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Rebecca Watmough BSc Hons PGDip

**EXPLORING THE RELATIONSHIP BETWEEN MBCT
AND SPIRITUALITY**

Section A: A review of research on the relationship between spirituality and
mindfulness based interventions

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Summary of Portfolio

This portfolio explores the relationship between MBCT and spirituality.

Section A is a review examining quantitative research that measures for changes in spirituality using scales, and qualitative studies highlighting spiritual themes in relation to Mindfulness Based Interventions (MBIs). Limitations of findings are discussed and a number of conceptual difficulties inherent in attempting to measure spirituality quantitatively highlighted. A number of spiritual themes are found in reviewing qualitative research, however, this lacks detail. Further research is needed to build on existing theory on spiritual change processes in MBIs, and explore influencing factors.

Section B explores experiences of MBCT in relation to spiritual change, and the factors influencing these processes. People who had completed an MBCT course in a mental health service context gave in-depth interviews. The themes that emerged represented a range of interconnected processes that can occur, including connecting with the body, experiencing thoughts and feelings in a less reactive way, a changed perspective on the self, self-insight, a greater sense of compassion and connection, wisdom, a sense of meaning, achieving wholeness through connecting with pain and past trauma, and a sense of connection to a transcendent source. While intentions were important in mapping the particular aspects of change that occur, themes were common to people from a variety of spiritual backgrounds and spiritual changes occurred in people who had no prior spiritual orientations. The dialectic between the role of intentions and 'letting go' in relation to mindfulness is also explored. Clinical implications are discussed and suggestions made for future research.

Section C is a reflective account of the research process. This includes a critical appraisal of the learning that occurred, and relevant clinical and research implications.

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SECTION A:

**A review of research on the relationship between mindfulness based
interventions and spirituality**

Word Count

5474 (plus 27 additional words)

Abstract

While mindfulness based interventions (MBIs) are secular and the associated change processes initially explained in terms of cognitive and emotional impacts, there is now growing interest in the relationship between mindfulness and spirituality. This review examines quantitative research measuring changes in spirituality using spirituality scales, and qualitative studies that have highlighted spiritual themes in relation to MBIs. This review found that MBIs can lead to increases in some aspects of spirituality, as measured by a variety of different spirituality scales. However, methodological limitations mean the effect sizes may have been overestimated, and these findings may generalise to less religious/spiritual populations. Within the quantitative studies there is ambiguity about the specific aspects of spirituality that change, and conceptual difficulties inherent in attempting to measure spirituality quantitatively are discussed. The qualitative research suggests that compassion, an increased sense of meaning and a greater sense of connection with a transcendent source can develop in relation to MBIs, and the findings are discussed in relation to existing theory on change processes in MBIs. The qualitative research did not focus specifically on spirituality so lacked detail in this area. Further research is therefore needed on spiritual change processes in MBIs, and the factors that may influence these.

Introduction

The study of spirituality and religion has been of interest to psychologists for over a century, with William James (1902), asserting that there was something in people that seeks meaning in life beyond everyday concerns. However, throughout most of the 20th century, spirituality and religion were generally considered to be outside of the realms of mainstream scientific enquiry (Mills, 2002). The expansion of multiculturalism then brought with it greater exposure to different religious beliefs and practices, followed by the proliferation of alternative and complementary medicine, perhaps

reflecting efforts to bring the 'whole person' back into medicine (discussed in Mills, 2002). In recent years there has been a surge of interest in the role of spirituality in relation to health care and studies indicating its benefits in relation to wellbeing (for a review see Moreira-Almeida, Lotufo, Neto & Koenig, 2006). Psychological therapies that include mindfulness, a Buddhist based meditation practice, have become increasingly popular and are now commonly used in NHS settings. While mindfulness interventions are secular and the associated change processes were initially explained in terms of cognitive/emotional impacts, there is now growing interest in the relationship between mindfulness and spirituality.

There is a lot of research on the relationship between meditation and spirituality in Buddhist contexts; however, it can be difficult to disentangle this from the impact of the associated doctrine, which studying mindfulness in a secular setting avoids. This review will examine research on mindfulness based interventions (MBIs) that have assessed for changes in spirituality, and exploratory studies on the impacts of MBIs that have highlighted spiritual themes. This is prefaced by a brief description of MBIs and their evidence base, discussion of issues surrounding the definition and measurement of spirituality in research, and relevant psychological theory.

MBIs and their evidence base

Mindfulness can be defined as 'the awareness that emerges through paying attention on purpose, and non-judgementally to things as they are' (Kabat-Zinn, 1995, p.47). The established mindfulness based interventions that involve a significant amount of mindfulness meditation practice are Mindfulness Based Stress Reduction (MBSR, Kabat-Zinn, 1982, 1990), and Mindfulness Based Cognitive Therapy (MBCT, Segal, Williams & Teasdale, 2002), which was derived from MBSR. Both of these are eight week group meditation-based programmes. MBSR was originally devised for the management of chronic pain and unexplained medical conditions, and a review of randomised

controlled trials (RCTs) has found this to be effective in improving a number of mental health difficulties (Anderson, Lau, Segal & Bishop; 2007; Branstrom, Kvillemo, Brandberg & Moskowitz, 2010; Fjorback, Arendt, Ornbol, Fink & Walach, 2011). MBCT incorporates elements of cognitive therapy and was originally devised for the prevention of depressive relapse. A review of RCTs has shown MBCT to be effective in preventing depressive relapse and more recently treating current depression (Fjorback et al., 2011; Geschwind Peeters, Huibers, van Os & Wichers, 2012; Van Aalderen, Donders, Giommi, Spinhoven, Barendregt & Speckens, 2012). There is also growing evidence for MBCT helping other psychological difficulties (Godfrin & van Heeringen, 2010). Inherent within the quantitative study of the impacts of MBIs are assumptions regarding the appropriate definition and measurement of constructs.

Definitions and measurement of spirituality

There have been numerous attempts to conceptualise and measure spirituality with currently more than 120 different questionnaires that measure spirituality found to be in academic journals (de Jager Meezenbroek, 2012). Baer (2010, p.157) suggests that spiritual experience is a universal human capacity which, while expressed in religious frameworks, can exist separately from them. The concept of spirituality is particularly nebulous and definitions vary greatly. Hill and Pargament (2003) characterise spirituality as a search for, or engagement with, the sacred via experience of the divine being or object, 'ultimate reality' or 'ultimate truth', whereas others do not necessarily involve the existence of or a connection with a 'higher' or 'divine' being. Baer's (2010, p.158) definition is far broader and has been adopted for this review due to its inclusivity. She conceptualises spirituality as - 'a sense of inner peace; love, compassion and connectedness; peak experiences; no-self; a connection to a higher meaning; a sense of the sacred; mystical experience and/or a sense of transcendent awareness of a higher being or of linking to a higher being'. The scales devised to measure spirituality aim to establish a pathway upon which spirituality may

influence physical and mental health (eg. see Underwood & Teresi, 2002) and create a means by which clinical work can be assessed more holistically (Brown, Johnson & Parrish, 2007). Within these scales are attempts to elucidate a number of different constructs, such as expressions of spirituality, spiritual beliefs, spiritual experiences or multiple dimensions (Monod, Theologian & Büla, 2011). The specific assumptions underlying the measurement of spirituality therefore need to be made explicit in order to understand what is being assessed.

Theory on spiritual change processes in MBIs

Baer (2010) discusses spiritual engagement as a mechanism of change in MBIs, and relates this process to each of the aspects in her definition given above. She suggests that the spiritual effects of meditation may exist separately from yet interact with and contribute to effects of meditation in other domains. The concepts of 'no self', a sense of connection to a transcendent source, compassion and an increased sense of meaning will now be discussed as potential interrelated facets of spiritual change in MBIs, in association with possible change processes.

The concept of 'self-transcendence' has received a lot of attention both in relation to psychological and spiritual literature. Within Buddhist psychology is the teaching that there is no such thing as a permanent, unchanging self (Olendzki, 2010), and the experiential realisation of this results in less afflictive experience (Olendzki, 2010). This process is referred to in Shapiro, Carlson, Astin & Freedman's (2006) notion of 'reperceiving', involving a shift in perspective away from the narrow and limiting confines of personal points of reference, instead witnessing the contents of consciousness as it arises. Shapiro et al. (2006) suggest that 'reperceiving' occurs through the axioms of intention, attention and attitude, and may be in part responsible for the transformation that occurs through mindfulness practice. Sullivan (1995) suggests that this process of the suspension of identification with the self, where awareness is experienced as 'pure' has been repeatedly

documented over many centuries and within different cultural contexts, although the routes to achieving it and the spiritual significance attributed may differ.

In addition to the documented impacts of psychological difficulties, self-transcendence seems to be an important aspect of mystical type experiences and may be responsible for other aspects of spiritual or transpersonal change (eg. see Lancaster, 2004; Wilber, 1996). Baer (2010) discusses how the suspension of the usual sense of self may also be associated with experience of a sense of a transcendent source, which interacts with cultural contextual factors to influence the perceived source and associated meaning. Prayer and meditative practices have been documented throughout centuries as a means of achieving this sense of connection (see Daniels, 2005).

McCollam & Gehart (2010) suggest that 'reperceiving' is associated with the cultivation of self-compassion, which refers to where one's experiences are perceived as part of the larger human experience rather than seeing them as separating and isolating (Neff, 2009). The concept of self-compassion relates closely to the concept of mindfulness as part of it involves changing one's relationship with self-critical thoughts and judgements (see Neff, 2009). Baer (2010) also suggests that within mindfulness practice is the 'concept of linking in to a sense of inner wisdom that is non-reactive, more integrative and carries more meaning' p.177. Weissbecker, Salmon, Studts, Floyd, Dedert & Sephton (2002) suggest that mindfulness might facilitate a sense of life meaning by simply allowing space for the exploration of meaning.

Rationale and aims

While there may be a theoretical basis for spirituality developing in relation to MBIs, empirical research is needed to elucidate the extent to which these processes occur, and in which individuals. There are also issues concerning the appropriateness of different methodologies to assess and conceptualise spirituality in this type of research that need addressing. Reviewing research on the

relationship between spirituality and MBIs could lead to a greater understanding of the therapeutic effects of these interventions. A number of studies examining this have now been conducted but to date there has been no review evaluating the quality of the evidence that links spiritual development to MBIs.

The questions this review will aim to address are:

- i) Does spirituality develop in relation to MBIs, which aspects develop and what are the issues surrounding researching this quantitatively?
- ii) What does qualitative research show about aspects of spirituality that develop and the associated change processes?
- iii) How does this relate to existing theory on spirituality and change processes?
- iv) What are the directions for future research?

Results

Is spiritual development associated with MBIs? Quantitative Research

A number of studies have found that self-compassion develops in relation to MBIs. This finding is generally well established (eg. See Gilbert, 2005; Holzel, Lazar, Gard, Schuman-Olivier, Vago, & Ott, 2011) so the research will not be discussed in detail in this review. A criticism of the research on self-compassion and mindfulness is that the two constructs overlap considerably and therefore correlations would be expected (Holzel et al., 2011).

A literature search was conducted (see Appendix B) and nine studies were identified that measured spirituality in relation to MBIs and eight of these reported significant increases in spirituality, using four different scales that measured different aspects. These studies will now be outlined and critiqued in relation to the spirituality measure used.

Five of the studies (Ando, Morita, Akechi, & Ifuku, 2009; Birmie, Speca & Carson, 2010; Carmody, Reed, Kristiller & Merriam, 2008; Garland, Carlson, Cook, Lansdell & Speca, 2007; & Grabbe, Nguy & Higgins, 2011) used the FACIT-Sp (Peterman, Fitchett, Brady, Hernandez & Cella, 2002) and significant increases were found in all of these with the exception of Ando et al. The FACIT-Sp is divided into two components: meaning and peace (eight items) and 'the role of faith' (four items), which assumes a belief in a higher power. All of the studies reported a total score for this scale, with the exception of Carmody et al. (2008), who reported a significant increase in the meaning and peace subscale but no change in the role of faith component. While significant results were found for all of the studies except Ando et al., it is unclear in Garland et al. (2007), Birmie et al. (2010) and Grabbe (2011) if changes related to one or both components of the scale. A methodological limitation of these findings is that Garland et al. (2007) was the only study that used a control group, so there may have been other factors non-specific to the intervention that influenced the findings for the other three studies that reported change. Another limitation is the likely impact of attrition, which was high for all of these studies. Intention to treat analyses were sound, however, there may have been differences between completers and non-completers in unidentified characteristics that may have influenced results (eg. See Greeson, Webber, Smoski, Brantley, Ekblad, Suarez & Wolever, 2011, below), limiting the generalisability of findings.

