition of personhood were entered into the regression in Block 1, and attachment anxiety and attachment avoidance were entered in Block 2. This allowed for the role of attachment to be examined whilst the other predictors were controlled for.

Table 8 displays the regression summary for emotional exhaustion. A significant multiple correlation was found for the model as a whole (F(5, 69)=4.86, p=.001). Self-efficacy and staff approaches to dementia contributed to 16.5% of the variance on emotional exhaustion. Attachment explained an additional 9.6% of the variance, making a statistically significant contribution (p<.05) when the other predictors were controlled for. Only hope was found to make a significant unique contribution to emotional exhaustion (Beta=.39, p<.01) when all the other predictors were controlled for. Attachment anxiety marginally failed to reach significance (Beta=.22, P=.08).

Table 9 displays the regression summary for personal accomplishment. The overall regression model was found to be significant (F(5, 69) = 5.97, p<.000). Nursing self-efficacy and hope explained 21.7% of the variance. Attachment explained an additional 8.5% of the variance, making a statistically significant contribution to personal accomplishment (p<.05). Attachment anxiety significantly negatively predicted personal accomplishment (Beta=-.32, p<.05) while self-efficacy (Beta=.29, p<.05) and hope (Beta=.22, p<.05) significantly positively predicted personal accomplishment.

Table 8 **Hierarchical multiple** **regression summary for emotional exhaustion**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | B | SE B | Beta |
| Block 1 |  |  |  |  |
|  | Self-efficacy | -.25 | .18 | -.16 |
|  | Hope | 1.20 | .37 | .38\*\* |
|  | Recog.of personhood | -.27 | .36 | -.09 |
| Block 2 |  |  |  |  |
|  | Self-efficacy | -.12 | .18 | -.08 |
|  | Hope | 1.24 | .36 | .30\*\* |
|  | Recog.of personhood | -.09 | .36 | -.03 |
|  | Attachment anxiety | .13 | .07 | .22 |
|  | Attachment avoidance | .12 | .07 | .18 |

\*\*<0.01

Table 9 **Hierarchical multiple regression summary for personal accomplishment**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | B | SE B | Beta |
| Block 1 |  |  |  |  |
|  | Self-efficacy | .31 | .09 | .38\*\* |
|  | Hope | .39 | .19 | .24\* |
|  | Recog.of personhood | .11 | .18 | .07 |
| Block 2 |  |  |  |  |
|  | Self-efficacy | .23 | .09 | .29\*\* |
|  | Hope | .36 | .18 | .22\* |
|  | Recog.of personhood | -.01 | .18 | -.01 |
|  | Attachment anxiety | -.09 | .04 | -.32\*\* |
|  | Attachment avoidance | -.01 | .04 | -.02 |

\*p<0.05 \*\*=0.01

**Discussion**

The aim of the current study was to examine the relationships between staff attachment style, geriatric nursing self-efficacy, approaches to dementia, and burnout in dementia care staff working within inpatients units in two NHS trusts. The study focused on individual, rather than organisational, factors in explaining burnout.

**Levels of burnout**

The current sample of dementia care staff reported lower levels of burnout than samples in previous studies. For example, Duffy et al.’s (2009) study reported higher levels of emotional exhaustion and depersonalisation, and lower levels of personal accomplishment than found in this study. Similarly, Todd & Watts (2005) reported slightly higher levels of burnout amongst nurses working with people with dementia. Duffy et al.’s participants were working in care homes and it is possible that levels of burnout in such settings are higher than on inpatient wards for older people. Due to relatively small samples and low response rates in the studies a comparison is only tentative, however, and further studies with larger samples are required to explore potential differences in levels of burnout across dementia care settings.

The mean score for emotional exhaustion in this study is comparable with normative data for mental health workers provided in the MBI manual (Maslach et al., 1996). Despite the participants reporting lower levels of burnout than found in dementia care workers in previous research, 41.3% of staff members were experiencing moderate levels of emotional exhaustion and 44% had a moderately reduced sense of personal accomplishment at work. Male participants were found to have significantly higher scores on depersonalisation than female participants. Male and female participants did not differ on their levels of emotional exhaustion or personal accomplishment. In this study, training level of staff did not have an effect on levels of burnout, as there were no significant differences between health care assistants and staff nurses on the three dimensions of burnout. The participating wards differed in the amount of formal dementia training their staff had received. In one of the NHS trusts, person centred care and challenging behaviour in dementia were part of the induction programme for new staff. Also dementia awareness training was available to staff working on inpatient wards. In the other trust, some wards had not taken part in any formal dementia training, while others had had staff participating in a dementia care course.

