The impact of mindfulness training on reflective thinking and attitudes towards patients in dementia care

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Declaration

I composed this thesis, the work is my own. No part of this thesis has been submitted for any other degree or qualification.

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'We sometimes talk as if 'original research' were a particular prerogative of scientists or at least of advanced students. But all thinking is research, and all research is native, original, with him who carries it on, even if everybody else in the world already is sure of what he is looking for.'

Dewey 1916

Acknowledgements

Abstract

Background

The current pilot study investigated the impact of an eight-week mindfulness intervention on reflective practice and attitudes to dementia among NHS staff using a mixed methods approach. A growing body of research evidence suggests that mindfulness training is an effective stress management intervention for health professionals (Irving et al., 2009)and may impact beneficially on direct client outcomes (Singh et al.,2006). Other commentators hypothesise that mindfulness intervention could promote reflective modes of clinical thinking (e.g. Epstein 1999; 2003, Connelly 2005). This pilot study aimed to assess the effect of mindfulness training on measures of reflection and person centred attitudes to care among healthcare workers with a high degree of clinical contact with people with dementia.

Method

Following the granting of ethics permission from the local NHS trust, staff participants were recruited via posters, email, team presentations and mindfulness 'taster' workshops. Three consecutive eight week intervention groups were facilitated by the investigator at 3 hospital sites where 25 participants attended initial sessions. A total of 18 participants completed the intervention and outcome data was collected using a mixed methods approach. Focus group data was analysed according to a thematic analysis based on the constructivist version of grounded theory (Charmaz 1995). Main outcome measures were the Groningham Reflective Abilities Scale (GRAS) (Aukes *et al.*, 2007) and Approaches to Dementia Questionnaire (ADQ) (Lintern, 2000), which were collected in week one, week eight and at one month's follow-up after the intervention. Background measures of the Kentucky Inventory of Mindfulness Skills (KIMS) (Baer *et al.*, 2004) and Maslach Burnout Inventory (MBI) were also collected to see whether these variables influenced performance.

Results

The overriding theme that emerged from grounded theory analysis was that *mindfulness practice stimulated an awareness of and some reflection on personal*

experience which varied between individuals in its relevance to personal and work related situations. Six super ordinate themes were identified: *experiencing mindfulness practice, wellbeing benefits, developing awareness, thinking about dementia, thinking about the course and applying mindfulness at work.* Sub-themes included reflections about the 'moment by moment' qualities of dementia care giving and grounding oneself during difficult situations.

Non-parametric quantitative analyses revealed a significant within group effect of mindfulness training on total ADQ score and the sub domain of hope related attitudes to dementia. Post hoc testing indicated significant differences between the start of intervention and 1 month's follow-up for both scores with an additional effect between one week and eight weeks for the KIMS. Contrary to prior findings burnout scores did not change post-intervention and neither did the ADQ person centred rating scale, as was originally predicted.

Discussion

These findings suggest that mindfulness training may be relevant to fostering staff well being and promoting adaptive attitudes towards the care of people with dementia. Some participants fed back that the intervention had not met their needs and it may be relevant to consider adaptations specific to this professional group. These findings are discussed in relation to current conceptualisations of mindfulness training and its potential role within reflective practice and dementia specific care contexts. Results indicate that mindfulness based approaches may be relevant to this clinical setting though the intervention could require further adaptation or careful targeting.

1 Introduction

1.1 Background

This pilot study investigates the impact of mindfulness training on reflective practice and attitudes to patient care among NHS health professionals working with patients with dementia. Mindfulness refers to the ability to attend to moment by moment experience in non-judgemental manner and to some extent 'embodies' a sense of compassion towards oneself and to others (Kabat-Zinn, 1994). There is growing evidence to suggest that mindfulness training is a relevant intervention for healthcare workers, where preliminary findings indicate beneficial effects on factors including burnout, self compassion and job satisfaction (Irving *et al.*, 2009). Other findings furthermore suggest that the mindfulness practice among caring professionals may impact favourably on client empathy and actual therapeutic outcomes (Grepmair *et al.*, 2007; Shapiro *et al.*, 1998). Some commentators theorise that mindfulness may promote reflection and self monitoring in clinical situations, though these assertions have not yet been formally tested (Connelly, 2005; Epstein, 1999; Epstein, 2003).

As the average age of the world population increases, a demographic explosion in the number of older adults and people diagnosed with and affected by dementia is predicted (Ferri et *al.*, 2005). By implication, the development of healthcare services and appropriately trained professionals will be required to meet this need as the pool of informal carers able to address the complex care needs of the oldest old steadily diminishes (Knapp *et al.*, 2007).Though mindfulness training is potentially relevant to various care giving settings, this study focused on the care of people with dementia for three main reasons. In the first place, person centred models of dementia care draw on a range of qualities that are highly congruent with mindfulness practice, including present moment awareness and a warm and accepting stance towards the client (Kitwood, 1997; McBee, 2008). Secondly, some reports suggest that there is a substantial incidence of job related stress among healthcare workers in dementia care which contributes to employee attrition (Zimmerman, Williams *et al.*, 2005). The investigation of wellbeing and reflective practice may therefore be particularly pertinent to this clinical area (Edvardsson *et*

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al., 2009). Thirdly, though there has been substantial investigation of psychological approaches in the context of *informal* care giving (Brodaty *et al.*, 2003; Selwood *et al.*,2006) less research attention has been carried out in relation to the processes of *formal* dementia care giving (Montgomery & Williams, 2001). Studies carried out in this area have tended to focus on the management of challenging behaviour (McCabe *et al.*, 2007). Therefore the current pilot study contributes towards addressing a noteworthy gap in the dementia research literature.

The following discussion outlines some of the psychosocial and attitudinal factors relevant to formal dementia care giving and how reflective practice might be linked to this. Theoretical models of mindfulness and reflective practice are then elaborated, followed by a critical review of research into mindfulness intervention among health professionals, including initial work in dementia settings. The argument is proposed that delivering compassionate and effective care to people with dementia demands a high degree of personal reflection on the part of the caregiver and that mindfulness practice may have the potential to facilitate this process.

1.2 Formal dementia care: the case for reflection

1.2.1: Why is reflective practice important in dementia care?

In parallel to increasing healthcare demand in the care of people with dementia, negative social constructions of ageing continue to influence public attitudes and healthcare policy (Clark, 2009; Kite *et al.*, 2010). These difficulties may be magnified further in dementia care, where stigma and discrimination associated with dementia itself can have a significant impact on patient wellbeing (Milne, 2010). Attitudinal factors shaped by society have the potential to shape the care giving process itself, and training in person centred approaches promote attitudes that value the personhood of the individual (Brooker, 2006). For an actual 'attitudinal shift' or change in practice to occur however, it seems possible that personal attitudinal and reflective processes may be important, as well as support within the care giving environment to promote alternative ways of working (Carroll & Edmondson, 2002; Rycroft-Malone *et al.*, 2002).

Research investigating the support needs of informal dementia care givers suggest that general psycho-education is insufficient to meet the needs of this group and that informal carers are likely to respond more favourably to multi-component approaches that necessitate active engagement on the part of the participant (Gallagher-Thompson, 2007; Pinquart & Sorenson, 2006). Various documents highlight a lack of training and appropriate financial remuneration for formal caregivers of people with dementia, especially within care home settings (Brimelow & Lyons, 2009; Kuske et al., 2007)

People with dementia often make the transition into formal care when significant others are no longer able to address their support needs at home, and frequently in the context of so-called 'challenging behaviour', where the person with dementia may start to behave aggressively towards their main caregiver (Hancock et al., 2006). Challenging behaviour among patients with dementia is furthermore a major contributor to delayed discharge and heightened utilisation of hospital resources in the UK (Lakey, 2009). In both individual and economic terms there is therefore a strong need to address the skills development and professional wellbeing of those providing frontline healthcare and social care for people with dementia. In the context of challenging behaviour it is arguably important to foster the caregiver's ability to stand back and reflect more consciously on the dynamics of specific care situations, particularly where clients have difficulty with self expression and orientation to their surroundings (Andrews, 2006).

Within the potentially challenging working climate of dementia care, concerns about the quality of care and carer support have also been highlighted. There is an elevated rate of elder abuse among people with dementia (Cooper et al., 2006) and overmedication of patients with antipsychotic treatment in relation to behavioural symptoms is a contributor to increased patient morbidity (Banerjee, 2009). Such findings clearly underscore the need for a more sophisticated research understanding of formal dementia care giving, and the development of appropriate training and intervention.

Within the 'person centred' models of dementia care, the quality of relationships surrounding the person with dementia (in which professionals feature heavily) are

viewed to be crucial to the identity and affirmation of that individual (Brooker, 2006). For some people with dementia a sense of time and self may be 'constructed' by the people surrounding him or her, further highlighting the importance of this relationship context (Surr, 2006). Emergent 'relationship centred' models of dementia care add further emphasis to the key role of professionals within the 'care triad' where they inform and support the person with dementia and their significant others (Nolan, *et al.,* 2004). An appropriate responsiveness to and observation of the client with dementia may help to resolve incidents of challenging behaviour that might communicate needs that the person is finding hard to express verbally e.g. communicating pain or the wish for dignity (Stokes, 2000). Given the importance of these transient observations and processes that occur 'in the moment', it seems reasonable to propose that some aspects of effective dementia care need to be inherently 'mindful' particularly at the level of client communication.

Unfortunately, some findings suggest that interpersonal features of the care process may sometimes be neglected and that care staff do not always feel supported to invest in this aspect of their work (Eriksson & Saveman, 2002; Kuremyr et *al.,*1994). Such findings therefore highlight the potential role of the care 'culture' and how this might interact with attitude formation. The next section addresses these considerations in further detail.

1.2.2 Attitudes and care culture

Kitwood (Kitwood, 1997; Kitwood & Bredin, 1992) has proposed the existence of a "malignant social psychology" that unhelpfully conceptualises dementia within the medical model in a manner that detracts from individual "personhood". He also outlines a possible psychological process whereby fears related to ageing and the posited "disintegration of self" sometimes thought to accompany dementia could create an unhelpful barrier between the caregiver and client. Kitwood argues that without sufficient self understanding and awareness on the part of the caregiver a projective identification process might occur where the caregiver literally 'shuts off' from the vulnerable aspects of the self and thus:

....''remains in a state of denial and self-deception, unable or unwilling to
recognise areas of damage and deficit, and steadfastly holding up a professional
front''   (Kitwood, 1997)

He argues that this professional distancing might in turn contribute to deteriorated relationships with the client and unhelpful power differentials as the challenging emotions of the caregiver are ultimately 'split off' and projected onto the client, in addition to their experience of the actual client. There might then be the potential for example for the caregiver to 'overestimate' levels of client helplessness or attribute personal frustrations to the client.

Such notions appear partially borne out by research including one study that reported correlations between burnout, lower client empathy and less positive relationships to patients among a sample of nursing staff (n=60) (Astrom et al.,1991). Interestingly it was environmental factors such as "feedback at work" and "time in place of work" that appeared to be most predictive of burnout in this context. Todd and Watts (2005) noted relationships between low optimism, negative reactions to challenging behaviour and levels of burnout among a sample of UK nurses (n=25) and psychologists (n=26) working with people with dementia. Optimism in contrast, predicted greater helping behaviour, highlighting the relative contribution of affective variables to the quality of care. Another study by McCarty and Drebing (2002) investigated caregiver burden and burnout following workforce reductions. This research was conducted in three stages amongst mixed professional groups during the course of the changes. Perhaps unsurprisingly, increased levels of burnout followed staff cuts and a significant correlation was found between self reported burnout and thoughts of taking sick leave.

Work carried out by Brodaty et al. (2003) explored relationships between attitudes towards clients with dementia and work strain in Australian nursing home staff (n=253). Staff were in greater agreement with negative attitude statements than positive items on a work satisfaction measure, and the five most common perceptions regarding patients with dementia were that they were "anxious, have little control over their difficult behaviour, are unpredictable, lonely and frightened/vulnerable". Interestingly more negative attitudes were associated with *lower* levels of work strain

yet reduced work satisfaction, leading the authors to speculate that those under less strain had perhaps emotionally distanced themselves from clients with the result that they gained less enjoyment from their work. Age was not associated with negative views of clients in this study but increased staff age and experience was linked to work strain, and over 30% of the study sample reported a lack of opportunity to discuss the psychological demands of their work. There appeared to be differences in strain between work settings that were independent of the level of behavioural disturbance among clients, leading the authors to suggest that differences in care culture or leadership style might be accounting for some variance.

Other research has investigated the interrelationships between levels of training and attitudes to patients. Zimmerman, Sloane et al. (2005) explored the relationship between client quality of life and attitudes to dementia averaged across 421 residents with dementia in 35 assisted living and nursing home settings. The authors also included the Approaches to Dementia Questionnaire (ADQ) (Lintern et al., 2000) as a measure, alongside other quantitative and qualitative outcomes. Their findings suggested that improved client rated quality of life was associated with more specialised staff training, as well as favourable attitudes to patients and engagement in direct care planning. Further investigation of staff attitudes in the same context (Zimmerman, Williams et al., 2005) examined the relationships between staff stress, attitudes to patients and job satisfaction on the basis of interviews with direct caregivers (n=151). These findings indicated that the staff that had started working in dementia care over the last 1-2 years reported stress more often than well established staff and were also more likely to align with person centred attitudes to care giving. However person centred care orientation was consistently associated with job satisfaction and those staff working in smaller patient units (n<16) reported lower levels of stress. These findings of these two studies therefore point to relationships between favourable staff attitudes and an improved quality of client care, as well as highlighting the potential importance of supporting staff appropriately to prevent them becoming jaded with their work or potentially leaving employment.

Contrasting with the findings of Brodaty et al.(2003) , Kada et al. (2009) examined a sample of nursing and care staff (n=291) in Norway where participants reported

broadly positive attitudes to patients in institutionalised dementia settings, also measured by the ADQ. Training again had an important bearing on attitudinal factors among distinct staff groups. There was a tendency for more specialised training to predict 'hope' related attitudes towards clients with dementia, as well as a trend towards the prediction of more person centred attitudes. The authors note however that most care was not provided by staff with specialised training, and that the nursing assistants engaged in much of the direct patient care or individuals with 10 years of experience or less, exhibited significantly lower levels of hope related attitudes. Age also had a bearing, with staff over 50 demonstrating lower levels of hope attitudes; the authors offer the interpretation that this staff group may have been exposed to different care models in their earlier training. Higher hope related attitudes were also related to working in units with 15 patients with dementia or more, in contrast to Zimmerman et al's findings (Zimmerman, Williams *et al.*, 2005). These findings therefore indicate some intriguing and slightly contradictory relationships between attitudinal factors and experience with the work setting, suggesting that higher or reduced levels of exposure to the care setting might contribute to reduced hope, moderated by level of appropriate training.

Work carried out by MacDonald and Woods (2005) again examined attitudes to patients with dementia using the ADQ in 'non-elderly mentally infirm' (non-EMI) care homes, where caregivers were less likely to receive dementia specific training. The authors also conducted interviews with the most senior nurse on duty at each site collecting data on experience and care orientation in addition to the ADQ, Dementia Care Styles Questionnaire (CSQ) (Brooker *et al.*,1998) and recognition of cognitive impairment (as measured by Mini Mental State Examination (MMSE) (Folstein *et al.*,1975). Higher levels of person centred attitudes appeared to be predictive of more effective recognition of cognitive impairment, *regardless* of whether the carer had previous dementia specific training and experience. Conversely, more 'restrictive' practices towards patients as measured by the CSQ were also related to improved recognition of dementia. Thus the authors come to the conclusion that interventions geared towards improving person centred care and attitudes to patients might in turn impact on improved recognition of dementia with the caveat of monitoring more restrictive care practice. Though all of the papers discussed point to the importance

of person centred training in shaping staff attitudes to care, the results of MacDonald and Woods indicate that there may be other unspecified variables promoting person centred care in these settings such as individual values and care culture.

Though most of the attitudinal research in formal dementia care has focused on nurses and/or care workers in institutional or residential settings, other research suggests that medical attitudes can have a significant effect on the general healthcare of people with dementia. A number of studies have explored the relationship between attitudes to dementia and timing of diagnosis in doctors (Bamford *et al.*, 2004) and there is even evidence to suggest that GP 'attitudes' to dementia (as opposed to actual understanding of the condition) predicted whether or not a full dementia assessment would be conducted (Boise *et al.*,1999), though practice may be improving (Milne et *al.*, 2005). In a study carried out by Kaduskiewicz *et al.* (2008) among GPs and medical specialists, general attitude to patients with dementia was strongly inter correlated with self perceived competence and professional care approach, suggesting that intervention related to attitudes as well as knowledge of dementia might have the potential to improve patient care.

1.2.3 The potential importance of staff wellbeing

In summary therefore the research literature about attitudes to formal dementia care giving is emergent at this point and consensus is yet to emerge. Convergent themes from attitudinal research in direct dementia care giving settings appear to strongly advocate the importance of effective training, person centred care approaches, and adaptive attitudes to patients in the context of good quality care (Kada *et al.*, 2009; Macdonald & Woods, 2005). There are also suggestions that burnout contributes to less adaptive attitudes to care (McCarty & Drebing, 2002; Todd & Watts, 2005). The evidence discussed highlights the need for further studies across different professional groups and cultures to understand the variables that impact on both positive and negative attitudes to the care of people with dementia.

While much attention has been devoted to the factors associated with professional burnout and maladaptive attitudes to patient care, less is known about the mechanisms that might promote positive adaptation to working in dementia care

environments. It seems that several factors are relevant including access to appropriate training and CPD (Kuske *et al.*, 2007), 'subjective' feelings of economic wellbeing (Ayalon, 2008) and the sense of being valued and supported by others at team and managerial level (Gruss *et al.*, 2004; Riggs & Rantz, 2001).

Though these wider organisational issues are likely to have the greater bearing on quality of dementia care, there is also some evidence that interventions to improve patient care could usefully explore individual staff wellbeing needs (Gilloran, *et al.*, 1995; Hasson & Arnetz, 2008; McCarty & Drebing, 2002). In the light of evidence suggesting that mindfulness intervention may alleviate professional burnout and promote increased caregiver empathy (Cohen-Katz, Wiley, Capuano, Baker, Kimmel et al., 2005; Mackenzie *et al.*, 2006; Shapiro *et al.*, 1998), this study explores the potential of techniques fostering mindful awareness to promote a reflective stance to care at the level of individual practice. Given apparent negative relationships between burnout symptoms and attitudes to client care (Astrom *et al.*, 1991; Todd & Watts, 2005), the key question also emerges of whether mindfulness practice itself and its associated wellbeing benefits could promote the development of adaptive caregiver attitudes to dementia in the absence of an explicit cognitive re-structuring process .

Kitwood suggests that the antidote to the professional 'splitting' discussed earlier might be for caregivers themselves to develop sufficient experiential resources to nurture and accept the more difficult aspects of the self, thus facilitating more congruent and empathic modes of relating. He recommends personal meditation practice as one of the potential tools for developing self insight of this nature. Similar ideas about care culture are echoed by Jean Watson in the professional nursing context, who proposes that good quality patient care may rest on the deliberate cultivation of a culture of compassion and wellbeing culture *among professional caregivers themselves*, that is subsequently 'mirrored' in client interactions across the service context (Sitzman, 2002; Watson, 2006).

Such notions are slowly filtering into general UK health policy amid increasing evidence that an emphasis on staff wellbeing may promote numerous resource 'savings' including improved staff retention, reduced sickness absences, and

improvement in certain patient outcomes (Boorman, 2009). It seems plausible that a specific emphasis on dementia care giving and the accompanying wellbeing and developmental needs of staff has the potential to improve both the quality and cost effectiveness of care in this area (Vernooij-Dasssen *et al.*, 2009).The next section gives further consideration to the area of staff development by exploring how the individual reflective process might inform staff wellbeing and patient care.

1.2.4 What is reflective practice and how might it be relevant to dementia care giving?

Reflective practice can refer both to the ability to self monitor and actively reflect within a given situation (reflection in action), and the ability to retrospectively analyse experiences (reflection on action), with a view to developing the skills or approach to promote more effective practice in the future (Schon, 1983). It is increasingly acknowledged as a key aspect of effective clinical practice, though empirical evidence to assess its impact on health professionals or their clients is currently limited (Mann, *et al.*, 2009). Various definitions and frameworks have been also proposed to define reflective practice, thus compounding feelings of confusion related to this phenomenological aspect of clinical functioning (Cushway & Gatherer, 2003).

Reviewing the literature, Mann *et al.* (2007) conclude that reflective practice helps professionals to learn effectively from work related experiences, integrate values and ideas related to the working context and develop processes of self awareness to elaborate the knowledge they already have. A study carried out by Niemi noted that medical students who engaged in reflection seemed more confident in their career choice and to have a stronger sense of professional identity (Niemi, 1997), while research carried out among qualified doctors noted that reflection became less frequent with accumulating years of clinical experience and was more common in specialties with high case variety and/or access to research evidence (Mamede & Schmidt, 2005). The latter study notes that without adequate reflection there may be an increased risk of premature case closure i.e. incorrectly assuming that you've seen the scenario before on the basis of prior case exposure. Work carried out by Sobral

(2000) also highlights the contextual variables of 'positive learning' experiences and allocated *time* for reflection in the promotion of reflective practice.

Extrapolating somewhat from these findings outside the dementia care context the possibility emerges that a small range of diagnoses, resource constraints and the relative lack of training and research found in some care settings could lead to a degree of care delivery on 'automatic pilot', highlighting the need for concrete opportunities for reflection. Preliminary studies about reflection in this area of care are now discussed.

1.2.5 Reflective practice in dementia settings

Holst *et al.* (1999) conducted qualitative analyses nursing narratives and reflections in Sweden related to the care of 10 patients with severe dementia based on supervisions across 31 female and 8 male nursing staff. The two main themes that emerged related to feelings and responses within the nurse and their approach to the patient, as well as thoughts about how the world might be look through the eyes of a person with dementia. These two areas further divided into sub themes with varying implications for the 'identity' of the nurse or patient, including interactions where constructive engagement occurred which validated both parties or situations that threatened nurse and patient identities, such as direct care situations where they nurses felt themselves to be 'encroaching' on the patient. Other sub-themes related to 'non-understanding' where the patient expressed themselves in a way that the nurse did not comprehend and occasions where the patient became unsure of their identity or time orientation in a manner that sometimes became overwhelming. This analysis therefore captures some of the dilemmas faced during the care of clients with dementia and the importance of generating narratives of the care situation to preserve the identities of both caregiver and recipient. The authors qualify this idea further by pointing out that there was sometimes the potential to generate incorrect narratives from an incomplete understanding of patient history and that it might also be important for nurses to foster reflection on 'immediate' aspects of the client situation.

Hansebo and Kihlgren (2001) also investigated reflection among Swedish caregivers using stimulated recall interviews related to video footage from care giving

interactions before, during and after a one year supervision intervention. Within the 'focus on patient' theme revealed by the study, caregivers referred to frequent care giving interactions which were apparently against the will of clients ,similar to the encroachment theme described by Holst *et al.* (1999), which often resulted from situations where there was a difficulty with communication subsequently leading to patient aggression. Such observations are consistent with conceptualisations of challenging behaviour within dementia in terms of unmet or poorly communicated needs (Stokes, 2000). Staff also noted that patients appeared to have a heightened sensitivity to nonverbal modes of communication as dementia symptoms progressed. Within a 'focus on self' theme, care givers were initially self critical of instances where they felt they were not supporting patients to retain capabilities to a sufficient degree. In contrast, reflections at a later stage of interviewing referred to doing one's best whilst finding it hard to interpret the patient's world and also described a greater ability to 'step back' and observe patient interactions, perhaps indicating the development of a more mature reflective process. Within 'contextual' themes, caregivers highlighted time pressures and the potential for 'getting in a rut' during care giving where they became exhausted from meeting the same client with the same intensive care needs on repeat occasions, thus indicating conditions that could be detrimental to reflective practice (Mamede & Schmidt, 2005). During later interviews, participants identified factors that were likely to impact the 'quality' of patient care such as time for long term care planning and reduced hours, indicating a further reflective process that might facilitate practice change. These findings therefore highlight the potential usefulness of developing an observing mind and maintaining conscious awareness in care situations, both of which are abilities fostered by mindfulness practice (Epstein, 1999; Mace, 2007).

Further supervision based research was carried out by Graham (1999) among UK based community psychiatric nurses (CPNs), who were asked to reflect on their work from the perspectives of client, partner/significant other of client, co-worker, NHS trust employer and wider society. This participant group also reflected on adjusting to the needs of the patients and described the difficult but important process of 'reacquainting' themselves with patients with memory problems on home visits. They also reflected on their multiple roles within the patient's world, varying from

practical roles such as 'needle sticker' to more complex relationship building roles such as 'domino player'. From the perspective of partner and significant other, nurses acknowledged the importance of caring for the informal caregiver as well as the patient. They also voiced concerns about being viewed as 'a threat' from the co-worker perspective and noted that in addition to following the protocols and policies espoused by the NHS trust and society, they also provided the pragmatic community level input that made their roles viable. This study therefore gives an interesting overview of practice dilemmas faced by clinicians in a community setting, and the importance of supervision and reflection in developing shared relationships and narratives with others.

A potential critique of the three studies outlined above is that participant accounts are likely to have been limited to some degree by the content and dynamics of supervision, which might lead to a degree of additional self monitoring or perhaps a tendency to focus on negative or more challenging case examples in discussion (Holst *et al.*, 1999).

In a further study carried out in Sweden by Skog *et al.*(1999), 18 practice nurses kept reflective diaries during participation in a year long dementia education programme, where they recorded care interactions with a patient who acted as their 'guide' or informal practice teacher. A noteworthy aspect of the intervention was that the nurses participated in 'investigative mealtimes' with patients where they ate with their clients and learned to simultaneously integrate various aspects of care. Nurses' reflective diaries were analysed into distinctive themes according to the nature of working relationships that ensued and six distinct roles emerged, comprising the most common theme of 'observer' where the nurse observed and learned from the patient, to 'converser' where the nurse appeared to use lots of verbal contact with mixed results and 'organisers' who developed rapport through activities other than verbal communication, which were not necessarily congruent with patient needs. 'Shadows' tended to be very supportive and acknowledging of patients to promote self esteem, only intervening as required, while 'pals' tended to build professional relationships with a degree of friendship. Carers adopting the role of 'guides' tended to have very strong professional identities and reflected on this carefully within care

giving situations. This reflective exercise brought up a lot of interesting ethical and professional issues for the nurse participants who came to realise that working at a slower pace and prioritising spending time with the patient *per se* were crucial to effective practice. As participants reduced their pace they ultimately got to know the client well enough to detect elements of client appreciation that made their work more satisfying and it is interesting to speculate on whether this prolonged care exposure may have reduced notions of potential dementia related 'stigma'. A potential limitation of this intervention might indeed be the degree of time invested in the intervention, given service related time pressures though these findings clearly indicate that participants gained insights that might inform more effective service provision.

Andrews *et al.* (2009) used action research methods to support staff from a dementia special care unit (SCU) to investigate their own practice, beginning with an initial action research cycle which involved studying transcripts of interviews with the relatives of service users. Concluding that patients' significant others were receiving inconsistent information about dementia and the functioning of the unit, a second action research cycle emerged which resulted in the development of an intervention package and requests for further feedback from families. Reflecting on the resounding positive response to this additional information, staff noted that relatives appeared less anxious about patient behaviours and more accepting of local care protocols after dissemination of the information. This study therefore thus gives a clear example of how team reflection might be successful in initiating positive service level change and also describes a 'clinician-led' research process likely to take a less evaluative stance than clinical supervision or attending a course to gain training credit.

1.2.6 Summary

This section has elaborated some of the reasons why a careful reflective process might promote more effective dementia care. These include the influence of age related social prejudice, organisational pressures and the possible over-emphasis on the medical model in dementia care (Kitwood, 1997). A prominent aspect of dyadic

or triadic care giving interactions is the importance of monitoring and responding to moment by moment client interactions that may be hard to understand in the context of dementia progression without pause for reflection (Hansebo & Kihlgren, 2001; Holst *et al.*, 2000). Attitudinal factors at individual level may impact adversely on the quality of patient care, particularly in the context of staff burnout (Todd & Watts, 2005) though several factors contribute to this and growing evidence suggests that investment in staff wellbeing may be particularly relevant to this area of care (Vernooij-Dasssen *et al.*, 2009).

While reflective practice may be a somewhat nebulous concept, many health professionals acknowledge its importance and potential to facilitate staff development and organisational change (Mann *et al.*, 2009; Safran *et al.*, 2006). Specific research into reflective practice in the context of dementia care giving also reveals interesting insights about the links between professional identity and patient 'moment by moment' experiences whether or not these can be qualified by an understanding of the patient's past (Holst *et al.*, 1999). It is this immediate experience of the moment that forms the basis of mindfulness practice (Kabat-Zinn, 1994) and the following section explores possible areas of integration between mindfulness and reflective practice.

1.3 Mindfulness and reflective practice

1.3.1 How does reflective practice overlap with mindfulness?

Mindfulness principles and practice appear to either implicitly or explicitly integrate with certain aspects of reflective practice (Epstein, 1999, 2003a, 2003b), and a general discussion follows, since there is not a wide research literature in this area. One of the most famous proponents of reflective practice, Donald Schon (1983) famously critiques the 'technically rational' stance to client working (across various contexts) that relies more heavily on scientific knowledge and accepted theory than practice based experience, arguing that it might overlook distinctive areas of practice with problematic consequences:

' And if he learns as often happens, to be selectively inattentive to phenomena that do not fit the categories of his knowing in action , then he may suffer from boredom or 'burn out' and afflict clients with the consequences of his narrowness and rigidity.' (Schon, 1991, p.61)

Schon instead espouses 'reflection in action' whereby the practitioner continuously self monitors and integrates the specific aspects of practice situations, becoming aware of the knowledge boundaries. This process of attending to the unique features of practice situations and individualised care arguably overlaps with the mindfulness quality of 'beginner's mind' which equates to seeing everyday phenomena as if exploring them for the first time (Epstein, 2003a; Epstein *et al.*, 2008). This quality is made explicit within Mindfulness Based Stress Reduction (MBSR) courses during exercises such as 'the raisin exercise' where participants are encouraged to bring mindful awareness and curiosity to the experience of eating a raisin (Kabat-Zinn, 1982,1994). The ability to reflect 'in action' also implies a presence 'in the moment' which is actively cultivated in all formal and informal mindfulness exercises, e.g. sitting meditation involves moment to moment observation of the sensations of breathing, bringing awareness to the thoughts and emotions that may simultaneously arise (Kabat-Zinn, 1994; Segal *et al.*, 2001).

Mezirow's reflective practice model of 'transformative learning' has been primarily applied to education contexts but may also be salient to other settings (Mezirow, 1981; Mezirow & Associates 1990). Mezirow charts a reflective process that ultimately culminates in a 'perspective transformation' i.e. a novel thinking approach that contrasts with habitual modes of assumption, which within a healthcare context might plausibly translate into changes of attitude or perhaps the realisation of new ways of working. Aspects of the transformational learning model have some commonalities with mindfulness practice, in particular the metacognitive process described by Mezirow, whereby an individual 'becomes aware of their own awareness' (Mezirow 1981). The same process is potentially cultivated during mindfulness practices such as sitting meditation and the body scan, whereby the meditator learns to notice present moment thought patterns and physical sensations alongside their habitual reactions to these (Segal *et al.*, 2001). Two components of

Mezirow's model in particular draw on these developing abilities, namely an initial stage of 'reflectivity' during which the person is 'aware' of and merely perceives a specific behaviour and a subsequent stage of 'affective reflectivity' where the individual's awareness extend still further to a sense of how they *feel* about their own thoughts, behaviours and interpretations.