The Index of Core Spiritual Experiences (INSPIRIT, Kass, 1991) was used by Astin (1997) and Shapiro Schwartz, and Bonner (1998). This was designed to measure two aspects of spiritual experiences; an appraisal of a distinct event that resulted in a personal conviction in God's existence (or some form of Higher Power as defined by the person), and the perception of a highly internalised relationship between God (spiritual core) and the person. Greeson et al. (2011) and Geary and Rosenthal (2011) used the Daily Spiritual Experiences Scale (DSES, Underwood & Teresi, 2002). The DSES is designed to measure a person's perception of the transcendent in their life. Eight out of 16 of the items in the scale include the word 'God', so the scale appears to be designed for people from religious backgrounds. Significant results were found on all of these scales, which include a strong

element of a relationship with a perceived higher power or transcendent source. However, Greeson et al. (2011) did not use a control group, again limiting the generalisability of results. Control groups were used for the other three studies, although for Astin (1997), a small sample size meant that power calculations would have been too weak to give reliable results. Attrition was again high for all of these studies with the exception of Shapiro et al. (1998). Intention to treat analyses were used for Geary et al. (2011) and Greeson et al. (2011) and these were sound. However, Greeson et al. (2011) found that non-completers were less likely to endorse spirituality as a motivator for doing the course and had more interest and experience in mindfulness pre-intervention, indicating a biased final sample.

Conclusion

The research therefore suggests that while increases in spirituality can be associated with participating in MBSR, these changes are likely to be overestimated by the research due to the impact of attrition. Greeson et al.'s (2011) finding that people who completed MBSR were more likely to endorse spirituality as a motivator for doing the course relates to theories on the importance of intentions for mindfulness practice (eg. Shapiro et al., 2006; Rosch, 2007), and suggests that spiritual intentions may be an important aspect of engagement with MBIs as well as possibly impacting on spiritual change. Based on the claims of the measures used, the aspects of spirituality that were found to increase in relation to MBSR were meaning and peace and an increased sense of experience of and connection with a transcendent source, at least in predominantly Christian, Western populations. Increases in spiritual well-being (FACIT-Sp) were found to be associated with increases in self-compassion and empathy (Birmie et al., 2010), mindfulness (Birmie et al., 2010; Carmody et al. 2008), post-traumatic growth and decreases in stress and mood disturbance (Garland et al. 2007). Increases in spiritual experiences were associated with improved mental health (DSES; Greeson et al., 2011). This may suggest that all of these

constructs overlap somewhat, and spirituality scales have been criticised for measuring positive aspects of mental health (Koenig, 2008; de Jager Meezenbroek et al., 2012), particularly the FACIT-Sp. This can therefore make such associations tautological, and the conclusions of this research are dependent upon the validity of the spirituality scales, an area which has generated controversy (see Moberg, 2010).

Experience of spiritual change in MBIs: Qualitative research

A review of qualitative research in this area found that no studies have specifically focused on spirituality in mindfulness based interventions, although there have been a large number of qualitative studies on the effects of the intervention. Of these, nine identified themes that could be defined as spiritual using a broad definition (for search strategy, see Appendix B). All of these studies will be included in the review due to the low number of qualitative studies reporting spiritual change and the potential of the broader research to contribute to understanding change processes. Of the studies that reported spirituality as a theme, it appears that none included questions that related specifically to spirituality, and that the theme arose from open ended questions.

Of the nine studies, four reported increased compassion in relation to MBSR or MBSR-based programs and three in relation to an MBCT course. An increased sense of connection with a higher power was reported in two studies, and an increased sense of meaning was reported in association with four MBSR studies and one in relation to a two week mindfulness based programme. A change in belief systems and questioning of world view was reported in one MBSR study. This research will now be outlined according to these main themes.

Compassion

The development of compassion was reported as a theme in four mindfulness based programs for counselling students (Christopher, Chrisman, Trotter-Mathison, Schure, Dahlen, & Christopher, 2011; Christopher & Maris, 2010; Gokhan, Meehan & Peters, 2010; Newsome, Chambers Christopher, Dahlen & Christopher, 2006). Christopher et al. (2011) reported that participants developed more compassion and acceptance towards themselves and others. Participants spoke of this developing due to less reactivity and being more able to tolerate feelings. They also spoke about being able to cultivate intentional compassion more readily.

Allen, Bromley, Kuyken and Sonnenberg (2009) found that self-compassion and increased recognition of own needs developed in relation to an MBCT course for people with recurrent depression. Similarly, Bailie, Kuyken and Sonnenberg (2012) reported that empathy and acceptance increased in relation to an MBCT course for parents with depression. It was reported that this developed as a result of gaining a broader perspective. Developing self-compassion and becoming less self-critical and judgemental was reported by Dellbridge and Lubbe (2009) in association with a one-to-one mindfulness program with a 17 year old girl. This research therefore supports the notion that self-compassion can develop through MBIs and this also relates to compassion and empathy towards others. Developing greater acceptance and less judgement seemed to be a part of this process.

Increased sense of connection with a higher power

One year after an MBSR course for nurses Frisvold, Lindquist and McAlpine (2012) reported that participants spoke of an increased sense of connection with a higher power through the practices. 'you need to journey inward and allow whatever higher power speaks to us and kind of fill up that space', p.273. There was reference to some of the meditations being used as a prayer

practice, 'I have really taken the walking meditation to heart and use it as a prayerful journey experience and I do it all the time', p.273.

In relation to an MBSR drop-in course for people with cancer Mackenzie, Carlson, Munoz and Speca (2007) similarly reported that meditation connected with their other spiritual and religious practices; 'A lot of times I'll do a meditation and then do a prayer after that or before...I'll kind of link the two together', p.65. Another person saw meditation as a form of prayer, 'meditation is a form of self-prayer. It's spending time with myself, not looking outside but looking within', p.65. This research therefore seems to suggest that spiritual experiences involving a sense of connection to a transcendent source can develop through mindfulness in people who have a religious practice.

Appreciation of and sense of meaning in life

Developing an increased sense of meaning was reported in relation to MBSR. In studying people with cancer, Mackenzie et al. (2007) found that mindfulness was viewed as a powerful method for coming to terms with their situations in ways that provided 'comfort, meaning and direction in times of high stress and uncertainty', p.64. It was reported that mindfulness meditation 'facilitated personal transformation on several levels', p.64. For example, one participant reported 'the way I look at cancer is that once you get through the awfulness it's a very powerful motivator to live your life', p.65. Ando, Morita, Akechi and Ifuku (2011) explored the experiences of people with cancer pre and post a two week mindfulness based intervention. Personal growth and spirituality were chosen as themes both pre and post intervention, which included the sub-category of 'recognition of importance of limited life or time'. Gratitude was also expressed post intervention.

Frisvold et al. (2007) also reported in relation to MBSR under the theme of 'spiritual awakening', that participants reported, 'an awakening or a renewed focus', p.273, and for another, 'a sense of higher purpose in life and reconnection with an important element in their lives that they had lost sight of or did not place enough importance on', p.273. In relation to an MBSR program for

people with chronic pain, Marone, Lynch, Greco, Tindle & Welner (2009) reported participants feeling 'refreshed and regenerated' and 'profound life altering changes', p.845. These specific aspects were not explored in detail, however. Newsome et al. (2006) reported a theme of 'spiritual awareness', whereby participants reflected on their belief systems and were challenged to look at their worldviews, with positive impacts. It therefore seems that MBIs can help enable people to feel a life enhancing sense of meaning in relation to experiences of physical adversity or the prospect of death.

Methodological Issues

The quality of the nine studies was assessed in relation to Mays & Pope's (2000) guidelines, which involve two broad criteria: validity and relevance. A dimension of relevance is the extent to which findings can generalise to other settings, so requires a level of detail in reporting of individual factors and context. Validity includes 'clear exposition of methods of data collection and analysis', p.51. The studies will be discussed in relation to validity, and relevance will be discussed more generally.

Of the total studies included, three used content analysis (Strauss and Corbin, 1994; Patton, 1987), one grounded theory (Glaser & Straus, 1967), two used thematic analysis (Braun & Clarke, 2006), one used an interpretivist paradigm (Creswell, 2002), and two did not report any established qualitative method. Most of the studies gave detail of the qualitative methodologies including checking procedures, allowing sufficient confidence that these findings were valid. The exceptions were Ando et al. (2011) and Gokhan et al. (2002), neither of which gave information regarding the particular qualitative methodology used. Without following the procedures of established qualitative methods or basing procedures on any theoretical foundation, it is unclear whether this process was systematic and/or appropriate. However, the findings presented by Ando et al. (2011) and Gokhan

et al. (2002) are similar to those presented in other studies that do report more vigorous methods, so this does not affect the overall themes presented. In Frisvold et al. (2007), reflexive tape recording and journaling was used to document personal reactions and identify biases that may affect the analysis. This is particularly important in the area of spirituality, where personal beliefs and values may be strongly held, and is considered important for validity (Mays & Pope, 2000). However, where studies did not use this, checking procedures were employed by other researchers or the participant to ensure that themes were closely related to data. Again, sufficient confidence is therefore warranted in the themes presented.

Spiritual change and context

Where studies assessed change in spirituality, prior beliefs and religious context is important in interpretation of results. With the exception of Ando et al. (2009; 2011) (in Japan) all of the quantitative studies were based in the USA, where active religion is more prevalent than in European countries such as the UK (Census USA, 2012; Census UK, 2011). The majority of participants in the studies identified themselves as Christian, Catholic or Protestant, and in Greeson et al. (2011), 70% identified themselves as Christian. It may have been that where people were already religious, their spiritual experiences were strengthened as a result of mindfulness based interventions. In Greeson et al. (2011), 50% of the sample selected 'deepening spirituality' as a purpose for doing the course. It remains unclear whether change was observed in those who did not have spiritual beliefs or intentions before the course. None of the qualitative studies stated participants' religious orientations, although prayer practices were referred to for the two that reported spiritual changes, which suggests that religious practices were followed by at least some participants.

While a high number of people in the studies may have been religious, the diversity in clinical need amongst the studies adds to the generalisability of findings. Greeson et al. (2011) and Birmie et al. (2010) used a sample of 'psychologically healthy' participants and Grabbe et al. (2012) studied homeless youth. Overall there was a fairly diverse range of ages but with the exception of Grabbe et al. (2012), the samples were demographically quite similar being mostly well educated, middle class and female. However, this seems to be largely representative of the type of people who currently opt for MBSR, and therefore the results of such studies have ecological validity.

All of the quantitative research on spirituality identified was in relation to MBSR. It is unclear whether this reflects a preference for MBSR over MBCT in the US where research on MBIs and spirituality was conducted, or whether MBSR is perceived as the more spiritual intervention. In the qualitative research reviewed, the studies on MBCT only related to compassion and empathy whereas an increased sense of meaning and sense of connection with a higher power were only expressed in relation to MBSR. Again, this may suggest areas of change are more specific to one intervention, or results may reflect differences in intentions. As MBCT is predominantly used for people who suffer with depression who are highly self-critical, self-compassion may be more of a desired outcome, whereas people engaging in MBSR may be seeking more general impacts in terms of well-being, and therefore more likely to describe other aspects of spiritual change.

As already discussed, the likely impact of attrition would impact on the generalisability of findings. This is also true of the qualitative research, where the expectations and hopes of the researchers are likely to elicit particular, positive narratives, over alternative narratives that may be shared in a different context. The perceived purpose of the MBI would have also been likely to have influenced not only the way that the MBI was approached but also what was said in terms of what was considered of relevance to the research, which could be one explanation for the relatively low number of spiritual themes reported in the qualitative research overall.

Discussion

This review has shown that MBIs *can* lead to increases in some aspects of spirituality, as measured by a variety of different spirituality scales. However, the effect sizes may have been overestimated by the impact of attrition, and these findings may not be generalisable to less religious/spiritual populations.

There is, however, a lack of clarity regarding what it is that changes as a number of scales have been used to measure different aspects of spirituality in relation to MBIs, such as spiritual well-being, spiritual experiences and a relationship with the transcendent, all of which have identified changes in relation to MBSR. However, spirituality is presented as a single construct at times within all of the studies, which is misleading. As Moberg (2010) argues, spirituality is too huge and complex for certain types of scientific study and that ‘...to conclude that a research scale actually measures spirituality as a whole or that its scores are equivalent to spirituality itself...is a serious ontological reductionism’, p.5. Underhill states that spirituality scales attempt to establish a pathway upon which spirituality may influence well-being, and it seems that numerous potential pathways have been identified in relation to MBIs, and recognition of these factors indeed brings in a more holistic assessment of outcome (see Brown et al., 2007). However, there remain some questions regarding the validity of the constructs the scales claim to measure, particularly when a single score is given to represent several components. Koenig (2008) argues against tautological nature of the spirituality scales, where they are found to correlate with well-being, although it could be argued that spirituality in a broad sense is an important aspect of well-being, rather than a distinct construct.

While spirituality may be associated with well-being, the possibility that spiritual beliefs or experiences can occur alongside emotional distress should not be overlooked (as Koenig, 2010, discusses). The scales included in these quantitative studies, however, only measure positive aspects of spirituality and therefore would fail to highlight such instances. In measuring aspects of spirituality in relation to MBIs it is necessary to be explicit about what is being assessed and where

any changes lie. As spiritual change may occur in different aspects in different individuals, it could be argued that a holistic and inclusive account of change is impossible by measurement on a single scale.