The results clearly indicate a need to address burnout amongst dementia care staff, due to implications for staff members’ well-being as well as quality of care for people with dementia. As previous research suggests, burnout negatively impacts on staff behaviour towards the people they are caring for, and has been found to be associated with less empathy, less willingness to help clients, and negative responses to clients’ behaviour (Astrom et al., 1991; Todd & Watts, 2005). This is a dynamic process whereby the person with dementia may respond to negative interactions with increased anxiety or agitation, which in turn leads to further stress in the caregiver (Woods, 2001).

**Attachment and burnout**

This is the first study to explore the role of adult attachment styles in burnout of paid dementia care staff. The results suggest that attachment insecurity, as indicated by high levels of attachment-related anxiety and attachment-related avoidance, is associated with burnout in this group of caregivers. The study therefore expands on the previous research on family carers, which has consistently found an association between insecure attachment and caregiver burden (e. g. Perren et al., 2007). While family carers are frequently the care-recipient’s main attachment figure, the nature of non-familial caregiving relationships is likely to be different. Although the results from few previous studies examining attachment of paid caregivers (e. g. Hawkins et al., 2007; Leiper & Casares, 2000) have been mixed, the current findings suggest that adult attachment styles are significant also in the coping of paid caregivers working within institutional settings.

Attachment anxiety was related to more emotional exhaustion and depersonalisation, as well as lower ratings of personal accomplishment in staff. It was a significant predictor for personal accomplishment, and only marginally failed to reach significance for emotional exhaustion. The findings support previous literature, which has found anxiously attached individuals to be particularly vulnerable for personal distress when faced with other people’s suffering and needs (George & Solomon, 1999). Attachment avoidance was significantly positively correlated with emotional exhaustion and depersonalisation in staff but was not a significant predictor for burnout on the regression analyses. The attachment literature suggests that avoidant individuals tend to emotionally distance themselves from other people’s distress, and therefore may be protected from stress and burnout in caregiving situations. However, when faced with chronic stress avoidantly attached people’s defences break down, and strong negative emotions result (Mikulincer et al., 2009).

**Self-efficacy and burnout**

While the role of self-efficacy in caregiver burden in family carers has been well documented (e. g. Fortinsky et al., 2002), only a handful of studies have previously examined self-efficacy and burnout of dementia care staff. The current sample reported a moderately high level of self-efficacy in managing caregiving challenges at work. A clear association between self-efficacy and burnout was found, as lower levels of self-efficacy were associated with more emotional exhaustion and depersonalisation, and less personal accomplishment in staff. These correlational findings were partly supported by the regression analyses in which self-efficacy was a significant predictor for personal accomplishment. The current study adds to the evidence provided by previous research (Duffy et al., 2009; Evers et al., 2001; MacKenzie & Peragine, 2003) supporting the importance of self-efficacy in burnout of dementia care staff. Self-efficacy appears to be a significant personal factor in contributing to, or protecting staff from, burnout.

Staff interventions targeting self-efficacy may be effective in reducing levels of burnout in care staff. MacKenzie & Peragine (2003) developed a self-efficacy intervention programme for dementia care staff, focusing on common sources of stress at work and using methods such as group role-plays, observation, and constructive feedback. The intervention was found to be effective in increasing self-efficacy and in reducing levels of burnout in staff, and it is suggested that implementing similar staff support programmes on inpatient wards for older people may be useful in addressing burnout amongst staff.

**Approaches to dementia and burnout**

This is one of the first studies to consider staff attitudes to dementia as a potential predictor for burnout. The current sample of care staff reported moderately positive attitudes towards people with dementia. The role of hope and recognition of personhood were examined in relation to burnout. Higher ratings of hope were correlated with increased emotional exhaustion and higher levels of personal accomplishment in staff; a finding which was supported by the regression analyses. Therefore, the results suggest that higher levels of optimism towards people with dementia have a significant association with burnout of dementia care staff.