1.3.2 Conceptualisations of mindfulness in reflective practice

Mindfulness practice and its core values have been explicitly integrated into reflective approaches to medical practice by Epstein, who emphasises the importance of a moment by moment 'presence' with patients to facilitate compassionate connection (Epstein, 1999, 2003b). He also suggests that mindfulness might help clinicians to actively *uncouple* top down information processing based on habitual aspects of professional learning, from the bottom up experiential awareness gleaned during practice scenarios. Framing the mindfulness quality of non-judgement within the clinical context, he claims that it is "not necessarily the 'elimination' of clinical biases, but rather allows the practitioner to consider and question multiple possibilities". Epstein also proposes that 'mindlessness' and modes of automatic pilot have the potential to infiltrate practice, especially in the context of multi-tasking. His treatise concludes with the recommendation that clinicians consciously cultivate a series of mindful 'habits' in day to practice including the development of an 'observing self', critical curiosity, beginners mind and 'presence' (Epstein, 1999; Epstein *et al.*, 2008). It is interesting to conjecture on the degree to which established professionals might be willing to foster a 'beginner's mind' and whether this process might help to prevent the premature case closure described by Mamede and Schmidt (2005). Though Epstein does not present a cohesive and falsifiable theoretical framework he does offer some testable suggestions that might be individually evaluated in practice.

Johns also draws links between mindfulness and reflective practice, primarily within nursing and palliative care settings (Johns, 2004). Like Epstein he emphasises the potential of self observation in mindful awareness to improve clinical practice (Epstein, 2003a; Epstein *et al.*, 2008) and in addition suggests that an underlying

values system may be required as well as present moment awareness in order to promote mindful modes of practice (Johns, 2004). Johns proposes a model of reflective practice which advocates an empowering and empathic stance to *both* practitioner and patient, within which mindfulness personal modes of clinical practice is an explicit component. While Johns notes that mindfulness could act as a self monitoring approach to manage errors and habitual tendencies, he particularly emphasises the role of mindfulness in promoting a moment by moment *responsiveness* to oneself and the patient. In contrast to the detached stance sometimes promoted in nursing to avoid unhelpful 'over involvement' with clients, Johns instead advocates self management and understanding within the therapeutic relationship in such a way to effectively "manage the self *within* involvement", thus echoing some of the ideas already discussed by Kitwood (1997).

Only one study to date has explored mindfulness *as* reflective practice, which entailed the qualitative analysis of highly experienced meditators working as care staff within a Zen hospice in the United States and did not address any explicit theoretical novel (Bruce & Davies, 2004). This study consisted of a process where the main author immersed herself within the culture of the hospice and interviewed participants naturalistically during breaks between working with clients. Themes emerged suggesting that study participants had grown to view their care giving over time *as a form of meditation in its own right,* feeling that the compassion and interconnection embodied via their mindfulness practice was central to effective hospice working. Other themes of the meditation practice highlighted by participants in reflective practice included the ability to recognise prejudgement, evaluate events from novel perspectives and find a grounded place of 'rest' amid a constantly fluctuating care environment. These findings therefore provide initial support for the suggestions of Johns (2004) and Epstein (Epstein, 2003a, 2003b) in terms of the reflective applications of mindfulness to caregiver 'presence' as well and the ability to 'stand back' from habitual patterns within a systems context.

It should be noted that mindfulness related ideas are not compatible with all accounts of reflective practice Neither would mindfulness practice necessarily need to be a

'precursor' to reflective thinking or mindful modes of clinical functioning, which are likely to be well developed in skilled clinicians (Epstein, 1999).

1.3.3 A model of mindfulness practice

Measurements of mindfulness and the mechanisms by which it might 'work' are currently underspecified (Baer, 2003; Bishop *et al.*, 2004). The current investigation draws loosely on a model developed by Shapiro and colleagues (Shapiro & Carlson, 2009; S.L. Shapiro *et al.*, 2006) in attempting to explain how mindfulness practice itself might interact with reflective thinking processes. Shapiro *et al.* (2006) define mindfulness practice as "the simultaneous arising of a particular intention, attention and attitude" and combine these elements within their "intention, attention and attitude" (IAA) model. Where other metacognitive frameworks primarily define mindfulness within the context of attention processing (Hayes & Shenk, 2004; Wells, 2005), Shapiro's 'triaxiomatic' approach views attention as one component of mindfulness practice that converges with the attitudes and intention with which it is carried out (Shapiro *et al.*, 2006).

It is important to emphasis the distinction between intention in this context and the goal orientation or 'striving' that runs antithetically to the essence of mindfulness practice (Kabat-Zinn, 1994) and acts more as a 'direction' to follow during meditation practice (Shapiro & Carlson, 2009). Attention in the context of IAA refers to the ability to observe transient internal and external experience and remaining connected to this without interpreting or evaluating it in some way. Shapiro and colleagues predict that cognitive components of attention, including the ability to sustain, switch and inhibit attention (specifically towards secondary processing of thoughts feelings and sensations, as might form part of rumination in low mood) would all be favourably impacted on by mindfulness practice. This prediction is to some extent borne out by initial research findings relating to the favourable impact of mindfulness practice on attention and executive processing (Chambers *et al.*, 2008). Shapiro *et al.* (2009) also highlight *the attitude with which attention is bestowed* drawing on the 'foundations' of mindfulness practice described by Jon Kabat-Zinn, namely non-striving, non-judgement, trust, kindness, letting go, acceptance and

beginner's mind (Kabat-Zinn, 1994). Such attitudes are specifically 'embodied' within the practice of mindfulness meditation and bring a compassionate quality to mindful forms of attention (Shapiro & Carlson, 2009).

Shapiro and colleagues propose that intentionally attending with mindfulness attitudes during mindfulness practice results in a significant shift of perspective called 'reperceiving' which acts as a 'meta-mechanism' that overarches a series of potential outcomes including: "a) self regulation and self management b) values clarification c) cognitive, emotional and behavioural flexibility and d) exposure" (Shapiro *et al.*, 2006). The process of reperceiving is similar to the notion of 'decentring' described by Teasdale and colleagues whereby one develops the ability to stand back and observe thoughts (Teasdale et al., 2002) and Hayes' notion of 'cognitive defusion' where thoughts are recognised as 'separate' from the events to which they are linked (Hayes *et al.*, 2006). During reperceiving one allows things that were once 'subject' to become 'object' and this process facilitates the development of the observing mind cited to be a key tool in the development of the psychotherapist (Casement, 1985). Shapiro and colleagues also propose that as well as a meta-mechanism, reperceiving is a natural process beginning in childhood with the gradual ability to transcend egocentricity and adopt alternative perspectives followed by ongoing clarification in adulthood that might be accelerated by mindfulness practice (Shapiro, 2009). Though mindfulness practice might facilitate some ability to deconstruct or 'see through' the self, Shapiro and colleagues emphasise that the process of reperceiving is not akin to actual 'detachment' from experience, but rather facilitates a "deep intimacy with what arises in the moment".

Shapiro *et al.* (2006;2009) also propose that the process of reperceiving mediates additional mechanisms resulting from mindfulness practice, including the ability to become less directly 'controlled' by thoughts and emotions, thus developing more adaptive modes of self regulation. According to the IAA model, a further mechanism mediated by reperceiving is the clarification of personal values and an ability to step back from ideas that have been absorbed 'reflexively' and/or socially conditioned and instead 'reflectively' adopt values that are personally meaningful. In a similar sense, Shapiro proposes that reperceiving via mindfulness practice might facilitate

more flexible approaches to thinking, feeling and acting as the individual also develops the ability to observe habitual patterns. Finally, Shapiro *et al.* propose that an 'exposure' mechanism might also follow on from practice as one learns to accept and make contact with potentially difficult or aversive experiences. Exposure is already well known within evidence within cognitive behavioural therapy as a key psychological intervention in the treatment of anxiety and trauma states (Clark, 1999). There is an increasing body of therapeutic research suggesting that mindfulness may facilitate exposure to aversive emotional or physical experiences (Baer, 2003). Thus for example the patient with chronic pain learns to feel and experience their pain through mindfulness meditation, and progressively becomes less emotionally reactive to their pain experience (Kabat-Zinn, 1982).

Potential critiques of this model include an apparent inattention to the complexity of the meditative process, with minimal elaboration of metacognitive processes in the same detail as other theories (e.g.Wells, 2005). It also assumes that all three components of the model must be engaged to result in the reperceiving outcomes without giving clear grounds for this. In addition it perhaps under specifies possible explanations for the increased levels of interconnection to others sometimes reported in the context of mindfulness practice (e.g. Carson *et al.*, 2007; Singh et *al.*, 2004), or the suggested concomitants of more advanced mindfulness practice which may not only foster the ability to reperceive immediate experiences, but also to observe multiple *self* perspectives on a situation (Claxton, 2005). Shapiro and colleagues' model does however represent the first testable description of the mindfulness practice process with possible applications to the process of self reflection.

In terms of the potential overlaps between IAA and models of reflective practice, the notion of reperceiving appears to have a high degree of crossover with the notion of perspective transformation (Mezirow, 1981; Mezirow & Associates1990) and ability to view a problem from different perspectives (Epstein, 1999, 2003a). Johns (2004) also highlights this quality of moment to moment responsiveness in therapeutic situations and the importance of underlying vision in nursing care, akin to the notions of 'intention' described by Shapiro *et al.*, (2006).

Given the theoretical context suggesting overlap between the processes of mindfulness practice and reflective practice, this pilot investigation aimed to evaluate whether mindfulness practice impacted on reflective thinking related to clinical situations among health professionals working in dementia care. Having now explored some of the ways in which mindfulness might be interwoven with theories of reflective practice, the next section evaluates the general evidence base for mindfulness intervention among health professionals and its potential utility in dementia care contexts.

1.4 Mindfulness in professional caregivers

1.4.1 Mindfulness as a wellbeing intervention

There is a growing body of evidence to suggest that mindfulness based interventions are highly relevant to stress management among health professionals (Irving et al., 2009). The majority of studies have focused on healthcare students, though the intervention is increasingly starting to be investigated in qualified professionals and multidisciplinary samples. One study explored the impact of an MBSR program among medical and premedical students during a pre-examination period where participants were randomised to the intervention or a waiting list control (n=41) with a 97 per cent completion rate (Shapiro et al., 1998). This trial reported reductions in psychological distress and depression items as well as apparent increases in patient empathy and spirituality among participants. Within the participant cohort, Shapiro and colleagues also found that intervention effects on 'trait' anxiety measures seemed to be mediated by the degree of participant mindfulness practice between sessions. A potential limitation of the study is that the participant sample were 'self selected' volunteers who approached the programme for its stress reduction benefits. Therefore it is harder to see whether the results of this study would generalise to a broader student sample.

Rosenzweig et al. (2003) also investigated mindfulness training in an intervention group (n=140) and control group (n=162) of medical students using a non-randomised between subjects design where students elected to either attend an 8 week MBSR course or a series of talks about complementary therapy. Like Shapiro

et al. (1998) this study again found decreases of mood disturbance in the intervention group (as measured by the POMS) during a pre-examination period, despite higher baseline levels of distress in the intervention group. Though this study is probably the largest trial of mindfulness in a student sample to date, it is again limited by potential self selection bias and the lack of a randomisation procedure.

Other smaller studies among nursing students have also reported beneficial effects of mindfulness intervention. Paralleling the findings of Shapiro *et al.* (1998), a study by Beddoe and Murphy (2004) found a significant decrease in anxiety scores among participants as well as significant positive correlations between home meditation practice and self care benefits of the intervention. Of the original sample of 23, 18 participants completed the course and 16 completed pre and post-intervention questionnaires, indicating a dropout rate of 22 per cent. Obvious limitations of this study are its small sample size and within subjects design, and the authors provide minimal information about the 22 per cent of participants who left the study. Another more recent study among nursing students in Korea with random participant assignment to an intervention (n=21) and control group (n=20), revealed reductions in stress and anxiety but not on depression scores (Kang *et al.*, 2009). These findings therefore contrast with the decrease in depression related items reported by Shapiro et al (Shapiro *et al.*, 1998) raising questions about the extent of the relationship between mindfulness intervention and the alleviation of mood symptoms, though this disagreement between findings might also be related to sample size.

A more recent study carried out by Hassed *et al.* (2008) to some extent overcame the self selection bias of previous studies by building a brief mindfulness intervention into the core curriculum of a wellbeing program for medical students. The intervention took a different approach to the formal daily practice commitment of 30-40 minutes requested in MBSR programs and instead focused on encouraging participants to incorporate brief daily mindfulness practice into the clinical day. These consisted of at least two five minute 'full stops' each day to practice mindfulness techniques as well as 15-30 'commas' to notice and reflect on internal states during the day. Students were also given specific cognitive and mindfulness focused reflective questions to facilitate insight into patterns of stress management.

Students reported reduced distress during a pre-examination period, though this may also have been related to other components of the wellbeing program and a practice compliance rate of 90.5% that continued into the post intervention phase, suggesting that participants were finding mindfulness techniques relevant. In reality there are still likely to elements of self selection in the final participant sample since only 239/270 students completed questionnaires at baseline and 155 returned post intervention measures. The investigators also excluded seven participant 'outliers' on the mindfulness practice dimension suggesting that findings might not be widely generalisable.

Studies investigating the impact of mindfulness intervention in trainee psychological therapists have also had favourable outcomes including one non-randomised trial comparing therapists in training who attended an MBSR course (n=22) with peers attending two academic courses (n=61) (Shapiro *et al.*, 2007). Decreased stress and increased self compassion were key outcomes within the intervention group and the results of this study are further supported by qualitative research carried out among trainee counsellors which revealed beneficial themes related to stress management and self care (Schure *et al.*, 2008). The counselling trainees who participated in a mindfulness intervention combined with qi gong and yoga and were monitored over a 4 year period (n= 33) also reported developing new adaptive attitudes towards themselves, a greater degree of acceptance and improvements to their client working. Moore (2008) carried out a study evaluating a brief program of 14 weekly mindfulness practice sessions (10 minutes per session) for clinical psychology trainees and reported significant post-intervention increases on the observing internal phenomena subscale of the Kentucky Inventory of Mindfulness Skills (KIMS) (Baer *et al.*, 2004) as well as increases in the self kindness subscale of the Neff Compassion Scale (NCS) (Neff, 2003).The intervention had no impact on perceived stress level though the other outcomes clearly indicate that even an 'introduction' to mindfulness skills might be beneficial to some trainee therapists. These studies therefore both point to the potential utility of mindfulness training in relation to the emotional demands of psychological therapy training, though small participant samples limit their interpretability within larger populations.

A further study randomised control study among healthcare students conducted by Jain *et al*. (2007) compared four week programs of relaxation (n=24) and mindfulness training (n=27) equated for time investment relative to a control sample (n=30). Twenty three participants dropped out of the study before completion including six participants in the mindfulness condition, eleven in the relaxation condition and six controls, perhaps indicating individual course adherence issues. Results indicated that both conditions improved levels of distress and enhanced positive mood state; however the mindfulness condition showed further specific improvement in positive mood state relative to the other condition and also appeared to have a selective beneficial effect on rumination and distraction.

Studies of established health professionals appear to follow a similar pattern to student studies. Cohen Katz and colleagues specifically evaluated the impact of an MBSR program on burnout symptoms among nurses using a mixed methods between groups design (Cohen-Katz, Wiley, Capuano, Baker, Deitrick et al., 2005; Cohen-Katz, Wiley, Capuano, Baker, Kimmel et al., 2005; Cohen-Katz et al., 2004). Relative to controls (n=12), the intervention group (n=13) demonstrated significant decreases in the emotional exhaustion and an improvement in the personal accomplishment dimensions of burnout measured by the Maslach Burnout Inventory (MBI)(Maslach & Jackson, 1981). Focus group responses also revealed that participants reported improved relaxation and self care post-intervention and were conscious of the benefits of course participation in both their working environment and family relationships. These results therefore support and extend previous findings.

A randomised controlled trial carried out within a mixed group of health professionals incorporating a wait list control (n=20) and eight week MBSR program (n=18) reported participant reductions in perceived stress and self compassion following intervention, though 42 per cent of the intervention participants dropped out (Shapiro *et al*., 2005). It is therefore likely that this study was underpowered and the authors describe the practical difficulties of recruiting busy health professionals, hinting at the importance of developing novel approaches to encourage participation.

Mackenzie *et al.* (2006) have experimented with a shortened MBSR style course format and piloted this on nurses and nurse aids, reporting reduced emotional exhaustion and improved sense of personal accomplishment among participants. In a further paper Poulin *et al.* (2008) compared the same brief mindfulness intervention with progressive muscle relaxation and imagery techniques, (matched to the mindfulness intervention along dimensions of length, experiential focus and homework materials) and a third control condition. While both intervention conditions experienced increased levels of relaxation and life satisfaction post intervention, reductions on the emotional exhaustion scale of the MBI were only present in the mindfulness intervention group, thus echoing the findings of Jain *et al.* (2007) that there might be 'added value' in mindfulness intervention in terms of wellbeing benefits. A potential flaw of this study design however is the lack of random assignment between conditions.

Schenstrom *et al.* (2006) investigated the impact of a different style of intervention format consisting of mindfulness based cognitive attitude training on a sample of qualified health professionals (n=52), employing a within subjects design whereby participants were evaluated before and after intervention and at three months' follow-up. The intervention incorporated components of MBSR and cognitive therapy and consisted of four workshops, three of which lasted two days and one whole day session. The intervention format was more time intensive than a standard eight-week MBSR program but occurred over a shorter time phase, which perhaps contributed to its low dropout rate of only four participants. Improved stress and wellbeing outcomes were noted as well as increased scores on the Mindful Attention Awareness Scale (MAAS) (Brown & Ryan, 2003) among participants who practiced between sessions.

A further study carried out by Krasner *et al.* (2009) adapted the standard MBSR format to the needs of medical professionals by incorporating aspects of communication training and clinical reflection into an eight week mindfulness course format, followed by a ten month maintenance phase of sessions to consolidate the intervention. This 'mindfulness based communication' was originally delivered to 70 doctors who on average attended 33.6 of the total 52 course hours with 68

attending and completing outcomes in the first week of intervention, 59 in the eighth week, 56 at one year and 51 completing measurements at 3 months follow up. Despite the 16 per cent dropout in the intervention phase therefore, subsequent dropout was low, indicating relatively consistent adherence at maintenance and follow-up. After intervention, participant outcomes indicated reductions in burnout (as measured by all three subscales of the MBI) and mood disturbance, and improvements in perspective taking were also noted on a clinician empathy scale. Significant increases were also noted on personality markers of conscientiousness and emotional stability, perhaps attesting to the impact of the maintenance phase on more stable individual factors. Areas of improvement were all correlated with the observe and nonreact factors from the Five Facets Mindfulness Questionnaire (Baer *et al.*, 2006), suggesting that increased levels of mindfulness might be mediating improvements.

In summary therefore, a series of studies indicate that mindfulness based intervention can be successfully employed as a stress management approach amongst different groups of caring professionals at different stages of professional development (Irving *et al.*, 2009). Study findings to date are limited by the small sizes of participant samples and the relative lack of larger randomised controlled designs. Most studies have recruited from self selected volunteer populations opening up the possibility that many of the research samples to date might be biased (Hutchinson & Dobkin, 2009) for example by factors such as participant distress or the pre-existing levels of reflection or psychological mindedness of participants. The dropout rates reported by some studies also indicate that there may be some factors related to intervention feasibility or individual participant preference that affect uptake (Beddoe & Murphy, 2004; Shapiro *et al.*, 2005). In addition to individual wellbeing benefits, research findings indicate that there may be 'relational' benefits to mindfulness intervention across diverse settings including parenting programmes (Duncan *et al.*, 2009; Singh et *al.*, 2007)and marital relationship intervention (Carson *et al.*, 2004; Carson *et al.*, 2007). The next section devotes further attention to the possible impact of mindfulness training on client care related outcomes.

1.4.2 Does mindfulness training impact on professional relationships?

Preliminary research suggests that mindfulness intervention may have a beneficial effect on service delivery and care giving relationships, and includes a series of small N studies carried out by Singh and colleagues suggesting benefits on client and team related outcomes (Singh *et al.*, 2006; Singh *et al.*, 2004; Singh *et al.*, 2009; Singh *et al.*, 2002).

Singh *et al.* (2004) compared baseline measures of positive affect in profoundly learning disabled clients working with pairs of caregivers, one of whom took part in an eight week mindfulness course, whilst the other caregiver worked as usual. A steady and marked increase in displays of client positive affect occurred during interaction with caregivers in the mindfulness intervention condition relative to the other caregiver. This difference in the quality of interaction persisted over the subsequent 16 week post-intervention follow-up period, indicating a beneficial impact of intervention on the care giving relationship.

A further multiple baseline design, Singh *et al.* (2006) compared and combined problem focused behaviour management with mindfulness meditation training in the management of aggression among adults with learning disability. Each intervention was delivered intensively over a 5-day period with the behavioural arm delivered prior to the mindfulness intervention. Relative to baseline there was a small decrease in the number of staff interventions for aggression in the behavioural management group, but the effect increased further following mindfulness training, after which participants also displayed a greater number of 'learning' related behaviours, particularly in relation to the recording of objectives from the course. Varying the condition of staff to client ratio Singh and colleagues also report that mindfulness related gains were maintained as staff to client ratio increased from 1:2 to 1:3, though the effects of behavioural management alone were diminished under the same conditions. These findings raise the interesting question of whether mindfulness training may have somehow worked synergistically with the behavioural management condition and perhaps facilitated the ability to attend to a larger number of clients. A subsequent study also explored challenging behaviour within a learning disabled client group, and noted that staff use of physical and chemical forms of

restraint was reduced over the course of a twelve week mindfulness intervention, in addition to a reduction of attacks on staff (Singh *et al.*, 2009). The results of this study are once again consistent with improved quality of interaction between caregivers and service users and raise the interesting question of whether these effects might be transferable to a dementia care context. At this stage of intervention development these small scale experimental designs however make it difficult to assess the feasibility of intervention within a larger scale service context.

Studies carried out by Singh and colleagues have also examined the impact of mindfulness training within psychiatric settings. One study concluded that mindfulness based mentoring had an adaptive impact on team process (Singh *et al.*, 2006) and a second study also noted improved 'family friendliness' among members of a psychiatric admissions team who took part in a mindfulness course (Singh *et al.*, 2002). These findings suggest that mindfulness intervention has the potential to have a beneficial impact on healthcare 'systems', which would again seem potentially applicable to dementia settings where high degrees of systemic working are integral to good patient care (Nolan *et al.*, 2004).

A double blind randomised controlled study among trainee psychotherapists also points to some beneficial impact of mindfulness training on client relationship outcomes (Grepmair *et al.*, 2007). Patients (n=124) seen by 18 psychotherapists over a nine week period were randomised in double blind procedure to a zen meditation condition who practiced meditation in group sessions at work *on the morning of therapy sessions* (n=9) compared to a control group (n=9) who meditated at a separate time. Patients with therapists in the meditator group gave higher ratings of the therapeutic experience and therapy related changes over nine weeks, as well as significant alleviation of psychological symptoms measured by checklists. Though these findings are again difficult to generalise due to sample size, they hint at the potential benefits to patient care of incorporating meditation into the caregiver's work schedule.

In summary, there is growing evidence to suggest that mindfulness training may impact positively on client care outcomes, though the mechanisms of change are not yet understood. Further larger scale evaluations are required to ascertain the

applicability of these findings to different client populations and service contexts. Given this apparent effect of mindfulness on client interactions (Grepmair et al., 2007; Singh et al., 2004) and its humanistic values base (e.g. Shapiro & Carlson, 2009) a secondary aim of the current study was to investigate whether mindfulness training had an impact on attitudes to patient care, with the prediction that it might promote person centred attitudes. A subsidiary aim of the current study was to explore the potential applications of mindfulness to dementia care through the eyes of health professionals working in this care environment. The final section considers the potential utility of mindfulness within this context, based on discussions and investigation carried out to date.

1.4.3 Mindfulness in dementia related contexts

Investigation of approaches in dementia related contexts have been limited to date, but quietly encouraging hinting at the utility of larger evaluation and intervention development (McBee, 2009, 2008). Mindfulness practitioners working in this area conjecture that mindfulness based approaches may have some utility in general stress reduction amongst formal and informal caregivers (Epstein-Lubow et al., 2006) as well as being particularly germane to supporting informal caregivers with the palliative dimensions of caring for a significant other with dementia (Mackenzie & Poulin, 2006). Such notions remain to be tested for the most part at an empirical level, though pilot work has been conducted.

Based on her experience of running mindfulness groups in nursing home settings, McBee proposes that mindfulness training may promote adaptive practitioner patient relationships (McBee, 2003). She has subsequently developed a programme of older adult mindfulness based interventions for patients with dementia (Lantz et al., 1997) and nursing home residents (McBee et al., 2004) forming part of an approach collectively known as 'Mindfulness Based Elder Care' (MBEC) (McBee, 2008). A study evaluating a wellness group for patients with dementia (eight participants and six controls) incorporated brief mindfulness practices including breathing and simple yoga stretches with additional components of aromatherapy and hand massage that appeared to have a beneficial impact on client agitation. A group of nursing home

residents also reported improvement on indices of pain and general wellbeing following participation in an adapted mindfulness course (Lantz *et al.*, 1997). Outside of an MBEC framework Ernst *et al.* (2008) conducted a non randomised feasibility study of an eight week MBSR intervention among nursing home residents assigned to the intervention (n=15) and an inactive control comparison (n=7) with nine participants completing the course. Intervention gains were noted on measures of health related quality of life, pain intensity as well as a reduction in depression symptoms supporting the earlier findings of McBee *et al.*(2004) though the investigators expressed some doubt about the viability of independent meditation practice in this client population. The extent to which mindfulness based intervention can be adapted to clients with dementia therefore remains an open question that perhaps merits further investigation in the light of increasing evidence that mindfulness approaches might be modified to the needs of other cognitively impaired client populations (Bedard *et al.*, 2003; Singh *et al.*, 2008).

McBee points out that mindfulness practice may be fundamentally useful to those 'delivering' older adult care and that a calm presence fostered by mindfulness practice is likely to be containing and reassuring for the person with dementia (McBee, 2008). With these issues in mind she also developed both a one hour 'introductory' mindfulness session and a seven week course specifically geared towards the needs of nursing home and hospital workers in older adult contexts though these have not yet been evaluated on a larger empirical scale. McBee anecdotally describes how these groups were very popular with staff and appeared to contribute to a certain level of 'cultural changes' that included improved staff retention, which ultimately culminated in the appointment of a 'wellness coordinator' to develop an employee wellbeing programs.

Pope has presented some pilot work investigating the feasibility of a mindfulness based stress intervention for informal caregivers of people with dementia within a conference summary, pending further empirical evaluation (Pope *et al.*, 2006). This intervention programme included pre-intervention focus groups to develop the intervention format. While participants initially felt that 6 weekly 1.5 hour sessions would be preferable, preliminary results and participant feedback subsequently led to

the adoption of a 10 week protocol of 2 hour sessions. Participants were randomised to the mindfulness intervention or a weekly 2 hour support group intervention. About 50% of the caregivers dropped out of the mindfulness intervention leading the author to conclude that simultaneous respite support would be required to support full attendance. These initial findings therefore illustrate the importance of targeting mindfulness intervention appropriately to the needs of the participant group.

1.4.4 Summary

A number of studies indicate wellbeing benefits of mindfulness training among health professionals including the alleviation of burnout (Cohen-Katz, Wiley, Capuano, Baker, Kimmel et al., 2005), improved quality of life (Schenstrom et al., 2006; Schure et al., 2008), enhanced self compassion (Shapiro et al., 2005) and heightened client empathy (Beddoe & Murphy, 2004; Shapiro et al., 1998). Furthermore there is evidence that mindfulness training may enhance the quality of care giving relationships and related client outcomes (Grepmair et al., 2007; Singh et al., 2004; Singh et al., 2009). Research within this area is at an early stage and somewhat limited by a lack of larger scale controlled studies, as well as the need for further investigation of the underlying mechanisms of mindfulness and its differential applications relative to other forms of intervention (Irving et al., 2009). Intervention content appears to vary between studies, presenting difficulties in conducting direct comparisons between some of the research carried out to date.

Though the standard advice on most mindfulness courses is to maintain a regular daily mindfulness practice, research about the contribution of practice does not always indicated consistent relationships between home practice and intervention effects (Vettese et al., 2009). Not all of the studies carried out in healthcare professionals to date have carried out analyses related to participant practice but some well controlled studies have found practice related effects (e.g. Grepmair et al., 2007; Shapiro et al.1998)). Given that degree of practice is probably a relevant outcome to control for, the current investigation therefore asked participants to record their mindfulness practice both in weekly diaries and in post course evaluation.

Although there has been little formal research evaluation of the impact of mindfulness training in dementia settings initial work suggests that there is the potential to develop mindfulness techniques both for the caregivers of and individuals affected by dementia, given appropriate adaptations to the target population (McBee, 2008).

1.5 Conclusion

In summary, this introductory section has highlighted the need for reflection within the context of dementia care settings, where individual staff attitudes and care culture may have a significant impact on the wellbeing of patients (Macdonald & Woods, 2005; Zimmerman, Sloane et al., 2005) and where staff wellbeing in turn may impact upon attitudes to care (Astrom et al., 1991; McCarty & Drebing, 2002; Todd & Watts, 2005). Attention has also been drawn to the striking parallels between mindfulness practice and components of reflective practice, including some approaches that specifically incorporate mindfulness principles (Epstein, 1999, 2003a; Johns, 2004).

Initial evidence has been discussed suggesting that mindfulness practice may not only promote stress reduction, self compassion and empathy among health professionals themselves (Beddoe & Murphy, 2004; Krasner et al., 2009; Rosenzweig et al., 2003; Shapiro et al., 2005), but also potentially benefit clinician-client relationships and outcomes (Grepmair et al., 2007; Singh et al., 2004; Singh et al., 2009). Given that evidence and theoretical frameworks suggest that mindfulness training may impact upon reflective practices and relational aspects of clinical working, this pilot investigation aimed to evaluate 1) whether mindfulness training has an impact on reflective practice and 2) whether it promotes person centred attitudes to the care of people with dementia.

2. Method

2.1 Participants

Research participants in the current pilot study were NHS Staff from the multidisciplinary team with a high degree of direct contact with patients with dementia within older adult mental health and wider hospital services. Permission was granted to carry out this pilot study by the Local Ethics Committee and co-sponsored by the University of Edinburgh and NHS Lothian (see Appendix 1). The primary inclusion criteria were that study participants worked clinically for the NHS within the catchment of ethics approval and spent a significant degree of their professional time with people with dementia (i.e. within weekly clinical work). The primary exclusion criterion was that participants had not previously attended a formal course of instruction in mindfulness meditation e.g. a 6-8 week secular mindfulness course and/or Buddhist meditation course in the NHS or the community. These criteria were selected on the basis of collecting reflective data specifically geared towards dementia care giving and because it was felt that participants with an existing mindfulness practice would be less likely to show an effect from the intervention.

The sample size was determined by the power calculation for this study which was made on the basis of paired t-testing for a within subjects effect before and after intervention. On the basis of a moderate to large effect size (0.7) where alpha=0.05, a sample of 20 cases would be sufficient for a power of 0.8.The estimated effect size was based on preliminary studies about the effects of mindfulness on professional wellbeing which reported medium to large intervention effects (Mackenzie *et al.,* 2006; Rosenzweig *et al.*, 2003).

The majority of participants in the final intervention group worked within a dedicated older adult service, with the exception of participants from learning disability services for adults with dementia and one staff member working in liaison psychiatry. Participants were deliberately recruited across a range of professional backgrounds in order to encourage the development of multidisciplinary intervention

perspectives. The initial intervention group consisted of four occupational therapists, a speech therapist, a physiotherapist, three day hospital nurses, a nursing day hospital assistant, a dementia nurse specialist, four community psychiatric nurses, four ward nurses (working within dementia and physical health settings), five psychiatrists and one assistant psychologist.

2.2 Recruitment

Participants were recruited via a number the following methods: poster adverts, email advertisements, mindfulness 'taster' workshops and/or team 'taster' presentations that introduced simple mindfulness exercises and the background evidence base (see Appendix 2). Those interested in receiving information about the study then contacted (or left contact details with) the investigator who subsequently sent out an invitation letter, participant information sheet and study consent form, which the participant received no less than 24 hours before an individual pre-group recruitment interview.