The qualitative research highlighted some aspects of spiritual change that people report in relation to MBIs and has elucidated some of the processes by which these changes can occur. Baer (2010) suggests that a greater sense of meaning can develop in relation to mindfulness by allowing space for exploration. A number of people made reference to mindfulness as a process in which becoming less reactive and less self-critical allows compassion to develop towards self and others through a process of becoming less judgemental and gaining more acceptance. This may also relate to theory discussed (Baer, 2010; Olendzki, 2010; Shapiro et al., 2006; Sullivan, 1995), where a shift in perspective away from the narrow and limiting confines of personal points of reference (or self) leads to transformation. A greater sense of meaning was also reported to arise in people who reported that they became more spiritual as a result of the MBI, which is again supported by previous research and theory (eg. Baer, 2010; Weissbecker et al., 2002). For some people with cancer, people spoke of mindfulness facilitating a greater sense of peace in relation to adverse experiences, which supports Garland et al.'s (2007) findings that post traumatic growth (measured by the Post Traumatic Growth Inventory-Revised; Tedeschi & Calhoun, 1996) increased in relation to MBSR. People reported that they felt a sense of spiritual connection that had a positive impact on their lives, and for some who were religious, it allowed a greater sense of connection with a higher power. This supports the notion that meditative practice can lead to experiences involving a sense of connectedness with a transcendent source (eg. see Wilber, 1996). The qualitative research therefore supports the notion of MBIs not only being of clinical benefit by helping to alleviate distress, but also by facilitating growth and transformation, for some people.

It is unclear from both the qualitative and quantitative research to whom these impacts may apply, which relates to Baer's (2010) point that individual differences exist in the capacity for and

interest in spiritual engagement. Individual intentions are considered an important aspect of transformation within mindfulness (Shapiro et al. (2006), and are considered the foundation of everything in Buddhism (Rosch, 2007). Methodological limitations of the quantitative research have meant that there are difficulties with generalisability, and the qualitative research lacks detail with regards to characteristics of participants and therefore whom these findings may be applicable to. There is also the question of how different mindfulness interventions may be experienced differently, and the role of the specific aspects of the intervention versus the intentions of people participating. If spirituality develops through a process of 'letting go' (of thoughts/self-referential experience), one may expect that this would occur regardless of spiritual intentions and prior beliefs and practices. It may be more the interpretation and construction of such experiences that are subject to these influences.

Implications and future research

It seems that quantitative designs create a number of epistemological challenges, making qualitative methodologies arguably more suitable for studying the complex and individual nature of spiritual change in relation to MBIs. To date there have been no qualitative studies that have focused specifically on spirituality in mindfulness interventions, which is needed to understand these processes in greater depth and build on existing theory. In particular, the role of intentions could be explored in more detail and the influence of existing religious and spiritual frameworks on spiritual change. It is also unclear how body awareness within mindfulness may influence spiritual change. In Theravada Buddhism, awareness of the body is taught as a foundation for mindfulness (Holzel et al., 2011), and proponents of integral approaches to spirituality view the body as an important vehicle for spiritual development (see Ferrer, 2003; Wilber, Patten, Leonard & Morelli 2008). It is currently unclear whether spirituality is experienced through connecting with the body, or whether spiritual changes are perceived to occur through a process of 'transcendence' to something 'higher' than the

experience of the self, as structural/hierarchical models of transpersonal development appear to advocate (eg. Wilber, 1996). In addition to this, all of the research reviewed has suggested that the spiritual changes associated with these interventions were positive, whereas research on spirituality has identified negative as well as positive impacts (Moreira-Almeida et al., 2006). It would be beneficial to explore whether people experience any difficulties in relation to spiritual changes occurring through MBIs.

Conclusion

This review has shown that a number of aspects of spirituality can develop in relation to mindfulness based interventions, and these can include the development of compassion, a sense of connection with a transcendent source and a greater sense of meaning. There are a number of conceptual difficulties inherent in attempting to measure spirituality quantitatively that this review has highlighted, making the results of such studies difficult to interpret. The qualitative research to date has highlighted some of the processes involved in mindfulness interventions that relate to spiritual aspects of change, however, this research has not focused specifically on spirituality and lacked detail. The research also neglected to provide detailed information about the religious or spiritual orientations of participants who reported such changes, so it is unclear to whom findings can be applied. Questions remain regarding the specific aspects of spirituality that may develop and associated change processes, how these may relate to spiritual orientation and the role of intentions. Further research in this area could develop understanding of MBIs and help elucidate individual differences in how people engage with the interventions.

References

- Allen, M., Bromley, A., Kuyken, W., & Sonnentag, S. J. (2009). Participants' Experiences of Mindfulness-Based Cognitive Therapy: "It Changed Me in Just about Every Way Possible". *Behavioural and Cognitive Psychotherapy*, 37(4), 413.
- Ando, M., Morita, T., Akechi, T., Ito, S., Tanaka, M., Ifuku, Y., & Nakayama, T. (2009). The efficacy of mindfulness-based meditation therapy on anxiety, depression, and spirituality in Japanese patients with cancer. *Journal of palliative medicine*, 12(12), 1091-1094.
- Ando, M., Morita, T., Akechi, T., & Ifuku, Y. (2011). A qualitative study of mindfulness-based meditation therapy in Japanese cancer patients. *Supportive Care in Cancer*, 19(7), 929-933.
- Astin, J.A. (1997). Stress reduction through mindfulness meditation: Effects on psychological symptomatology, sense of control, and spiritual experiences. *Psychotherapy & Psychosomatics*, 66, 97-106.
- Baer, R. (Ed.). (2010). *Assessing mindfulness and acceptance processes in clients: Illuminating the theory and practice of change*. Context Press.
- Bailie, C., Kuyken, W., & Sonnentag, S. (2012). The experiences of parents in mindfulness-based cognitive therapy. *Clinical child psychology and psychiatry*, 17 (1), 103-119.
- Birmie, K., Speca, M. & Carson, L. (2010). Exploring self-compassion and empathy in the context of mindfulness-based stress reduction (MBSR). *Stress and Health*, 26(5), 359-371
- Bränström, R., Kvillemo, P., Brandberg, Y., & Moskowitz, J. T. (2010). Self-report mindfulness as a mediator of psychological well-being in a stress reduction intervention for cancer patients—A randomized study. *Annals of Behavioral Medicine*, 39(2), 151-161.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative research in psychology*, 3(2), 77-101.
- Brown, D. R., Johnson, E. P., & Parrish, M. S. (2007). Spirituality assessments: Limitations and recommendations. *Vistas Online*. Retrieved from [http: counselingoutfitters.com](http://counselingoutfitters.com).

comvistasvistas07Brown.htm.

- Brown, K. W., & Ryan, R. M. (2003). The benefits of being present: mindfulness and its role in psychological well-being. *Journal of personality and social psychology*, 84(4), 822.
- Carmody, J., Reed, G., Kristiller, J., & Merriam, P. (2008). Mindfulness, spirituality and health related symptoms. *Journal of psychomatic research*, 64, 939-403.
- Carlson, L. E., & Thomas, B. C. (2007). Development of the Calgary symptoms of stress inventory (C-SOSI). *International Journal of Behavioral Medicine*, 14(4), 249-256.
- Census UK (2011) Religion. *The Office of National Statistics*. Retrieved Feb 2013 from: <http://www.ons.gov.uk/ons/guide-method/census/2011/index.html>
- Census USA (2012). Religion in the US. *United States Census Bureau*. Retrieved Feb 2013 from: <http://www.census.gov/compendia/statab/2012/tables/12s0075.pdf>
- Christopher, J. C., Chrisman, J. A., Trotter-Mathison, M. J., Schure, M. B., Dahlen, P., & Christopher, S. B. (2011). Perceptions of the Long-Term Influence of Mindfulness Training on Counselors and Psychotherapists A Qualitative Inquiry. *Journal of Humanistic Psychology*, 51(3), 318-349.
- Christopher, J. C., & Maris, J. A. (2010). Integrating mindfulness as self-care into counselling and psychotherapy training. *Counselling and Psychotherapy Research*, 10(2), 114-125.
- Creswell, J. (2002). *Educational Research: Planning, Conducting, and Evaluating Quantitative and Qualitative Research*. Saddle River, NJ: Prentice Hall.
- Daniels, M. (2005). *Shadow, self, spirit: Essays in transpersonal psychology*. Exeter, UK: Imprint Academic.
- Davis, M. H. (1983). Measuring individual differences in empathy: Evidence for a multidimensional approach. *Journal of personality and social psychology*, 44(1), 113.
- Dellbridge, C. A., & Lubbe, C. (2009). An adolescent's subjective experiences of mindfulness. *Journal of Child & Adolescent Mental Health*, 21(2), 167-180.

- de Jager Meezenbroek, E., Garssen, B., van den Berg, M., van Dierendonck, D., Visser, A., & Schaufeli, W. B. (2012). Measuring spirituality as a universal human experience: A review of spirituality questionnaires. *Journal of religion and health*, 51(2), 336-354.
- Feldman, G., Hayes, A., Kumar, S., Greeson, J., & Laurenceau, J. P. (2007). Mindfulness and emotion regulation: The development and initial validation of the Cognitive and Affective Mindfulness Scale-Revised (CAMS-R). *Journal of Psychopathology and Behavioral Assessment*, 29(3), 177-190.
- Ferrer, J. N. (2003). Integral transformative practice: A participatory perspective. *Journal of Transpersonal Psychology*, 35(1), 21-42.
- Frisvold, M. H., Lindquist, R., & McAlpine, C. P. (2012). Living Life in the Balance at Midlife Lessons Learned From Mindfulness. *Western Journal of Nursing Research*, 34(2), 265-278.
- Fjorback, L. O., Arendt, M., Ørnbøl, E., Fink, P., & Walach, H. (2011). Mindfulness-Based Stress Reduction and Mindfulness-Based Cognitive Therapy—a systematic review of randomized controlled trials. *Acta Psychiatrica Scandinavica*, 124(2), 102-119.
- Gandhi, S. K., Warren Salmon, J., Zhao, S. Z., Lambert, B. L., Gore, P. R., & Conrad, K. (2001). Psychometric evaluation of the 12-item short-form health survey (SF-12) in osteoarthritis and rheumatoid arthritis clinical trials. *Clinical therapeutics*, 23(7), 1080-1098.
- Gilbert, P. (2005). *Compassion: Conceptualisations, research and use in psychotherapy*. Psychology Press.
- Garland, S. N., Carlson, L. E., Cook, S., Lansdell, L., & Speca, M. (2007). A non-randomized comparison of mindfulness-based stress reduction and healing arts programs for facilitating post-traumatic growth and spirituality in cancer outpatients. *Supportive Care in Cancer*, 15(8), 949-961.
- Geary, C., & Rosenthal, S. L. (2011). Sustained impact of MBSR on stress, well-being, and daily spiritual experiences for 1 year in academic health care employees. *The Journal of Alternative and Complementary Medicine*, 17(10), 939-944.