Based on the limited available previous research (Astrom et al., 1991), it was hypothesised that less positive attitudes would be related to higher levels of burnout. Therefore, the finding that higher levels of hope were associated with higher levels of emotional exhaustion was not anticipated. This result differs from Todd & Watts’ (2005) findings which indicated that lower levels of optimism were associated with higher levels of burnout in staff. The measure used by Todd & Watts was specific to challenging behaviour, whereas the hope subscale of the ADQ measures a sense of optimism towards people with dementia in general. It is possible that staff with more optimistic attitudes give more of themselves in their work, and as a consequence are more likely to experience burnout in some settings. For example, Lintern (2001) found hope to be associated with staff engaging patients socially, as well as in purposeful activity. In organisational contexts in which staff are overstretched in their roles such high level of engagement may lead to emotional exhaustion. Further research is clearly required to explore the relationship between a sense of optimism and burnout of dementia care staff.

Recognition of personhood was significantly positively correlated with personal accomplishment, suggesting that a person-centred approach to people with dementia is associated with a greater sense of achievement at work. This finding is similar to Zimmerman et al.’s (2005) results, which indicated that person-centred attitudes were associated with higher levels of satisfaction and perceived competence in staff. Personhood is created (or diminished) in the social relationships around the person with dementia, and is a product of the caregiving relationship (Woods, 2001). The current results therefore highlight the importance of person-centred care, not only for people with dementia but also for care staff and their feelings of competence and satisfaction in their caregiving role.

**Attachment and coping – an overview**

Previous research has shown that people scoring high on attachment anxiety and on attachment avoidance have different strategies for dealing with stress (e. g. Mikulincer & Florian, 1995). In this study, attachment anxiety was associated with lower levels of self-efficacy and with higher levels of burnout, as would be predicted by emotion focused coping that intensifies distress and involves negative appraisals of self. Attachment anxiety was also related to less recognition of personhood, suggesting that anxiously attached staff members were less able to recognise and respond to their clients as unique, valued individuals.

There were no significant relationships between attachment-related avoidance and self-efficacy, or between avoidance and approaches to dementia. These findings were not anticipated as it was hypothesised that both attachment anxiety and attachment avoidance would be related to lower levels of self-efficacy and less positive attitudes in staff. The current findings suggest that attachment avoidance is not associated with staff members’ feelings of self-efficacy or their attitudes towards people with dementia. However, attachment avoidance was found to be positively correlated with emotional exhaustion and depersonalisation, as had been hypothesised, suggesting that avoidantly attached individuals are vulnerable to experiencing burnout. While people with an avoidant attachment style tend to cognitively and emotionally distance themselves from sources of distress, under chronic stress these defences may break down and negative emotions result (Mikulincer et al., 2009). In conclusion, it would appear that both anxiously and avoidantly attached care staff are at a higher risk of developing burnout than more securely attached caregivers. While both of the insecure attachment styles incur an emotional cost, the processes by which this occurs differ; avoidantly attached people attempt to suppress high emotional arousal while anxiously attached people tend to express it (Mikulincer & Shaver, 2008). As a consequence, the association between anxious attachment and burnout appears to be stronger.

**Methodological considerations**

The current study was a correlational cross-sectional design, and therefore cannot imply causality. It could be argued that people who are experiencing burnout relate to other people in particular ways, such as by being more avoidant. Similarly, burnout may be a cause of negative staff attitudes and poor self-efficacy, rather than vice versa. Longitudinal research is clearly required to confirm and expand upon the current findings. However, attachment theory and research provide a strong framework for supporting the role of attachment style in people’s ability to cope with stress (e. g. Mikulincer & Florian, 1995). Similarly, the internal working models of self and others are seen to develop early in life and influence relationships throughout the life-span (Bowlby, 1969). Predictive designs exploring the role of attachment in burnout would allow for a more detailed examination of the causal relationships.