A recruitment interview was conducted lasting approximately 20-30 minutes, and consisted of a series of questions to assess whether the participant met recruitment criteria (see Appendix 2), to assess motivation to take part and to provide an opportunity for the participant to ask any further questions about the research or the mindfulness course before giving consent. The interview also included a preliminary discussion of ground rules for group participation including confidentiality and creating a respectful and supportive space for other participants. Participants were informed that they would be asked to carry out some daily mindfulness practice of 30-40 minutes over the duration of the course and complete a brief weekly practice diary detailing their experiences of different practices and noting work scenarios where mindfulness practice or ideas felt relevant during course participation (see Appendix 3). Participants were also informed that they would ideally be required to attend all eight group sessions, but that it was feasible to miss one to two due meetings, annual leave commitments or a clinical emergency, though it might be difficult to keep up if further time was missed. At the start of the study it was made clear that participants were being asked to attend the group 'as people' rather than

clinicians and would be encouraged to develop *their own ideas* about the relevance or potential applications of mindfulness in line with the research process rather than receiving any didactic instruction about this. Participants were also informed that taking part in the course could provide an opportunity for clinical continuing professional development (CPD) given that participation in an eight week mindfulness course and subsequent development of personal meditation practice is as an important pre-requisite to further training in the clinical application of mindfulness (Crane *et al.*, 2010).

Local circumstances compromised initial recruitment to a significant degree and the investigator sought additional ethics advice and amendments to widen recruitment beyond the three hospital sites initially specified to bring the study to statistical power (see Appendix 1). Having originally planned to run two eight-week mindfulness courses between January – June 2009, the investigator also sought additional ethics permission to run a third intervention group in August 2009 to bolster participant numbers.

The total recruitment and intervention period extended over a period of one year between October 2008 and October 2009. During this period 20 recruitment meetings were held with managers (and in some cases the wider team) to discuss the research and release of staff for study enrolment, representing a significant time investment. From the teams approached, 46 staff requested further study information following initial advertisement and of those contacted with a letter of invitation, participant information sheet and consent form (see Appendix 2), 32 said that they would like to participate pending discussion at interview. At the interview stage, 28 participants then opted to take part in the study and three further participants withdrew before the intervention start, due to bereavements in two cases and work pressure for the other individual. Thus there were 25 participants who entered the trial and the majority of participants were also female (3 males, 22 females) which was probably representative of the participant pool.

Table 1: Demographics of Intervention Group

	N	Mean	Standard deviation	Response range
Age (years)	24	43.46	8.10	24-57
Time qualified (years)	22	18.64	9.98	2-34
Time in dementia settings (years)	24	10.54	8.23	0.3-25
Time in current role (years)	24	5.87	4.30	0.25-15

Table 1 gives further demographic information about the participants and indicates that there is a wide range of clinical practice experience among participants as well as a high level of 'average' experience within the group. Differences in the participant numbers described are explained by missing data for one participant at the time of analyses and the absence of a professional qualification in two participants. When asked about levels of training prior to the course, participants described various overlapping and non-overlapping routes. Seven participants felt that the majority of their training had been 'on the job', though nine participants (including one of this seven) had taken part in dementia awareness training and five had also completed challenging behaviour or trust specific dementia behaviour training. Two participants had taken part in vocational training at a specialised dementia training facility while four participants had completed a postgraduate degree which incorporated dementia specific training or research. Five members of the intervention group themselves acted as trust based training facilitators for dementia awareness or challenging behaviour training.

2.3 Design

The current pilot study adopted a mixed methods within subjects experimental design with a view to simultaneously exploring the empirical and experiential impact of mindfulness based intervention. It was felt that a qualitative approach might inform a

more sophisticated experiential understanding of mindfulness practice and reflective practice whilst potentially cross validating empirical group effects relevant to service evaluation and the assessment of intervention feasibility. In pragmatic terms it was also surmised that a mixed methods approach would yield an informative dataset if difficulties arose with participant recruitment during the proposed period of research. Mindfulness based psychological approaches are acknowledged to be within the early stages of empirical and theoretical evaluation (Baer, 2003) and the current study adopted a novel approach by exploring the impact of training on reflection and dementia specific attitudinal outcomes. On the grounds of providing a more in depth assessment of the feasibility of a new intervention approach therefore, there were also good grounds for mixed methods pilot work (Craig *et al.*, 2009).

2.4 Materials and Intervention

2.4.1 Mindfulness Intervention

The course was delivered using the unpublished course format developed by Procter and Rothwell (2005) already piloted on NHS staff participants in Scotland as part of the 'Doing well by Depression' training initiative with the Scottish Executive (McCollam *et al.*, 2006) (see Appendix 3). It also drew on unpublished materials from the "Mindfulness Scotland Eight Week Course Handbook" (Procter & Wilson, 2008). This intervention approach combines elements of both MBSR (Kabat-Zinn, 1994) and Mindfulness Based Cognitive Therapy (MBCT) (Segal *et al.*, 2002) and covered the following formal practices: the body scan, sitting meditation (breath and breath, sound and thoughts), movement meditation (walking and movements based on simple yoga), the 3 minute breathing space, loving-kindness/compassion meditation, mountain meditation and open/choiceless awareness. Weekly course sessions took place over a period of eight weeks for each course, which included seven two hour sessions and one six hour 'silent day' retreat session. Participants were also given daily mindfulness exercises to practice between sessions. This course format had already been informally evaluated among NHS Scotland healthcare staff as part of the 'Doing Well' initiative (McCollam *et al.*, 2006) and

MBSR materials have also been previously researched among health professionals (Irving *et al.*, 2009).

Participants were informed that they were likely to gain more from the course if they practiced skills between sessions and were recommended to adopt a daily practice of 30-40 minutes. The final session included a brief slot where participants were given information about local mindfulness practice groups as well as a list of relevant resources and reading related to learning more about mindfulness and its clinical applications, should they wish to develop practice further. Participants were also given a certificate as proof of attendance to add to their CPD records.

Due to pragmatic and resource constraints, the investigator single-handedly delivered and evaluated the study intervention and therefore adopted the dual role of both investigator and mindfulness group facilitator in this context. The ongoing personal mindfulness practice of the group facilitator, together with the 'deepening' of mindfulness practice is viewed to be an important ingredient of intervention delivery (Crane *et al.*, 2010). The level of meditation experience of the facilitator and ongoing experience of group facilitation may also in itself be an important variable in intervention success (Allen *et al.*, 2004). Within this research context the facilitator/investigator had been meditating (with some breaks) for 14 years at the time of intervention and practicing mindfulness meditation for 7 years. During this period the investigator had also attended residential meditation retreats including two week long intensive mindfulness teacher training retreats run by the University of Bangor and the Scotland Mindfulness Interest Group (SCOTMIG), specifically geared towards developing mindfulness group facilitation skills. Throughout the three study interventions the facilitator maintained daily 30-40 minute mindfulness practice and attended regular clinical supervision sessions with a mindfulness practitioner experienced in facilitating groups for NHS staff (clinical supervisor CP).

Though the facilitator already had some experience of delivering mindfulness intervention during one to one client work and introductory workshops for other clinicians, the study intervention was the first occasion during which she had facilitated eight week group interventions. By definition therefore, the period of

intervention itself corresponded to a significant period of learning and practice development in relation to the delivery of mindfulness courses.

2.4.2 Outcome measures

Participants were asked to complete a series of pre-intervention questionnaires, which are now discussed individually. Additional permission from the authors was sought to use the non-standardised questionnaires during the research process (See Appendix 4).

i)The Kentucky Inventory of Mindfulness Skills (KIMS) developed by Baer *et al.* (2004) is a well-validated 39-item mindfulness questionnaire reported to have internal consistencies between 0.76 to 0.91 for sub domains of observing, describing, acting with awareness and non-judgemental acceptance. Good test re-test reliability has also been documented in a student sample, noting substantial correlation between scales at the second administration ranging between 0.65 and 0.83. Evaluation carried out in clinical patient populations has found further support for a four factor questionnaire structure, replicated high levels of internal consistency and noted that it appears to be sensitive to change following mindfulness intervention (Baum *et al.*, 2010). Questionnaire items ask participants to rate a series of statements on a five point Likert scale ranging from 'never or rarely true' and 'very often or always true' and includes a combination of positively and reversed scored items related to mindful qualities within everyday situations e.g. 'When I'm walking I deliberately notice the sensations of my body moving'. It has been evaluated in small groups of novice health professional meditators (Moore, 2008; Poulin *et al.*, 2008) and was selected for the current study as the best available multidimensional measure of mindfulness related outcomes at the point of seeking ethics permission.

ii) The Maslach Burnout Inventory (MBI) is a well validated 22-item measure of professional burnout with good test-re-test reliability and acceptable internal consistency (Maslach & Jackson, 1981). The questionnaire asks participants to rate how often they experience individual positive and reverse scored items related to burnout in working life e.g. 'I feel I treat some of my recipients as if they were impersonal objects' on a scale ranging from 0 ('never') to 6 (every day). The MBI

has three independent subscales of emotional exhaustion, depersonalisation and lack of personal accomplishment and has been widely used and validated in studies of health professionals (Leiter & Harvie, 1996). In relation to validity in the current study context one study where the MBI was administered to staff in care homes and geriatric hospital settings reported that high levels of the depersonalisation factor was predicted by working in a hospital setting and disability, while female gender, work role and staff to client ratio were predictive of the emotional exhaustion subscale (Cocco et al., 2003). Given that the MBI is both well validated as a general measure among human service professionals and findings to suggest that it is sensitive to mindfulness related intervention among healthcare workers (e.g.Cohen-Katz et al., 2005; Krasner et al., 2009; Mackenzie, et al., 2006) it was deemed to be the optimal measure of burnout for the current study.

iii) *The Approaches to Dementia Questionnaire (ADQ)* (Lintern et al., 2000) is 19 item questionnaire which asks participants to rate their degree of agreement on a 5-item Likert type scale with response options ranging from 'strongly agree' to 'strongly disagree'. Questionnaire items involve attitudes towards caring for people with dementia e.g. "It doesn't matter what you say to people with dementia because they forget anyway" or "People with dementia need to feel respected, just like anybody else". The questionnaire has two subscales measuring hopefulness about dementia and person centred care approach, which both have good reliability (Cronbach's α = 0.76 for hope and 0.85 for person centred) and has been validated against caring interactions with hope scores being most predictive of modes of relating with clients (Lintern, 2001). The ADQ has been primarily evaluated among nurses and care staff working in dementia settings (e.g. Kada et al., 2009; Macdonald & Woods, 2005) and was selected for this study because it was the most well validated measure of care related attitudes to patients with dementia available at the time of writing.

iv) *The Groningham Reflective Ability Scale (GRAS)* (Aukes et al., 2007) (see Appendix 4) is a recently developed 23-item scale measuring clinical reflection with subscales with an internal consistency between 0.74 and 0.83 with subscales of self reflection, empathic reflection and reflective communication. It is validated as a

research measure, with potentially limited applicability to day to day clinical situations and is acknowledged by its authors to be a one dimensional measure (Aukes *et al.*, 2007). Given these issues it was therefore reported as a single score in the current study. It has been evaluated in medical student participant samples to date (Aukes *et al.*, 2007, 2008) and was the only available measure of clinical self-reflection known to the investigator at the point of seeking ethics permission.

e) The nominal questionnaire developed by Normann *et al.* (1999)(see Appendix 4) is a set of 13 pairs of statements related to a case vignette of a patient with severe dementia where respondents are asked to select one of two statements based on either a personhood focused or reality orientation approach to care giving e.g. 'If Mrs NN is allowed to live in the past, she will have more opportunities to keep her identity' vs 'If Mrs NN is brought into the present she will have more opportunities to keep her identity'. This questionnaire has been piloted on registered nurses during its development (Normann *et al.*, 1999) but has not been widely validated or factor analysed though it was felt to be ecologically relevant to exploring person centred care orientation in the current study.

2.4.3 Procedure

In weeks one, eight and twelve, participants were asked to complete questionnaire booklets detailing the outcome measures in the following order: 1) GRAS, 2) Normann *et al.* (1999) attitude questionnaire, 3)ADQ, 4) MBI, 5) KIMS, with the whole set of questionnaires taking 40-50 minutes to complete. Participants were asked to bring these completed questionnaires to the first group session and to also complete practice diaries which they brought to the session each week (See Appendix 4).

Participants were informed that they were 'the experts' on their own clinical practice and mindfulness experiences and would not be 'told' during the course of sessions how to apply mindfulness clinically. The aim of the research was instead to elicit their reflections and ideas about the effects of mindfulness on clinical thinking and the potential clinical application (or lack thereof) of mindfulness to working with people with dementia.

The complete set of questionnaires were administered prior to the start of the intervention again at the end of the intervention in week eight and at one month follow-up in order to accurately assess post intervention effects. Participants were additionally asked to complete the GRAS during weeks three and six of the intervention, to see if there was a graduated effect of course attendance on reflective behaviour. They were also asked to complete an end of course evaluation in week eight that were adapted from materials used in the Doing Well pilot (McCollam *et al.*, 2006) (see Appendix 4) in order to gain further feedback on participant experiences of the course process and perceived advantages or disadvantages of taking part.

2.4.4 Focus Group Evaluation

After week eight of the intervention participants were invited to take part in a focus group session where they were asked to discuss their experiences of the course and experiences or reflections about using mindfulness in work situations. A focus group format was selected with the original intention of generating multidisciplinary discussions about mindfulness and its potential applications to dementia care giving. This form of qualitative data collection has the advantage of exploring ideas within the group setting that can be challenged or validated by other participants and therefore encourages participants to justify an individual position (Litosseliti, 2005). This mode of analysis was also felt to be an ecologically valid method for exploring staff attitudes within the context of 'group based' healthcare working and on the basis that working participants were already known to each other via the intervention (Kitzinger, 1995). Participants had already spent up to 20 hours together as a group and had developed a mature group dynamic within the context of the eight week course that sometimes included a degree of personal disclosure.

2.4.5 Focus group procedure

In order to standardise the focus group process to some degree, facilitators were asked to give the same participant questions and adhere to the focus group guide (see

Appendix 5). The focus group guide adopted a semi-structured interview approach focused on the *process* of reflective practice, incorporating flexibility to elaborate and open up discussion using structured prompts. Audio and video recordings of each session were made with a view to accurately transcribing focus group data afterwards. The investigator was not present during focus group recordings, with a view to increasing the objectivity of this aspect of the process and avoiding additional bias during data collection.

The following focus group questions were asked with a view to eliciting information about the course and reflections about work situations:

1) What effects (if any) do you feel that mindfulness training has had on your day to day life?

2) How do you feel that mindfulness training has affected the way that you relate to people with dementia and their families?

3) During what work related situations (if any) were you able to use mindfulness techniques or ideas from this course?

4) In what ways (if any) has mindfulness affected the way that you think about your job?

5) How do you think that ideas from mindfulness could be applied to dementia care?

Four focus group sessions took place in total, one of which was held at the end of group 1, two after group 2 and one after group 3. Due to pragmatic constraints of time and facilitator availability, it was not possible to get the same facilitator for all focus group sessions partly since the number of intervention groups had to be increased to facilitate recruitment. The first and third sessions were conducted by a counselling psychologist with experience of working with people with dementia, the second by a palliative care consultant with experience of mindfulness teaching and the fourth group by a researcher with experience of qualitative methodologies (one of the thesis supervisors, R.P.).

2.5 Qualitative Methodology

2.5.1 Grounded Theory Approach

Thematic analyses of the focus group data were carried out based on a social constructivist grounded theory approach (Charmaz, 1995, 2006). The grounded theory approach to qualitative analysis was originally conceptualised by Glaser and Strauss (Glaser & Strauss, 1967) with the aim of developing a systematic method to transform data into new theory, within the specific context that they occur. As such it is therefore crucial for the developing theory to be grounded in the data itself during an inductive process whereby comparative conversations occur between the collection of data and development of categorical themes (Willig, 2001). A grounded theory framework was adopted rather than an interpretive phenomenological approach for the purposes of developing an explanatory and (to some degree) conceptual account of intervention effects within the context of NHS dementia care-giving. It was also felt that a grounded theory approach and collection of quantitative data would act as suitable cross validation approaches in the context of the key study questions. Since analytic categories were not pursued to theoretical saturation (i.e. by successive interviews or focus groups to elaborate theory) these data are probably most akin to 'abbreviated' more descriptive forms of grounded theory (Charmaz, 2006).

The social constructivist approach to grounded theory acknowledges what the investigator themselves 'brings' to the process of the analyses and makes the assumption that the investigator not only observes but actively 'constructs' the data (Charmaz, 2003). Thus the investigator gives their own (of possibly several) interpretations of the data, influenced by the context of the research and the various social and individual factors impacting on their own thinking process. The social constructivist version of grounded theory presumes a significant degree of *reflexivity* on the part of the investigator and essentially falls within a more interpretive approach to theory generation where one seeks to understand phenomena rather than develop a falsifiable and empirically testable theory in the positivist tradition (Willig, 2001).

A social constructivist approach was especially relevant to meaning making within the current study where the investigator both facilitated and experimentally evaluated the intervention. Within a social constructivist framework these experiences feed into each other in a manner that would potentially strengthen data interpretation and a sense of the social context in which the data is embedded.

The current study addressed criteria related to methodological quality in grounded theory by taking a number of steps that included: grounding the theory in the data itself, maintaining a reflexive stance towards the discussion of deviant cases and focusing categories on aspects of process (Charmaz, 1995; Henwood & Pidgeon, 2003). Supervisor evaluation in relation to the analytic process and subsequent drafting of the emergent descriptive framework was also sought in the interests of promoting validity and the development of an internally coherent explanation of the data. In the context of the current project, thematic categories emerged directly from the data rather than an analytical approach driven by top down theoretical codes (Boyatzis, 1998). In order to facilitate a reflexive stance the investigator maintained a reflective diary during the research process, supervision records of reflective dialogues with others and elaborated memos during the analytic process.

2.5.2 Analysis of the focus group data

Analysis began with listening to focus group recordings and the re-reading of focus group transcripts for emergent ideas and process themes. Following word for word transcription, all data was imported into NVivo 8 software (QSR International Pty Ltd, 2008). Participants were anonymised through the use of codes for participants and intervention groups. Units of information ranging between a few words of text to fragments of conversation between focus group participants were then systematically assigned to initial themes based on the topics that emerged during a sequential analysis of each consecutive focus group. A memo writing process then followed during which emergent categories were scrutinised in more detail and specifically clarified as individual themes. The sense making process at this stage was being discussed and monitored during the course of individual supervision sessions with RP, in parallel to a critical analysis of the developing themes and the relationships

between them, resulting in some further re-coding and the development of new codes.

As this process of reflection and recoding continued, super ordinate themes began to emerge from the amalgamation of existing categories which were recorded and evaluated in a format that explicitly interlinked super ordinate themes to relevant participant quotes. At this stage the investigator asked RP to explicitly review the sense making process by comparing the initial memos to the original transcript and the super ordinate themes that had developed. The investigator also sought the comments of a mindfulness practitioner (NR) to explore whether participant testimony had an authentic quality in the context of his experience in delivering mindfulness intervention. In addition to this external review process it may have been relevant at this stage to also contact prior participants to evaluate the authenticity of emergent themes, however the investigator opted not to do so on the basis that participants had already reached the limits of participation, having submitted numerous qualitative and quantitative pieces of data. Having sought outside opinion from supervisors to enhance robustness and rigour the investigator then formally stated the super ordinate and overarching themes described in the results. In the interests of promoting reflective practice and a reflexive approach to the data analyses the next section details some of the reflective components of the research process, consistent within a social constructionist approach to interpreting the data.

2.5.3 Reflective Practice

This section addresses certain issues of personal reflexivity (what *I* brought to the research) and epistemological reflexivity (how the research question may have been *constructed by the methods*) within the health service *context* of the research, consistent with a social constructivist and/or interpretative analytic stance (Willig, 2001). My reflections about the mindfulness group and research processes were facilitated by the use of a reflective diary and a series of reflective conversations with supervisors and colleagues (being careful to preserve the anonymity of participants) consistent with the reflective 'dialogue' described by Schon (1983).

Conducting a qualitative analysis using grounded theory methods consisted of uncharted new territory that brought a refreshing contrast to the hypothetic-deductive methods I had learned during postgraduate research training. I also brought my own experience as a meditator to thinking about mindfulness practice as well as my nascent development as a clinician. Many reflections in the early research process related to the selection of optimal methods, where I initially focused on developing an *objective* procedure. Later in the research process it became obvious that some of these steps made it more difficult to conduct actual grounded theory analysis e.g. the standardised interview format had less flexibility to elaborate categories in the later stage of data collection.

Participant recruitment was probably the most challenging phase of the project and contrasted to previous experiences described by colleagues from adult mental health settings where the staff demand for mindfulness training was high. I gradually began to realise that the older adult service *context* was very different and had had comparatively little exposure to cognitive behavioural therapy and other approaches to psychological intervention. Therefore training in mindfulness approaches may have been an improbable leap for some of the services that I visited during the recruitment phase. I also reflected that I was not currently working in older adult services and therefore not a 'member of the team' in the manner that had facilitated past research experiences. It became clear that managerial support was often the deciding factor in recruitment, especially among ward based clinicians who would be away from their services at regular intervals during course attendance without the provision of agency back fill.

As the intervention continued, thoughts about the conflicts between being a researcher and group facilitator often dominated my reflections. Some aspects of the research process such as recruitment felt rather 'striving' in group sessions and a stance of scientific objectivity and mindful 'non-attachment' was also a challenge in the context of my degree of involvement in both the group process and its evaluation. I later reflected that these conflicts would be best addressed by separating these roles though in some ways it was helpful to simultaneously observe the group and research processes during intervention piloting.

Through supervision and discussion with colleagues I gradually learned to develop a teaching style and actively step back from feelings of responsibility about the quality of the intervention, whether it met participant expectations and where participants chose to take it. The first intervention group expressed significant frustration in relation to the experiential nature of the intervention, feeling that they were *already* mindful and that I was teaching them something they knew about clinical practice. I initially noticed myself defending against these comments and forwarding further intervention information after research completion, concerned by the prospect of misunderstanding or misrepresentation of the research to others. Doubts about the research enterprise emerged in the face of these obstacles and subsequent reflection and discussion with mindfulness researchers slowly reaffirmed the belief that the research question was still worth pursuing.

On further reflection about these initial dynamics and discussions with colleagues, (including a clinician who facilitated staff reflection groups), I came to realise that participants *had* indeed taken 'something' from the course and that it was important to maintain an open and neutral facilitator stance. With some relief I also discovered that this group process of boundary testing and deconstruction was known as *storming* and was a common psychological group process that might subsequently hail the development of a consolidated group identity (e.g.Yalom & Leszcz, 2005). It also became clear that there was a political context to some group members' comments following a separate and apparently 'psychology led' training linked to the service re-design which appeared to have threatened the professional identity of some participants. Despite (and possibly because of) this challenging group context, participants from the first group ultimately developed some thought provoking reflective commentaries about the nature of mindfulness in dementia settings.

Having rushed slightly to gather intervention materials for the first group to proceed with the research timescale, I released that it was now important to consciously adopt a more reflective stance to the group process. Much of the allocated study time devoted to subsequent intervention groups involved carefully setting the scene for each session with personal practice and the preparation of weekly materials in a manner to promote optimal group containment. It also involved writing detailed

reflective entries about weekly group sessions and it is likely that my clinical practice developed or improved during this phase of facilitator development.

I wondered whether the physical context of the group affected the intervention experience since the first and third groups were close to daily work settings for most participants, while the second group took place at a site out with older adult services. The interpersonal dynamics of each group also varied in important ways. The first and third group sessions mostly consisted of small gatherings of four to six participants who were known to each other professionally while the second group sessions were larger and had few previous dealings with each other. The second group had a relaxed and harmonious flow that was more consistent with my previous intervention expectations and a culture of regular mindfulness practice emerged during early sessions in contrast to the other participant groups. I therefore conjectured whether the degree of intervention adherence and or group conformity processes (e.g. Asch 1955) might be having some differential impact on intervention outcome.

The final group was held among members of the same service team and a substantial number of participants left the group in its early stages leading me to wonder if there was a group think process at work or if there had been pressure from peers to initially join the study. Interestingly there was a high degree of management 'buy in' to the third intervention group to the extent that participants were actively encouraged to devote some of their clinical time to personal mindfulness practice.

These different experiences led me to ponder the relevance of individual 'group effects' in the intervention process (Imel *et al.*, 2008) and the extent to which my experience and developing style as a facilitator might be influencing experimental outcome (Allen *et al.*, 2006). I also wondered to what extent whether the professional 'intentions' and expectations of the study sample were influencing participation.

Adopting a grounded theory stance towards the range of participant responses and 'negative cases' that emerged from data analyses became an interesting approach for evaluating intervention feasibility. In later stages of the analyses I returned to the question of what the study was measuring and reflected that individual participant interview and phenomenological analyses might have captured some aspects of

mindfulness practice more explicitly. With more in depth reading of the literature I noted that both mindfulness and reflective practice were still within the early stages of development and that the study had taken a rather constrained snapshot of the processes at work. The results section will now discuss the outcomes of this snapshot in further detail.

3. Results

3.1 Qualitative Analysis

Table 2: Table illustrating superordinate and subordinate themes

Main Themes	Sub-themes
1. Experiencing Mindfulness Practice	Experiencing specific practices Developing a practice Mindfulness Qualities
2. Wellbeing Benefits	Managing Stress Grounding Self nurturing Enhanced quality of relationships
3. Awareness	Noticing emotions Noticing thoughts Self awareness
4. Thinking about dementia	'The moment' in dementia Reflections about the dementia experience
5. Thinking about the mindfulness course	Reflecting on the course No effect Hard to grasp
6. Work Applications	We do this anyway How do we apply it ? Managing difficult situations Applying mindfulness

Four focus groups were held, during which a total of 18 participants were interviewed in total. Five participants attended focus group 1, two attended focus group 2, five attended group 3 and six attended focus group 3. Two participants from the second mindfulness course who completed the intervention were unable to attend focus group sessions on the day (due to child illness and patient call-out), therefore focus session 2 consisted of only two participants for pragmatic reasons. Focus group 3 consisted of four intervention completers and two participants who had dropped out of the intervention but were still prepared to provide course feedback and discuss their experiences. This additional input thus provided further feedback about intervention limitations. Sub-themes for each focus session and sample coding stripes are given in Appendix 5. To protect the identity of participants, quotes are labelled with the letter C (for clinician) and numbers are used to illustrate when more than one person is talking. It was not possible to provide further details about participants without compromising their anonymity due to the size and nature of the groups.

The overriding theme that emerged from this analysis was that *mindfulness practice stimulated an awareness of and some reflection on personal experience* which varied between individuals in its relevance to personal and work related situations. Six superordinate themes were identified: *experiencing mindfulness practice, wellbeing benefits, developing awareness, thinking about dementia, thinking about the course and applying mindfulness at work.* These six themes and the sub-themes from which they emerged are illustrated in Table 2 and will now be discussed in more detail.

3.1.1 Experiencing mindfulness practice

Participants spent a large portion of the focus group meeting discussing their experiences of specific mindfulness practices and what they noticed during them. Participants also talked about the ups and downs of developing a practice and situations where mindfulness qualities became relevant in daily life. I will now go on to describe the sub-themes of: *experiencing specific practices, developing a practice and mindfulness qualities.*

i)Experiencing specific practices

Several participants reported that they were becoming much more aware of their breathing during the mindfulness course and practice of mindfulness of the breath, feeling that this was central to their learning.

One participant felt that this increased breath awareness had acted as a reminder of the clinical applications of breath control to patients experiencing anxiety. Another individual reported using breath awareness to manage feelings of nausea during a night shift. Several participants reported becoming more aware of their breathing during everyday situations including patient consultations. Many participants found the three-minute breathing space particularly relevant in work situations as a way of grounding themselves and prioritising attention:

> *C: I think that breathing space always comes into it. Erm, just that, that moment before, before the ward round or before visiting time. Before a mealtime. Before those times in the day that I know are going to be really busy and my head's going to be all over the place. Just taking one moment and, and thinking this is what's happening and this is all I need to focus on. And that's the main thing*

Participants reported experiencing preferences for different practices e.g. preferring the breathing scan to the body scan practice or vice versa. For some individuals, the mindful movement practices resonated in particular as an active way of engaging with the body.

The silent day retreat made a strong impression on many participants and some reported that this was the most important session of the course for them. Some aspects of the silent day were demanding for participants as they struggled with the tension of remaining silent in the presence of other people. Participants expressed that the day was less challenging than their expectations and that there had been small moments of self discovery over the day and during the experience of silence. Sensory experiences became particularly prominent for participants during the silent

session, particularly during an outdoor practice after several sessions of formal meditation:

> *C1:Erm sort of 'a meal time' and also the whole sort of, the length we were walking and the nature aspect of just absorbing and using all the senses.*

> *C2: It was input to the senses.*

> *C1: Being, just being together in that moment for that long, long moment (laughs), it was comforting, it was pleasant. Erm, and for me the going outside was just whoosh, just all of a sudden my senses just went wild and I, er, I mean I love nature, I love getting outside. Er so, I was – I was wanting to shout out…. But didn't. But er it was nice, there was an explosion of the senses all of a sudden and then the comfort went because we all went our separate ways*

ii) Developing a practice

Participants also discussed the process of developing a regular mindfulness practice and the challenges they encountered. There were some comments related to finding time for practice around other personal and professional commitments and occasional feelings of guilt and self judgement where it was difficult to practice. Participants remarked that it was helpful to set aside a regular time for mindfulness practice and one individual described great enjoyment from regularly making the space for personal practice.

One participant felt that a commitment to mindfulness practice was not realistically achievable for them while some participants felt that they might have gained more from the course if they had practiced more frequently. Others actively looked forward to sessions but had some concerns about maintaining an ongoing practice without the support of the group environment.

There was some reflection about how a personal practice might emerge via a combination of informal and formal approaches as the individual discovered the practices that best suited their needs. Many participants commented on finding

informal mindfulness practice e.g. breathing spaces, mindfulness of everyday tasks easier to integrate into their lives than *formal* practices (such as body scan or sitting meditation), since these practices could be incorporated into any daily activity.

One participant described bringing informal practice to a work situation by bringing mindful awareness to the process of changing a dressing on the ward, feeling that it had facilitated a meaningful connection with the patient. Another participant who felt that the mindfulness course had limited professional benefit for her overall described feeling intrigued by an informal practice where she brought mindful awareness to the routine activity of washing her feet:

> *C: I guess one of the first kind of homework practices that we had was to chose something that we did regularly and to do that mindfully so I chose washing of my feet mindfully - it was a revelation. And I'm still doing it, I'm really and my feet are loving it really its, it's it's just that sort of intensity of sensation erm which and I , I don't know if it has, it feels as though my feet have got more sensitive over the weeks. And as I continue to wash them mindfully. I don't know if they have, but it's certainly what it feels like and that's very lovely. Although don't come near them coz they're more sensitive now....*

iii) Mindfulness Qualities

In both MBSR and MBCT approaches, the cultivation of specific mindfulness qualities is an active component of the learning process. Jon Kabat-Zinn refers to a series of core mindfulness qualities that form the foundation of mindfulness practice, namely the concepts of: beginner's mind, non-striving, acceptance, kindness, non-judging, trust and letting go (Kabat-Zinn, 1994). These qualities are actively 'experienced' during the course of practice e.g. adopting a non-judgemental stance to the thoughts that one might become aware of during a mindful breathing practice. Participants described the process of becoming aware of these qualities during their practice and everyday life.

The mindfulness quality of acceptance seemed to be liberating for some participants, who grew more accepting of the idea that they might not be able 'to fix' all things or

please all parties in a given clinical situation. One clinician vividly described fostering feelings of acceptance towards her waiting list:

> *C: Coz I'm not focusing all that negative energy and blaming the people that were referring to me in the first place. When, you know they're just....That's my job to accept referrals. It's not, it's not, yes....It was wasted negativity that.....and I couldn't really understand. What...I think that I can understand now more that, that feeling, that anxiety associated with opening the envelope and recognising that form. And feeling this....huh... suck in of air that can I manage this? And now, it's much more of an acceptance y'know, a willingness to accept if I can't.*

Non-judgement was a thought provoking idea for some participants in the context of reacting to patients in clinical scenarios, including one clinician who thought that mindfulness skills might have helped him to identify an unhelpful bias towards the patient during a consultation. Another participant sometimes described struggling with the quality of non-judgment as she became increasingly aware of the negative judgements that she sometimes made about herself. Other participants described developing a greater sense of trust in themselves during mindfulness practice and one participant also reflected on the potential of mindfulness to disengage healthcare workers from states of 'automatic pilot' that could emerge within busy clinical environments.