- Geschwind, N., Peeters, F., Huibers, M., van Os, J., & Wichers, M. (2012). Efficacy of mindfulness-based cognitive therapy in relation to prior history of depression: randomised controlled trial. *The British Journal of Psychiatry*, *201*(4), 320-325.
- Glaser, B. G., & Strauss, A. L. (1967). *The discovery of grounded theory: Strategies for qualitative research*. Aldine de Gruyter.
- Godfrin, K. A., & Van Heeringen, C. (2010). The effects of mindfulness-based cognitive therapy on recurrence of depressive episodes, mental health and quality of life: A randomized controlled study. *Behaviour research and therapy*, *48*(8), 738-746.
- Gökhan, N., Meehan, E. F., & Peters, K. (2010). The value of mindfulness based methods in teaching at a clinical field placement 1, 2, 3. *Psychological reports*, *106*(2), 455-466.
- Grabbe, L., Nguy, S. T., & Higgins, M. K. (2012). Spirituality Development for Homeless Youth: A Mindfulness Meditation Feasibility Pilot. *Journal of Child and Family Studies*, *21*(6), 925-937.
- Greeson, J. M., Webber, D. M., Smoski, M. J., Brantley, J. G., Ekblad, A. G., Suarez, E. C., & Wolever, R. Q. (2011). Changes in spirituality partly explain health-related quality of life outcomes after Mindfulness-Based Stress Reduction. *Journal of behavioral medicine*, *34*(6), 508-518.
- Hill, P. C., & Pargament, K. I. (2003). Advances in the conceptualization and measurement of religion and spirituality. *American psychologist*, *58*(1), 64-74.
- Hölzel, B. K., Lazar, S. W., Gard, T., Schuman-Olivier, Z., Vago, D. R., & Ott, U. (2011). How does mindfulness meditation work? Proposing mechanisms of action from a conceptual and neural perspective. *Perspectives on Psychological Science*, *6*(6), 537-559.
- James, W. (1902). The varieties of religious experience. From James, W. (1987). *William James: Writings 1902–1910*, 1-477.
- Kabat-Zinn, J. (1995). *Wherever you go, there you are: Mindfulness meditation in everyday life*. Hyperion.
- Shapiro, S. L., Carlson, L. E., Astin, J. A., & Freedman, B. (2006). Mechanisms of mindfulness. *Journal of clinical psychology*, *62*(3), 373-386.
- Kabat-Zinn, J. (1982). An outpatient program in behavioral medicine for chronic pain patients based

- on the practice of mindfulness meditation: Theoretical considerations and preliminary results. *General hospital psychiatry*, 4(1), 33-47.
- Kabat-Zinn, J. (1990). Full catastrophe living: Using the wisdom of your mind and body to face stress, pain, and illness. *New York: Delacorte*.
- Kass, J. D., Friedman, R., Leserman, J., Zuttermeister, P. C., & Benson, H. (1991). Health outcomes and a new index of spiritual experience. *Journal for the Scientific Study of Religion*, 203-211.
- Koenig, H. G. (2008). Concerns about measuring "spirituality" in research. *The Journal of nervous and mental disease*, 196(5), 349-355.
- Koenig, H. G. (2010). Spirituality and mental health. *International Journal of Applied Psychoanalytic Studies*, 7(2), 116-122.
- Lau, M. A., Bishop, S. R., Segal, Z. V., Buis, T., Anderson, N. D., Carlson, L., ... & Devins, G. (2006). The Toronto mindfulness scale: Development and validation. *Journal of clinical psychology*, 62(12), 1445-1467.
- Lancaster, B. L. (2004). *Approaches to Consciousness: The Marriage of Science and Mysticism*. Basingstoke, UK: Palgrave Macmillan.
- Mackenzie, M. J., Carlson, L. E., Munoz, M., & Speca, M. (2007). A qualitative study of self-perceived effects of mindfulness-based stress reduction (MBSR) in a psychosocial oncology setting. *Stress and Health*, 23(1), 59-69.
- Mays, N., & Pope, C. (2000). Qualitative research in health care: Assessing quality in qualitative research. *BMJ: British Medical Journal*, 320(7226), 50.
- McCollum, E. E., & Gehart, D. R. (2010). Using mindfulness meditation to teach beginning therapists therapeutic presence: A qualitative study. *Journal of Marital and Family Therapy*, 36(3), 347-360.
- McNair, D. M., Lorr, M., & Droppleman, L. (1971). Manual for the Profile of Mood States. San Diego, CA: Educational and Industrial Testing Service. Mills, P. J. (2002). Spirituality, religiousness, and health: From research to clinical practice. *Annals of*

Behavioral Medicine, 24(1), 1-2.

Monod, S., Theologian, E. R., MM, S. R. M., & Büla, C. J. (2011). Instruments measuring spirituality in clinical research: a systematic review. *Journal of general internal medicine*, 26(11), 1345-1357.

Moreira-Almeida, A., Lotufo Neto, F., & Koenig, H. G. (2006). Religiousness and mental health: a review. *Revista brasileira de psiquiatria*, 28(3), 242-250.

Neff, K. D. (2009). The role of self-compassion in development: A healthier way to relate to oneself. *Human development*, 52(4), 211-214.

Newsome, S., Christopher, J., Dahlen, P., & Christopher, S. (2006). Teaching counselors self-care through mindfulness practices. *The Teachers College Record*, 108(9), 1881-1900.

Olendzki, A. (2010). *Unlimiting mind: The radically experiential psychology of Buddhism*. Wisdom Publications (MA).

Patton, M. Q. (1987). *How to use qualitative methods in evaluation* (Vol. 4). SAGE Publications, Incorporated.

Peterman, A. H., Min, G. F. D., Brady, M. J., & Cella, D. (2002). Measuring spiritual well-being in people with cancer: the functional assessment of chronic illness therapy—Spiritual Well-being Scale (FACIT-Sp). *Annals of behavioral medicine*, 24(1), 49-58.

Reid, A., & Gough, S. (2000). Guidelines for reporting and evaluating qualitative research: what are the alternatives? *Environmental Education Research*, 6(1), 59-91.

Rosch, E. (2007). More than mindfulness: When you have a tiger by the tail, let it eat you. *Psychological Inquiry*, 18, 258–264.

Segal, Z., Williams, M., & Teasdale, J. (2002). *Mindfulness-based cognitive therapy for depression: A new approach to preventing relapse*. New York: Guilford Press

Shapiro, S. L., Carlson, L. E., Astin, J. A., & Freedman, B. (2006). Mechanisms of mindfulness. *Journal of clinical psychology*, 62(3), 373-386.

- Shapiro, S. L., & Carlson, L. E. (2009). *The art and science of mindfulness*. Washington, DC: American Psychological Association.
- Shapiro, S. L., Schwartz, G. E., & Bonner, G. (1998). Effects of mindfulness-based stress reduction on medical and premedical students. *Journal of behavioral medicine*, 21(6), 581-599.
- Sullivan, P. R. (1995). Contentless consciousness and information-processing theories of mind. *Philosophy, Psychiatry, & Psychology*, 2(1), 51-59.
- Strauss, A., & Corbin, J. (1994). Grounded theory methodology. *Handbook of qualitative research*, 273-285.
- Tedeschi RG, Calhoun LG (1996) The Posttraumatic Growth Inventory: measuring the positive legacy of trauma. *J Trauma Stress* 9:455–471
- Underwood, L. G., & Teresi, J. A. (2002). The daily spiritual experience scale: Development, theoretical description, reliability, exploratory factor analysis, and preliminary construct validity using health-related data. *Annals of Behavioral Medicine*, 24(1), 22-33.
- Van Aalderen, J. R., Donders, A. R. T., Gijbels, F., Spinhoven, P., Barendregt, H. P., & Speckens, A. E. M. (2012). The efficacy of mindfulness-based cognitive therapy in recurrent depressed patients with and without a current depressive episode: a randomized controlled trial. *Psychological medicine*, 42(5), 989.
- Weissbecker, I., Salmon, P., Studts, J. L., Floyd, A. R., Dedert, E. A., & Sephton, S. E. (2002). Mindfulness-based stress reduction and sense of coherence among women with fibromyalgia. *Journal of Clinical Psychology in Medical Settings*, 9(4), 297-307.
- Wilber, K. (1996). *The Atman project: A transpersonal view of human development*. Quest books.
- Wilber, K., Patten, T., Leonard, A., & Morelli, M. (2008). *Integral life practice: A 21st-century blueprint for physical health, emotional balance, mental clarity, and spiritual awakening*. Integral Books.

*Please note: Some references are contained in the table in appendix A rather than in the main text

Section B:

Exploring the Relationship between MBCT and Spirituality

Word count:

7945 (plus 112 additional words)

Abstract

Mindfulness is a spiritual concept adopted from Buddhism by Western clinicians and while change processes in MBCT were initially explained in terms of cognitive/emotional impacts, there is now growing interest in the relationship between mindfulness and spirituality. Seven participants' who had completed an MBCT course in a mental health service context gave in-depth interviews about their experiences in relation to spiritual change, and the factors influencing these processes. The themes represented a range of interconnected processes, including connecting with the body, experiencing thoughts and feelings in a less reactive way, a changed perspective on the self, self-insight, a greater sense of compassion and connection, wisdom, a sense of meaning and a sense of connection to a transcendent source. For some, mindfulness helped create a context in which painful experiences could be brought into awareness, and unusual or difficult experiences integrated so that people could experience a deeper and more authentic way of being. While intentions seem to be important in mapping the particular aspects of change that occur, themes were common to people from a variety of spiritual backgrounds, and spiritual changes occurred in some people who had no prior spiritual orientations. The role of intentions versus 'letting go' in relation to mindfulness is explored. Clinical implications are discussed and suggestions made for future research.

Introduction

Mindfulness Based Cognitive Therapy (MBCT, Segal, Williams & Teasdale, 2002) was developed for the prevention of depressive relapse and is now commonly used in the NHS for a number of psychological difficulties. Mindfulness is a spiritual concept adopted from Buddhism by Western clinicians (Vandenberghe & Prado, 2009), and while innumerable traditional sources address meditation as a spiritual practice, there is still less empirical research on this domain of meditation than virtually any other of the well-recognised aspects (Bond, Ospina, Hooton, Dryden,

Shannahoff-Khalsa & Carlson, 2009; Kristeller, 2003). In recent years, however, there has been a surge of interest in the role of spirituality in mental health, which parallels efforts in 'positive psychology' (Seligman & Csikszentmihalyi, 2000) to not only discover ways to alleviate distress but understand what makes a life worth living. Change processes in MBCT were initially explained in terms of cognitive/emotional impacts, however, there is now growing interest in the relationship between mindfulness and spirituality. This study will explore experiences of MBCT, and potential spiritual change processes in a mental health service context.

Mindfulness can be defined as 'the awareness that emerges through paying attention on purpose, and non-judgementally to things as they are' (Kabat-Zinn, 1995, p.47). MBCT was derived from Mindfulness Based Stress Reduction (MBSR, Kabat-Zinn, 1982, 1990), which was originally devised for the management of chronic pain and unexplained medical conditions. Both of these are eight week group meditation based programs and are considered the main MBIs as they involve a significant amount of mindfulness meditation practice. MBCT incorporates elements of cognitive therapy and a review of randomised controlled trials (RCTs) has shown it to be effective in preventing depressive relapse and treating current depression (Fjorback et al., 2011; Geschwind Peeters, Huibers, van Os & Wichers, 2012; Van Aalderen, Donders, Giommi, Spinhoven, Barendregt & Speckens, 2012). There is also growing evidence for MBCT helping other psychological difficulties (Godfrin & van Heeringen, 2010). Research on MBIs now increasingly focuses on understanding the mechanisms by which they work, and spiritual change has been proposed as one of these (eg. Baer, 2010).

Baer (2010) suggests that spiritual experience is a universal human capacity which, while expressed in religious frameworks, can exist separately from them. Baer's (2010, p.158) conceptualises spirituality as - 'a sense of inner peace; love, compassion and connectedness; peak experiences; no-self; a connection to a higher meaning; a sense of the sacred; mystical experience and/or a sense of transcendent awareness of a higher being or of linking to a higher being'. Spirituality has been associated with both positive and negative mental health outcomes (for a

review see Moreira-Almeida, Lotufo Neto & Koenig, 2006), but aspects of spiritual well-being have been specifically focused on in relation to MBIs.

Baer (2010) discusses spiritual engagement as a mechanism of change in MBIs, and relates this process to each of the aspects in her definition given above. She suggests that the spiritual effects of meditation may exist separately from yet interact with and contribute to effects of meditation in other domains. Theories on 'self-transcendence', compassion, a sense of connection to a transcendent source and an increased sense of meaning will now be discussed as potential interrelated aspects of spiritual change in MBIs together with relevant research.

The concept of 'self-transcendence' has received much attention both in relation to psychological and spiritual literature. Within Buddhist psychology is the teaching that there is no such thing as a permanent, unchanging self (Olendzki, 2010). The process of 'self-transcendence' is similar to Shapiro's (2006) notion of 'reperceiving' and involves a shift in perspective away from the narrow and limiting confines of personal points of reference, instead witnessing the contents of consciousness as it arises. It has been suggested that this process is responsible for much of the transformation that occurs through mindfulness (Shapiro, 2006), and has been documented to occur among many cultural contexts (Sullivan, 1995). Empirical research has found some evidence to support the notion that mindfulness practice leads to an altered relationship with the self (Carmody, Baer, Lykins & Olendzki, 2009; Haimerl & Valentine, 2001; Kerr, Josyula & Littenberg, 2011).

McCollam & Gehart (2010) suggest that 'reperceiving' is associated with the cultivation of self-compassion, which refers to where one's experiences are perceived as part of the larger human experience rather than seeing them as separating and isolating (Neff, 2009). Studies have shown that self-compassion partially mediates the relationship between MBIs and well-being (Kuyken, Watkins, Holden, White, Taylor, Byford et al., 2010; Hollis-Walker & Colosimo, 2011), and qualitative studies also support the relationship between compassion and MBIs (Christopher, Chrisman, Trotter-Mathison, Schure, Dahlen, & Christopher, 2011; Christopher & Maris, 2010; Gokhan, Meehan &

Peters, 2010). In Christopher et al., (2011) it was reported that participants developed more compassion due to less reactivity and being more able to tolerate feeling, and in Dellbridge and Lubbe (2009) it was linked with being less judgemental and less self-critical.

In addition to its documented impacts on psychological difficulties, the notion of self-transcendence seems to be an important aspect of mystical type experiences and may be responsible for other aspects of spiritual or transpersonal change (eg. See Lancaster, 2004; Wilber, 1996). Baer (2010) discusses how the suspension of the usual sense of self may also be associated with experience of a sense of the transcendent, which interacts with cultural contextual factors to influence the perceived source and associated meaning. An increased sense of spiritual connection to a transcendent source has also been documented in qualitative research in relation to MBIs (Frisvold Lindquist & McAlpine, 2012; Mackenzie, Carlson, Munoz, & Speca, 2007).