While attachment was originally conceptualised categorically (e. g. Ainsworth et al., 1978), the adult attachment research has more recently moved to a dimensional model. The current study adopted this model of adult attachment, examining attachment anxiety and attachment avoidance as separate, continuous variables. It is important to note, however, that the two constructs overlap, as indicated by a moderate, positive correlation between anxiety and avoidance in this study. This overlap may have limited the power of attachment anxiety and attachment avoidance as independent predictors on the regression analyses.

It also needs to be acknowledged that attachment-related processes were not directly examined in this study. The ECR-R provides a convenient self-report measure of adult attachment; however it has been criticised for failing to tap into unconscious defensive processes (Shaver & Mikulincer, 2002). Therefore, the conclusions about the relationship between anxious and avoidant attachment and differential coping strategies in care staff are tentative. Qualitative studies, perhaps using the Adult Attachment Interview, would provide more detailed information on the caregivers’ attachment strategies, and the way in which these may contribute to burnout. More studies are clearly required to explore potential mediating factors between adult attachment styles and burnout.

It should be noted that the participants’ interpretation of the questionnaire items may have influenced their responses. For example, some staff members may have considered the statements on the ECR-R in relation to close personal relationships, whereas others may have thought of relationships within their work context. The depersonalisation scale of the MBI was subject to a floor effect, with a large number of participants scoring zero. As a consequence, the scale violated the normal distribution assumptions and parametric statistical tests could not be used. While it may be the case that the current sample experienced very low levels of depersonalisation, it is also possible that the participants’ responses were affected by social desirability. For staff working in the caring professions it may be difficult to agree with such seemingly unacceptable statements regarding their feelings about their patients. Highly skewed distributions of the scale, reflecting a social desirability bias, have been previously reported (Leiter & Schaufeli, 1996). Future studies may need to be carefully consider the use of the scale, if a skewed distribution is likely to affect the statistical analyses of the results.

While all effort was made to ensure a representative sample, the response rate of 44.3% is relatively low. The researcher had planned to visit all the wards in person; however some of the ward managers declined this offer. Personal contact with participants is known to lead to better response rates to surveys (e. g. Brownell & Naik, 2001; Mond, Rogers, Hay, Owen, & Beaumont, 2004), and future studies would benefit from delivering all questionnaires to staff by hand. Burnout research may be subject to selective responding whereby people who are ‘burned out’ are less likely to take part in studies. Those members of staff may be on sick leave, which means that the results could be subject to a ‘healthy worker effect’ (Schaufeli. 2003). Higher levels of burnout in staff may also mean that they are less motivated and able to participate, thus introducing a bias into the findings. The current response rate is higher than those reported in previous studies, such as Duffy et al. (less than 25%) and Hawkins et al. (39%), however, which gives more confidence in the representativeness of the sample. The strength of this study is also the inclusion of, and response from, all care staff including health care assistants and qualified nurses, and the recruitment of staff from two large NHS trusts. Future studies on attachment and coping of care staff will need to consider participants’ ethnic backgrounds, in light of recent research on the role of attachment in immigrants’ sociocultural adaptation and psychological adjustment (e. g. Sochos & Diniz, 2012). Staff members’ ethnicity was not controlled for in this study.

**Clinical implications**

This study has provided preliminary evidence for the role of attachment in burnout of dementia care staff. The current findings demonstrate the need for further studies in this area. Greater staff awareness of their own attachment style, and of attachment theory, may have a role in reducing levels of burnout in staff. It may also lead to better quality relationships between staff and people with dementia. There is evidence to suggest that incorporating attachment theory into staff training programmes is useful. Mills et al. (1999) designed a teaching package that encouraged greater awareness of attachment relationships across the life span and delivered it to care staff in three residential homes. As a result of the training, the caregivers reported feeling closer to clients, with increased knowledge of the clients’ pasts leading to greater understanding of their behaviour. It would be interesting to explore whether similar training would have an impact on levels of burnout in staff. For staff to be able to be receptive to the emotional response of people with dementia, they need access to supervision and support in which the emotional impact of the work on them is addressed (Berg, Hansson, & Hallberg, 1994). The current findings also suggest that training programmes focused on increasing self-efficacy and person-centred attitudes in staff may prove useful in addressing burnout in dementia care.

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