Non-striving was an idea that many participants found challenging yet helpful, since it challenged the goal oriented lifestyle that they had previously experienced:

> *C: Yeah, I think the idea of erm, the nonstriving idea I think is really, really interesting. I don't think I'd ever, it had ever occurred to me not to be aiming for something and just to actually 'be' and it's quite, I spose it makes a lot of sense ...If obviously I've got a bit more energy and things and it's not that constant battle.*

iv) Summary

These themes indicate that participants had been exploring mindfulness practices and ideas in a variety of situations, making new discoveries about themselves and the practice. Developing a personal practice appeared to be a challenging but rewarding process. Some mindfulness qualities seemed to particularly resonate with the experience of being a health professional in a busy environment and appeared to facilitate new modes of adaptation. Such comments are compatible with some of the notions of mindfulness in reflective practice described by Epstein and colleagues such as bringing non-judgemental awareness and beginner's mind to client situations (Epstein, 1999; Epstein, 2003).

3.1. 2 Wellbeing benefits

Participants reported a range of wellbeing benefits related to mindfulness practice and this section outlines the associated sub themes of *managing stress, grounding, self-nurturing and enhanced quality of relationships.*

i) Managing stress

Many participants reported using mindfulness to manage feelings of stress in both work and personal situations and described learning to 'step back' from some of the emotions that might be present. One participant felt for example that mindfulness practice was helping her to adapt to in-service changes and become less distressed by the limitations of a new working environment. Another participant reported using mindfulness to calm herself during exposure to heights on a skiing trip while another individual even used mindful awareness as a relaxation strategy whilst driving between patient visits:

> *C: Yes – when I'm driving. Just very aware – I find it very helpful makes me a better driver – calm. Everything seems like slow motion - it's great ! Yes – I use that a lot. It kinda detaches the emotions I feel. And I just – I feel calm. People cut in front of me and I just ....adjust*

ii) Grounding

Some participants described using mindfulness practice as a strategy for becoming grounded in everyday situations or for getting in touch with themselves over the course of the day. Participants also described using mindfulness techniques to centre themselves between appointments and one clinician described consciously building moments into the day where they would be able to ground themselves. Some participants described using mindfulness to ground themselves in the context of others' distress:

> C: *But I've found this more useful in trying to calm, not calm myself but ground myself when I'm, when I'm dealing with very upset relatives I think ...or people who you know, feel that I'm the only thing between them and their mum just going back home to some chaos again and trying to sort of get that right so I think emotions kind of run high. And to-to be able to keep calm in the middle of that and respond.I think I was always able to do it professionally but I think it now I feel 'calmer in me' when I'm doing it as well.*

iii) Self nurturing

Some participants commented on self nurturing aspects of the mindfulness course and commented on valuing a brief break from clinical duties to attend to personal wellbeing needs. One participant described developing a greater awareness of the need to nourish herself.

> C: *I spose it's for me it's brought up the things that I'm not doing that would be nourishing things. And that, that's a reminder...erm of the pace of life and the stresses of life and the need to nourish yourself*

Another participant reflected that incorporating mindfulness into their day would be might be a helpful adjunct to their busy clinical lifestyle. Some others in contrast felt that mindfulness had a more pronounced impact on personal rather than professional functioning, viewing these life domains to be separate from each other.

There were some reports of feeling more energised and/or focused after a meditation practice. One participant felt that she had been feeling more alert since participation whilst another commented that she had more energy at the end of shifts than had been the case previously:

> C: *Erm Say, when I go for my breaks, um, I'm able to have the breath space whereby...after that I'll just feel this energetic coming back to me and I no longer feel, like very down after a long day. Because I actually do long days erm, so meditation has actually helped me in terms of my strength.*

iv) Enhanced quality of relationships

A number of participants became aware that mindfulness training might be impacting on the way they were interacting with others, though the process was difficult to define. One participant reported that her husband had commented that she seemed less bothered by everyday stresses at home and another group member's daughter felt that the relationship with her mother had been improving since the start of the mindfulness course. Another clinician described a clinical visit where she felt that her communication with a client and caregiver had been enhanced by mindful awareness.

One participant described colleagues commenting on changes in behaviour and she felt that she had become more relaxed and easier to interact with both at home and at work:

> C: *Erm, but people at work have, have actually made comments on how I've been throughout shifts. They feel that I've been more relaxed, that I've been easier to work with. I'm still untidy and they'd like me to change that..Erm, but also at home, members of the family have seen a positive change in the way that I react with them..The way that I appear in myself...Erm, so I think that I'm just still gaining that awareness for me and taking that on board. But that's been really positive.*

v) Summary

Course participation appeared to offer a range of wellbeing benefits to participants that included improved management of stress and in particular the ability to ground oneself across various situations. Mindfulness practice also seemed to promote an aspect of clinician self care as participants grew to value opportunities to cultivate personal wellbeing both inside and outside the office. Practice also appeared to have a beneficial effect on personal and professional relationships, consistent with previous findings suggesting that mindfulness may facilitate some forms of interpersonal connection (Grepmair *et al.*, 2007; Singh *et al.*, 2004).

3.1.3 Awareness

Awareness based themes emerged from the focus group data namely *noticing thoughts*, *noticing emotions* and a growing sense of *self awareness*. These will now be discussed in more detail.

i) Noticing emotions

Some participants were aware of reacting differently and/or being more aware of emotional states including their direct physical manifestations to the extent that they were more easily able to tolerate the presence of difficult emotions. One participant noticed herself learning to deal with angry mood states more effectively as she learned to 'breathe with' and become present with this emotion:

> *C:And a couple of times I've thought, you know, breathe and think about it . And know although you're still angry, you're kinda erm quieter about it I suppose I don't know.You know the feeling's still there, but ...I dunno, you just deal with it better I suppose*

Some participants seemed to develop a more detailed metacognitive awareness of unhelpful patterns relating to emotions. One participant noticed the build up of an 'anxiety' cycle over the day as she worried about how others perceived her at work and learned to observe this through her practice. Another participant became aware

of the judgements that interweaved with and perhaps amplified her emotional distress:

> *C: But I think one, one Eureka moment for me was the session that we had on the emotions and the difficult emotions and how I became really aware of the fact for the first time how erm, I do layer on top of the-the-the unpleasant experience then all the judgements and the kind of reactions to what's happened, which then pile on top and make it more difficult to manage. And it, it was...it felt really quite liberating to..to kind of feel that actually you could <u>unlayer</u> it a bit...*

This enhanced awareness of emotional states was not always comfortable for participants and one person elected to leave the study because mindfulness practice had uncovered some emotions she did not feel ready to address. Another participant felt that she was generally calm and wondered whether the practice was more useful to people under stress. A further participant noticed the initial 'beginnings' of an emotional awareness process and wondered if she might notice other changes with further mindfulness practice. One clinician felt that an enhanced awareness of her own emotions had perhaps allowed her to be more connected to others during client work:

> *C1: I think it, I think it gives you a bit more courage as well to...*
>
> *C2: Yeah*
>
> *C1: to kind of 'be more with' the people that*
>
> *C2: I'd agree with that – yeah*
>
> *C1: you're caring for/looking after. Coz I think before this course I was kind of 'keeping a certain distance' because I don't want to, 'to feel' too much*

ii) Noticing thoughts

Mindfulness practice appeared to foster a greater awareness of internal thinking processes among most course participants. In particular, participants became aware of the mind's tendency to 'wander' away from meditation and other focused activities:

> *C1: I've been reminded how distractible I am*

C2: Absolutely

C1: And it varies so much from the time of day whenever you're doing exercises at home or whatever. Erm - whether it's been a a busy day or a nice quiet day, but, but my mind wanders all over the place and I have to keep on bringing it back on track. Er it's been a useful exercise from that point of view

One participant felt that their mind had perhaps been wandering less since the development of a meditation practice allowing her to focus more easily during conversations. Other participants described the ability to become able to 'stand back' from thoughts and 'doing modes' during meditation without necessarily needing to act on them:

C: Then there's an idea normally 'Oh, I should then...' 'How would I do that?' What plan will I make to do that?' And that you know then, when you're meditating a thought comes and you can let it go again without actually doing anything about it...

iii) Self awareness

Participants remarked on getting to know themselves better during the course of mindfulness practice. One participant became more aware of the desire to rush from task to task without breaks, while another clinician had actively decided to step back more regularly to think about clinical situations. Someone else wondered if mindful self awareness might impact upon communication with others, both by how you might think about a person and how you might consider your reactions to another person. Another participant wondered if mindful awareness of their own feelings might be particularly beneficial in situations where they were using breathing techniques with emotionally distressed patients.

The potential benefits of self awareness were not just restricted to clinical or work settings, and for some benefits also extended to home or personal life too. One participant felt that she had gained little benefit from the course overall but had perhaps become more aware of the things that were going well in her life. Another individual described a sense of empowerment and increased self knowledge and wondered if this might facilitate helpful life changes over time.

This increased sense of self awareness was not always confortable and some participants described an enhanced awareness of areas of personal limitation and situations where they might not be as engaged as they would wish to be:

> *C1: I've just become more aware of kind of everything. It's sort of*
>
> *C2: Yeah*
>
> *C1: your, your failings...*
>
> *C2: That's the downside isn't it? Because I feel that, I'm not so much ok with it maybe or annoyed that I'm doing it differently....but I'm more 'aware' of it so,*
>
> *C1: Erm, I think I, I-I've become more...I realise that I'm 'not' being mindful. So hopefully within time I will be mindful...I'm mindful that I'm not mindful. Yeah it's really...I find it really hard working with it...*

iv) Summary

Participant comments related to awareness indicated that some individuals were cultivating an 'observing self' that was able to step back and actively watch affective and cognitive experiences, developing a heightened awareness of personal patterns (Epstein *et al.*, 2008; Segal *et al.*, 2001). This enhanced sense of self awareness could be a challenging process, though it could also open the door for beneficial personal development.

3.1.4 Thinking about dementia

Two particular areas of reflection emerged in relation to links between mindfulness and dementia, namely *'the moment' in dementia* and *reflections about the dementia experience.*

i) 'The moment' in dementia

There was considerable reflection about the moment by moment nature of dementia care and how that might parallel dimensions of mindfulness practice. Dilemmas related to reality orientation were also raised that may have been influenced by a questionnaire about this topic. Participants noted that people with dementia very

much live 'in the moment' and that present moment experience assumed a special significance for this patient group:

> C: So I think that one of the big things from mindfulness one of the nebulous bits and pieces was the ability to really be in the moment and to..to hear the sounds and to smell the smells and to you know hopefully nice ones but…you know erm, but to be in the moment. And so you know coz somebody with dementia who can't grasp so clearly the bits of the past that might create a stable past or look ahead to the future. They're very much in that moment bit…So it's making the moment as fantastic as you possibly can all the time…Which if that involves going along with the fact that we're all on an ocean liner and wow, look at that over there, you know it's well great do it, because that makes that moment special and nice for that person. So, does, does that seem reasonable ?

One participant further pointed out that moment by moment sensory experiences could be shared by everyone, whether or not they had dementia:

> C1: And I think it was just being in the moment of..Having something like that happening. I could really see this kind of stuff applied to that – that yeah everyone's confused, nobody know's what day it is and stuff, but we can
>
> C2: What does it matter ?
>
> C1: All appreciate the same piece of music
>
> C2: Yeah
>
> C1: Or we can all appreciate the same painting..Or, or – I dunno. That kind of part of it, to me it's being in the moment and taking pleasure from something that everyone would be equal on.. because everyone – y;know

Some participants reflected that mindfulness related ideas had influenced their thoughts about reminiscence therapy and that the enactment of events from the past might at times reflect 'present moment' patient needs. One clinician also felt that there were parallels between mindfulness and person centred approaches to dementia care which emphasises the importance of 'being present' with the patient according to where they might be oriented at specific points in time.

One clinician described a heightened awareness of shared person to person moments with people with dementia since participating in the course, though she felt that they had been present prior to developing a mindfulness practice. She describes this process of attunement with a patient with severe dementia and how this might become detached from outside distractions and notions of time:

> *C1: I think I would kind of echo your sentiments there because...It feels like entering into that moment that might be a mindful moment for ourselves when you're talking about someone with more advanced dementia particularly the client group we're working with just now,*
>
> *C2: Um*
>
> *C1: Your moment becomes their moment and it's a shared moment.*
>
> *C2: And that is to the exclusion of everything else going on in the room. Often not always, and it depends on what else is going on around in the room but often we will try and create that space for someone whether it's by changing the environment or taking them to a different quieter space or whatever...and it does feel like you're kind of suspending time all around you....*

Several group reflections revolved around the impact of reality orientation on people with dementia in particular the question of whether to orient someone to the current moment. Some clinicians were very clear that they felt that this would be an unhelpful process, feeling that it would be most helpful to 'go along' with whatever moment the person currently appeared to be in. Others noted that it might be helpful to make individual decisions about orienting the patient depending on contextual variables such as if the person might come to harm or become distressed as a result of the time orientation, noting that carers often had to make quick decisions in these situations:

> *C1: I guess that's appropriate y'know...Like the scenario that you said earlier on where the woman said, Oh - I'm looking for my mum and ok, you didnae tell her her mum's dead, she's not here, but..d'you know ?.You've got maybe the woman looking for her husband and you say, Oh well, he's not here, 'Oh well I'll just get my coat and I'm away...and*

C2: That's it though. It's just, it's just so individual. It is, it's very individual..

C1: Do you know do you know what I mean ? So you've just got to react so confidently to that...So it might be....You know...you can't have everyone wandering the streets looking for her. You know, so you...You know, so you..

ii) Reflections about the dementia experience

Participants offered several reflections about where mindfulness related ideas might intermingle with the world of a person with dementia. One clinician reflected that reassurance might not always be the appropriate response to a confused patient and that it might at times be more important to listen to the person and observe the situation at hand:

> *C: But just little things like d'you know if somebody's confused or they're wanting to leave the ward or things like that. Erm – you know, just taking a step back and asking them where they think they are and just listening to them rather than, I don't know..You tend jump in at times to try and reassure them...but that's not always the best way, because that's not their reality.*

Other participants reflected that patients with dementia might be more likely to respond to nonverbal or emotional cues from the caregiver and that this might be a useful focus for mindful awareness:

> *C1: Our body where it sits. What we're ...and, and surely those skills, developing those skills is going to help us identify those things in other people . More subtle things that we wouldn't necessarily identify and we all know working with people with dementia's like ..The-the communication signals of a lot of our nonverbal patients are very very subtle and sometimes you can trigger them off with one word and you can set them in a flow of speech or you can get them remembering things with just the right trigger*
>
> *C2: Yeah*
>
> *C1: and it's often finding that trigger that is such a battle...*

> *C2: I feel, I think that's quite key actually. And with being aware of your own emotions coz with dementia patients they'll, they'll pick up on those emotions*

One participant reflected on the experience of mindful eating during the silent day and the potential for patients to have rushed meals at set times, without opportunities to savour and explore their food. For another participant the silent retreat day, sparked thoughts about the world of someone with dementia, wondering if that person might experience a sense of detachment in the hospital environment:

> *C1: And that strange feeling of wandering through the hospital.....And the full day...Wandering through the hospital like a ghost or feeling detached. Or trying to feel detached...or a bit of both really.*
>
> *C2: Um*
>
> *C1: And wondering if that was the feeling that somebody with dementia has.*

iii) Summary

On being asked to elaborate areas of convergence between mindfulness and dementia caregiving, participants appeared to be particularly struck by the transient, present moment qualities of mindfulness and the momentary conceptualisations of time among people with dementia. Elements of the course also seemed to clarify or facilitate a degree of patient empathy as staff drew parallels between their own moment by moment experiences and the world of a person with dementia. A person with dementia may construct themselves on the bases of a series of moments, where they are heavily influenced by the cues of others (Surr, 2006) and some participants drew connections between mindfulness and elements of person centred dementia care and reminiscence therapy. Clinicians particularly reflected on the potential utility of mindful awareness in attuning to the needs and communications of patients.

3.1.5. Thinking about the mindfulness course

Three key sub-themes emerged when participants were asked to think about the course, namely, *reflecting on the course, no effect and hard to grasp*. This section will now consider each of these areas individually.

i) Reflecting on the course

Several participants gave positive feedback about the course feeling that there had been personal and/or professional benefits to participation. One clinician recommended the course to staff working in elderly care feeling that it would be a helpful stress management tool for this setting:

> *C: So d'you know to get the best out of staff that certainly want to work in care of the elderly, erm, they should be encouraged to do things like this . Coz it can be very stressful. It's a hard area to work in erm, so it has been good to have the opportunity (eventually when it got sorted out) to come and do the mindfulness training and yes, erm, I'd advise other people to do it as well...just to.. chill out a bit...*

Another participant also expressed very positive sentiments about the course, feeling that she had embarked on the beginning of a new developmental process, while another participant commented that personally difficult events could occur over the 8-week period that might make course participation more challenging.

Some participants felt that a greater emphasis on communication and possibly compassion practices could have increased the relevance of the course to clinical working. Some participants expressed mixed sentiments about the communications exercise, with some participants feeling sceptical about the merits of reflecting back 'without' offering reassurance when this might be their natural tendency.

One participant found course participation unexpectedly difficult and described different experiences with different practices, in some ways relishing this challenge.

Another participant who later opted to drop out of the study felt that their expectations had not been met and that they had not perhaps developed the enhanced awareness of patient related scenarios that she had hoped for:

> *C1: I think I maybe thought my...this is not knowing about it and what I thought it was going to be meant to be...was. So you can pick up on your body and your cues as to how you're dealing with a situation and maybe adapt that so that you're not imposing your feelings onto the person and you're able to get their interaction ...without you influencing their, the way they're reacting to you...Does that make sense ?*
>
> *C2: That sounds good*
>
> *C1: So that's what I hoped it was going to be and I'm not quite sure if that's been the case coz I can't honestly say that I have had a time working with, with patients that I've felt that I'm doing that, so...So I think that was what I hoped it was going to be about and not quite sure still if it was...*

A sense of group bonding was an important course component for many participants, who experienced the group aspect positively. This sense of togetherness was particularly prominent for some participants during the silent day retreat where a sense of belonging persisted in the absence of verbal communication.

The mindfulness course formed part of a research experience as well as an 8-week group process and group members sometimes discussed this. The majority of comments related to the Normann *et al.* (1999) questionnaire that required participants to make decisions about reality orientation and person centred approaches on the basis of a case vignette about a patient with severe dementia. Some participants expressed frustration with questionnaires feeling that they did not reflect the individual decision making and ambiguities of everyday care situations:

> *C1: And that was to do with the reality because there was certainly ....uh being asked to select between two of the*

C2: Glad you hadn't agreed with that too. Because there wasn't any obvious answer

C1: Oh, yes I wanted to slap the questionnaires!

C2: Yes, exactly.

C1: Because it, to me it very much depends on the person

One course participant felt that a discussion about reality orientation during a course session influenced her thinking about and perhaps validated her own clinical decision making not to use this approach. Another participant wondered whether the questionnaire rather than mindfulness practice per se may have led the group to think about on this topic and perhaps acted as a reflective tool in its own right. Overall participants stressed that decision making about reality orientation could also be related to knowledge of the individual patient and contextual variables:

C ...it depends on the whole situation. You know you could have 10 clients that, that you're dealing with. It just depends...There's..because once you get to know people really well you would maybe deal quite differently with one person to the another and I found the questions quite hard to answer as regards that, I have to say...you know

C2: And there's no black and white answers, when it comes to people with dementia is there? You've just got to adapt your approach...at that time I think

ii) No effect

A small number of participants felt that the mindfulness course had a minimal, or no effect on their personal or professional lives. One participant who decided to drop out prior to course completion commented that she had felt relatively sceptical from the beginning and discovered that the course did not suit her needs:

C: Well, you know I was a bit dubious about it at the beginning anyway and you know, to be honest...To give it a try, which, which I did and you know, I, no

dunno…Have to be honest and say I don't, I don't think it really was for
me….What more can I say ? You know..I just don't think it was for me

Another participant who completed the course remained ambivalent having not
noticed much of an effect, and wondered if the timing had been wrong for her to
experience maximum benefit. Some other clinicians felt that they had primarily
noticed an effect in personal rather than professional scenarios and felt that there had
not been any change in their clinical working.

One participant described persisting with the course and not experiencing a
difference in client working, with the proviso that there might be some slow process
at work somewhere:

C: And for me the course has been around personal stuff..erm it's not, it's not
been around the working with my clients so much em I've not particularly aware
of my breathing when I've been working with my folk. That's not… that for me
that's just not changed erm…whether it might I don't know…..Um I mean I still
feel that in terms of the mindfulness techniques and stuff I'm just getting…I'm
getting.., d'you know, I'm trying….D'you know, Whoah, I'm trying. And I'm
experiencing. But so it's a very slow..slow process. Em. So, I can't, I can't
honestly say that for me there's been any difference

iii) Hard to grasp

Some participants felt that there had been a beneficial effect and that something
certainly felt different, though they found this hard to define. One participant felt that
they had experienced positive benefit from mindfulness practice, but that
mindfulness was multifaceted and perhaps difficult to quantify in a precise manner.
Another participant reflected that some changes related to mindfulness practice
might be more apparent to others than the individual attending the course:

C1 It's like what I was saying that, that I haven't maybe noticed as much of a change as the people around me have noticed. So it's more something I'm giving out than something that I'm...

C2: Um

C1: Feeling inside.

Mindfulness practice is a highly experiential approach and it seems plausible that some course related experiences might be hard to articulate at a verbal level:

C1: I'm doing it better now, I don't actually know why but I am doing it better now and I didn't know what I was missing when I wasn't doing this course. Does that make sense ?

C2 It does coz I think there are very subtle changes

C3: Yes

C2: and I don't think we're necessarily aware of what those subtle changes are um, and I just know that I feel different when I do things now.

iv) Summary

Participants' reflections about the overall course highlighted areas of satisfaction and dissatisfaction, as well as new questions and experiences that were still being appraised. Mindfulness practice seemed to suit the needs of some participants better than others. Some comments point to the dilemmas of delivering an 'experiential' course format to participants who may have had varying degrees of exposure to reflective practice and non-didactic modes of professional training. This feedback may also point to the need for increased emphasis on particular elements of the course in a group aimed at health professionals and/or some didactic or reflective content related to the potential links between mindfulness and caregiving processes, since participants did not always make these discoveries individually. The changes that occurred during mindfulness practice were sometimes hard to quantify and the

possibility was raised that others might sometimes notice changes that the individual themselves was less aware of.

3.1.6 Work Applications

Four themes emerged where participants were asked to consider the work applications of mindfulness: *we do this anyway, managing difficult situations and applying mindfulness*. These sub-themes will now be discussed in more detail.

i) We do this anyway

Some participants felt that they were already mindful in their day to day clinical practice without taking part in the course and perhaps had not given it a name until now:

> *C: I'm going to stick my tuppence worth in here because I think erm several times during the course I mentioned that I feel that I do make that sort of connection and I am focused, ...it's not even focused on that person but I'm aware of what's happening all about and you mentioned as well --------- at the beginning. So I think there's aspects of mindfulness that we already do, we probably just haven't taken it, we've not formalised it*

Another clinician describes centring herself prior to meetings and feeling that her workplace already incorporated a pre-existing reflective process. During another focus discussion where a participant suggested using mindfulness techniques with informal dementia carers, another participant felt that there were already some mindfulness-like ideas that they applied to practice:

> *C1: But we've done – we do that...I mean we've always done that. It's just...no called mindfulness*
>
> *C2: That's right...*
>
> *C1: D'you know what I mean?*

C2: But I was meaning if they, if we could get them into doing the..3 minute…breathing and you know…doing the bits of relaxation. You know, I'm not saying that we should do a body scan, but…

Questions about reflection and applications to the workplace clearly touched on professional identity and the skills that some participants felt were already well developed such as adopting a person centred care orientation. In one discussion, some clinicians described feeling that they 'should' already be taking a mindful approach to patient care, though another participant made the point that mindfulness might foster concentrated connection in multitasking clinical situations. During a different focus discussion participants related that they already brought mindfulness to their work but felt restricted by organisational constraints, feeling that they would benefit from greater mindfulness at the managerial level.

As group discussions evolved, it became apparent that some participants felt that mindfulness training had increased awareness of or perhaps *reaffirmed* their clinical relating skills. One clinician training junior doctors found herself putting greater emphasis on reflecting back and maintaining clinical presence during clinical assessment following suicide attempts, though she had always viewed these skills to be important.

Another clinician felt that there had been a positive change in her personal communications, though she already knew that she had a high level of pre-existing clinical skill in this area:

C: Coz I find – I'm a, I'm a specialist in what I do and I, I, I'm a specialist in communication so I should… I should be able to do this with my eyes closed and my mouth shut and my hands tied behind my back but I, I know that even though I've studied communication for many many years, my communication has changed because of a mindful technique that I might be using.

ii) How do we apply it?

Some participants discussed a desire for the course to provide more explicit notions of the effects of mindfulness intervention and how to apply it to professional situations. One participant felt that she would like to use mindfulness techniques at work but was as yet uncertain about where to start. Another participant described feelings of low motivation towards the course having not experienced much effect of mindfulness practice in the earlier stages:

> *C: I think it would have helped my motivation maybe if I had seen more sort of..explicit effects from it earlier on, coz you sort of the first week y'know you'd be doing, well you were meant to be doing the body scan every night and not really knowing why..*

Some participants felt that their expectations of the course had not been met in terms of bringing mindfulness to the vocational context and one clinician described a sense of disappointment that the course had not detailed a more explicit link between mindfulness and working with people with dementia:

> *C:I don't know..Coz I was a bit disappointed coz I was ...Because it was sort of sold to me as Oh, mindfulness it will help with your dealings with people with dementia. I thought there'd be more of a sort of direct link which there wasn't. Or it's not, there's not an explicit link...*

iii) Managing difficult situations

Some participants described consciously using mindfulness to ground themselves during the management of difficult situations. One participant appeared to feel that this might facilitate the ability to tolerate uncomfortable situations and manage moments of confrontation:

C1: And it's acknowledging that and erm then moving through it, I guess..So...I don't know quite how to explain that really but... It's just that sense of perhaps not being so frightened, or, or...anxious with that person as being. When you, you ...are in confrontation situations, but feeling it and thinking 'Oh - that's ok'

C2: uhum

C1: You know that ...Seeing what you can do about it

Some participants described using mindfulness in situations where they needed to discipline or were in conflict with a colleague. One participant described using a three minute breathing space to prepare herself to manage an interview with a colleague who had been the subject of some patient complaints on the ward. Another individual described 'breathing through' and using mindful awareness to remain centred during a situation where she felt a colleague had behaved abruptly towards her. Another participant felt that mindfulness had been most helpful in the management of challenging emotions and developing greater awareness in situations where she was finding it difficult to empathise with (non-dementia) clients more effectively.

One clinician describes using mindfulness to ground herself during a challenging interview with a client with a learning disability and communicative difficulties:

C: I definitely was aware of myself using techniques at the time of trying to stay 'with her' as she struggled to talk to me...Erm, because she really wanted to express herself. It was really important. And trying just to, to keep – keep in that situation...And tune into it as it was happening and not be...trying to think ahead..Right - what did I think she was going to say and what was I gonna say next? And y'know that kind of thing. I definitely feel ...and I remember sitting in the chair thinking, 'Yeah I can feel my feet, I can feel the chair, I can feel..I am here. I'm listening to her, I'm right here now. Er, and I think that was..erm I think I would have done it normally anyway, but I think I was very aware of sort of thinking, well my feet are on the floor...My arms are on the chair. Because it would be very easy to try and speed that up...or second guess her. Or..put words

into her mouth...because she was struggling so much to try and talk..Erm, and I
definitely felt, well...I probably handled that better than I would have done
before

iv) Applying mindfulness

Participants generated various ideas about the clinical applications of mindfulness in a dementia setting. Most participants commented on the utility of the three minute breathing space in a range of professional situations both with and without clients e.g. between appointments or meetings and during challenging situations (see above theme). One participant suggested that it might be a helpful tool for ward nurses to take 'time out' during difficult client situations:

> *C: Yes – staff are getting frustrated. The 3 minute breathing space – things like*
> *that..Erm, y'know the...I would say y'know, starting something as simple as a 3*
> *minute breathing space d'you know when they're getting agitated, when the*
> *patients are getting worked up. That it is ok – d'you know ? Leave the patient. If*
> *they're in a perfectly safe place erm – go away and both have, have time out.*

Other participants suggested that the three minute breathing space and other techniques might be relevant to the needs of informal caregivers. Another participant felt that mindfulness might be a helpful tool for formal caregivers to escape modes of 'automatic pilot' whilst working with people with dementia. Other clinicians suggested that mindfulness ideas might be relevant to the needs of health professionals 'in training' and one participant had attempted to incorporate some mindfulness exercises into dementia awareness training:

> *C: So from the training purposes, I think that it illustrates a kind of personal*
> *way much of what we teach. But so that's been a good thing, I really think that*
> *it's gone along beautifully with that and it's easy to bring into the training*
> *actually, because I've been there and I've done it and had some really weird*
> *experiences with it so....*

Some participants felt that mindfulness might help them connect with patients on a 'moment by moment' basis, and one participant suggested that mindfulness might be helpful in an observational capacity to detect the 'present moment' needs of a client:

> *C1: Um...and, and I almost feel that the-the mindfulness thing is...could possibly be used in, in looking at why the now is reminding them of the past and what they're missing from the past that they feel the need to bring it into what's happening now. I kind of....*
>
> *C2: Can you bring the past into the present?*
>
> *C1: Sort of, coz that is*

Another clinician extended this idea further, proposing that mindful awareness might help clinicians to pick up the nonverbal cues of patients with dementia as well as helping them to monitor their own responses. One participant however pointed out that it might be easier to attend mindfully to a patient with a more comprehensive understanding of their life history.

Some participants related to feeling an enhanced sense of empathy towards others and two participants described reflecting more deeply about the needs of informal caregivers after attending the mindfulness course. Another participant felt that he already used person centred models of care effectively with both patients and relatives, but had perhaps become more aware of living in the world of the patient and trying to work out where they might be at:

> *C: Erm, I think maybe the only change I can see at the moment is that maybe I'm more trying to perhaps live in the patient's world slightly more, to see what's .... where they're coming from rather than trying to impose 'Yeah – you have to sit down.' 'Or - you know. You have to come into another room to eat your dinner. You know, its..What. Maybe trying to look into what... where the patient's at more rather than imposing, perhaps my views onto them a bit more..but . Erm,*

I've always thought that way a bit anyway so I find it, I'm finding it quite hard to actually see a big difference in the way I-I I do approach patients and their relatives.

In general, clinicians appeared to be doubtful about how patients with dementia might be able to use mindfulness techniques with some participants feeling that it was most relevant to the way staff themselves related to patients. One clinician did suggest that it might be possible to model some simple breathing techniques with some patients, though her colleague thought that there might be aspects of this in existing practice. Some participants commented that they felt that mindful sensory experiences might be particularly important to clients with dementia:

C: And, but it, you know for me there's a bit sort of at the severe end of the spectrum of dementia as well..where that person's experience at that moment is very much to do with the sensory experience. For example having a really nice hand massage or ...having the sensation of somebody brushing their hair nicely or doing those kind of things and those, those things are so important. Those, those really nice tactile experiences or, or you know, the sensory experiences.

Another clinician felt that sensory gardens might afford an opportunity to explore mindful sensory experiences with patients. One participant also described facilitating mindful client experiences with pictures and colour and sometimes found this helpful for centring herself with a patient during long work shifts:

C.....to go through the difficult times and go through the good times with, with my patients coz I-I also do long days and 12 hours with somebody who's been asking me the same question erm, for 12 hours... And that I haven't been able to find a way of reassuring them for long enough to give them a break, give, give everyone a break. Er, um, I react with them in a very different way now and we'll maybe look at a picture for a while and look at the colours

v) Summary

Participants' comments about the applications of mindfulness to everyday practice varied between comments that elements of their pre-existing practice were already mindful and discoveries and suggestions about the use of mindfulness techniques within professional settings. Mindfulness practice essentially involves the cultivation of an existing ability to some degree and mindful modes of functioning would be expected to be present to some degree in a skilled clinician (Epstein, 1999). Some participants may have been asserting their professional identity in this regard during discussion, particularly in the context of concurrent service level change. Other comments suggested that mindfulness practice had perhaps helped to reaffirm and clarify values and pre-existing modes of working that clinicians felt were important. Ideas for the clinical applications of mindfulness focused on facilitating wellbeing and person centred modes of caregiving among both formal and informal caregivers. Though there was some scepticism about the utility of mindfulness practice for people with dementia themselves, some participants ventured thoughts about this, particularly in relation to facilitating mindful sensory experiences for the patient.