Baer (2010) also discusses that within mindfulness practice is the 'concept of linking in to a sense of inner wisdom that is non-reactive, more integrative and carries more meaning' p.177. Weissbecker Salmon, Studts, Floyd, Dedert & Sephton (2002) suggest that mindfulness might facilitate a sense of life meaning by simply allowing space for the exploration of meaning. Qualitative research has found an increased sense of meaning developing in relation to MBSR (Frisvold et al., 2012; Mackenzie et al., 2007; Newsome, Chambers Christopher, Dahlen & Christopher, 2006), including a sense of higher purpose (Frisvold et al., 2012).

Spirituality has also been studied as a single construct in relation to MBIs, measured by a number of different scales. A number of studies on MBIs have included spirituality as an outcome measure and found increases on these scales in association with the intervention (e.g. Birmie, Speca & Carlson, 2010; Greeson, Webber, Smoski, Brantley, Ekblad, Suarez & Wolever, 2011; Garland, Carlson, Cook, Lansdell & Speca, 2007). However methodological limitations meant that effect sizes may have been overestimated due to attrition. It is also unclear to whom these results would generalise, as all of the studies included scales that included a strong component of relationship with a perceived transcendent source, and the studies included a high proportion of people who followed

a religion. Understanding more about the role of people's intentions and prior experiences would help elucidate individual differences in how people may engage with MBIs.

There are also some questions regarding the validity of an assumed single construct of spirituality, which appears to be inherent within the scales, and Koenig (2008) argues against tautological nature of the spirituality measures, where they are found to correlate with well-being. This is also problematic with the research using scales to measure 'self-compassion' and 'reperceiving', as such constructs overlap significantly with 'mindfulness', making correlations difficult to interpret.

As qualitative research has not focused specifically on spirituality within MBIs, the identified spiritual themes lack detail with regards to associated processes and how the different aspects of spiritual change may relate to one another. The body, for example, is viewed as an important vehicle for spiritual change in Theravada Buddhism (Holzel, Lazar, Gard, Schuman-Olivier, Vago & Ott, 2011) and integral approaches to spiritual development (Wilber, 1996; Ferrer, 2003), but appears to be absent from previous research on spiritual change and MBIs. In addition to this, current research has shown only positive spiritual changes associated with MBIs and quantitative scales used in the studies mentioned include only positive aspects of spirituality and therefore negate the fact that spirituality can be experienced alongside or be a source of emotional distress (see Moreira-Almeida et al., 2006). It would therefore be beneficial to explore whether people experience any difficulties in relation to spiritual changes occurring through MBIs.

It seems that quantitative designs that measure for changes in spirituality on a single scale create a number of epistemological challenges, making qualitative methodologies arguably more suitable for studying the complex and individual nature of spiritual change in relation to MBIs. This study explores people's experiences of spiritual changes associated with MBCT, and the factors that may influence these.

Method

Design

This qualitative study used in-depth semi-structured interviews based on an Interpretative Phenomenological Analysis methodology (IPA, Smith, Flowers & Larkin, 2009). IPA is concerned with 'how a phenomenon appears, and the analyst is implicated in facilitating and making sense of this appearance', (Smith et al., 2009, p.28). This method was deemed suitable due to the abstract and personal nature of the topic.

Participants

Seven participants were interviewed, two male and five female. They were aged between 41 and 67 (median age 52) and had all completed an MBCT course in an NHS Trust Adult Mental Health Service within three months previously. The types of difficulties people were referred for were anxiety, depression, post-traumatic stress disorder and one person had a diagnosis of bipolar disorder. Participants had a range of beliefs and spiritual followings (see Appendix C for table showing participant details).

Procedure

Following approval by line managers in the NHS Trust, MBCT group facilitators who had courses planned over a period of around six months were contacted. Permission was sought to distribute information sheets (see Appendix D) about the research to participants via the facilitators, and where possible attend the end of the class in week seven to talk to group members about the research, answer questions and invite them to participate in the study. Three MBCT groups were attended by the researcher and information sheets were distributed at another group. Drop-in classes were held monthly within the area for people who had completed MBCT groups within the Trust. Two of these were attended to again speak with group members and distribute information

sheets. Participants then made contact via email if they were interested in participating and interviews were arranged at an NHS site.

Interviews

The semi-structured interview schedule was developed in consultation with the project supervisors, who were experienced MBCT group facilitators. Two service users were also consulted about the interview schedule, and some adaptations were made based on their feedback. Questions included those about pre-existing spiritual beliefs and practices, intentions and expectations for the course, whether they perceived spiritual changes associated with the course and the impacts of these, and experiences of the course more generally (for interview schedule see Appendix E). The schedule only provided a guide to the interview as the researcher aimed to follow the participant in order to try to understand and be led by their own reflections on their unique experiences. Meetings lasted approximately one hour and audio recordings were transcribed.

Ethical approval and considerations

Ethical approval for this study was given by the Central NHS Ethics Committee and the local one to the Trust (see Appendix F). Participants had the opportunity to read through the information sheet, and were left to initiate contact. Consent forms were signed before interview (see Appendix G), after an opportunity to ask any questions. Participants were informed that data would be anonymised and no easily identifiable information would be included in the report. Consideration was given to the possibility that participants could become distressed during interviews and contingencies were made should they require any additional support. The study was conducted in line with the BPS code of ethics and conduct (BPS, 2009).

Analysis

Data were analysed according to IPA (Smith et al., 2009). This involved a 'double hermeneutic' process (Smith & Osborne, 2003), whereby the researcher was aiming to make sense of how participants made sense of their experiences of MBCT.

The transcripts were analysed according to Smith et al.'s (2009) guidance on working with small samples in order to gain a greater familiarity with the process. Each transcript was read and re-read as a process of 'entering the participant's world' p.82. Initial notes were taken on a semantic, linguistic and analytic level and coded accordingly (for example see table in Appendix H). Based on this initial coding, emergent themes were extracted and connections between themes explored before moving onto the next case. Patterns between emergent themes were also identified and themes were clustered tentatively according to potential 'super-ordinate' themes. This was done by creating a table of the emergent themes together with the relevant quotes (see table in Appendix I), with each individual being represented by a different colour in order to maintain a sense of each individual within the whole of the data.

Transcripts were again read and examined according to incidences of 'polarisation', whereby oppositional relationships between emergent themes could be identified, and a narrative account of the themes was developed. Connections between emergent themes were 'contextualised', or considered individually in relation to each participant's narrative and relevant contextual information. Themes were re-organised and relabelled according to what was deemed by the researcher to create the best representation of the data (see Appendix J).

Quality assurance

Prior to conducting the project, guidelines for conducting qualitative research were consulted (Smith et al., 2009; Yardley, 2000; Mays & Pope, 2000) and measures were taken to ensure quality. Yardley (2000) discuss the importance of sensitivity to context. Part of this involved an awareness of the interactional nature of data collection with the interview situation during

interviews and also involved considering the data in the context of other information on, for example, spiritual views and expectations of the course.

Following Yardley (2000), an independent audit of the analysis was conducted by a research supervisor. They were satisfied that the themes were derived from the data and the interpretations given were plausible.

Mays & Pope (2000) refer to the need for 'reflexivity' to be demonstrated by the researcher as part of the process of validation in qualitative research. This involves the researcher becoming aware of their own position, questioning, owning or changing it (Fischer, 2009). The researcher was a trainee clinical psychologist in her final year of training. She had completed an MBCT course previously and had an interest in spirituality. The researcher was interviewed by a fellow trainee clinical psychologist using the interview protocol and this was recorded (see Appendix K). A journal was also kept throughout in which the researcher recorded her own biases as they emerged through reactions to the data (see Appendix L). This was particularly important as she had some experiences and values in common with participants, so needed to ensure that these were bracketed. Where there was particular resonance or dissonance between participants' responses and the researchers own beliefs or experiences and care taken to ensure that the themes and interpretations presented were grounded within the data.

Results

The analysis produced two super-ordinate themes, four main themes and 12 subthemes, as illustrated in table 1.

Table 1. Themes. Table of themes that relate to spiritual change within MBCT course.

Domain of spiritual experience/change processes	Body and mind	<ul style="list-style-type: none"> • Connecting with the body • Calming the mind, quietening the ego • Insights and creativity • Connecting with pain and shadow tendencies
	Heart/transpersonal	<ul style="list-style-type: none"> • Compassion and connectedness • Values and sense of meaning • Connection with a perceived spiritual source
Factors influencing spiritual change	MBCT factors	<ul style="list-style-type: none"> • Mindfulness • Poetry • Community
	Personal factors	<ul style="list-style-type: none"> • Relationship with prior beliefs/practice • Intentions versus letting go

*Participants have been given pseudonyms to protect confidentiality.

Domain of spiritual experience/change process:

Domain of spiritual experience/change process refers to the distinction between categories of spiritual change. The categories of ‘body and mind’ may be considered to be routes to the ‘heart/transpersonal’ but these areas of change may also be considered to be spiritual or transpersonal in their own right. Similarly ‘heart/transpersonal’ domains may impact on ‘body and mind’ aspects. These subthemes are therefore interrelated and the distinction between them is somewhat arbitrary, and is not presented as a hierarchy of levels of spiritual attainment/transpersonal development.

Body and mind

This theme is concerned with aspects of spiritual change or spiritual change processes occurring through mindfulness practices that relate to the body and mind. Changes are described

that are associated with the process of connecting with the body, an altered relationship with thoughts and the ego and the capacity for insight and creativity that can emerge from this. Difficulties and painful emotions associated with these processes are also described.

Connecting with the body

Connecting with the body was viewed by all participants as an important aspect of the benefits they received in relation to MBCT, and a part of the process of developing a more spiritual way of being. Several people spoke about how connecting with the body allowed them to become more aware of their thoughts and emotions, as they came to view them as connected and accessed through greater body awareness: “Our energies are manipulated by our experiences and those get stored in the body”. (John)

Some people commented on how focusing on their body allowed them to be in contact with the present moment, as opposed to their thoughts, which created space for a different experience. Clare described how connecting with her body allowed her to connect with the whole of herself and access a deeper part: “that draws me within myself but that doesn’t mean that I am just in my body, it reconnects me with the whole of myself where I’m suddenly becoming a lot more centred, a lot more focused”.

Calming the mind/quietening the Ego

All participants spoke about developing a changed relationship to thoughts and feelings. Participants described how the practices allowed them to notice their thoughts. They could then accept and give these thoughts space, which changed their charge or associated distress. Participants described that the process of observing the contents of the mind created space for something more spiritual to emerge. Alice commented, “it leaves space for something else to be going on...when I’m off on that thought there’s not a connection to anything else”.

John described how the practices brought about a sense of enlarged perspective, rather than viewing things from a confined self-centred viewpoint: “you remove yourself from being at the centre of it all...rather than being the ant on the ground, you can be the helicopter looking at the wider perspective”.

John, who followed a Buddhist practice, viewed the process of spiritual development as one of transcending the ego to reach a higher state of consciousness, as is consistent with Buddhist texts, “consider ones experience of the mind of being from a gross to subtle level”, and in relation to the Ego spoke of a desire to remove his ego in order to access “the higher self, the higher mind, the interconnectedness”.

Other participants, however, viewed mindfulness not as a process of transcending the ego through ‘higher’ states of consciousness but quietening the thoughts and feelings through noticing what’s happening and letting what is there emerge. Clare explained, “you simply come back to what you truly are and it has nothing to do with the ego”.

Creativity and insight

Stephanie spoke about becoming more creative through the practices. Several people described how they had moments of insight during practices and how creating space in the mind enabled them to view their problems differently,

“it helped me sort out my head, even though it’s a very simple practice and you’re not asked to sort it out in your head in fact the opposite really, you’re just asked to let things be and that stops the spiral going around and around... and it kind of sorts it out”. (Louise).

This also seemed to be related to the process of quietening the ego.

Connecting with pain

The processes of change described that allowed for spiritual experiences were sometimes associated with some difficulties. A number of people spoke about coming into closer contact with

strong emotions. Stephanie referred to a process of creating space for past pain to emerge, “it empties you out so because of the space, the shit rises to the top, all of it but all of it that sits inside and if you let it rise it all rises and it did.”

This participant became aware of a trauma event that happened when she was a child and this led her to make profound changes in her life, “I understood it suddenly...the impact it had and the changes I needed to make and suddenly it no longer had power over me”. She referred to being, “freed of an existential dread that’s overshadowed my whole life”.

Stephanie also had some dissociative experiences that may have been linked with re-experiencing this trauma, and/or may have been related to ego dissolution: “you could call it psychotic episodes, to me it was magic and I could see things in a different way”. This became overwhelming, “I felt this is out of control...I felt suddenly taken over I mean things were taken over things were moving faster”. This person also attributed this experience to other factors such as being on a high dose of anti-depressants, but this highlights some potential difficulties that can be associated with meditative practices. This individual still found the whole experience of MBCT beneficial and meaningful, stating, “I feel like a whole person now”, and continued to use the practices to stay grounded. She noted the importance of having an experienced facilitator in this process, “this is powerful and you need to be with somebody who knows what the hell they are doing”.

While several participants noted some difficult experiences associated with mindfulness, everyone found these beneficial and liberating. It seems that an attitude of non-judgment and a willingness to accept painful experiences was important. Alice also spoke about how mindfulness helps put her in touch with her ‘shadow’ tendencies, or the parts of herself that she is less comfortable with. “I think it’s really important to practice in a way to have an attitude that allows...the possibility that there might be unpleasantness in me as well as everyone else”.

Heart/transpersonal

This main theme describes some of the spiritual changes that can occur through the processes that were described in the previous main theme. These aspects of spiritual change may be considered to be more transpersonal and include the development of compassion, wisdom and meaning and a felt sense of connection with a spiritual source, although the boundaries between these aspects and those described above may not always be distinct.

Compassion and connectedness

Most participants reported cultivating more compassion through MBCT. Several participants spoke about learning to be kinder, less critical and more loving towards themselves and others. This seemed to define spirituality for some people:

“I think that the practice helps me to be more loving towards myself and I can therefore be more loving to other people and other peoples situations and so maybe sort of the spirituality is sort of a love force”. (Susan)

Stephanie spoke of feeling gratitude and relating to people differently, “all I feel now is an immense sense of gratitude, an immense sense of connectedness in a general way because I can actually meet new people in a completely different way...”.

For some, it was about viewing distress as a shared human experience. John explained, “appreciating that millions of others, millions of others, beings at this current time who are experiencing the same distress maybe for different reasons, that’s where the more spiritual understanding comes in”.

Susan said that as she became more compassionate, she was more able to let things with family conflicts rest. Through creating a space within herself, she can let things go and not see them as personal. Louise described how the loving kindness practice allowed her to feel more compassion towards others, and allowed her to repair a family relationship.

Values and meaning

The process of creating space rather than being engaged in thinking also helped some people to connect more with their values: "...your mind gets calmer and then you come out of it feeling more connected with your values". (Louise)

John referred to a deeper meaning beyond his existence and that of mankind, and mindfulness practices seemed to allow him to connect with this. For a number of people their spiritual awakening was about experiencing a greater connection with others and with nature, which was developed through present centred awareness.

Louise still viewed herself as an atheist but MBCT allowed her to feel a deeper sense of connection and meaning and a realisation of values: "I think it's just less bleak, it feels like you're looking into your soul. It's a sense of purpose and reason for being on earth". Distressing states of consciousness would dissipate, as Stephanie explained, "It's comforting; it gets rid of base anxiety that you're alone and alienated".

Connection with a perceived 'spiritual' source

Some people spoke about how the practices allowed a connection to a perceived spiritual source, although there was a difficulty or a lack of felt necessity to explain the origins or the nature of the perceived source:

"I'm doing this sitting meditation and there's always a moment where it all goes really still really quiet really open and you're just there...it has something to do with the here but at that moment you touch something other than yourself and it's a mystery and the best of them don't put words to it...its sort of an inner place where it all feels connected". (Clare)

While this source was perceived as something greater than the self, it was viewed by several people to exist within the every living thing and within every person:

“being much more in your centre and keeping that space within yourself... also creates this space for this sounds really cheesy but the God within you to capture the core and it’s almost like you get in touch with your inner most being”. (Clare)

For some people this spiritual source was experienced as love and was strongly linked with compassion: “for me, love is the greatest force in the Universe, and mindfulness helps me connect with that”. (Susan) This included for some a general sense of connectedness and appreciation of beauty: “spirituality for me is like a connection with nature and things that you think conventionally about the earth...with the sort of beauty, with the sort of perfection of it all”. (John)

Through the mindfulness practices, Stephanie identified with an imagined elderly wise woman and communicated with her. This could be seen as an experience of an archetype of the collective unconscious (Jung, cited in Daniels, 2005) that offered guidance through symbolic meanings: “it’s a form of prayer who I could communicate the wishes of my heart...like a mother earth with huge wisdom and well-wishing or something like that”.

This sense of spiritual connection was accessed by creating stillness and space through mindfulness. While this spiritual source was perceived as both greater and within the self, it was also experienced by some within seemingly mundane activities,

“it can only be meaningful if it’s completely integrated in everyday life and what I eat where I eat, where I go to, who I speak to and everything is part of it and this body I don’t see spirituality as separate”. (Alice)

Factors influencing spiritual change

Factors that were reported to influence spiritual change were divided into two subthemes. Aspects of MBCT were mindfulness, poetry and being part of the group, and personal factors were prior experiences and intentions.

MBCT factors

These were aspects of the MBCT course itself that were perceived to be important in influencing the changes described.

Mindfulness

Mindfulness was described as fundamental to the changes that people described both in terms of formal and informal practices. Practicing non-judgemental awareness of moment to moment experience was central to this, as John described, “Experiencing each moment as new, with a sense of freshness”. Several participants explained that part of this was about realising when they were on autopilot.

This became a more spiritual way of being,

“a lot of the practices are just about coming into what you’re doing now, your feet on the floor, walking, the smell of the air, the birds singing...so you’re more kind of aware of those things, inside and outside things, and that’s very much a spiritual way of being for me.”

(Alice)

This aspect of MBCT was fundamental in enabling the processes discussed previously in the domain of spiritual experience/change processes super-ordinate theme.

Poetry and metaphor

Several participants mentioned how poetry brought different meanings to shared life experiences, strengthened the attitudinal foundations of mindfulness and with this brought forth a sense of connectedness and beauty.

An example of this was given in reference to The Guest House poem by Jelalludin Rumi,

“about welcoming everybody, you know the dark the light the depressed it’s all about just welcoming them all in because you don’t know what gifts they bring...it’s an attitude of opening and recognising and accepting that there are these aspects of life, yes so there are

other poems that bring you, as poems can, into a moment of recognition, of beauty or something, they were lovely". (Alice)

In relation to a mountain visualisation:

"You know, there is simplicity to it, the thought of the seasons coming and everything else going on for the storms and the mist but for the mountain to stay and be stable, that sort of resonates in a nice way". (Susan)

Community

The role of the group fostering a sense of community was discussed by participants, and this seemed to relate to developing a sense of connectedness and compassion. Louise referred to the support of being in the group and feeling part of a community, and while she is not religious, likened this to what religions can offer. "People who are religious find comfort in this in difficult times". The group seems to be an important aspect of fostering the attitudinal foundations of mindfulness. "The group was very together, very generous spirited". (Louise)

Participants spoke of how the non-judgemental stance of the group was important, and insights were gained from one another, as Alice explained: "seeing people see things helps me to see things so I think we do learn from each other as peers as much as we learn from teachers". She seemed to suggest that the group fostered a sense of connectedness with something that is deep within people and shared,

"I suppose it links in with this sense that we all have this sort of connected centre place in us, whatever you want to call it, everybody has it there's no exceptions, but it may be buried very deeply... so the fact that we relate to each other as human beings we all have that sort of connection to what's true, what's real, what loving, all those things in each of us therefore we can respond to it in other people, so it does connect very deeply, that idea of learning from peers". (Alice)

Personal factors

This main theme considers individual experiences in the context of their prior beliefs and practices, intentions and expectations for the course and how these influence the process of spiritual change.

Relationship with prior beliefs and practices

The secular nature of MBCT allowed it to be acceptable to people whether they had a spiritual background or not. Five of the seven participants followed a spiritual philosophy/had a practice, or had done so in the past. These were centred on Buddhism, Paganism and Spiritualism, yoga and qigong. Three of the participants had Christian or Catholic upbringings but had departed from these, and two participants identified themselves as atheists. Where people did align themselves with a specific spiritual tradition, mindfulness fitted with these well and gave additional spiritual benefits. The specific benefits described varied between individuals. For example, Clare who identified herself as a spiritualist felt that MBCT was compatible with this. She saw both spiritualism and MBCT as valuing free will: "...it lets you simply be and really that's what spirituality's about as well it's about your own free will, being who you are, coming into your own much much more."

John followed Buddhist practices and found that MBCT supported the path that he was on and reinforced lessons about non-striving. Other participants who had previously departed from Buddhist practices valued the freedom from doctrine, "each person in the room is coming into how they are and you're not asked to relate to a teaching, and everything you're asked to do you're asked to just experience it" (Susan). Alice also appreciated also that there was no sense of hierarchy. Louise who identified herself as atheist 'felt more connected spiritually' as a result of MBCT. She was introduced to mindfulness on a psychiatric ward and was initially sceptical about it. Michael who was an atheist found mindfulness acceptable despite its Buddhist roots and beneficial for his difficulties, but did not report any spiritual benefits. He had a very negative reaction to anything perceived as religious/spiritual, but found MBCT acceptable and beneficial despite its

Buddhist philosophical roots. In relation to MBCT helping him to overcome symptoms of PTSD, he said: "it's the mechanics of it that works".

The role of spiritual intentions versus letting go

Participants' intentions for doing the course appeared to influence what they gained from it to an extent. However, the relationship between intentions and outcome wasn't straightforward as John highlighted in his reflections on the importance of the Buddhist concept of non-striving:

"I applied myself to it very sincerely but you could almost say that I'm desperate for change and I understand, there's a tension there because I really want it but the striving there doesn't make it happen'...'I found it very exhausting, that's probably my own learning to be more balanced". (John)

John also spoke of his intentions to eradicate the ego in order to attain a higher form of consciousness, in contrast to others who did not view this as a process of 'transcendence', as this implied something effortful: "with mindfulness you're not even trying" (Clare). While intentions seem to influence the particular gains of the course, some participants felt it necessary to let go of these to fully experience what is in the moment, and be guided by that. Clare refers to a process of being open to what emerges, "something else emerges that as I say has its own dynamic and it actually runs itself you don't need to steer it...just peel away all the needs and wants and should and shouldn'ts."

A few people referred to the lack of expectations associated with mindfulness:

"mindfulness says you don't do it in order for anything really but um you do it just to be there to stop to let things be...but it does say that if you do the practices and adhere to it you probably will feel the benefit". (Susan)

Embodying this aspect of mindfulness appeared to be an important part of the process of spiritual change.

Discussion

The aims of this research were to explore people's experiences of spiritual aspects of MBCT, and the factors that influenced these. Findings will now be discussed in relation to existing theory. Connecting with the body was viewed by all participants as an important aspect of the benefits they experienced in relation to MBCT, and a part of the process of developing a more spiritual way of being. People became more aware of their thoughts and emotions and came to view these as all connected and accessed through greater body awareness. For some this allowed them to connect with a deeper part of themselves, and allowed them to be in contact with the present moment, creating a space for something else to emerge. This seems to be in accordance with integral approaches to spiritual development (eg. Ferrer, 2003), which advocate the importance of psychosomatic integration in actualising human potential. Body awareness has been shown linked with an ability to regulate emotions and also with enhanced empathy (see Holzel et al., 2011). For some participants the process of connecting with the body was itself spiritual, or it could have been that the secondary effects of better emotion regulation and enhanced empathy may be paths to spiritual development through bodily awareness. Farb, Segal, Mayberg, Bean, McKeon, Fatima & Anderson (2007) propose that increased body awareness may be closely related to changes in perspective on the self, consistent with Buddhist theory and Holzel et al. (2011) suggests that greater internal awareness may replace the previous narrative form of self-reference.

Participants described how the practices allowed them to recognise when unhelpful thoughts arose, which they could then accept and create space and distance from, and this is discussed in much of the literature on MBCT as being an important mechanism of change (eg. Ma & Teasdale, 2004). It was mentioned that the practices brought about a sense of enlarged perspective, rather than experiencing from a confined self-centred view. This relates to the concept of self-transcendence or 'reperceiving' (Shapiro, 2006), whereby mindfulness brings about a shift in

perspective away from the narrow and limiting confines of personal points of reference. While previous research has suggested that this process occurs, it has not previously been linked with spiritual changes. Participants viewed this process an important aspect of spiritual change that allowed them to gain deeper insight and wisdom. This was achieved not through a process of thinking, but letting go.

Painful memories were also brought into awareness for some participants. This seems to be an important part of mindfulness practice, whereby people are instructed to meet unpleasant emotions or thoughts by turning towards them rather than away (Santorelli, 2000). Connecting with painful feelings also appeared to be a process that led to self-insight. One person described recognising her 'shadow' tendencies, which in Jungian terms represents the acknowledgement of unacceptable characteristics that are a challenge to the conscious self-image. For Jung this was an important aspect of spiritual development, and involves a process of transcending the ego in service of the 'true Self' (see Daniels, 2005). Similar processes may have also contributed to the dissociative experiences that one participant experienced. Much of what this person described as spiritual changes were phenomenologically similar to what other people described, although the changes appeared to be more intense with some additional features and a sense of losing control. This raises the issue that harm for one may be 'a spiritual emergency' which is viewed as a transformative experience (e.g. see Grof & Grof, 1989) for the other, and it seems that cultural and contextual factors are likely to influence this. This type of experience is not often reported in relation to MBIs, although there are incidences of it being documented in relation to meditation more generally (eg. Yorston, 2001).