3.1.7 Conclusion

Thematic analyses of focus group data revealed various emergent themes about the advantages and disadvantages of mindfulness practice for this participant group and its potential applications to patient care. Mindfulness practice appeared to confer various benefits in relation to personal and professional wellbeing as well as paralleling and clarifying some existing areas of dementia care practice. Participant expectations of the course were not always met and some individuals felt that specific links to caregiving were not made explicit enough within the format of the course, perhaps reflecting issues related to its experiential content and the goals of the research, which essentially invited individuals to draw their own conclusions. A variety of interesting comments were made about the applications of mindfulness practice to the day to day work of a health professional, including the use of mindfulness skills to ground the self in challenging situations and to potentially attune more effectively during communication with patients. There was also

considerable reflection about the moment by moment nature aspects of both mindfulness practice and the experiences of people with dementia in caregiving contexts.

The next part of the results section now discusses the *quantitative* findings of this pilot study.

3.2 Quantitative Analyses

3.2.1 Preliminary data and analyses

i) Participant attrition

A total of 25 participants started the eight-week intervention and seven subsequently left the group (see Figure 1).

Figure 1: Diagram showing participant attrition and completion in each group and course stage

Group week 1 n=5		Participant dropout		Group 1 week 8 n=5
		Week 2 x1		
Group 2 week 1 n=11				Group 2 week 8 n=9
	Week 3 x1	Week 5 x1		
Group 3 week 1 n=9				Group 3 week 8 n=4
	Week 3 x2	Week 6 x2		
Total participants week 1 n=25				Total participants week 8 n= 18
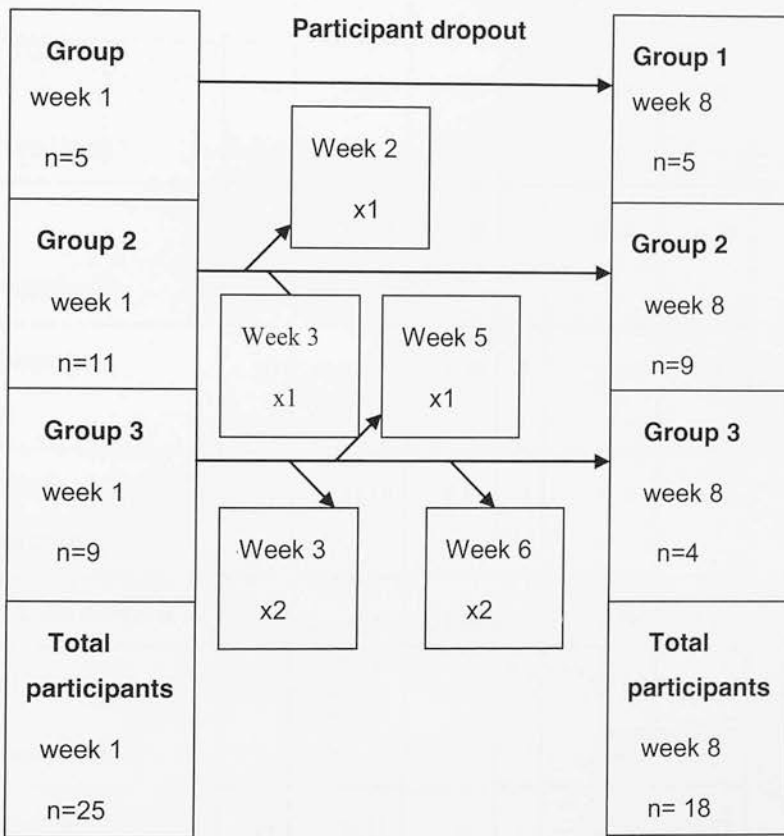
Reasons given for leaving the study were illness in two cases, one departure due to other work commitments, external personal events in two cases and deciding the course was 'not for me' in two further participants. Of the 18 remaining participants, 15 participated in the focus group and one participant did not return end of group outcome measures, leaving 17 sets of pre and post intervention questionnaires. Within the 17 participants, a further two participants returned group questionnaires

Table 3:Mean completer and non-completer outcome scores with means and standard deviation (SD) shown.

	Completer			Non-completer		
	N	Mean	SD	N	Mean	SD
Age	18	42.83	8.71	6	45.33	6.22
Time qualified (years)	16	17.06	9.62	6	22.83	10.59
Time in role	18	5.39	3.72	6	7.33	5.89
Time in dementia setting (pre-intervention)	18	9.28	7.97	6	14.33	8.55
GRAS (pre-intervention)	18	87.06	8.07	7	86.14	10.07
ADQ (pre-intervention)	18	82.89	4.86	7	82.14	4.98
MBI emotional exhaustion	17	20.29	9.89	7	21.71	11.21
MBI personal accomplishment	17	34.18	6.73	7	37.86	8.25
MBI depersonalisation	17	4.47	3.94	7	3.86	5.21
KIMS total (pre-intervention)	17	117.53	15.86	7	124.14	22.27
KIMS observing	17	36.11	7.01	7	36.14	9.63
KIMS describing	17	24.59	4.46	7	27.14	5.70
KIMS awareness	17	28.41	5.67	7	28.29	6.55
KIMS acceptance	17	28.41	6.01	7	32.57	5.22

for one month follow-up but not immediately post intervention, while one participant returned outcome measures post-intervention but not one month. An important

consideration in subsequent analysis was therefore the appropriate management of missing data. Data analyses reported in this chapter were carried out using PASW Statistics version 17 (SPSS Inc, 2009) and Instat version 3.06 (Graphpad Software Inc, 2009) statistical software. Table 3 compares mean demographic data and outcome variables of completer and non-completer participants, suggesting broad similarity across both groups. Some of the dropout means appear to be higher than the completer means but are also accompanied by higher standard deviations suggestive of increased levels of variance within this group. Further Mann Whitney tests to compare completers and non-completers did not indicate any differences between groups (See results table in Appendix 6).

ii) Missing data analyses

In order to address the issue of missing data within the sample last observation carry forward (LOCF) analyses were preliminarily carried out to assess for significant within group effects across the whole sample of completers and non-completers (See LOCF results in Appendix 6i). However this approach was not felt to be reliable in the context of the main analysis, given that sample size was small and that approximately a third of observations would need to be carried over from baseline thus inflating the possibility of sample bias (Julious & Mullee, 2008; Prakash, Risser, & Mallinckrodt, 2008). It was therefore decided that the most parsimonious and ethical approach to data handling was to analyse data only from participants who had submitted both pre-and post-intervention questionnaires (N = 17). This approach was supported by the lack of difference between completers and non-completers. Two methods were examined to manage the two missing data points at week eight and the one missing data point at one month, namely group mean substitution and LOCF in relation to the three items where two scores would be carried over from baseline and one score carried over from eight weeks. Since both procedures again increase the chances of type one error, the investigator opted to carry out both forms of analysis and report the most *conservative* outcome data in the results section, namely the LOCF procedure with three items (See Appendix 6 for group mean analyses). For

further comparison results from the set of complete outcome measures (n=14) are also given in the Appendices (see Appendix 6).

In the context of missing data from up to three items on the outcome questionnaires using Likert Scales, group means were inserted and/or subscale means where this was applicable. Where larger sections of questionnaire data were missing at pre-intervention these outcome measures were treated as missing data and not entered into the analyses. As a consequence of this, one KIMS observation was missing from calculations based on pre-intervention and one MBI observation was also missing from a different participant at pre-intervention.

Most participants did not complete all items of Normann *et al.*, (1999) questionnaire and items could not be substituted for this measure since it employs a nominal level of measurement where participants were asked to select one of two statements. Only 8/17 participants completed all questionnaire items across the three time points making it unlikely that these data would be representative of the sample or appropriate. These data are therefore not discussed in the main analyses and response frequencies for individual questionnaire items are given in the appendix (See Appendix 6v for questionnaire data).

iii) Analyses of the completer sample

Given considerations of sample size (N=17), non-normal distribution within most of the outcome data and variance within the current pilot sample (See Appendix 6vi for normality tests), a non-parametric approach was adopted for statistical analyses to evaluate the study aims. The use of transformations was considered with a view to possibly conducting non-parametric analyses, but given substantial levels of sample variance that appeared to fluctuate during missing data analyses (see Appendix 6) a consistent non-parametric approach was instead selected for its simplicity and robustness. Measures of central tendency are indicated in Table 3 in order to assess whether there had been a within group effect of mindfulness intervention on reflective thinking as measured by the GRAS or attitudes to patients with dementia as measured by the ADQ. Friedman tests were conducted to assess for a within subjects effect of intervention between pre-intervention and one month follow-up

and were followed by post hoc comparisons (Dunn's test). Since the sample was too small to reliably assess for covariance, nonparametric correlations (Spearman's Rho) were also conducted to assess relationships between experimental outcomes and relevant background variables, applying a correction for multiple comparisons to reduce the chance of false positives.

3.2.2 Main Outcome Measures

Table 4: Table illustrating mean, standard deviation, median and range for the main outcome measures (GRAS, ADQ and ADQ person centred and hope subscales)

Measure	Stage	Mean	Standard deviation	Median	Range
GRAS	Pre-intervention	86.00	6.92	85.00	29.00
	3 weeks	87.27	6.12	88.00	22.00
	6 weeks	89.07	6.84	88.00	27.00
	Post-intervention	90.47	9.01	88.00	34.00
	one month follow-up	91.00	6.98	91.00	29.00
ADQ	Pre-intervention	82.94	5.01	83.00	19.00
	Post-intervention	84.88	5.18	86.00	16.00
	one month follow-up	85.52	5.50	86.00	23.00
ADQ (person centred)	Pre-intervention	51.59	3.28	51.00	10.00
	Post-intervention	52.29	3.06	54.00	11.00
	one month follow-up	52.18	3.41	54.00	11.00
ADQ (hope	Pre-intervention	31.35	2.29	32.00	10.00
	Post-intervention	32.59	2.94	32.00	9.00
	One month follow-up	33.35	2.76	33.00	12.00

Table 4 illustrates measures of central tendency and variance from the main outcome measures and suggests that there have been modest increases over intervention on the GRAS, total ADQ and subscales of the ADQ. GRAS scores at week 3 and week 6 were not included in further analyses with a view to improving power and facilitating comparison to other measures at the three main data collection points. There appears to be substantial variance in total GRAS score at post-intervention relative to the other measures, which may be a partial consequence of the LOCF procedure. Scores on the person centred subscale of the ADQ were already close to ceiling for this measure at pre-intervention. Inferential statistics conducted for each of these measures are now discussed in further detail.

i) GRAS data

Figure 2: Graph illustrating median GRAS scores at pre-intervention, post-intervention and one month follow-up
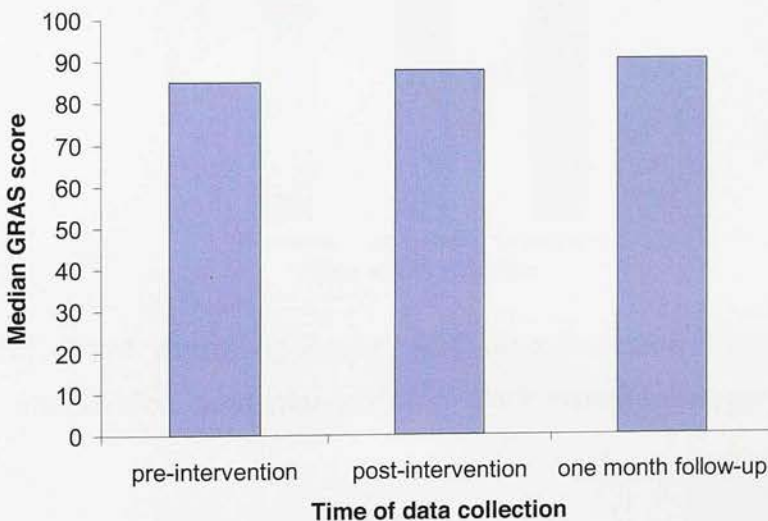
Figure 2 indicates a modest increase between the median GRAS score before the start of the mindfulness course at week one and post-intervention at eight weeks and one month. The GRAS is a one-dimensional scale, acknowledged by its authors to be best interpreted as a single score (Aukes *et al.*, 2007). Friedman testing to assess for a within subjects effect of intervention over time was not significant ($\chi^2(2)=4.70$, $p=.095$ ns).

ii)ADQ data

Figure 3a) indicates a small median increase in ADQ scores between week one and post-intervention scores , and post-intervention and one month. This difference was confirmed by Friedman testing which indicated a significant effect of time ($\chi^2(2)$=6.82, p=.033) and post hoc Dunn's tests indicated significant differences between scores at pre-intervention and one month follow-up (p<.05) but not between pre-intervention and post-intervention (p>.05) or between post-intervention and one month follow-up (p>.05).

Figure 3a): Graph illustrating median ADQ scores at pre-intervention, post-intervention and one month follow-up
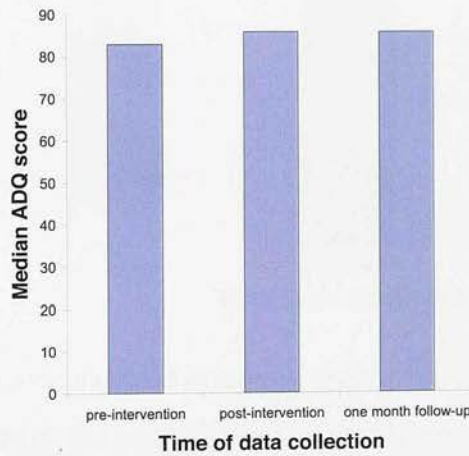
Figure 3b): Graph illustrating median ADQ person centred scores at pre-intervention, post-intervention and one month follow-up
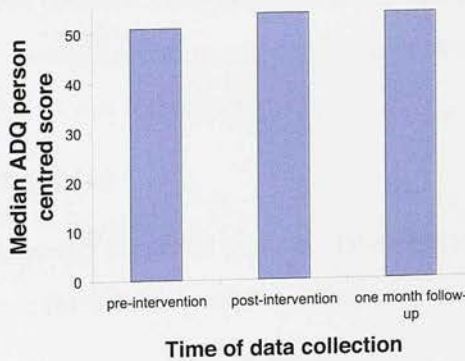
The ADQ is a well validated measure which has primarily been standardised in formal dementia care giver populations (Lintern *et al.*, 2000), therefore it was felt appropriate to also examines specific subscales to investigate the impact of mindfulness intervention on patient centred attitudes to care.

Figure 3b) suggests a minimal impact of mindfulness intervention on median scores at post-intervention and one month follow-up. Friedman testing did not reveal an effect of group ($\chi^2(2)$=.041, *p*=..980 ns).

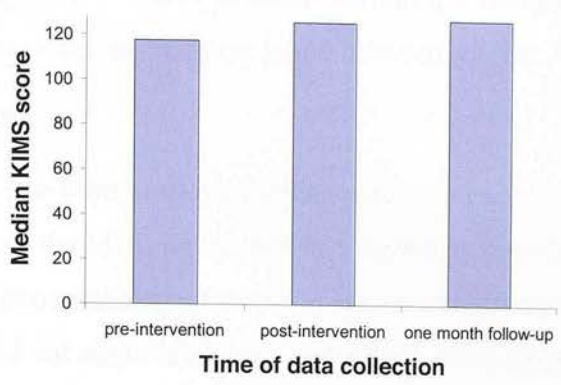*Figure 3c): Graph illustrating median ADQ hope scores at pre-intervention, post-intervention and one month follow-up with standard error bars shown*
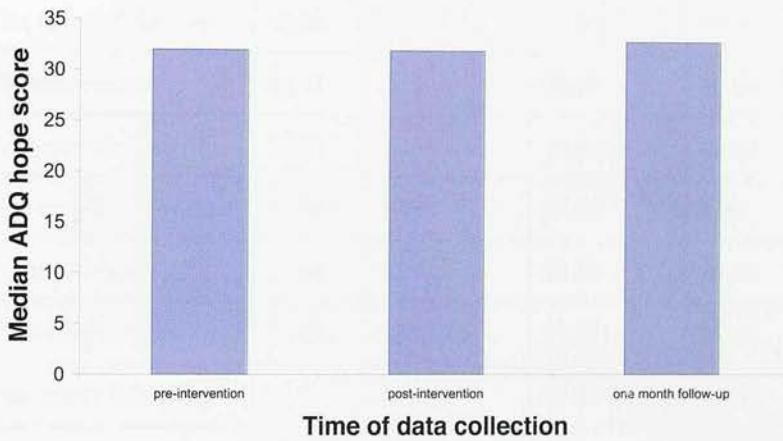
Further analyses were also conducted to assess whether there was an impact of mindfulness intervention on the hope attitudes component of the ADQ. Median scores illustrated in figure 3c) suggest a small stepwise increase on the hope that subscale between pre-intervention scores and post intervention scores and one month follow-up. This within group effect of mindfulness training was confirmed by Friedman testing ($\chi^2(2)$=10.19, *p*=.006). Post hoc Dunn's tests indicated a significant difference between scores between pre-intervention and one month follow-up (*p*<.05) but not between pre-intervention and post-intervention (*p*>.05) or between post-intervention and one month follow-up (*p*>.05).

3.2.3 Background Variables

In order to explore background variables that may have impacted on changes to the measures discussed above further analyses were also carried out on data from KIM S and MBI.

Table 5: Table illustrating measures of central tendency and variance for total KIMS and subscale scores from the KIMS and MBI

Measure	Stage	Mean	Standard deviation	Median	Range
KIMS (total score)	Pre-intervention	117.56	16.38	117.50	62.00
	Post -intervention	128.69	17.53	126.00	71.00
	One month follow-up	131.75	10.79	127.5	31.00
KIMS (observing)	Pre-intervention	36.69	6.82	36.50	23.00
	Post- intervention	43.13	7.85	44.00	32.00
	One month follow-up	45.06	5.18	45.50	15.00
KIMS (describing)	Pre-intervention	24.81	4.51	25.00	18.00
	Post-intervention	25.81	4.18	25.5	16.00
	One month follow-up	25.56	2.68	25.00	8.00
KIMS (awareness)	Pre-intervention	27.94	5.50	27.00	19.00
	Post-intervention	30.69	5.38	31.00	24.00
	One month follow-up	29.88	4.11	29.50	14.00
KIMS (acceptance)	Pre-intervention	28.13	6.09	26.50	24.00
	Post-intervention	29.63	7.58	29.00	31.00
	One month follow-up	31.00	4.73	31.00	16.00
MBI (emotional exhaustion)	Pre-intervention	18.50	6.78	16.50	26.00
	Post-intervention	17.06	7.76	15.00	29.00
	One month follow-up	15.81	8.14	14.50	37.00
MBI (lack of personal accomplishment)	Pre-intervention	13.13	6.13	11.50	20.00
	Post-intervention	11.25	6.09	9.50	21.00
	One month follow-up	10.56	5.62	8.50	22.00
MBI (depersonalisation)	Pre-intervention	4.00	3.54	3.00	12.00
	Post-intervention	3.81	3.94	3.00	13.00
	One month follow-up	4.62	3.44	4.00	11.00

Table 5 illustrates measures of central tendency and variance for the background outcome measures and suggests that there have been substantial increases on the total KIMS and observing subscale of the KIMS over intervention, though there is substantial variance in the distribution of scores. There seem to be slight increases on the acceptance and awareness sub-domains and little change on the describing sub-domain. There also appear to be modest decreases on the independent emotional exhaustion and lack of personal accomplishment subscales of the MBI, with depersonalisation scores remaining close to floor on this measure during intervention. These background outcomes will now be discussed in turn.

i)KIMS scores

Figure 4a) indicates an increase in median KIMS score at post-intervention and one-month follow-up and within group effect was confirmed by Friedman testing ($\chi^2(2)$=.8.40, p=0.015). Further post hoc Dunn's tests indicated a significant difference between KIMS scores at pre-intervention and one month follow-up (p<.05), but not between pre-intervention and post-intervention (p>.05) or between post-intervention and one month follow-up (p>.05).

Further analyses of the individual KIMS subscales were therefore also carried out to see which dimensions of mindfulness had been affected by the eight week intervention. Median scores shown in Figure 4b) are suggestive of a within group effect on the observing component of the KIMS at post-intervention which was confirmed by Friedman testing ($\chi^2(2)$=18.3, p<.001) . Post hoc Dunn's tests indicated a significant difference between observing scores at pre-intervention and post-intervention (p<.01) and between pre-intervention and one month follow-up (p>.001) but not between post-intervention and one month follow-up (p>.05).

Figure 4b) also indicates apparent increases of the KIMS awareness and acceptance scales with minimal change on the describing scale, though Friedman tests did not indicate any overall within group effects on indices of describing ($\chi^2(2)$=.731, p=.694 ns), awareness ($\chi^2(2)$=1.782, p=.410) or acceptance ($\chi^2(2)$=2.80, p=.247 ns).

Figure 4a): Graph illustrating median KIMS scores at pre-intervention, post-intervention and one month follow-up

Figure 4b): Graph illustrating median KIMS subscale scores at pre-intervention, post-intervention and one month follow-up
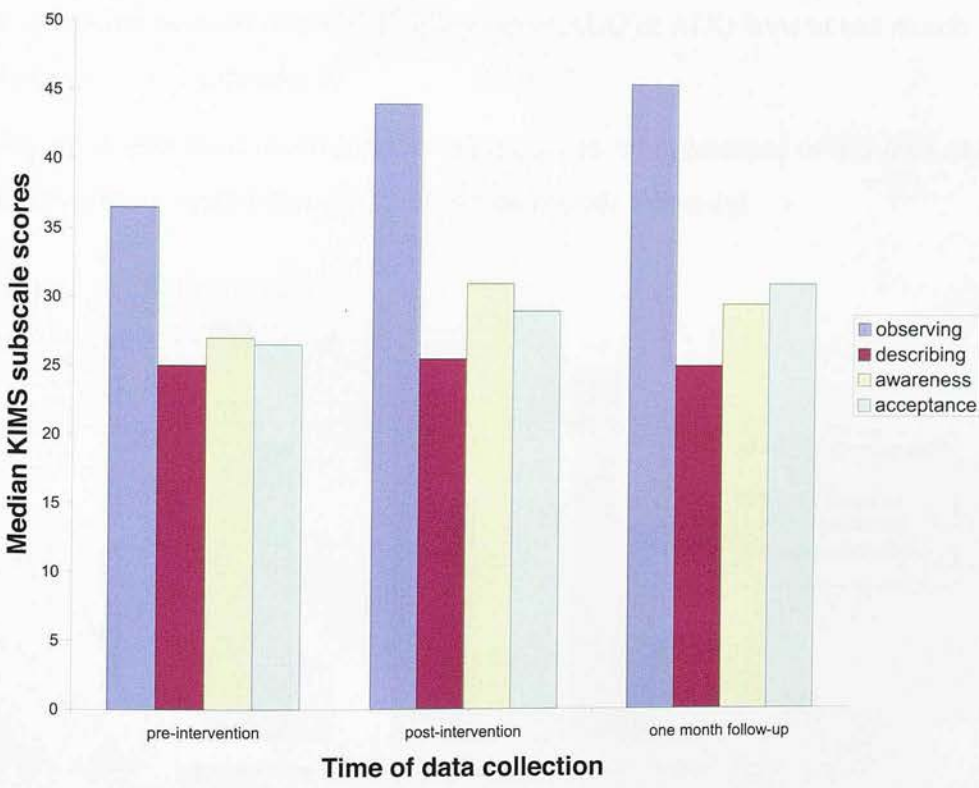
Spearman correlations were conducted to investigate possible relationships between GRAS and ADQ scores with subscales from the KIMS at 1 month follow-up. These

indicated large associations between the GRAS and total KIMS (r_s=.548, p=.023) as well as the observation subscale of the KIMS (r_s =.545, p=.024) though these did not remain significant after correction for multiple comparisons (α=.001). No further significant associations were found between scores.

Ii) Burnout

Figure 5 (see below) shows median participant scores from each independent subscale of the MBI. It suggests that there may have been a decrease on the reduced personal accomplishment subscale post-intervention, however subsequent Friedman testing did not confirm a significant within group effect ($\chi^2(2)$=5.017, p=.081 ns). Further Friedman tests indicated that there was not an effect of mindfulness intervention on the emotional exhaustion ($\chi^2(2)$=2.39, p=.302 ns) or the depersonalisation scale ($\chi^2(2)$=2.92, p=.232 ns).

When correlations were conducted to investigate potential relationships between outcome performance and MBI subscales, no significant associations were found with GRAS Score at one month follow-up or ADQ or ADQ hope at one month follow-up (see Appendix 6).

Figure 5: Barchart illustrating median scores on subscales of the MBI at pre-intervention, post-intervention and one month follow-up
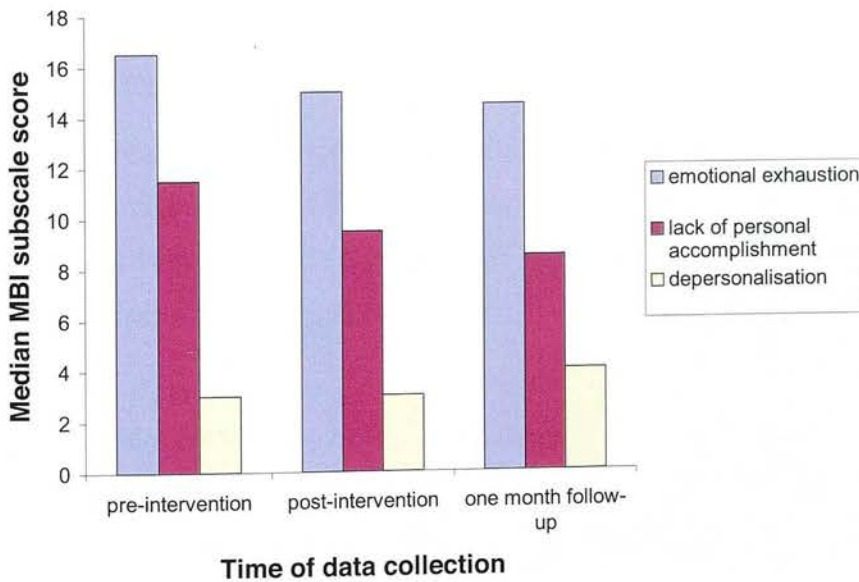
Further post hoc correlations were carried out to explore associations between the subscales of the MBI and indices from the KIMS. At one month follow-up these analyses revealed significant negative correlations between the reduced personal accomplishment subscale of the MBI and total KIMS score (r_s=-.514, p=.035) KIMS awareness (r_s=-.628, p=.007) and KIMS acceptance (r_s=-.523, p=.031), though these effects did not remain significant after a correction for multiple comparisons (α level=.002). No further significant correlations were found between the KIMS and other subscales.

iii) Mindfulness Practice

Sixteen of the seventeen participants in the completer sample completed an end of course evaluation questionnaire which detailed levels of mindfulness practice during the 8 week course as well as more general feedback on the wellbeing outcomes of the course and future professional intentions in relation to mindfulness. Given that the participants included in the analysis had not universally completed diaries to indicate the level of mindfulness practice, this variable was examined using feedback from the post-intervention questionnaire.

Figure 6 illustrates different forms of mindfulness practice adopted by participants during the eight week programme. These outcome data indicated that the majority of participants did weekly homework practice (see Figure 6a) at a level of adherence of most days or two to four occasions each week, suggesting that most individuals maintained some regular practice in between weekly course sessions.

Figure 6f) also shows that the majority of participants maintained everyday 'informal practice' of mindfulness while of the 'formal' practices, around ¾ of participants maintained a relatively regular sitting meditation practice (Figure 6c), with slightly lower numbers practicing body scan and mindful movement practices on a more regular basis.

No correlations were found between level of homework practice and mean performance on the GRAS (r_s = .006, p=.981) and ADQ hope subscale(r_s =.465, p=.069) or other individual dimensions of mindfulness practice (see Appendix 6).

Figure 6: Pie charts illustrating frequency of a)homework practice, b) body scan, c) sitting meditation, d) walking meditation, e) stretching and f) everyday mindfulness
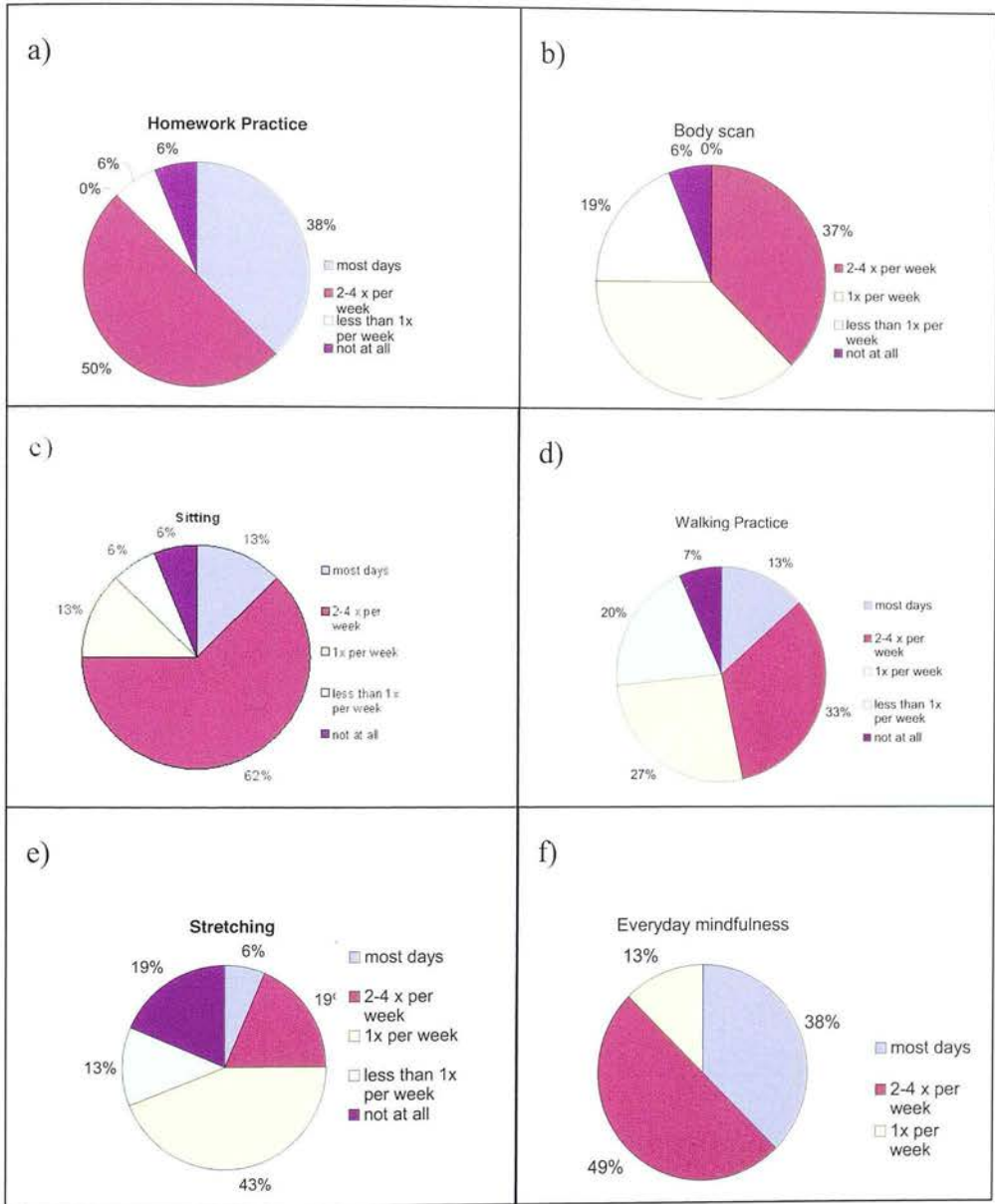
iv) Participant Feedback

As illustrated in Figure 7, participants reported subjective ratings of improvement after the mindfulness course along dimensions including personal and work-related stress management, focus, ability to concentrate and relating to others. When asked to rate the importance of the course to them on a scale of 1 to 10 the average score

given by participants was 7.18± 2.07. Of the 16 participants 14 said that they wished to incorporate mindfulness into their future patient work, with the remaining 2 participants being 'unsure' at this point.