Some people described feeling a sense of connection with a transcendent source, although there was a difficulty with or a lack of felt necessity to explain the origins or the nature of this perceived source. One person referred to 'touching something other than yourself'. This was perceived to be something greater than the self but to exist within every living thing, and for some it was accessible through mundane activities. It was also referred to as a creative life force. For some

people it was experienced as love and compassion, and there seemed to be a sense of meaningfulness to these experiences that also included an enhanced sense of life purpose. These experiences also appeared to eliminate or reduce existential anxiety. Such experiences seem to parallel those documented in transpersonal literature (see Daniels, 2005; Scotten, Chinen & Battista, 2008). This expands on previous research that has suggested that people can develop a greater sense of meaning or purpose in relation to MBSR (Carmody Reed, Kristiller & Merriam, 2008; Frisvold et al., 2012; Mackenzie et al., 2007), and a sense of connection with a transcendent source (Frisvold et al., 2012; Mackenzie et al., 2007).

Developing a sense of love, compassion and connectedness was also referred to by most participants as an important aspect of MBCT that led to spiritual change, as found previously (eg. Christopher et al., 2011; Christopher et al., 2010; Gokhan et al., 2010). Part of this process appeared to be about creating a discourse around suffering where it becomes a meaningful process, something that is common amongst religious contexts (Moreira-Almeida et al., 2006). Some participants referred to a process of viewing distress as shared. This can be considered as a re-appraisal process, which is suggested as a way in which emotion regulation occurs through mindfulness (Garland et al., 2011). This notion of shared suffering also seemed to facilitate a sense of connectedness. These spiritual processes described were also linked with developing a stronger sense of values or focus on what's important, which participants experienced as occurring through the mind becoming calmer. This supports Weissbecker et al.'s (2002) suggestion that meaning occurs through creating space for meaning to emerge. Participants referred to a process by which problems would be solved and insight gained and a greater sense of meaning again experienced not through a process of thinking but by 'letting go'. Research suggests that embodiment is also important in creativity and insight (Leung, Kim, Polman, Ong, Qui-L, Goncalo & Sanchez-Burks, 2012), which may suggest that all of these processes that occur through mindfulness are interrelated.

The secularity of MBCT was valued by atheists and people from particular spiritual philosophies. Previous research suggested that spirituality developed in relation to MBIs in people

from predominantly monotheistic religious backgrounds in the US but this study has shown that someone who was an atheist, someone with a Buddhist practice, a spiritualist, someone with Pagan affiliations and people who didn't follow a practice but were seeking something spiritual, can experience spiritual change in relation to mindfulness. Some people who had become disenchanted by the hierarchical structures of spiritual traditions and questioned the associated doctrines valued its freedom from doctrine, and the equal positioning of facilitators to group members.

While mindfulness positions itself as secular, a number of participants reported an increased sense of spiritual connection. The specific nature of this varied between individuals, but it was perceived to be compatible with pre-existing belief systems. This adds to the literature which suggests that there are parallels between mindfulness and the core spiritual paths associated with religion (Vandenberghe et al., 2011). Vandenberghe et al., (2011) illustrate this in their reflection on Saint Augustine, who proposes that logic and rational explanation cannot lead to illumination, but direct experience can: 'in becoming aware of being aware, we find a transcendent perspective deep within ourselves', (p. 593). These ideas seem to connect with participants' accounts of their experiences.

Shapiro et al. (2006) suggest that intentions are important in influencing 'reperceiving' and change that occurs through mindfulness. Intentions that people reported appeared to influence the benefits people experienced, although it seems that some of the changes that occurred were not anticipated. There appears to be a slight tension in mindfulness, between being guided by intentions and non-striving, as one person referred to. While intentions are important, it seems that letting go to what emerges was also an important part of the process. This dialectic is often discussed in relation to spiritual development (e.g. Leonard & Murphy, 2005). Kabat Zinn (1994, p.14) suggests that with mindfulness the only goals are to 'simply to realise where you already are'. Paradoxically, this seems to be a fundamental aspect of mindfulness in bringing about change.

Clinical implications

This research has elucidated a range of change processes associated with MBCT, which may broaden its application. While this study has indicated benefits across different spiritual/religious orientations, this type of therapy may be particularly suitable for people seeking an approach to help with existential issues. For example, MBCT may be included more in services for people diagnosed with terminal illnesses, those who had experienced significant losses or people facing big life transitions. Where people have a religious or spiritual practice already, MBIs may be beneficial for people who see this aspect of wellbeing as important. This study has not identified any evidence of negative emotions sometimes associated with following a spiritual or religious doctrine to arise through mindfulness practice, such as guilt and shame (see Moreira-Almeida et al., 2006). It could be that the non-judgemental, accepting stance of MBIs together with a focus on self-awareness may help to counteract such difficulties. It may of use for therapists and those who refer service users to MBCT groups to be aware of this potential benefit.

In bringing people into greater contact with difficult experiences, this study has also highlighted how mindfulness can be a useful tool to help enable people to process past trauma. However, it has also highlighted some of the challenges that can be associated with this. These potential impacts should be recognised in order to help people make informed decisions, and arguably, has highlighted the need for the support of a competent facilitator through the process in order to work through any difficulties. For example, MBCT facilitators may need to tailor practices to enable participants to stay grounded should they experience dissociation in response to practicing mindfulness, and people may need additional support in order to make sense of any strong emotions that arise.

Limitations and future research

As is common in IPA research, a small sample size was used so that in-depth explorations of individual experiences could be gained. The findings of this study, however, may not generalise to

other populations of people who opt for MBCT, and people who volunteered for the research were probably more likely to have experienced aspects of the course as spiritual, and benefited from the intervention. Gratitude at having received this course on the NHS may have meant that more positive discourses were elicited rather than other ones that may have occurred in a different context, although participants were specifically asked about difficulties and challenges in the interview to try to counteract this.

It is unclear from this study how cultural and contextual factors may have influenced not only intentions for the course, but what was experienced and how this was reported. Theoretically one may assume that as mindfulness may eventually involve accessing seemingly unmediated experience (see Sullivan, 1995), that experiences could be similar. Whilst some experiences were reported that are common to spiritual experiences in many cultural contexts, a language is needed to explain these experiences and such discourses may be unfamiliar to some people. There seemed to be signs of embarrassment in talking about things like 'love' and 'God' and for one participant, spirituality was viewed as the same as religion and had a lot of negative connotations. Future research could examine these processes further by interviewing more people who did not have intentions for spiritual growth prior to the course, and target more people without spiritual/religious backgrounds. All of the people interviewed were over 40 years old so it would be useful to explore the extent to which similar themes may also be present in younger people, who are perhaps at different stages in life. It would also be of interest to explore whether there were lasting impacts of these changes. There is some evidence that the benefits of MBCT are enduring (eg. Matthew, Wittwood, Kenny & Denson, 2010) so it would be of interest to explore how these changes may evolve over the course of time and perhaps impact on the wider context of someone's life.

Conclusion

This research has elucidated a number of processes associated with change in MBIs can also be part of a process of spiritual development. It seems that connecting with the body, experiencing

thoughts and feelings in a less reactive way, a changed perspective on the self, self-insight, a greater sense of compassion and connection, wisdom, a sense of meaning and a sense of connection to a transcendent source are all interconnected processes that can occur through mindfulness. This research also supports the notion that mindfulness can help create a context in which painful experiences can be brought into awareness, and unusual or difficult experiences integrated so that people can experience a deeper and more authentic way of being. While intentions seem to be important in mapping the particular aspects of change that occur, themes were common to people from a variety of spiritual backgrounds and it seems that spiritual changes can occur in people who have no prior spiritual orientations. It appears that 'letting go' and experiencing nonjudgementally what is already there is also an essential part of this process. This research suggests that MBCT is a holistic, integral approach to well-being and personal development, adding to its evidence base as a therapeutic intervention.

References

- Baer, R. (Ed.). (2010). *Assessing mindfulness and acceptance processes in clients: Illuminating the theory and practice of change*. Context Press.
- Birmie, K., Speca, M. & Carson, L. (2010). Exploring self-compassion and empathy in the context of mindfulness-based stress reduction (MBSR). *Stress and Health*, 26(5), 359-371
- Bond, K., Ospina, M., Hooton, N., Dryden, D. M., Shannahoff-Khalsa, D. & Carlson, L. et al., (2009). Defining a complex intervention: The development of demarcation criteria for 'meditation'. *Psychology of Religion and Spirituality*, 1, 129-137.
- The British Psychological Society (2009). Code of Ethics and Conduct. Retrieved 05.2012 from: <http://www.bps.org.uk/document-download...64&ext=pdf>
- Carmody, J., Reed, G., Kristiller, J., & Merriam, P. (2008). Mindfulness, spirituality and health related symptoms. *Journal of psychomatic research*, 64, 939-403.

- Christopher, J. C., Chrisman, J. A., Trotter-Mathison, M. J., Schure, M. B., Dahlen, P., & Christopher, S. B. (2011). Perceptions of the Long-Term Influence of Mindfulness Training on Counselors and Psychotherapists A Qualitative Inquiry. *Journal of Humanistic Psychology, 51*(3), 318-349.
- Christopher, J. C., & Maris, J. A. (2010). Integrating mindfulness as self-care into counselling and psychotherapy training. *Counselling and Psychotherapy Research, 10*(2), 114-125.
- Daniels, M. (2005). *Shadow, self, spirit: Essays in transpersonal psychology*. Exeter, UK: Imprint Academic.
- Dellbridge, C. A., & Lubbe, C. (2009). An adolescent's subjective experiences of mindfulness. *Journal of Child & Adolescent Mental Health, 21*(2), 167-180.
- Farb, N. A., Segal, Z. V., Mayberg, H., Bean, J., McKeon, D., Fatima, Z., & Anderson, A. K. (2007). Attending to the present: mindfulness meditation reveals distinct neural modes of self-reference. *Social Cognitive and Affective Neuroscience, 2*(4), 313-322.
- Ferrer, J. N. (2003). Integral transformative practice: A participatory perspective. *Journal of Transpersonal Psychology, 35*(1), 21-42.
- Fischer, C. T. (2009). Bracketing in qualitative research: Conceptual and practical matters. *Psychotherapy Research, 19*(4-5), 583-590.
- Fjorback, L. O., Arendt, M., Ørnbøl, E., Fink, P., & Walach, H. (2011). Mindfulness-Based Stress Reduction and Mindfulness-Based Cognitive Therapy—a systematic review of randomized controlled trials. *Acta Psychiatrica Scandinavica, 124*(2), 102-119.
- Frisvold, M. H., Lindquist, R., & McAlpine, C. P. (2012). Living Life in the Balance at Midlife Lessons Learned From Mindfulness. *Western Journal of Nursing Research, 34*(2), 265-278.
- Garland, S. N., Carlson, L. E., Cook, S., Lansdell, L., & Speca, M. (2007). A non-randomized comparison of mindfulness-based stress reduction and healing arts programs for facilitating post-traumatic growth and spirituality in cancer outpatients. *Supportive Care in Cancer, 15*(8), 949-961.

- Geary, C., & Rosenthal, S. L. (2011). Sustained impact of MBSR on stress, well-being, and daily spiritual experiences for 1 year in academic health care employees. *The Journal of Alternative and Complementary Medicine*, 17(10), 939-944.
- Geschwind, N., Peeters, F., Huibers, M., van Os, J., & Wichers, M. (2012). Efficacy of mindfulness-based cognitive therapy in relation to prior history of depression: randomised controlled trial. *The British Journal of Psychiatry*, 201(4), 320-325.
- Godfrin, K. A., & Van Heeringen, C. (2010). The effects of mindfulness-based cognitive therapy on recurrence of depressive episodes, mental health and quality of life: A randomized controlled study. *Behaviour research and therapy*, 48(8), 738-746.
- Gökhan, N., Meehan, E. F., & Peters, K. (2010). The value of mindfulness based methods in teaching at a clinical field placement 1, 2, 3. *Psychological reports*, 106(2), 455-466.
- Greeson, J. M., Webber, D. M., Smoski, M. J., Brantley, J. G., Ekblad, A. G., Suarez, E. C., & Wolever, R. Q. (2011). Changes in spirituality partly explain health-related quality of life outcomes after Mindfulness-Based Stress Reduction. *Journal of 62ounselors medicine*, 34(6), 508-518.
- Grof, S. & Grof, C. (1989). *Spiritual Emergency: When Personal Transformation Becomes a Crisis*. Los Angeles: Tarcher.
- Haimerl, C. J., & Valentine, E. R. (2001). The effect of contemplative practice on intrapersonal, interpersonal, and transpersonal dimensions of the self-concept. *Journal of Transpersonal Psychology*, 33(1), 37-52.
- Hollis-Walker, L., & Colosimo, K. (2011). Mindfulness, self-compassion, and happiness in non-meditators: A theoretical and empirical examination. *Personality and Individual Differences*, 50(2), 222-227.
- Hölzel, B. K., Lazar, S. W., Gard, T., Schuman-Olivier, Z., Vago, D. R., & Ott, U. (2011). How does mindfulness meditation work? Proposing mechanisms of action from a conceptual and neural perspective. *Perspectives on Psychological Science*, 6(6), 537-559.
- Kabat-Zinn, J. (1995). *Wherever you go, there you are: Mindfulness meditation in everyday life*.