Figure 7: Subjective ratings of changes to participant wellbeing following the eight-week mindfulness course
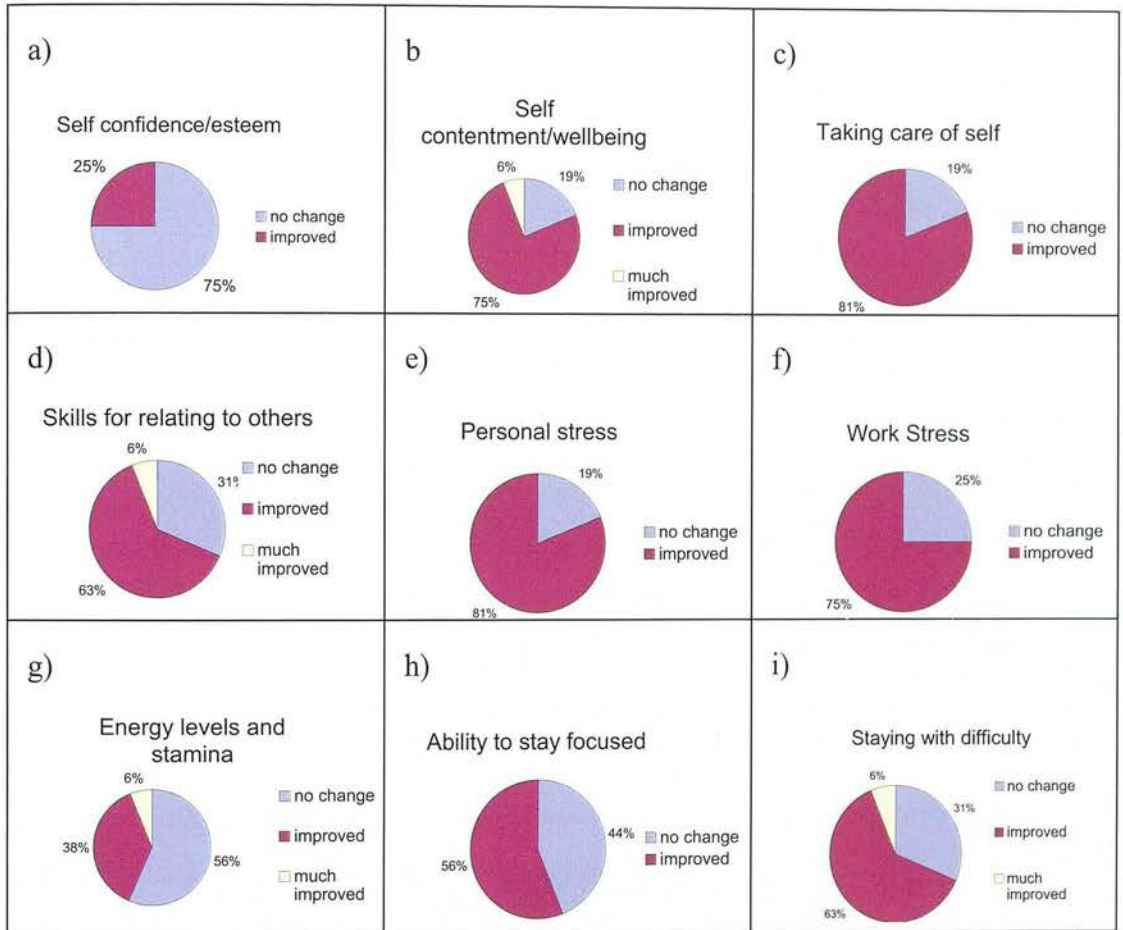
3.2.4 Summary of quantitative results

These findings suggest a modest effect of mindfulness training on attitudes to patients with dementia but not on clinical reflection as measured by the GRAS.

Overall effects of mindfulness training on total ADQ and ADQ hope scores were found after intervention and there was a significant difference between scores at pre-intervention and one month follow up for both measures. Contrary to initial

predictions there was no effect of intervention on the person centred subscale of the ADQ, though this may be partly explained by high baseline scores. Though descriptive statistics suggested a small increase in GRAS scores at one month follow-up and a trend towards an increased GRAS score at post-intervention, there was no significant effect of intervention over time on this measure.

There were significant effects of mindfulness training on levels of mindfulness as measured by total KIMS score and the observation subscale of the KIMS. Further post hoc testing indicated a significant difference between total KIMS score between pre-intervention and one month follow-up as well as significant increases on the observing subscale of the KIMS at post-intervention and one month follow-up after intervention completion. There were notable numeric reductions on the reduced personal accomplishment and emotional exhaustion subscales of the MBI between pre-intervention and one month follow-up, though neither was significant, probably due to sample variance.

There appeared to be positive associations between the observation subscale of the KIMS and GRAS score as well as negative associations between reduced personal accomplishment and subscales from the KIMS, though these correlations did not remain statistically significant after post hoc corrections were applied. There were no significant correlations between level of mindfulness practice and main or background outcome measurements. Participant questionnaire feedback was broadly consistent with a range of wellbeing outcomes following the eight-week mindfulness course and indicated that the majority of study participants wanted to incorporate mindfulness into their patient work.

4. Discussion

This mixed methods pilot study aimed to evaluate the impact of mindfulness training on reflective practice and attitudes to patients among NHS staff working with people with dementia. These research questions were explored using data from qualitative focus groups that elicited staff viewpoints about the impact of mindfulness intervention on their professional lives and its potential applications to the dementia care context. Quantitative analyses of pre-and post intervention measures of reflective thinking and attitudes to patients with dementia were also carried out to assess whether there had been a within group effect of mindfulness intervention among participants. The results of these analyses are now discussed in relation to previous findings and relevant frameworks with some consideration of their limitations and future implications.

4.1 The impact of mindfulness training on reflective practice

4.1.1 Qualitative findings

The qualitative analyses suggested that some participants reflected on the parallels between mindfulness and their day-to-day work as clinicians and the possible experiences of people with dementia. Some participants particularly emphasised the moment by moment nature of care giving in this clinical context. While some clinicians felt that their orientation to care was inherently mindful *before* intervention, some participants felt that they had perhaps become more aware of their reactions within clinical contexts especially in relation to the ability to self-monitor thoughts and emotions. This included scenarios where mindfulness awareness was used to consciously ground the self during demanding or challenging situations. Some participants also highlighted the apparently transient nature of subjective experience in dementia and the value of circumscribed sensory experiences, particularly among individuals in the more severe stages of progression. A few participants were particularly struck by the silent day retreat and drew parallels between the experience of foregoing verbal communication and the world of a person with dementia. In general the clinicians who took part in this research

reported an enhanced ability to observe their own cognitive processes, and reflect on current habits in relation to the core mindfulness values embodied by the eight-week intervention. Such habits included an awareness of the tendency to judge the self or others as well as a heightened appreciation of the relevance of qualities such as non-striving and acceptance within busy clinical contexts.

 It is hard to firmly establish from the qualitative findings whether this enhanced self awareness translated into an increased propensity towards reflective practice or practice based change and feedback from participants was mixed. Some participants reported difficulty linking personal realisations from mindfulness practice to clinical functioning, whilst others were aware of thinking and acting differently within clinical contexts. It is hard to explain these differences at this level of investigation, though some participants wondered if there might be change with further mindfulness practice. Given the experiential nature of the course, it is likely that participants would draw individual conclusions to varying degrees since and the differential composition of each group may have contributed to some conformity effects (e.g. Asch 1955) and differential patterns of intervention adherence. The findings of one previous study suggest that individual group effects may contribute to up to seven per cent of the variance on some measures (Imel et al., 2008) and these questions perhaps warrants larger scale investigation.

Nonetheless participant feedback from this study lends support to the notion that the mindfulness intervention promoted reflective thinking within the clinical context. Findings are compatible with aspects of the theoretical framework proposed by Shapiro and colleagues (Shapiro & Carlson, 2009; Shapiro et al., 2006). Focus group feedback suggested that participants were starting to 're-perceive' aspects of cognitive and emotional experience as well as some aspects of the patient experience. At the very least the findings of this study indicate that mindfulness practice may facilitate an enhanced self awareness that might promote the ability to observe the self and reflect in action (Mezirow, 1981; Mezirow & Associates, 1990; Schon, 1983). This proposition is compatible with suggestions from others that mindfulness may in some sense help to 'prepare' the mind for reflection (Tremmel, 1993).

4.1.2 Quantitative findings

Though there appeared to be a numerical increase in reflection measured by the GRAS (Aukes *et al.*, 2007) over the period of intervention, no significant effect of intervention was found on this measure. Possible reasons for this lack of empirical data to cross validate qualitative findings might include the likelihood that this study was underpowered, the reported heterogeneity of group experiences and the possibility that the GRAS did not capture all of the changes which took place.

Correlations were found between the KIMS and GRAS scores that did not persist after correction for multiple comparisons but which may suggest some statistical relationship between the self observation components of both mindfulness practice and personal reflection.

Overall however the quantitative findings of the current study do not support an effect of mindfulness training on self reflection.

4.2 The impact of intervention on attitudes towards patients with dementia

4.2.1 Qualitative findings

A secondary aim of this pilot investigation was to evaluate the impact of mindfulness intervention on staff attitudes towards patients with dementia and the prediction that mindfulness training would promote person-centred care attitudes. Grounded theory based thematic analyses of the focus group data gave partial support to this prediction in that some clinicians reported feeling that they were identifying with patients and carers more and evaluating their care approach. This feedback included comments relating to collaborative modes of working with informal carers and an awareness of being more client led and not imposing specific styles of care. Other participants felt that they already very much operated according to person-centred values, but that the course had in some sense reaffirmed their existing clinical practice. Some participants remarked that mindfulness training had impacted positively on their compassion for and relationships with others, which could also be a partial by-product of adopting person centred modes of relating. Such notions are broadly compatible with Watson's theory of caring which predicts that intervention

fostering self compassion among healthcare workers may have wider benefits for service delivery at a systemic level (Sitzman, 2002).

4.2.2 Quantitative findings

There was not a significant within group effect of intervention on the person centred component of the ADQ and it is likely that this result neither proves nor disproves the existence of a change in this dimension of care since scores on this outcome measure were high at baseline. Possible explanations for this finding include the likelihood that many study participants already espoused a person centred approach to care, consistent with current NHS recommendations. Another possible reading of these results is that since the ADQ was originally standardized on care home workers (Lintern, 2001; Lintern *et al.*, 2000) it might not capture some of the dilemmas related to delivering person centred dementia care within clinical healthcare settings. A more sensitive measure of person centred clinical orientation might therefore be required to definitively evaluate the impact of intervention in this context.

Though there was not a significant change on the person centred component of the ADQ, ratings of the ADQ hope sub-domain significantly increased post-intervention, consistent with an intervention effect on this attitudinal dimension. This finding is partially corroborated by focus group accounts from some participants who felt that mindfulness training might usefully inform future clinical work. This viewpoint was not universally shared and several participants felt intervention might be more applicable to their personal lives than daily work.

Nonetheless an increase on the ADQ hope dimension remains striking in the context of previous evidence that as well as potentially alleviating stress related symptoms mindfulness training might also positively impact on various aspects of affective functioning including self compassion (Shapiro *et al.*, 2005) and positive mood states (Jain *et al.*, 2007).

A lack of association between the MBI subscales and GRAS and ADQ outcome data is perhaps surprising in the context of previous research suggesting that burnout may impact on attitudes to patient care (e.g. Todd and Watts 2005). There was also a lack of any significant association between homework practice and other outcome

measures, running counter to the findings of some previous studies (e.g. Shapiro *et al.* 1998). These null results may be explained by sample size and the sensitivity of the measures used. Apparent correlations between the reduced personal accomplishment dimension of the MBI and the KIMS (including specific subscales of awareness and acceptance) did not remain significant after correction, but echo the findings of Mackenzie *et al.* (2006) and remain interesting in the context of prior findings linking mindfulness to holistic wellbeing (Brown and Ryan 2003).

4.3 The applications of intervention to clinical working

A subsidiary objective of this pilot study was to explore participant views about work related applications of mindfulness. Participants appeared to be generally skeptical about mindfulness intervention among people with dementia themselves, though some individuals felt that certain exercises could be modified to the needs of patients. There seemed to be more general agreement that mindfulness could facilitate professional wellbeing or help clinicians remain present with the moment by moment states of patients. One participant experimented with incorporating some mindfulness exercises into dementia awareness training while others commented that mindful awareness might be relevant to reminiscence work or helping to identify patient needs in the context of communication difficulties. Others suggested that mindfulness skills might be pertinent to carers or clinicians in training.

Consistent with the findings of previous research in similar professional populations (e.g. Jain *et al.*, 2007; Krasner *et al.*, 2009) the majority of participants commented that they had found mindfulness training valuable as a well-being tool across various personal and professional contexts. These sentiments were not reflected in any significant changes on the emotional exhaustion or depersonalization components of the MBI however, which contrasts with the ameliorative effects of mindfulness training on burnout symptoms reported by previous studies (Cohen-Katz *et al.*, 2005; Mackenzie *et al.*, 2006). Average burnout scores in the current pre-intervention participant sample indicated low levels of depersonalization and moderate emotional exhaustion comparable to a prior study reported by Mackenzie *et al.* (2006) which reported significant reductions on these subscales. There was however substantial

variance within the current intervention group and trends were present in the expected directions (i.e. burnout reduction) suggesting that effects may have emerged within a larger sample. In contrast to previous research where there may have been some participant self selection bias towards using mindfulness as a stress management intervention, the current cohort recruited participants on the basis of exploring their practice orientations in a specific patient setting. This sample is likely to have recruited some individuals who were perhaps less distressed, or volunteering to take part in the intervention with different motivations to previous study populations.

Written course feedback indicated that the majority of participants hoped to incorporate mindfulness into future clinical practice and focus group feedback also indicated that individuals particularly valued the three-minute breathing space as a tool that could be applied to challenging clinical situations and grounding oneself before meetings or between appointments. The act of a deliberate 'break' in the professional day due to course sessions was also widely valued by participants. Some individuals fed back that the course had not met their needs or that they had difficulty seeing the relevance of the mindfulness course to day-to-day clinical practice, concluding that they already acted 'mindfully' or would have preferred more explicit course instruction related to dementia. Adherence to a regular practice regimen was a key ingredient of the course that many participants found challenging and it is likely that this influenced individual participant experiences (Schenstrom et al., 2006; Shapiro et al., 1998), though a significant effect of practice was not found across the group en masse. These pieces of participant feedback from the current pilot study therefore give an interesting insight into the pros and cons of mindfulness intervention in a professional care giving context.

4.4 Study Limitations

One limitation of these findings is their possible lack of generalisability given the small size of the participant sample. A within subjects study design also has the tendency to reduce variance and make significant effects more likely, therefore a larger scale controlled design would provide a more stringent test of the study aims.

At a statistical level however, these results remain encouraging given that effects were present *despite* small sample size and smaller samples tend to be biased towards the null hypothesis. This investigation was intended to be a 'pilot' study geared towards developing a more sophisticated understanding of the intervention and as such provides relevant data to inform the development of larger study.

The conservative analytic stance of conducting non-parametric statistics on an underpowered sample in order to protect against Type I error may have inadvertently inflated the risk of Type II error within the current analyses. These concerns are especially salient in relation to the corrections for multiple comparisons carried out during correlation analyses where there is a risk of overlooking underlying relationships between variables that may have been masked by lack of statistical power. Such results might reach statistical significance in a larger participant sample and resultant under reporting of the data has the potential to curtail further investigation by other researchers in a novel area of scientific enquiry. There may however also be some grounds for some caution with data interpretation in the current sample given the level of sample variance and differential outcomes of missing data analyses.

Pilot study recruitment to meet the target participant sample occurred during a period when the primary recruitment site named on the ethics application underwent a service re-design announced shortly after the granting of ethical approval in October 2008 (see Appendix 1). During the period leading up to recruitment for the first intervention group in January 2009, several potential research participants were therefore left uncertain of which clinical area they were likely to be deployed to creating sub-optimal conditions for study recruitment. Local services also had minimal prior exposure to mindfulness based approaches and managers also fed back that they had been asked to take up a range of competing training initiatives following the re-design that made it harder to release staff for research participation. It is likely therefore that specific local circumstances at the time of recruitment had a bearing on intervention uptake, particularly given the comparatively high levels of engagement with this intervention in local adult mental health settings where levels of clinical activity might be comparable.

Factors that might improve research recruitment in future could include greater pre-intervention exposure to mindfulness practice and earlier advertising across dementia research and clinical interest networks. An initial ethics permission that encompassed workers across the whole health region may also have saved time during early recruitment and reduced the impact of site specific barriers. Neither the investigator nor clinical supervisor was working within the care area during recruitment, therefore it took additional time to develop working relationships with local clinicians and managers to facilitate staff recruitment. Later recruitment tended to proceed more quickly as particular managers offered informal support to the study and interest in the study increased as staff settled into service change. Given the systemic context of the intervention and timing of the service re-design it is likely that initial recruitment would have occurred more quickly if the investigator had been based within the service or had a primary clinical collaborator actively facilitating recruitment.

Closer examination of the KIMS and GRAS scales indicates that there is some overlap between items on the two scales which could explain some the association between these measures. Therefore the experimental design may have been improved to a degree by the selection of an alternative measure to evaluate mindfulness or self reflection related outcomes.

A further limitation of the study concerns the use of non-standardised measures that may not have completely captured aspects of the intervention. Participant feedback from completing the Norman et al. (1999) questionnaire in particular reflected participant concerns about giving generalized responses to a case vignette, leading to frustration and blank responses that made the results difficult to analyse. As the research into reflective practice is still largely emerging, there is also the need for further measures suitable to assess this aspect of clinical functioning. The GRAS measure used in this study focused on clinical reflection relevant to medical education and may be difficult to generalise to practice situations (Aukes et al., 2007) or the circumstances of the participants in this study. Nonetheless it was the only relevant measure available at the time of writing and gives an interesting indication of intervention impact.

This study was not able to capture whether mindfulness intervention had a direct impact on client care and future investigation might usefully incorporate ways to objectively access client outcome data, perhaps drawing on dementia care mapping approaches (Brooker *et al.*, 1998).

Due to pragmatic considerations, a further limitation of this study is the dual role of the investigator in both the delivery and evaluation of the intervention, which might have the potential to introduce bias into participant expectancies and data interpretation. In a larger scale quantitative intervention trial it would be preferable to keep these roles separate, though the dual facilitator-investigator role is also a potential strength of the study in the context of social constructivist grounded theory analysis (Charmaz, 2003).

Another possible facilitator factor influencing outcome is the low level of experience of the mindfulness facilitator, given accounts that this has a bearing on intervention effectiveness (Allen *et al.*, 2006; Grossman *et al.*, 2004). These intervention groups were the first three occasions on which the facilitator had delivered an eight-week mindfulness intervention and as such it is possible that a stronger intervention effect may have emerged from groups delivered by more experienced facilitator(s).

As this study used clinical data from busy practitioners some missing data was likely. This was a further factor affecting the interpretation of this set of results and considerable care was taken to address this issue by adopting conservative non-parametic modes of statistical analysis and exploring relevant procedures for handling incomplete data (see Appendix 6).

The dropout rate of approximately 30 per cent leads to further questions about the generalisability and feasibility of the intervention within a busy group of health care professionals and Shapiro et al also drew attention to this concern in an RCT trial in health professionals where 42% of health professional participants did not complete intervention (Shapiro *et al.*, 2005). Shapiro et al acknowledge the problem of time commitment to course participation and homework practice in particular, suggesting that it may be important to find 'creative' ways to bring it into the working routine. Another possible antidote to this issue is the development of shorter intervention protocols, though this may dilute therapeutic effect (e.g. Moore, 2008) and there is

some evidence in favour of longer protocols to support the development of a more consolidated mindfulness practice (Krasner *et al.*, 2009; Pope *et al.*, 2006).

4.4 Theoretical implications

4.4.1 Implications for IAA

The findings of this study have interesting implications for existing models of mindfulness practice and reflective practice. It is unclear from participant accounts in this study whether this process was *simultaneously* operationalised attention and intention in accordance with Shapiro's IAA model (Shapiro *et al.*, 2006), though there were tentative suggestions of values clarification related to clinical working from focus group feedback and increased scores on the ADQ hope sub domain could be indicative of a values shift. There was also some qualitative evidence for the enhancement of self regulated processes and cognitive flexibility proposed by Shapiro et al (Shapiro & Carlson, 2009; Shapiro *et al.*, 2006) amid participant reports that they were becoming better able to self monitor affective states and behaviour during challenging situations. One aspect of participant feedback not easily accounted for by the IAA framework is the possibility that some aspects of mindfulness practice might operate *without* conscious awareness, as indicated by feedback from participants that family members and colleagues had noticed differences following participation that they themselves were less aware of. Another participant reported that the quality of her client interactions seemed to be enhanced at a level that was difficult to articulate verbally. Such concerns are perhaps addressed more effectively by cognitive frameworks such as Teasdale and Barnard's interacting cognitive subsystems (ICS) model of depression, which alludes to nonverbal and somatic levels of processing (Teasdale & Barnard, 1993). The possibility that participants from this study may have generated positive relational effects that they were not aware of might be an interesting topic for further research within patient centred care settings.

4.4.2 Implications for models of reflective practice

Examining these data within the contemporary models of reflective practice, participant accounts appear to be consistent with the development of the meta-awareness processes described within Mezirow's model of transformative learning (Mezirow, 1981; Mezirow & Associates,1990). It is not easy to establish from the current data whether participants actively experienced the process of actual perspective transformation during the course of mindfulness practice, though some participants reported that they had been able to stand back from clinical situations and appraise them differently. Participant feedback appear to be particularly consistent with the mindfulness components of Johns' model of reflective practice, which puts specific emphasis on the value of present moment awareness and caregiver responsiveness in clinical care situations (Johns, 2004). It seems unlikely that this realisation was an exclusive byproduct of mindfulness practice and many participants commented on feeling that they already brought aspects of mindfulness relating to ongoing clinical practice. Such comments need not be antithetical to the benefits of a concentrated mindfulness practice, which effectively assists the meditator to *actively cultivate* a skill that he or she will already possess to some degree (Kabat-Zinn, 1994).

The findings of this study are broadly compatible with some of Epstein's suggested modes of applying mindfulness in reflective practice, including the relevance of clinical presence and some awareness of different perspectives and possible sources of bias during clinical work (Epstein, 1999, 2003). Discussions of grounding the self during clinical scenarios certainly seem compatible with the proposition that mindfulness practice might help to cultivate an 'observing' mind relevant to reflective modes of clinical functioning (Epstein, 1999; Epstein *et al.*, 2008). This possibility is further supported by the apparent increase in mindful observing skills indicated by post intervention performance on the KIMS. Participant accounts put less emphasise on the relevance of beginner's mind to clinical judgements, suggesting that this issue may not have spontaneously arisen during individual reflection.

An eight week meditation course only marks the beginning of developing a mindfulness practice and it is likely that mindfulness practice might have a more

pervasive effect on reflective function after more prolonged periods of practice (e.g. Bruce & Davies, 2004; Lykins & Baer, 2009). This notion seems compatible with accounts of mindfulness meditation from the its original Buddhist context where it is viewed as tool for cultivating 'insight' during the course of a gradual process of ego dissolution (Epstein, 1988).

4.5 Practice implications

These findings have a number of interesting implications for clinical practice and the further development of mindfulness approaches in the context of dementia and older adult psychology settings. Qualitative data additionally suggested that mindfulness practice might be relevant to monitoring and understanding one's own emotional reactions within clinical situations, which is sometimes felt to be a valuable component of dementia caregiving, where patients appear to be very sensitive to the non-verbal cues of carers (Surr, 2006).Though there is limited evidence investigating the benefits of reflective practice, work carried out to date suggests that it may be beneficial to both patients and clinicians for various reasons (Mamede & Schmidt, 2005; Mann *et al.*, 2009).

The conscious cultivation of mindful awareness described by some participants might also have the potential to assist staff in becoming more observant of the moment by moment needs or intentions of patients with dementia. Some participants also described a heightened sense of identification with patients which could enhance the person centred approaches to practice thought to enhance dementia caregiving (Brooker, 2006).

Much emphasis is already put on understanding the moment to moment often 'unmet' needs of people with dementia in person centred approaches to the management of challenging behaviour in this client group (Stokes, 2000). Participant comments about using mindfulness skills to ground themselves in difficult situations and monitor the moment by moment needs of patients therefore raise the interesting question of whether aspects of the intervention could be applied to challenging behaviour management, especially in the context of prior findings in learning disabled client populations (Singh *et al.*, 2006; Singh *et al.*, 2009). As practitioners in

dementia care settings often come into contact with challenging behaviour, using mindfulness techniques to promote a reflective stance could facilitate cultural changes in the understanding of patient behaviour with the potential to improve both patient and staff wellbeing. Such predictions are consistent with prior work evaluating the impact of acceptance and commitment training (which incorporates some mindfulness techniques) on stigmatising attitudes among substance abuse counsellors and indicated that both stigmatising attitudes and their 'believability' was reduced post-intervention (Hayes *et al.*, 2004).

Feedback from the focus group and written course feedback clearly indicated that participants experienced general wellbeing benefits from taking part in the mindfulness groups. In the light of evidence suggesting that staff well-being intervention may result in significant healthcare savings (Boorman, 2009) these data therefore indicate that mindfulness intervention could usefully supplement wellbeing options available to NHS staff working in dementia care contexts. Some participants however felt that mindfulness was less relevant to their needs highlighting that mindfulness intervention (like most psychosocial interventions) is not a panacea, universally applicable to the needs of all health professionals.

The finding that course participation appeared to correspond to an increase in ratings of the ADQ hope dimension particularly suggests that mindfulness training could promote staff morale in dementia settings. Lack of job satisfaction is a significant factor in employee attrition and some commentators have suggested that relevant staff incentives and interventions need to be developed to address this need (Zimmerman *et al.*, 2005). The findings of this study among *formal* care givers are also consistent with research among *informal* caregivers attesting to the relevance of active, multi-component intervention approaches (Gallagher-Thompson, 2007). There is also a significant problem with staff absenteeism within the dementia care sector which is very costly on several levels, which might be usefully targeted by appropriate intervention (Vernooij-Dasssen *et al.*, 2009). Mindfulness training initiatives could be an attractive intervention for some healthcare or nursing home employers to offer their staff, consistent with preliminary evidence attesting to the

success of mindfulness courses as a wellbeing and possible employee retention approach in older adult care contexts (McBee, 2008).

4.6 Implications for further research

The findings of the current pilot study raise the possibility of various avenues for further research. In the first instance it would seem logical to investigate whether the current findings replicated in a larger participant sample with the possible addition of a waiting list control or other intervention conditions. This study illustrates the potential utility of adopting mixed methods approaches to the interpretation of experiential mindfulness related outcomes (Irving *et al.*, 2009). A larger study might usefully link the analysis of qualitative and quantitative data in order to explore patterns of responses related to the outcome data and to ultimately gain more information about the mechanisms and processes behind the findings.

One potentially 'creative' approach to incorporating mindfulness into the working schedules of dementia careworkers would be to develop an adapted eight week intervention which specifically incorporates features of dementia caregiving, given the success of prior interventions tailored towards specific client populations. A dementia specific intervention might for example more consciously adopt informal practices related to direct care situations or use aspects of mindful awareness during ABC charting or noting ones responses to challenging client situations. This type of course content might facilitate the process described by Bruce and Davies where caregivers came to view some aspects of their work as meditation (Bruce & Davies, 2004). Intervention with some vocational components might also help to engage potential participants who may have split between personal and professional aspects of the self (Kitwood, 1997). Such individuals might feel resistant to or threatened by intervention focused on personal wellbeing alone and be more open to an approach with a vocational dimension. Early studies have already had some success integrating a mindfulness course format with training in communication skills among doctors (Krasner *et al.*, 2009) and with challenging behaviour management in learning disability settings (Singh *et al.*, 2006). McBee (2008) has already developed programs of mindfulness courses based on MBSR that are broadly geared towards

the needs of care staff working in older adult settings. This includes a seven-week programme for care home staff that incorporated client specific mindfulness components such as hand massage exercises and meditations for managing anger in caregiving situations. Such intervention approaches may make mindfulness skills easier to incorporate into the schedules of formal caregivers and warrant larger scale research evaluation.

Though staff participants in the current study expressed doubts about the use of direct mindfulness intervention with people with dementia, McBee and colleagues have developed modified approaches for cognitively impaired clients including those with more advanced symptoms (Lantz et al., 1997). Initial intervention work has also been carried out in client populations affected by brain injury (Bedard et al., 2003) again suggests that some mindfulness techniques can be relevant to cognitively impaired patients if adapted to an appropriate level. This area of adapted interventions for people with dementia may therefore be worthy of some further investigation.

Another area that might benefit from greater research investment is the specific application of compassion practices such as lovingkindess meditation within formal dementia care delivery. There is evidence that lovingkindness meditation may facilitate social connectedness (Hutcherson et al., 2008) and form an important component of emergent mindfulness based relationship enhancement interventions for married couples (Carson et al., 2004). Compassion practice which fosters compassion towards the self and others in the context of healthcare might have the potential to alleviate the 'depersonalisation' aspect of burnout that is reported in human service professionals (Maslach & Jackson, 1981). An interesting research question therefore might be to explore the impact of such interventions on indices of depersonalization or patient empathy in dementia care contexts particularly in a context where notions of patient stigma and personhood are known to have a bearing on the quality of care (Brooker, 2006; Kitwood, 1997). Such interventions might provide a more explicit test of the impact of relationships between the cultivation of self compassion and wider care giving behaviour (Sitzman, 2002).

4.7 Conclusion

In summary the findings of the current pilot study found modest qualitative but not quantitative effects of mindfulness intervention on reflective thinking and both modes of analysis indicated some impact of mindfulness training on attitudes towards patients with dementia. At the very least these results suggest that mindfulness practice may facilitate an awareness of cognitive and affective processes that could help to prepare the mind for reflection and future transformation of perspective (Tremmel, 1993), which might be facilitated by longer term meditation practice (Bruce & Davies, 2004). These results of this study point to the relevance of larger scale investigation to assess the generalisability of these findings and potential intervention modification to the wider care dementia setting.

The prediction that mindfulness intervention might impact on person centred attitudes to patient care was neither proved nor disproved by the current analysis, since participants appeared to be performing close to ceiling on the primary outcome measure. There was however some tentative evidence that participants had been explicitly reflecting on person centred modes of care delivery during particular components of the course and in some cases fell that there had been a positive shift in their practice. A significant increase in hope related attitudinal dimensions of dementia care occurred post-intervention, suggesting that participation in the mindfulness course and mindfulness practice itself may have facilitated the development of more positive attitudes towards client working. Overall therefore, these findings therefore suggest that mindfulness intervention may be relevant to some of the psychosocial challenges faced by professional dementia caregivers and provide a meaningful basis for service level staff intervention.

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Appendix 1: Ethics Correspondence

1.1 Initial study Permission

1.2 Site approval and email letter receipt of amendment

1.3 Further Research and Development correspondence relating to amendments to increase participant recruitment

i) Increasing advertisement sites

ii) Increasing intervention groups

University Hospitals Division

NHS
Lothian

Queen's Medical Research Institute
47 Little France Crescent, Edinburgh, EH16 4TJ

RESEARCH &
DEVELOPMENT
Room E1.12
Tel: 0131 242 3330
Fax: 0131 242 3342
Email:
R&DOffice@luht.scot.nhs.uk

Director:
Professor David E Newby

TMJB/app-lrecamend

06 February 2009

Dr Fiona Clague
Clinical Health Psychology Department
Astley Ainslie Hospital
133 Grange Loan
Edinburgh
EH9 2HL

Dear Dr Clague,

LREC No: 08/S1103/47
R&D Project ID No: 2008/P/CMH/06
Title of Research: The impact of mindfulness training on reflective thinking and attitudes in patients in dementia care.

I am writing in reply to recent correspondence in relation to the following amendment(s) to the above project.

Amendment: dated 03 February 2009
- To extend the number of locations for study advertising and recruitment - its Roslynlee Hospital, Corstorphine Hospital, Herdmanflat Hospital, Edenhall Hospital, Liberton Hospital and St John's Hospital.

We have now received a copy of the amendment(s) and assessed any consequential changes in NHS Lothian resource use. I confirm that NHS Lothian management approval is extended to cover the specific changes intimated. You should be aware that approval for this amendment must also be received from Lothian Research Ethics Committee before it is implemented.

Yours sincerely,

Dr Tina McLelland
R&D Governance Manager
Direct Tel: 0131-242-3340
Email tina.mclelland@nhs.net

University Hospitals Division

NHS
Lothian

Queen's Medical Research Institute
47 Little France Crescent, Edinburgh, EH16 4TJ

RESEARCH &
DEVELOPMENT
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Tel: 0131 242 3330
Fax: 0131 242 3342
Email:
R&DOffice@luht.scot.nhs.uk

Director:
Professor David E Newby

TMJB/app-lecamend

20 February 2009

Dr Fiona Clague
Clinical Health Psychology Department
Astley Ainslie Hospital
133 Grange Loan
Edinburgh
EH9 2HL

Dear Dr Clague,

LREC No: 08/S1103/47
R&D Project ID No: 2008/P/CMH/06
Title of Research: The impact of mindfulness training on reflective thinking and attitudes in patients in dementia care.

I am writing in reply to recent correspondence in relation to the following amendment(s) to the above project.

Amendment: No 7 dated 06 October 2008
- To increase the number of mindfulness courses from 2 to 3 courses in order to facilitate the participant recruitment process and meet existing targets for participant recruitment.

We have now received a copy of the amendment(s) and assessed any consequential changes in NHS Lothian resource use. I confirm that NHS Lothian management approval is extended to cover the specific changes intimated. You should be aware that approval for this amendment must also be received from Lothian Research Ethics Committee before it is implemented.

Yours sincerely,

Dr Tina McLelland
R&D Governance Manager
Direct Tel: 0131-242-3340
Email tina.mclelland@nhs.net

---

iii) Widening range of intervention sites

University Hospitals Division

NHS
Lothian

Queen's Medical Research Institute
47 Little France Crescent, Edinburgh, EH16 4TJ

RESEARCH &
DEVELOPMENT
Room E1.12
Tel: 0131 242 3330
Fax: 0131 242 3342
Email:
R&DOffice@luht.scot.nhs.uk

Director:
Professor David E Newby

TMJB/app-lecamend

22 May 2009

Dr Fiona Clague
Clinical Health Psychology Department
Astley Ainslie Hospital
133 Grange Loan
Edinburgh
EH9 2HL

Dear Dr Clague,

LREC No: 08/S1103/47
R&D Project ID No: 2008/P/CMH/06
Title of Research: The impact of mindfulness training on reflective thinking and attitudes in patients in dementia care.

I am writing in reply to recent correspondence in relation to the following amendment(s) to the above project.

Minor Amendment: Change of location of 2 intervention groups from Royal Edinburgh Hospital to Astley Ainslie Hospital and Herdmanflat Hospital.

We have now received a copy of the amendment(s) and assessed any consequential changes in NHS Lothian resource use. I confirm that NHS Lothian management approval is extended to cover the specific changes intimated. You should be aware that approval for this amendment must also be received from Lothian Research Ethics Committee before it is implemented.

Yours sincerely,

Dr Tina McLelland
R&D Governance Manager
Direct Tel: 0131-242-3340
Email tina.mclelland@nhs.net

Appendix 2: Advertising and Recruitment Materials

2.1 Taster workshop poster and email advertisement

Mindfulness Taster Workshops

Mindfulness is an idea that originates from Buddhism and literally refers to 'living in the moment' via a series of exercises to focus the mind on current sensory experiences. This approach can be beneficial in terms of individual wellbeing and stress reduction.

I am hoping to carry out a study investigating the effects of mindfulness training on attitudes to care and reflective practice among multidisciplinary healthcare staff caring for patients with dementia.

I am holding some 'taster' workshops at the Jardine Clinic, Balfour Day Hospital and the Royal Victoria Hospital which will consist of an introduction to some ideas about mindfulness as well as an opportunity to learn more about research study participation. If you would like to find out more. You will have the opportunity to actively 'try out' some mindfulness exercises for yourself, since mindfulness training is a very much a process where people learn from their own experience. Exercises may include breathing, body awareness and some gentle movement and each workshop will take about an hour.

Details of upcoming workshops are given below. Please contact me by phone or email if you would like to reserve a place.

Fiona Clague (Trainee Clinical Psychologist)

(email: Fiona.Clague@luht.scot.nhs.uk   Tel: 0131 537 9128)

(-insert venue-) on (-insert date-) at (-insert time-).
(-insert venue-) on (-insert date-) at (-insert time-).
(-insert venue-) on (-insert date-) at (-insert time-).
(-insert venue-) on (-insert date-) at (-insert time-).

Email subject line: Mindfulness Taster Workshop (-insert date and venue-)

Dear (-insert name of staff group-)

I am writing to invite you to a Mindfulness Taster Workshop at (-insert time-) on (-insert date-) in the (-insert meeting venue-) at the (-insert venue-)

I am hoping to conduct a research study about mindfulness training in dementia care staff (supervised by Ken Laidlaw), but will not be recruiting study participants until later in the year. I am therefore running some 'taster' workshops in local older adult services in order to introduce people to mindfulness techniques and see who might be interested in this area.

For those of you who have not heard about mindfulness, this therapeutic approach uses exercises drawn from Buddhist meditation to pay attention to physical and emotional experiences 'in the moment'. There has been a lot interest over the last few years following research suggesting that Mindfulness Based Cognitive Therapy (MBCT) is an effective treatment for relapse prevention in people with chronic depression. There is also growing evidence to back the use of mindfulness approaches in people with chronic pain, cancer and other long term illnesses. Mindfulness Based Stress Reduction (MBSR) has also been shown to be a useful stress reduction and overall 'wellbeing' intervention from people from various walks of life.

This taster workshop will each be about 1 hour long and provide a quick introduction to some mindfulness ideas and techniques. You will have the opportunity to actively 'try out' some mindfulness exercises for yourself, since mindfulness training is a very much a process where people learn from their own experience. Exercises may include breathing, body awareness and some gentle movement.

Please contact me by email or telephone if you would like to reserve a place at this workshop.

best wishes,

Fiona Clague (Trainee Clinical Psychologist)

(email: Fiona.Clague@luht.scot.nhs.uk   Tel: 0131 537 9128)

2.2 Study recruitment poster and email advertisement

Are you a healthcare professional who works with people with dementia ?

Would you like to explore your own reflective practice?

I am recruiting NHS staff who have a high degree of professional contact with people with dementia to take part in a research study at the Jardine Clinic. This study will examine the effects of a 'mindfulness' training intervention on reflective thinking and attitudes to patients in dementia care settings.

During a mindfulness course participants learn to pay attention to everyday experiences in a way that helps them to get in touch with themselves and what you are experiencing 'in the moment'.

Research suggests that mindfulness approaches may be beneficial in alleviating stress and improving quality of life across many groups of people, including healthcare professionals. There is also some evidence to suggest that mindfulness training may have a positive impact on patient-clinician relationships. Mindfulness is increasingly being used as a therapeutic approach across many clinical settings e.g. chronic pain and depression and taking part in the mindfulness course in this study could provide a useful foundation for further training.

If you would like to find out more information about taking part in this study please contact me using the details below.

Dr Fiona Clague
(Trainee Clinical Psychologist)

email: Fiona.Clague@luht.scot.nhs.uk   Tel: 0131 537 9128

Email subject line: Mindfulness and reflective practice in dementia care

Have you heard of mindfulness?

Would you like to explore your own reflective practice?

I am recruiting NHS staff who have a high degree of professional contact with people with dementia to take part in a research study at the Jardine Clinic. This study will examine the effects of a 'mindfulness' training intervention on reflective thinking and attitudes to patients in dementia care settings.

During a mindfulness course participants learn to pay attention to everyday experiences in a way that helps them to get in touch with themselves and what you are experiencing 'in the moment'.

Research suggests that mindfulness approaches may be beneficial in alleviating stress and improving quality of life across many groups of people, including healthcare professionals. There is also some evidence to suggest that mindfulness training may have a positive impact on patient-clinician relationships. Mindfulness is increasingly being used as a therapeutic approach across many clinical settings e.g. chronic pain and depression and taking part in the mindfulness course in this study could provide a useful foundation for further training.

If you would like to find out more information about taking part in this study please contact me using the details below.

Dr Fiona Clague
(Trainee Clinical Psychologist)

email: Fiona.Clague@luht.scot.nhs.uk

Tel: 0131 537 9128

2.3 Letter of Invitation

NHS
Lothian

Clinical Psychology
School of Health in Social Science
The University of Edinburgh
Medical School
Teviot Place
Edinburgh
EH8 9AG

Tel: +44 (0)131 651 3972
Fax: +44 (0)131 651 3971

-insert date-

Dear................,

I am writing to ask if you would like to take part in a research study about mindfulness training among healthcare staff working in dementia care.

This study will be conducted by myself at the Jardine Clinic, Royal Edinburgh Hospital under the supervision of Dr Ken Laidlaw who is a consultant clinical psychologist working at the Jardine Clinic/University of Edinburgh and Dr Charlotte Procter a consultant clinical psychologist at the Cullen Centre,
Royal Edinburgh Hospital.

An information sheet is enclosed explaining the purpose of the study. Please note that you are under no obligation to take part in this study and should you decide not to participate this would not affect your current working conditions in any way.

I will be contacting you by phone and/or email a few days after you receive this letter to arrange a brief interview to discuss the study further and assess whether you would be suitable to take part.

If you would prefer not to take part in the study, all you have to do is tell me over the phone or at the initial meeting and no further contact will be made.

Yours sincerely,

Dr Fiona Clague
Trainee Clinical Psychologist
Lothian NHS/University of Edinburgh

FClague letter of invitation for NRES submission Version 1 25/8/08

2.4   Consent Form

NHS
Lothian

Centre Number:
Study Number:
Participant identification number:

CONSENT FORM

Title of Project:
The impact of mindfulness training on reflective thinking and attitudes to patients in dementia care.

Name of postgraduate researcher: Dr Fiona Clague
Supervised by : Dr Ken Laidlaw and Dr Charlotte Procter

1. I confirm that I have read and understand the information sheet dated ....for the above study. I have had the opportunity to consider the information ask questions and have had these answered satisfactorily.

2. I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason, without my medical care, employment or legal rights being affected.

3. I understand that some of my participation in this study will be recorded on video-tape during a participant focus group and that verbatim written and/or spoken quotations may be included in data that is reported or published at a future date. I give permission to be video-taped and quoted directly in future accounts of this study.

4. I agree to take part in the above study

....
Name of participant   Date   Signature

....
Name of person taking consent   Date   Signature

FClague consent form for NRES submission Version 2 6/10/08

2.5 Participant Information sheet

The impact of mindfulness training on reflective thinking and attitudes to patients in dementia care.

We would like to invite you to take part in a research study about mindfulness in dementia care. If you choose to take part in this study you will be asked to explore some mindfulness techniques and consider the impact of mindfulness training on your own reflective practice.

Before you decide whether or not to participate please take some time to read the following information. **Part 1** describes the aims of the study and what will happen if you take part and **Part 2** gives you more detailed information about how the study will be conducted.

Part 1

Study Aims: This study aims to investigate if mindfulness training affects reflective thinking and the way that dementia care professionals think about their work.

Why have I been asked to take part? You have been asked to participate in this study because you are a healthcare worker with a high degree of professional contact with people with dementia. It is up to you to decide if you want to take part. We will discuss the study and go through this information sheet, give it to you and ask you to sign a consent form if you agree to take part.
You are free to leave the study at any point without giving a reason and this would not have any effect on your work conditions.

If you decide to take part:

You will be asked to take part in an 8 week mindfulness course which involves attending 7 weekly 2 hour sessions, 'a day' of silent practice and mindfulness exercises between group sessions.
You will be asked to fill in some questionnaires relating to mindfulness and your experience as a health professional in dementia at 3 time points – the start of the course, the end and at 1 month's follow-up. These questionnaires will take about 1 hour 30 minutes to complete at each data collection. You will also be asked to complete two short questionnaires during the 8 week course that will take about 10 minutes and a few minutes each week logging what exercises you have practised between group sessions and any work situations where you have used mindfulness skills.
You will be asked to take part in a videotaped focus group at the end of the course where group members will be asked to share thoughts about how they feel that mindfulness has influenced their professional practice. This will take about 1 hour.

What is Mindfulness? Mindfulness is an approach that promotes our ability to be present in the 'here and now' and to fully engage with day to day experiences, as opposed to functioning on 'automatic pilot'. It has been shown to be helpful to both clients and professionals in a variety of physical and mental health settings. Initial research in healthcare workers suggest that mindfulness training may be an effective approach towards both stress reduction and improvement of general wellbeing in professionals from a range of different professional groups. A specific approach called mindfulness based stress reduction (MBSR) will form the basis of the course as well as elements of mindfulness based cognitive therapy (MBCT). This course format has already been delivered to mental health professionals all over Scotland with an interest in incorporating mindfulness approaches into their clinical practice.

What will the course involve? Mindfulness practice involves paying attention on purpose in a non-judgemental way to physical and emotional experience and to the world around us on a moment by moment basis. Mindfulness training enhances 'awareness of the present moment' via breathing exercises, gentle stretching and paying attention to sensations in different areas of the body. There will also be exercises that encourage participants to pay attention to their thinking patterns and interpretation of the world around them. It is important to make some time to practise course exercises between sessions in order to gain the maximum benefits from taking part. You will be given a series of CDs in order to try the exercises at home, ideally involving around 30 minutes of practice each day. You will also be asked to carry out some simple exercises that involve applying ideas from mindfulness training to your everyday life.

What are the possible disadvantages and risks of taking part? Taking part in this involves commitment to regular practice of mindfulness exercises over an 8 week period, but most participants report that the benefits outweigh the hassles of making time to meditate. Some mindfulness exercises involve gentle stretching and movement and you will be asked to work within your own physical limits during this aspect of mindfulness practice. Mindfulness sometimes raises awareness of difficult emotions, but participants often find this helps them to accept and manage these feelings more easily. Support and advice will be available throughout the course and follow-up period to anyone with queries about their personal mindfulness practice.

What are the possible benefits of taking part?
Many course participants report that mindfulness techniques have had a positive impact on their day to day quality of life in both personal and professional situations. Mindfulness often helps people to develop a greater awareness and appreciation of small events in their day to day lives and to ultimately 'live in the moment' with greater ease.
Taking part in a mindfulness course is a good foundation for gaining further training if you wanted to incorporate mindfulness training into your own clinical practice and details of further training and development opportunities will be available when the course has ended.

When the study stops you will continue to retain practice CDs and information about mindfulness and will receive feedback sheets about the outcome of the research.

What if there is a problem? Any complaint about the way that you have been dealt with during the study or any possible harm you might suffer will be addressed. More detailed information is given about this in Part 2.

What will happen to the data I provide? Your questionnaire responses will be kept confidential and given an anonymous code. Qualitative data relevant to work may be quoted in writing that relate to your professional role, but no further names or identifying information will be provided. Video excerpts from the end of study focus groups may be shown in future presentations, but only with the permission of group participants.

Part 2

If you decide to leave the study we may still use data collected before this point. You can still stay in touch and let us know about your progress during the follow-up period.

What if there is a problem? If you have a concern about any aspect of this study, you should ask to speak to the researchers who will do their best to answer your questions. If you wish to complain formally you can do this through the NHS Complaints Procedure. Details can be obtained from the Royal Edinburgh Hospital.

How will the data be protected? Your written data will be kept in a locked location where it is not accessible to outside parties and computer records will be given an anonymous subject code and stored on NHS and university disk space that can only be accessed by the investigator. Other parties involved in study such academic and clinical supervisors may see some of the raw data during analysis. Data will be used to report the findings of the study in written and possibly published format. Data collected may also be used as a partial basis for developing future mindfulness based interventions. Data will be retained for a minimum of 3 years and will be disposed of securely at a future point when it is no longer in use.

What will happen to the results of the research study? You will receive a brief written summary of the results of the study, after they has been evaluated. The findings will be fed back to local NHS services in the form of a public talk and/or poster presentation and will also be submitted for publication. You will not be identified in any report or publication related to this study without your consent.

Who is organising and funding the research? This study is unfunded and has been co-sponsored by the University of Edinburgh and NHS Lothian.

Who has reviewed the study? All research in the NHS is looked at by an independent group of people, called a Research Ethics Committee to protect your safety, rights, wellbeing and dignity. This study has been reviewed and given favourable opinion by Lothian Research Ethics Committee.

Further Information and Contact Details

For further information about this research study and any other queries you have about participation, please contact Fiona Clague by email or telephone using the details given below:

Email: Fiona.Clague@luht.scot.nhs.uk   Tel: 0131 537 9128

For independent advice about this study or the psychology research process please contact Elizabeth Baikie using the details given below:

Email: Elizabeth.Baikie@luht.scot.nhs.uk   Tel: 0131 5375161

Details of the NHS complaints procedure are available at:
http://www.nhslothian.scot.nhs.uk/your_rights/your_rights.asp

2.6 Recruitment Interview Schedule

Mindfulness in Dementia Care: Recruitment interview schedule

Date: Participant Code:

a)Motivation

How do you feel about attending a course for 8 weeks ? Do you think that you would
be able to practice skills between sessions ?
....
....
....
....

b) Suitability for study inclusion

What is your current work role ? ....

What proportion of your clinical time is spent working with people with dementia ?
....
....
....
....

Have you taken part in any other meditation courses ? What did this involve ?
....
....
....
....

c) Demographic Information

Gender: Male/Female   Date of Birth................Qualification Year..............

Are there any injuries or health complaints that affect your physical flexibility?
....

Time in: current role ?....................dementia specific settings ?...................

Previous dementia specific training...
....
....
....

Suitable for inclusion: YES/NO

EClapp Recruitment interview for NRES submission Version 1 25/8/08

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Appendix 3: Mindfulness Intervention materials

3.1 Mindfulness Eight Week Programme (Procter & Rothwell 2005)

3.1.1 Outline of session one and session two

MINDFULNESS 8 WEEK PROGRAMME

Session 1: Theme: Mindfulness vs. Auto-pilot Mindfulness Quality: "Beginner's Mind"	Minutes	By:
Welcoming participants at door		
Exploring landscape of present moment / dropping into present moment / Sitting without an agenda / opening to sensations of feet on ground & sound	2	
Introduction (course leaders); Practicalities; Guidelines for engagement (confidentiality, participation, time-keeping etc.)	10	
"What is your intention?" reflection (What has brought you here? / What do you want?) Sharing in pairs, then large group	20	
Raisin exercise Feedback / guided discovery in group	25	
What is mindfulness? (weave teaching into feedback) Beginner's Mind vs. Auto-pilot Triangle of awareness (Thoughts, Body sensations, Emotions) Curiosity & Patience Concentric circles of concentration, attention, awareness		
Awareness of breath lying down leading to *Guided Body Scan* Feedback / guided discovery	30 10	
Homework practice: a) Body scan CD daily; b) One mindful activity c) Keeping log book of practice	10	
Poems: *Love After Love*		
What we need to bring to session: Bell Raisins, bowl and spoon CDs (Body scan & meditation) OH definition of mindfulness Mindfulness H/O Nadine Stair quote Yoga mats		
Notes:		

Session 2: Themes: Overcoming Obstacles Mindfulness Qualities: Non-striving / Letting Go	Minutes	By:
Body scan	35-40	
Feedback (in pairs) large group		
Feedback on homework practice: -problems & obstacles & how overcome -working with distraction, boredom, sleepiness etc. -mindful activities	20	
Sitting Meditation: -posture -sitting with breath, body as a whole, sounds -feedback & guided discovery	30	
Theme: Non-striving: -no right or wrong way -"The life of mindfulness is one mistake after another" Suzuki Roshi -letting go of expectations -"Expectations are disappointments in the making"		
Homework practice: a) Body scan on CD daily b) Sitting meditation 10-15 mins (without tape) c) Mindfulness of routine activity d) Pleasant Events calendar		
Poems: *Happiness, Lama Gendun Rimpoche*		
What we need to bring to session: Pleasant Events Diary		
Notes:		

Session 3: **Themes: Staying with the Breath / Staying present / Minutes By:**
Mindfulness Qualities: Trust

	Minutes
Arriving here and sitting meditation: breath & body	20
Sitting with sound / Haiku poems	10
Feedback from homework:	15
· body scan, sitting	
· mindfulness of everyday activities	
Feedback on pleasant events exercise:	15

Bring to mind one pleasant event from last week
In pairs, share body sensations, thoughts, emotions,
Without telling story of event
Share feedback in large group, separating categories of
Body, thoughts, emotions.

Theme: Staying with the breath / staying present
Capturing moments. Nadine Stair quote;
Haiku ("Crystalline moments of heightened experience", "fleeting moments when
our breath is taken away", something ordinary, something profound, moment of
change – something eternal)
STOP! (Stop, Take a Breath: Open / Observe; Proceed)
Mindfulness dots
3 minute breathing space
Trusting experience (Wise Mind)

	Minutes
Three minute breathing space	10
In pairs, plan how to slot into day	5
Mindful stretching 1:	30
Corpse pose / breathing / lying positions	
Feedback (in pairs or main group)	5

Homework: a) alternate Body scan / Mindful Stretching;
b) Sitting meditation with tape (20 min daily)
c) Unpleasant events diary
d) 3 minute breathing space (3 x daily)
e) Mindfulness dots

	Minutes
End with sitting and poem	10

Poetry:
Wild Geese
Haiku poems

What we need to bring to session:
3 minute breathing space H/O   Nadine Stair quote
Haiku poems   CDs mindful stretching
Unpleasant Events Diary   H/Os on yoga postures
Mindfulness Dots

Session 4: **Themes: Staying with what is difficult:** **Minutes By:**
What are our habits / our patterns?
Mindfulness Quality: Allowing / Letting Be

	Minutes
Arriving here and looking out of window, at object (e.g. candle)	5
Sitting meditation:	25-30

sitting with breath, whole body, sounds, thoughts,
bringing to mind a difficulty, a strong sensation in body, some worry,
troubling thought or situation, noting where it is felt in body,
noticing aversion, resisting, holding, pushing away, tensing, bracing,
numbing...
opening, softening, letting be...
"It's OK. Whatever it is, it is OK. Let me feel it"

Enquiry about practice

Feedback on homework practice (in pairs or big group)
yoga / body scan?
Mindful activities
3 minute breathing spaces
What are people learning?

Feedback on unpleasant event:
Bring to mind unpleasant event in week
In pairs, share body sensations, thoughts, emotions, without telling story
Sharing in big group using triangle of awareness

Theme: How do we respond to unpleasant / pleasant events
Grasping & Pushing away (craving and aversion)
Reactivity vs Creativity
What are our habitual tendencies?
Cultivating different relationship with difficulty
Being with difficulties vs problem-solving / fixing it approaches
Acceptance, allowing, letting be, opening to what is:
What does acceptance feel like? It's quality? (no wanting)
The 8 Worldly Winds (Buddhist): Pleasure / Pain; Gain / Loss;
Praise / Blame; Fame / Infamy
What would it feel like not to be tossed about by these?

Mindful Stretching 2:
Start with mountain pose / balance
Standing poses
Feedback (in pairs?)

Homework:
a) Alternate body scan / mindful stretching
b) Sitting meditation with tape
c) Application in everyday life / 3 minute breathing space

Poems: Autobiography in 5 chapters / Hole in the side wall

fo

3.1.3 Outline of session five and six (the 'silent day')

Notes:

Session 5: Themes: Working with Thoughts & Emotions	Minutes	By:
Mindfulness Qualities: Non-judging		

Sitting meditation: 30-40
Focus on breath, body, sounds, thoughts,
emotions as events in consciousness.
Using metaphors for working with thinking *

Enquiry into practice
Feedback of homework and practice
Practices
Application
Responses to stress?

Changing seats: (notice attachment to place) / Poem

Reflection
Half way through
What am I learning? How am I changing?
Reflection in pairs / small groups

Theme: The Guest House
How habitual thinking can lead to depression
Building a different relationship to thoughts
Thoughts / Moods - different viewpoints
Thoughts & emotions as mental events / objects of awareness
Thoughts are not facts
Different relationship to thoughts, not just answering them back
* Metaphors for stance: standing behind waterfall; under motorway lanes;
watching mental events on cinema screen, sitting on river bank; sitting on top of
mountain and weather blowing over, waves and ocean.

Silent meditation   5-10

Walking meditation   10:15

Preparation for day workshop:
Observing silence & reducing eye contact
Ground rules & what to bring

Homework: a) Continue with practices of choice
b) Three minute breathing / coping spaces

Poetry: The Guest House: Rumi
Lost, David Wagoner (Native American story)

What we need to bring to session
H/Os on "Thoughts are not facts:" / "Ways you can see thoughts / Relationship to
Thoughts" from MBCT manual

Notes:

Session 6: Day of Silent Practice	Minutes	By:

10.00 Welcome & Ground Rules
10.10 Meditation mindfulness of breathing (30 minutes)
10.40 Walking meditation (20)
11.00 Body scan (30)
11.30 Break (15)
11.45 Mindful stretching 1 & 2 (with some self-massage / rain-drops?)
12.30 Guided meditation (loving kindness or mountain)
13.00 Mindful lunch with guidance (5 contemplations?)
14.00 Mindful observing of objects outside / drawing exercise with flowers (30)
14.30 Silent sitting (open awareness) (30)
15.00 Crazy walking (20)
15.20 Whispering in pairs (10)
15.30 Discussion in big group (30)
16.00 Sitting with breath & Closing Ritual
16.15 Finish

Poetry: The Breeze at Dawn - Rumi
Kindness - Naomi Shahib Nye
Stars - Mary Oliver
The Field - RS Thomas

What to bring:
Communication exercise handout

156

3.1.4 Outline of session seven and eight

Session 7: Themes: How can I best take care of myself? Life-style / "Diet" /

What we take in	Minutes	By:

Mindfulness Qualities: **Kindness, Wise-Mind**

Sitting meditation: (Choiceless awareness / Mountain?)   30-40
Sitting with body, breath, sounds, thoughts, difficulty
More silent practice / less leading

Enquiry on practice   20
Feedback on days practice & application of mindfulness

Communications exercise (in pairs):
1. Bring to mind a pattern around a difficult communication (5 mins)
2a. Choose who will speak first, speaker = speak your truth (5 mins)
Listener = deep listening to content, non-verbals, listening with heart, no interrupting, no dialogue. Coming back to breath
2b. Listener - feedback, "This is what I heard you say", no interpretations, no dialogue (2 mins). Coming back to breath.
2c. Speaker = reflect back on how you felt heard, what felt unheard, no dialogue (1 min). Coming back to breath.
3. Repeat second speaker (5, 2, 1 mins). Coming back to breath.
4. Facing each other, breathing together, with or without eye contact, setting aside stories, opinions, judgments we may have about other person or about ourselves (5 mins)
6. Discussion / feedback / dialogue in pairs (5 mins)

Group feedback (15 mins)

Theme: Life-style, "diet", what we take in (food, media, sensory food, conversations)
Choosing simplicity / guarding the gateway to the senses
Links with mood / body / thoughts and what we take in
Kindness - knowing what we need
Recognizing our habits

Homework: a) practice without tapes

Poems: *Autobiography in 5 chapters*

What to bring:

Notes:

Session 8: Ending & Continuation of Practice

Revising Body scan   30
Sitting with open awareness of body, breath, sound, thoughts and emotions   10

Feedback on practice without tapes   10

Theme: Keeping practice going, supervision groups: "8th week is rest of your life"
Prediction of problems and overcoming them
Maintaining balance in life through regular practice

Reflection then discussion in pairs / big group (Write up questions):   15-20
a) Think back to why you can originally - what were your expectations and why did you stay?
b) What did you want / hope for?
c) What did you get out of coming, if anything? What did you learn?
d) What were the costs to you?
e) What are your biggest blocks, obstacles to continuing?
f) What strategies might help you not to get stuck?

Letter to yourself   15

Feedback questionnaire: How important has this course been to you and why?   15

Discussion in big group

Closing ritual & mindfulness jewel

What to bring:
Mindfulness jewels in box
Paper and envelopes
Certificates of attendance
Chapter on mindfulness attitudes

Poems: *The Journey, Mary Oliver*
The Summer Day, Mary Oliver

Notes:

Charlotte Procter and Neil Rothwell
Doing Well by People with Depression Project 2005-2006
charlotte.procter@lpct.scot.nhs.uk
neil.rothwell@lpct.scot.nhs.uk

Appendix 4: Selected outcome measures

4.1 Attitudes to Dementia Questionnaire (ADQ) Lintern (1996)

Please indicate to what extent you agree or disagree with each of the following statements:

1. It is important to have a very strict routine when working with dementia sufferers.

   Strongly Agree   Agree   Neither Agree nor Disagree   Disagree   Strongly Disagree

2. People with dementia are very much like children.

   Strongly Agree   Agree   Neither Agree nor Disagree   Disagree   Strongly Disagree

3. There is no hope for people with dementia.

   Strongly Agree   Agree   Neither Agree nor Disagree   Disagree   Strongly Disagree

4. People with dementia are unable to make decisions for themselves.

   Strongly Agree   Agree   Neither Agree nor Disagree   Disagree   Strongly Disagree

5. It is important for people with dementia to have stimulating and enjoyable activities to occupy their time.

   Strongly Agree   Agree   Neither Agree nor Disagree   Disagree   Strongly Disagree

6. Dementia sufferers are sick and need to be looked after.

   Strongly Agree   Agree   Neither Agree nor Disagree   Disagree   Strongly Disagree

7. It is important for people with dementia to be given as much choice as possible in their daily lives.

   Strongly Agree   Agree   Neither Agree nor Disagree   Disagree   Strongly Disagree

8. Nothing can be done for people with dementia, except for keeping them clean and comfortable.

   Strongly Agree   Agree   Neither Agree nor Disagree   Disagree   Strongly Disagree

9. People with dementia are more likely to be contented when treated with understanding and reassurance.

   Strongly Agree   Agree   Neither Agree nor Disagree   Disagree   Strongly Disagree

10. Once dementia develops in a person, it is inevitable that they will go down hill.

    Strongly Agree   Agree   Neither Agree nor Disagree   Disagree   Strongly Disagree

11. People with dementia need to feel respected, just like anybody else.

    Strongly Agree   Agree   Neither Agree nor Disagree   Disagree   Strongly Disagree

12. Good dementia care involves caring for a person's psychological needs as well as their physical needs.

    Strongly Agree   Agree   Neither Agree nor Disagree   Disagree   Strongly Disagree

13. It is important not to become too attached to residents.

    Strongly Agree   Agree   Neither Agree nor Disagree   Disagree   Strongly Disagree

14. It doesn't matter what you say to people with dementia because they forget anyway.

    Strongly Agree   Agree   Neither Agree nor Disagree   Disagree   Strongly Disagree

15. People with dementia often have good reasons for behaving as they do.

    Strongly Agree   Agree   Neither Agree nor Disagree   Disagree   Strongly Disagree

16. Spending time with people with dementia can be very enjoyable.

    Strongly Agree   Agree   Neither Agree nor Disagree   Disagree   Strongly Disagree

17. It is important to respond to people with dementia with empathy and understanding.

    Strongly Agree   Agree   Neither Agree nor Disagree   Disagree   Strongly Disagree

18. There are a lot of things that people with dementia can do.

    Strongly Agree   Agree   Neither Agree nor Disagree   Disagree   Strongly Disagree

19. People with dementia are just ordinary people who need special understanding to fulfil their needs.

    Strongly Agree   Agree   Neither Agree nor Disagree   Disagree   Strongly Disagree

GRAS (English Version)

To what extent does each of these statements apply to you? Please circle the appropriate rating (where 1=totally disagree and 5=totally agree)

	1 totally disagree	2	3	4	5 totally agree
1. I want to know why I do what I do					
2. I am aware of the emotions that influence my behaviour					
3. I do not like to have my standpoints discussed					
4. I do not welcome remarks about my personal functioning					
5. I take a closer look at my own habits of thinking					
6. I am able to view my own behaviour from a distance					
7. I test my own judgments against those of others					
8. Sometimes others say that I do overestimate myself					
9. I find it important to know what certain rules and guidelines are based on					
10. I am able to understand people with a different cultural religious background					
11. I am accountable for what I say					
12. I reject different ways of thinking					
13. I can see an experience from different standpoints					

FChpor reflective thinking questionnaire for NRES submission Version 2.2 8/08

	1 totally disagree	2	3	4	5 totally agree
14. I take responsibility for what I say					
15. I am open to discussion about my opinions					
16. I am aware of my own limitations					
17. I sometimes find myself having difficulty in illustrating an ethical standpoint					
18. I am aware of the cultural influences on my opinions					
19. I want to understand myself					
20. I am aware of the possible emotional impact of information on others					
21. I sometimes find myself having difficulty in thinking of alternative solutions					
22. I can empathise with someone else's situation					
23. I am aware of the emotions that influence my thinking					

From Aukes et al 2007

FChpor reflective thinking questionnaire for NRES submission Version 2.2 8/08

Attitudes to Patients with Severe Dementia

a) Please read this case vignette carefully:

Mrs NN is 84 years old. She became a patient on the ward where you work about 2 years ago. She was then mildly confused, partly oriented as to time, place and situation but quite unclear about other matters, e.g. she often thought people stole things from her. During the two years since Mrs NN entered the ward, her mental condition has deteriorated more and more. She has now been given the diagnosis of dementia and is no longer oriented as to time, place and situation. Her behaviour is characterised by frequently repeated restless movements such as picking at objects or her own clothes, tablecloths, etc. She sometimes sits continuously wringing her hands. At other times she sits rocking her upper body or banging her right hand rhythmically on the table or on the arm of the chair where she sits. She also often wanders back and forth in the ward. Now and then she moans and groans. She seldom communicates with words and when she uses words they can hardly be understood.

b) There are 13 pairs of statements below that describe ways of understanding and managing Mrs NN's situation. Please tick one statement in each pair to indicate which sentence you agree with most strongly.

1)	Today's reality is important for Mrs NN. She therefore needs to be oriented to time, place and situation. □
	In Mrs NN's life today's reality is of less importance. □
2)	Mrs NN should be allowed to freely express herself even in seemingly meaningless behaviour. □
	Mrs NN should be corrected when she expresses seemingly meaningless behaviour. □
3)	To Mrs NN clock time is not important. Her experience of time is connected to feelings in the past. □
	To Mrs NN clock time is important. Therefore she should be oriented to clock time during the day. □
4)	To Mrs NN the most important thing is to relate to work on her past. □
	To Mrs NN the most important thing is to relate to work on her present. □
5)	By stimulating Mrs NN through repeating orientation such as 'Now it is eight in the morning and it is time for breakfast', it will be possible to bring Mrs NN back to reality. □
	Repeated orientation to the realities of the day may worsen Mrs NN's life situation. □
6)	When Mrs NN gives the wrong answer to a question related to the present, it is important to explain the correct answer to her in a natural way. □
	When Mrs NN gives the wrong answer to a question related to the present, it is not important to correct her or give her the right answer. □
7)	I should correct Mrs NN's behaviour and tell her what she ought to do. □
	I should accept Mrs NN's behaviour as she expresses it. □
8)	I believe Mrs NN's confusion has no meaning to her. □
	I believe that Mrs NN's confusion has meaning to her. □
9)	Mrs NN should be stimulated in relation to the past to prevent her condition worsening. □
	Mrs NN should be stimulated in relation to the present to prevent her condition worsening. □
10)	The aim of communicating with Mrs NN should be to help her handle her life situation in a better way in today's world. □
	The aim of communicating with Mrs NN should be to stimulate her feelings connected to the past. □
11)	When Mrs NN participates in group activities she should be told what to do. □
	When Mrs NN participates in group activities it is not necessary to tell her what to do. □
12)	If Mrs NN is allowed to live in the past, she will have more opportunities to keep her identity. □
	If Mrs NN is brought into the present, she will have more opportunities to keep her identity. □
13)	Mrs NN's needs are met in the best way if she is allowed to live in her own world', and as a health professional I must give her this opportunity when I communicate with her. □
	Mrs NN's needs are met in the best way within the frames of reality, and as a health professional I must focus on the present 'here and now' when I communicate with her. □

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adapted from Normann et al 1999

4.3 Permission from authors to use questionnaires

i)   Normann *et al.* (1999) questionnaire

ii) GRAS (Aukes et *al.*, 2007)

Mindfulness Course Evaluation

Thank you for attending this mindfulness training. We would be very grateful to receive your feedback and comments about the training. We will use this feedback to gauge the impact of this course and to make any necessary revisions or adaptations in the future. Thank you for giving it your attention.

Date: .... **Which course did you attend?** ....

Course content and Structure

1. How many sessions did you attend? (please circle number)

   1   2   3   4   5   6   7   8

2. Did you attend the all day session?   Y / N

3. How often have you used / practised the following course components?

	Not at all	Less than 1 x week	1 x week	2-4 x week	Most days
Body scan	1	2	3	4	5
Sitting meditation	1	2	3	4	5
Walking meditation	1	2	3	4	5
Mindful stretching	1	2	3	4	5
Mindfulness in everyday life	1	2	3	4	5
Handouts	1	2	3	4	5
Practice CDs	1	2	3	4	5
Homework practice	1	2	3	4	5

3. What have you find most helpful or beneficial?

....
....

4. What have you find least helpful or beneficial?

....
....

5. What have been the key moments / discoveries for you? (please describe)

....
....

6. How helpful did you find the following aspects of the course?

	Not at all Helpful		No change		Very Helpful
Being in a group	1	2	3	4	5
Experiential learning	1	2	3	4	5
Discussion / feedback	1	2	3	4	5
Homework practice	1	2	3	4	5
Pleasant / Unpleasant Events exercise	1	2	3	4	5
Communications exercise	1	2	3	4	5
The day of mindfulness	1	2	3	4	5
Experience of the leaders	1	2	3	4	5
Use of poetry / readings	1	2	3	4	5

How have you changed?

7. Compare the way you feel now with how you were before the start of the course.

	Much worse	Worse	No change	Improved	Much improved
Self-confidence / esteem	1	2	3	4	5
Self-contentment / wellbeing	1	2	3	4	5
Taking care of myself	1	2	3	4	5
Skills for relating to others	1	2	3	4	5
Management of personal stress	1	2	3	4	5
Management of work related stress	1	2	3	4	5
Energy levels and stamina	1	2	3	4	5
Ability to stay focussed	1	2	3	4	5
Ability to stay with what is difficult	1	2	3	4	5

8. Have there been any other changes you have noticed that you would like to comment on?

Future practice and application

9. How confident do you feel in your ability to sustain interest in mindfulness approaches?

Not at all confident 1 2 3 4 5 Very confident

10. How confident do you feel in your ability to sustain your personal formal mindfulness practice? (i.e. sitting meditation, body scan, mindful stretching)

Not at all confident 1 2 3 4 5 Very confident

11. How confident do you feel in your ability to sustain your application of mindfulness in everyday life?

Not at all confident 1 2 3 4 5 Very confident

12. How confident do you feel in your ability to develop the application of mindfulness in your working setting?

Not at all confident 1 2 3 4 5 Very confident

13. In what way do you feel that your mindfulness skills will influence your practice and client care?

14. What do you need to do now to consolidate your practice?

15. What supports will you use to help you to achieve this? (circle)

Mindfulness practice / supervision group   email network group   other meditation practice group

Other

16. Is there anything else you need to help you to consolidate and support your learning process?

17. Is there anything we can do / offer to facilitate this?

Finally:

18. Has this training matched your expectations?

Strongly agree   Agree   Disagree   Strongly disagree

19. Do you feel you have got something of lasting value or importance from this course?

Yes   No   Not sure

Please comment

20. What if anything would you like to change about the course?

21. Do you intend to go on to use mindfulness approaches in your work with patients eventually?   Yes   No   (circle)

22. Do you intend to go on to supervise or train others in mindfulness approaches eventually?   Yes   No   (circle)

4.4.3 Course outcome questionnaire (page 5)

23. Overall, how important has this course been to you on a scale of 1 to 10, with 1 being not at all important and 10 being extremely important?

Please say why you have given this rating

Thank you for your time

4.4.4 Weekly Mindfulness Practice Record

Mindfulness Homework record sheet   Week...

Day	What you tried	How did it go?
Monday		
Tuesday		
Wednesday		
Thursday		
Friday		
Saturday		
Sunday		

Were there any work situations where you were aware of using mindfulness this week?

Appendix 5: Additional information about qualitative analyses

5.1 Qualitative Focus Group Guide

Mindfulness in Dementia Care – Focus Group Discussion Guide

Questions

1. What effects (if any) do you feel that mindfulness training has had on your day to day life?

2. How do you feel that mindfulness training has affected the way that you relate to people with dementia and their families ?

3. During what work related situations (if any) were you able to use mindfulness techniques or ideas from this course?

4. In what ways (if any) has mindfulness affected the way that you think about your job?

5. How do you think that ideas from mindfulness could be applied to dementia care?

Prompts

The following prompts may be used to re-direct and facilitate the discussion:

Say more about that.

Earlier you mentioned something about .... Could you tell me more about that.

Do we have any different views about this question?

(e.g. to elicit positive and negative responses)

What do you think about this issue?

(e.g. if someone is not joining the discussion)

Let's hear from someone else about this. Did anyone have a similar experience?

(e.g. if someone is trying to dominate the discussion)

You were starting to say.....?

(e.g. to stop someone being cut off from the discussion)

Screenshot 1 — Focus_Group_1_Transcript[1]

P2: Yeah

P3: Kind of grounding as well sometimes. You feel kin odd like, Ok , well I've been to see one person and moving onto see the next person....

P2: Uhum

P3: Leave that behind

P2: It's almost like deep breadth and there you go

P4: It's almost like a centering

P3: What's the body doing ? And off you go.

P4: Coz you don't want to go.....Last patient was quite anxious ....You don't want to go to the next house exuding this anxiety

P2, Yeah - yeah

P4: Or sort of panic response you sort of calm yourself down. I've got an advantage – I drive to my next house I can put some distance between the two and then I start afresh, hopefully with a nice fresh smile (laughs)

P3: It's like the first interaction of the day 'Here I am'

P4: To me that's what it's like – it's just that sort of10 minutes of travel time and reminding myself about this patient, the next patient I'm going to see erm and then I just move into that one feeling fresh and having done a 3 minute (which I do quite often now erm)

Nodes: 29 References: 484 Read-Only Line: 618 Column: 0

Screenshot 2 — Focus_Group_1_Transcript[1]

P3: Um

P1: And that, that's a reminder... erm of the pace of life and the stresses of life and the need to nourish yourself

P3: Um

P4: Um

P5: Um

P1: and take time....

P5: I would agree with that, I think that ...um... so many different things over the years have faded into the background and it's really made me re-think a lot of these ideas. The mindful breathing I think we've said in the groups we've found that relatively easy to perform whereas maybe things like the body scan took longer and therefore weren't so easy and they had to be more planned... but the mindful breathing I think is something that we, or I tend to do a lot more. And the funny thing was that I'm...whenever I see people quite often they will actually stop breathing while I'm doing something and they'll sort of go 'Huh' And I'm the one who normally goes around saying, Well, know, you're allowed to breathe, Take a breath.

And what I find is that I'm now actually thinking about my own breathing a lot more. I've - normally I do think about my breathing but er, I'm more focused on how I'm breathing when I'm actually with a patient.

P3: Um

P5: I think that's been undoubtedly one of the biggest things for me.

Nodes: 29 References: 484 Read-Only Line: 63 Column: 0

P1: Is to mirror a calm

P3+P2: Uhum Uhum

P1: Person coming to speak with them. Erm, and you do see people relaxing into that, spending time and then people will be saying thankyou for listening,

P3+P2: Uh

P1: So there is that aspect of people appreciating that we do have time to sit and be with them

P3: Erm, but I guess we don't give enough credit to that because it's something that we do almost automatically. You don't sort of think, Ok - I am going to go into this intervention and I am going to speak calmly and quietly and just lower my voice

P2: It's just what you do

P3: And talk more slowly, you just do it.

P1: It's a bit like what you were saying you sort of – you probably go with the pace of the person.

P5: Yeah

P1: At the time y don't realise that you're doing..you know…, we wouldn't put a name to that …

P5: Yes , it's its – coz I will always, yeah I always start off at the pace of the person. But sometimes if…If someone I know can go a little bit faster but isn't, I will deliberately

---

outside. Er so, I was – I was wanting to shout out,

(laughs)

P4: But didn't. But er it was nice, there was an explosion of the senses all of a sudden and then the comfort went because we all went our separate ways

P3: Mmmm

P4: And er but there was so many other things to distract us and to keep us focused and interested

P5: It was one thing I noticed that stayed with the mindful or the silent day was that the…we as a group had agreed that we were'nt looking at each other all that often, but …But it was the fact I still felt that we were very much a group because we knew what the agenda was sort of thing erm, but I was out walking yesterday with my partner and er it's interesting coz she and I both tend to like to walk and just be with ourselves so there are quite long periods where we weren't talking. We weren't saying anything and it is very nice and it's amazing how noisy I am (laughs)

P5: I just, er, you know in my head

P3: Yeah

P5: And also I just tend to …I'm normally a very quiet reserved…No, no

(laughs)

P4: Yeah, yeah, yeah

(laughs)

Appendix 5.3 Table illustrating initial categories from consecutive analyses of the four focus groups displayed in approximate order of coverage according to focus group source

Focus Group 1	Focus Group 2	Focus Group 3	Focus Group 4
Reflections about dementia	Work applications	Work applications	Reflecting on course
Work applications	Reflections about dementia	Reflections about dementia	Reflections about dementia
We do this anyway	Mindfulness qualitites	Impact on relationships	Noticing emotions
Self awareness	The moment in dementia	Mindfulness qualities	Work Applications
The Silent Day	Managing stress	Noticing emotions	The moment in dementia
The moment in dementia	We do this anyway	The moment in dementia	We do this anyway
The breath	Noticing emotions	Self Awareness	Practice
Experience of practice	Reflecting on course	Hard to grasp	Experience of practice
The questionnaires	Re: work in general	We do this anyway	How do we apply this?
Noticing thoughts	My work role	Patient empathy	Hard to grasp
Reflecting on course	Noticing thoughts	Re: work in general	Self awareness
Patient empathy	How do we apply this ?	Practice	The questionnaires
Nourishing	Practice	Managing difficult situations	No effect
Being in a group	The Silent Day	Noticing thoughts	A beginning
Effect on personal life	Self awareness	Informal practice and 3MBS	Being in a group
Managing stress	Grounding	Feeling more focused	Effect on personal life
No effect	The breath	Managing energy	Managing difficult situations
Practice	Being in a group	Managing stress	Managing stress
The senses	Effect on personal life	Reflecting on course	Mindfulness qualities
	Impact on relationships	The breath	Nourishing
	Informal practice and 3MBS		Patient empathy
	Nourishing		Re: work in general
	The Silent Day		The breath

Appendix 6 Supplementary Analyses

Appendix 6.1 Mann Whitney U Tests comparing pre-intervention variables in completers and non-completers

Outcome measure	Mann-Whitney U	Z	p value
Age (years)	48.00	-.40	.689 ns
Time qualified (years)	28.00	-1.48	.139 ns
Time in role (years)	46.50	-.502	.616 ns
Time working in dementia (years)	36.50	-1.169	.242 ns
Week 1 GRAS score	61.00	-.121	.903 ns
Week 1 total ADQ	60.50	-.152	.879 ns
Week 1 ADQ hope	61.50	-.092	.927 ns
Week 1 ADQ person centred	60.00	-.183	.855 ns
Week 1 MBI emotional exhaustion	55.00	-.287	.774 ns
Week 1 MBI personal accomplishment	40.00	-1.243	.214 ns
Week 1 MBI depersonalisation	47.50	-.778	.437 ns
Week 1 Total KIMS	46.00	-.858	.391 ns
Week 1 KIMS observing	58.00	-.096	.924 ns
Week 1 KIMS describing	42.00	-1.12	.265 ns
Week 1 KIMS awareness	56.00	-.223	.823 ns
Week 1 KIMS acceptance	34.50	-1.591	.112 ns

Appendix 6.2 Within subjects Friedman testing of LOCF data (n=25) for intervention effect across scores at week 1 (WK1), week 8 (WK8) and week 12 (WK12)

	Friedman Value: $\chi^2(2)$	p-value	Post-hoc Dunn's test
GRAS	4.29	.117ns	
ADQ total score	6.82	.033*	WK1 vs. WK8 p>.05 ns WK1 vs. WK12 p>.05 ns WK8 vs. WK12 p>.05 ns
ADQ hope score	10.19	.006*	
ADQ person centred score	0.04	.980ns	WK1 vs. WK8 p>.05 ns WK1 vs. WK12 p<.05 * WK8 vs. WK12 p>.05ns
MBI emotional exhaustion	2.39	.302ns	
MBI personal accomplishment	6.66	.036*	WK1 vs. WK8 p>.05 ns WK1 vs. WK12 p>.05 ns WK8 vs. WK12 p>.05 ns
MBI depersonalisation	2.92	.232ns	
Total KIMS	8.40	.015*	WK1 vs. WK8 p>.05 ns WK1 vs. WK12 p>.05 ns WK8 vs. WK12 p>.05 ns
KIMS observing	18.30	<.001**	WK1 vs. WK8 p<.05* WK1 vs. WK12 p<.01* WK8 vs. WK12 p>.05 ns
KIMS describing	0.73	.694ns	
KIMS awareness	1.782	.410ns	
KIMS acceptance	2.678	.262ns	

*indicates statistical significance at p≤.05 level and ** indicates significance at p≤.001 level

Appendix 6.3 Within subjects Friedman testing with group mean insertion (n=17) for intervention effect across scores at week 1 (WK1), week 8 (WK8) and week 12 (WK12)

	Friedman Value: $\chi^2(2)$	p-value	Post-hoc Dunn's test
GRAS total score	7.28	.026*	WK1 vs. WK8 p<.05 * WK1 vs. WK12 p>.05 ns WK8 vs. WK12 p>.05 ns
ADQ total score	4.18	.124ns	
ADQ hope score	7.05	.029*	WK1 vs. WK8 p>.05 ns WK1 vs. WK12 p>.05 ns WK8 vs. WK12 p>.05 ns
ADQ person centred score	0.28	.867ns	
MBI emotional exhaustion	2.53	.283ns	
MBI personal accomplishment	4.04	.133ns	
MBI depersonalisation	1.57	.455ns	
Total KIMS	10.86	.004*	WK1 vs. WK8 p<.05 * WK1 vs. WK12 p<.05 * WK8 vs. WK12 p>.05 ns
KIMS observing	20.11	<.0001**	WK1 vs. WK8 p<.01 * WK1 vs. WK12 p<.001 * WK8 vs. WK12 p>.05 ns
KIMS describing	2.85	.240ns	
KIMS awareness	3.04	.219ns	
KIMS acceptance	6.33	.042*	WK1 vs. WK8 p>.05 ns WK1 vs. WK12 p>.05 ns WK8 vs. WK12 p>.05 ns

*indicates statistical significance at p≤.05 level and ** indicates significance at p≤.001 level

Appendix 6.4 Within subjects Friedman testing for complete outcome dataset (n=14) for intervention effect across scores at week 1 (WK1), week 8 (WK8) and week 12 (WK12)

	Friedman Value: $\chi^2(2)$	*p*-value	Post-hoc Dunn's test
GRAS total score	3.37	.185ns	
ADQ total score	6.27	.044*	WK1 vs. WK8 p>.05 ns WK1 vs. WK12 p>.05 ns WK8 vs. WK12 p>.05 ns
ADQ hope score	9.77	.008*	WK1 vs. WK8 p>.05 ns WK1 vs. WK12 p<.05 * WK8 vs. WK12 p>.05 ns
ADQ person centred score	.05	.975ns	
MBI emotional exhaustion	2.56	.278ns	
MBI personal accomplishment	4.57	.102ns	
MBI depersonalisation	2.36	.307	
Total KIMS	5.77	.056ns	
KIMS observing	15.64	>.001**	WK1 vs. WK8 p<.01* WK1 vs. WK12 p<.01* WK8 vs. WK12 p>.05 ns
KIMS describing	0.32	.850ns	
KIMS awareness	2.78	.249ns	
KIMS acceptance	4.12	.128ns	
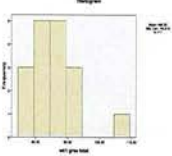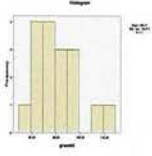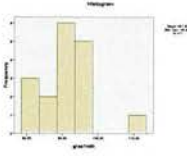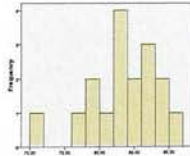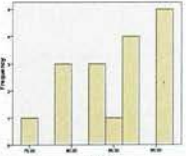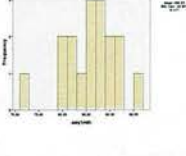
*indicates statistical significance at p≤.05 level and ** indicates significance at p≤.001 level
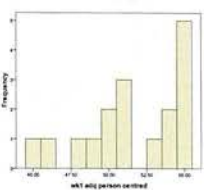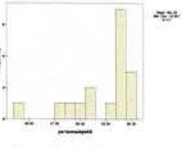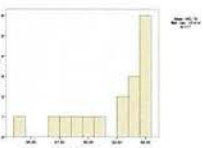
Appendix 6.5 Table illustrating response percentages for participants who completed the attitudes questionnaire in Normann et al (1999) where complete scores are available (n=8)
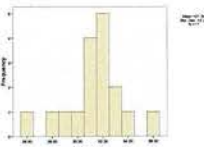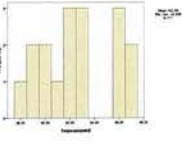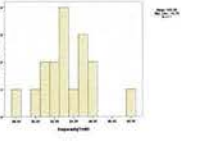
Question number	Response choice	Week1 %	Week 8 %	Week 12 %
1	Person centred	50	62.5	87.5
	Reality orientation	50	37.5	12.5
2	Person centred	100	100	100
	Reality orientation	0	0	0
3	Person centred	75	75	87.5
	Reality orientation	25	25	12.5
4	Person centred	100	37.5	62.5
	Reality orientation	0	62.5	37.5
5	Person centred	75	62.5	62.5
	Reality orientation	25	37.5	37.5
6	Person centred	37.5	50	50
	Reality orientation	62.5	50	50
7	Person centred	100	87.5	100
	Reality orientation	0	12.5	0
8	Person centred	100	100	100.00
	Reality orientation	0	100	0
9	Person centred	62.5	37.5	12,5
	Reality orientation	37.5	62.5	87.5
10	Person centred	25.00	25	50
	Reality orientation	75.00	75	50
11	Person centred	75.00	50	62.5
	Reality orientation	25.00	50	37.5
12	Person centred	100.00	75	75
	Reality orientation	0	25	25
13	Person centred	87.5	62.5	62.5
	Reality orientation	12.5	37.5	37.5

Appendix 6.6 Frequency distributions, kurtosis, skewness and normality testing (Kolmorov-Smirnov) of main and background outcome measures for the participant sample who submitted pre and post-intervention data (n=17)
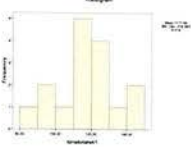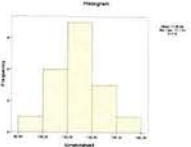
i) Total GRAS and ADQ and ADQ person centred and hope subdomains
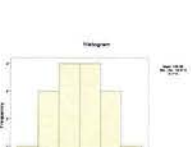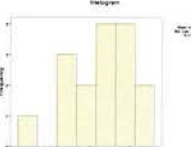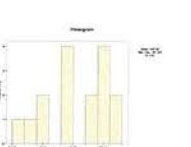
GRAS week 1	GRAS week 8	GRAS week 1
Kurtosis = 3.37 Skewness=1.40 D(17)=0.134, p=.20ns	Kurtosis = 0.588 Skewness=0.850 D(17)=0.152, p=.20ns	Kurtosis = 2.368 Skewness=0.945 D(17)=0.157, p=.20ns

ADQ week 1	ADQ week 8	ADQ week 12
Kurtosis = .404 Skewness=-.733 D(17)=0.131, p=.20ns	Kurtosis = -.924 Skewness=-.400 D(17)=0.132, p=.20ns	Kurtosis = 1.023 Skewness=-0.718 D(17)=0.122, p=.20ns
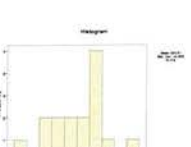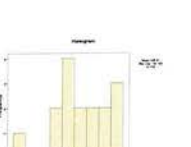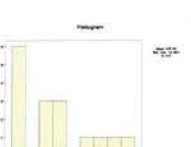
ADQ person centred week 1	ADQ person centred week 8	ADQ person centred week 12
Kurtosis =-0.641 Skewness=-0.641 D(17)=.181, p=.143 ns	Kurt osis =2.019 Skewness=-1.508 D(17)=.300, p=.00	Kurtosis = 0.388 Skewness=-1.153 D(17)=.242, p=.009
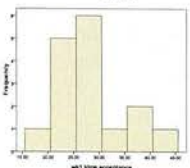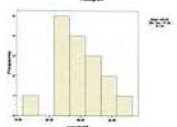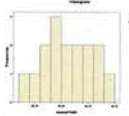
ADQ hope week 1	ADQ hope week 8	ADQ hope week 12
Kurtosis = 1.355 Skewness=-0.458 D(17)=.203, p=.06	Kurtosis = -1.17 Skewness=0.175 D(17)=.171, p=198	Kurtosis = 1.189 Skewness=0.412 D(17)=.139, p=.200
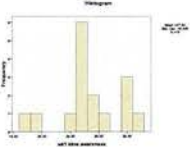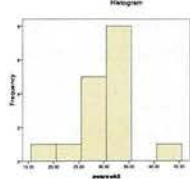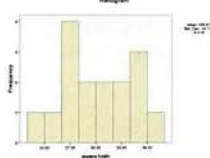
ii) Total KIMS scores and observing, describing, awareness and acceptance subscales

KIMS total week 1	**KIMS total week 8**	**KIMS total week 12**
Kurtosis = 0.192 Skewness=-0.223 D(16)=.116, p=.200	Kurtosis = 0.495 Skewness=0.463 D(16)=.113, p=.200	Kurtosis =-1.721 Skewness=0.136 D(16)=.198, p=.092
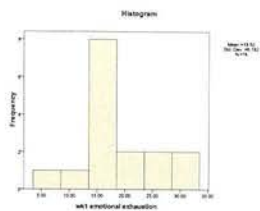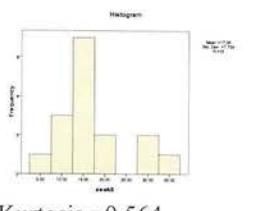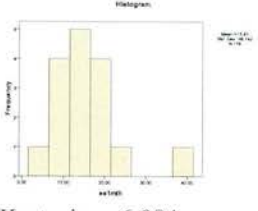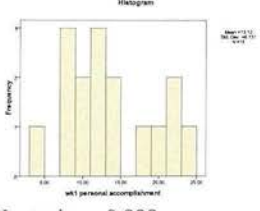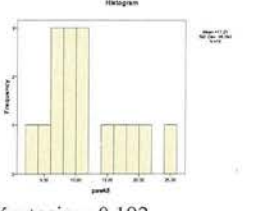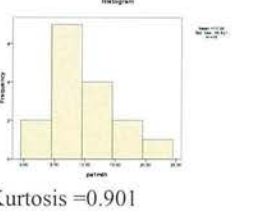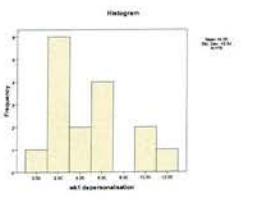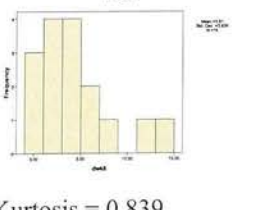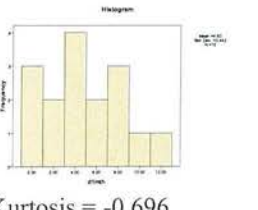
KIMS observing week 1	**KIMS total week 8**	**KIMS total week 12**
Kurtosis =-0.704 Skewness=-0.239 D(16)=.147, p=.20ns	Kurtosis = 1.056 Skewness=-0.747 D(16)=.107, p=.20ns	Kurtosis =--1.81 Skewness=-0.471 D(16)=.152, p=.20ns

KIMS describing week 1	**KIMS describing week 8**	**KIMS describing week 12**
Kurtosis =0.094 Skewness=-0.50 D(16)=0.135, p=.20ns	Kurtosis= 0.501 Skewness=-0.524 D(16)=0.119, p=.20ns	Kurtosis =-0.445 Skewness=0.797 D(16)=0.205, p=.07ns

KIMS acceptance week 1	**KIMS acceptance week 8**	**KIMS acceptance week 12**
Kurtosis = 0.629 Skewness=0.832 D(16)=0.198, p=.093ns	Kurtosis = 0.421 Skewness=0.116 D(16)=0.129, p=.200ns	Kurtosis =-0.919 Skewness=-.065 D(16)=0.113, p=.200ns

KIMS awareness week 1	**KIMS awareness week 8**	**KIMS awareness week 12**
Kurtosis =0.097 Skewness=-0.394 D(16)=0.175, p=.20ns	Kurtosis = 1.647 Skewness=-0.347 D(16)=0.149, p=.20ns	Kurtosis =-1.119 Skewness=0.095 D(16)=0.151, p=.20ns

iii) Normality tests for independent subscales of the Maslach Burnout Inventory (MBI): emotional exhaustion, lack of personal accomplishment and depersonalisation

MBI emotional exhaustion total week 1 Kurtosis = 0.415 Skewness=0.626 D(16)=0.162, p=.20ns	**MBI emotional exhaustion week 8** Kurtosis =0.564 Skewness=1.037 D(16)=0.242, p=.013*	**MBI emotional exhaustion week 12** Kurtosis = 6.084 Skewness=2.053 D(16)=0.269, p=.003*
MBI personal accomplishment week 1 Kurtosis = -0.999 Skewness=0.445 D(16)=0.136, p=.20ns	**MBI personal accomplishment week 8** Kurtosis =-0.192 Skewness=0.790 D(16)=0.206, p=.067ns	**MBI personal accomplishment week 12** Kurtosis =0.901 Skewness=0.900 D(16)=.176, p=.20ns
MBI depersonalisation total week 1 Kurtosis =0.125 Skewness=0.968 D(16)=0.177, p=.196ns	**MBI depersonalisation week 8** Kurtosis = 0.839 Skewness=1.239 D(16)=0.207, p=.066ns	**MBI depersonalisation week 12** Kurtosis = -0.696 Skewness=0.319 D(16)=0.144, p=.20ns

Appendix 6.7 Correlation exploring relationships between main outcome measures and levels of i) burnout and ii)mindfulness practice

i)Table showing Spearman correlations between GRAS, total ADQ, ADQ hope subdomain and independent subscales of the MBI (ee=emotional exhaustion, pa=personal accomplishment and d=depersonalisation) at 1 month

		gras1mth	adq1mth	hopeadq1mth
ee1mth	Correlation Coefficient	-.195	.198	.089
	Sig. (2-tailed)	.454	.446	.734
	N	17	17	17
pa1mth	Correlation Coefficient	-.462	-.094	-.061
	Sig. (2-tailed)	.062	.720	.816
	N	17	17	17
d1mth	Correlation Coefficient	-.328	-.106	-.039
	Sig. (2-tailed)	.199	.686	.882
	N	17	17	17

ii) Table showing Spearman correlations between GRAS, total ADQ, ADQ
hope and different forms of mindfulness practice during intervention

		gras1mth	adq1mth	hopeadq1mth
bodyscan frequency	Correlation Coefficient	.098	-.199	-.176
	Sig. (2-tailed)	.718	.460	.515
	N	16	16	16
sitting meditation frequency	Correlation Coefficient	.009	.041	.212
	Sig. (2-tailed)	.975	.881	.431
	N	16	16	16
walking meditation frequency	Correlation Coefficient	.156	-.157	-.220
	Sig. (2-tailed)	.579	.576	.432
	N	15	15	15
stretching frequency	Correlation Coefficient	.437	-.064	-.016
	Sig. (2-tailed)	.091	.815	.954
	N	16	16	16
mindfulness in everyday life	Correlation Coefficient	.145	-.239	-.212
	Sig. (2-tailed)	.592	.373	.430
	N	16	16	16