- Hyperion. Shapiro, S. L., Carlson, L. E., Astin, J. A., & Freedman, B. (2006). Mechanisms of mindfulness. *Journal of clinical psychology, 62*(3), 373-386.
- Kabat-Zinn, J. (1982). An outpatient program in family medicine for chronic pain patients based on the practice of mindfulness meditation: Theoretical considerations and preliminary results. *General hospital psychiatry, 4*(1), 33-47.
- Kabat-Zinn, J. (1990). Full catastrophe living: Using the wisdom of your mind and body to face stress, pain, and illness. *New York: Delacorte.*
- Kerr, C. E., Josyula, K., & Littenberg, R. (2011). Developing an observing attitude: An analysis of meditation diaries in an MBSR clinical trial. *Clinical psychology & psychotherapy, 18*(1), 80-93.
- Kim, K. H., Kaufman, J. C., Baer, J., & Sriraman, B. (2012). GROUNDING CREATIVE GIFTEDNESS IN THE BODY. Retrieved May 2013 from: <http://digitalcommons.ilr.cornell.edu/articles/486>
- Koenig, H. G. (2008). Concerns about measuring "spirituality" in research. *The Journal of nervous and mental disease, 196*(5), 349-355.
- Kuyken, W., Watkins, E., Holden, E., White, K., Taylor, R. S., Byford, S., ... & Dalgleish, T. (2010). How does mindfulness-based cognitive therapy work? *Behaviour research and therapy, 48*(11), 1105-1112.
- Kristeller, J. L. (2003). Mindfulness Meditation. In P. Lehrer, R. L. Woolfolk & W. E. Simes (Eds.), *Principles and Practice of Stress Management*. New York: Guilford.
- Lancaster, B. L. (2004). *Approaches to Consciousness: The Marriage of Science and Mysticism*. Basingstoke, UK: Palgrave Macmillan.
- Leonard, G. & Murphy, M. (2005). *The Life We Are Given. A Long Term Program for Realising the Potential of Mind, Body, Heart and Soul*. New York: Penguin Group
- Ma, S. H., & Teasdale, J. D. (2004). Mindfulness-based cognitive therapy for depression: replication and exploration of differential relapse prevention effects. *Journal of consulting and clinical*

psychology, 72(1), 31.

Mackenzie, M. J., Carlson, L. E., Munoz, M., & Speca, M. (2007). A qualitative study of self-perceived effects of mindfulness-based stress reduction (MBSR) in a psychosocial oncology setting. *Stress and Health*, 23(1), 59-69.

Mathew, K. L., Whitford, H. S., Kenny, M. A., & Denson, L. A. (2010). The long-term effects of mindfulness-based cognitive therapy as a relapse prevention treatment for major depressive disorder. *Behavioural and cognitive psychotherapy*, 38(5), 561-576.

Mays, N., & Pope, C. (2000). Qualitative research in health care: Assessing quality in qualitative research. *BMJ: British Medical Journal*, 320(7226), 50.

McCollum, E. E., & Gehart, D. R. (2010). Using mindfulness meditation to teach beginning therapists therapeutic presence: A qualitative study. *Journal of Marital and Family Therapy*, 36(3), 347-360.

Moreira-Almeida, A., Lotufo Neto, F., & Koenig, H. G. (2006). Religiousness and mental health: a review. *Revista brasileira de psiquiatria*, 28(3), 242-250.

Neff, K. D. (2009). The role of self-compassion in development: A healthier way to relate to oneself. *Human development*, 52(4), 211-214.

Newsome, S., Christopher, J., Dahlen, P., & Christopher, S. (2006). Teaching 64 counsellors self-care through mindfulness practices. *The Teachers College Record*, 108(9), 1881-1900.

Olendzki, A. (2010). *Unlimiting mind: The radically experiential psychology of Buddhism*. Wisdom Publications (MA).

Santorelli, S. (2010). *Heal thy self: Lessons on mindfulness in medicine*. Random House Digital, Inc.

Scotton, B. W., Chinen, A. B., & Battista, J. R. (2008). *Textbook of transpersonal psychiatry and psychology*. Basic Books.

Segal, Z., Williams, M., & Teasdale, J. (2002). *Mindfulness-based cognitive therapy for depression: A new approach to preventing relapse*. New York: Guilford Press

- Shapiro, S. L., Carlson, L. E., Astin, J. A., & Freedman, B. (2006). Mechanisms of mindfulness. *Journal of clinical psychology, 62*(3), 373-386.
- Smith, J. A., Flowers, P., & Larkin, M. (2009). *Interpretative phenomenological analysis: Theory, method and research*. Sage.
- Smith, J. A., & Osborn, M. (2003). Interpretative phenomenological analysis. *Qualitative psychology: A practical guide to research methods*, 51-80.
- Sullivan, P. R. (1995). Contentless consciousness and information-processing theories of mind. *Philosophy, Psychiatry, & Psychology, 2*(1), 51-59.
- Seligman, M. E., & Csikszentmihalyi, M. (2000). Positive psychology: an introduction. *American psychologist, 55*(1), 5.
- Van Aalderen, J. R., Donders, A. R. T., Giommi, F., Spinhoven, P., Barendregt, H. P., & Speckens, A. E. M. (2012). The efficacy of mindfulness-based cognitive therapy in recurrent depressed patients with and without a current depressive episode: a randomized controlled trial. *Psychological medicine, 42*(5), 989.
- Vandenbergh, L., & Costa Prado, F. (2009). Law and grace in Saint Augustine: a fresh perspective on mindfulness and spirituality in behaviour therapy. *Mental Health, Religion and Culture, 12*(6), 587-600.
- Weissbecker, I., Salmon, P., Studts, J. L., Floyd, A. R., Dedert, E. A., & Sephton, S. E. (2002). Mindfulness-based stress reduction and sense of coherence among women with fibromyalgia. *Journal of Clinical Psychology in Medical Settings, 9*(4), 297-307.
- Wilber, K. (1996). *The Atman project: A transpersonal view of human development*. Quest books.
- Yardley, L. (2000). Dilemmas in qualitative health research. *Psychology and health, 15*(2), 215-228.
- Yorston, G. A. (2001). Mania precipitated by meditation: a case report and literature review.

Section C:

Critical Appraisal

Word count:

1932

Question 1: What research skills have you learned and what research abilities have you developed from undertaking this project and what do you think you need to learn further?

I have gained and developed a number of research abilities in planning and conducting this research project. I enjoyed the exploratory nature of formulating a qualitative research question and analysing interviews as it allowed my own understanding of the topic to develop and evolve throughout the research process. This felt less constraining than hypothesis testing, which the majority of my previous research experience had involved. However, I grappled philosophically with the tension within qualitative research between embracing subjectivity and the necessity to create something that was applicable to other contexts in order for it to be of value. I feel that I have resolved this in my mind somewhat in becoming aware of the limitations inherent within every research methodology. Through conducting this research I have learned to value the understanding and richness that occurs through learning about idiographic experiences, whilst acknowledging the multiplicity of individual differences. As well as experiencing qualitative research as a creative process, I feel that I have a greater understanding of what it can offer methodologically.

In researching the topic of mindfulness I became aware of the value of being mindful throughout the process of conducting research. This seems to be particularly necessary in qualitative research where reflexivity is necessary to become aware of personal biases and assumptions throughout the process of conducting interviews and interpreting data. It was also useful to think about mindfulness as a necessary skill for listening in interviews in order to stay present and attend fully to what was being said. As I began to re-establish my own mindfulness practice over the course of conducting this research, I feel I developed these skills further.

In the process of recording and transcribing interviews, I developed more awareness in my communication and used this as an opportunity to improve my interviewing skills. In particular I learned to recognise better when opportunities naturally arose to take the conversation in different directions rather than following the structure of the interview schedule, which led to far richer data

being obtained. Throughout the process of conducting interviews I was developing interpretations of the data already obtained and this influenced the questions asked in subsequent interviews. There was then a tension between asking open ended questions and also wanting to explore particular aspects of experience in a way that was not leading. I think I managed to negotiate this better by the end. There were some interviews that seemed to go better than others and I reflected on why this was and how I could alter my technique and the type of questions I asked to suit different individuals. I feel that my interview technique improved throughout the course of the research as a result, and I hope to be able to develop this further in the future.

A sample of seven participants is considered to be a fairly large one to work with in Interpretative Phenomenological Analysis (IPA; Smith, Flowers & Larkin, 2009). It was recommended by the course that a sample of over six was used, which meant the level of depth that is discussed in relation to smaller sample sizes could not be obtained for each participant. In using this sample size I feel that I gained a breadth of understanding to capture a range of experiences and allowed for incidences of polarisation (Smith et al., 2009) between themes to emerge. This was a useful learning process as I had to try to maintain an awareness of each individual in the context of the whole sample, as is recommended with IPA. However, I felt that at times the nuanced nature of individual experiences was inevitably lost in this process. In the future I would like to have the opportunity to learn the process of using IPA on a small sample of only a few participants in order to obtain the degree of depth to really explore experiences in more detail. Conversely, I would also like to develop my qualitative research skills by using a method that seeks to develop a theory with coherent structure and links between themes such as grounded theory (Glaser & Strauss, 1967), and seeks respondent validation (Boor, 1997). I feel that this would allow me to develop clearer links between the ideographic and nomothetic, and in doing so, perhaps develop skills to produce a theory which can perhaps be applied and tested.

Question 2: What would you do differently and why?

Broadly speaking, I think that the methodology selected was appropriate for the study. If I was to do anything differently, I may have tried to recruit more people who did not have spiritual beliefs or practices prior to the course. I believe that entitling the study 'spirituality' could have possibly polarized people, attracting those who identified with this term and deterring people for whom it had less favorable connotations. Alternatively I could have made the research question about more general impacts and sought to draw out themes that could fit into a broad definition of spirituality, or replaced 'spirituality' with the phrase 'philosophical life questions'.

In addition to this, the term 'spirituality' can cover such a broad range of experiences and by keeping the definition inclusive in order to allow for diversity in experiences, I perhaps sacrificed a greater level of detail and depth. In writing the discussion I had to make some difficult choices about which parts of the data to focus on as the scope of the study did not allow me to explore each area in as much depth as I would have wished.

However, it could be argued that if the definition of spirituality had been limited by only focusing on particular aspects, the analysis may not have elucidated the interrelatedness of all of the different aspects of change and examining these altogether allowed for more comprehensiveness. In addition to this, spirituality is currently a popular topic in research, perhaps drawing more interest to the study as a result, and attracting a more spiritual sample may have allowed me to recruit participants who were more comfortable speaking about the issues I was concerned with. Within IPA it is a necessity to recruit people for whom the topic is of personal importance and relevance (Smith et al., 2009). With a less spiritual sample, the data may not have been so rich.

As I progressed through the process of conducting and transcribing interviews, there were a number of ways in which I could have improved interviews and I noted these down in my research diary following each one. This then informed subsequent interviews and allowed my skills to

improve over time. Interviews that were conducted later on in the research process produced richer data as a result and further elucidated previous themes. Whilst I took time in developing the interview schedule and involved service users in the process, I could have perhaps improved early interviews by conducting more practice interviews so that I could have obtained richer and more relevant data in the initial interviews as well as in the later ones.

Question 3: Clinically, as a consequence of doing this study, would you do anything differently and why?

I feel that the process of conducting this research has had a big impact on me both personally and in my clinical practice. While I completed an MBCT course around 18 months ago and felt benefits from this at the time, I did the course at a point when I had a lot of other commitments so did not engage with it as fully as I would have liked to, and I did not manage to maintain the practices. Hearing about participants' experiences of MBCT and the impacts of this inspired me to re-establish my own practice, and much of what was said in the interviews resonated with me and helped me to resolve some of my own existential questions. This research has elucidated how spirituality can impact on psychological well-being, as well as change people's experience of distress. I feel I am now better equipped to be curious about and utilise clients' spiritual resources in therapy, if and when appropriate. I have developed an awareness of the aspects of spirituality that transcend specific traditions and practices which I can draw on in working with a people from a range of backgrounds, as I also aim to understand the unique aspects of an individual's experiences. In addition to this, where people may present with some spiritual struggles and perhaps consequent guilt and blame (see Phillips, Cheng, Pargament, Oemig, Colvin, Abarr et al., 2009), I feel that mindfulness can be a useful tool and context for validating somebody's spirituality whilst also cultivating attitudes and intentions such as non-judgemental awareness that may help reduce the associated distress. It has been my experience that the richness of data produced by an IPA study

can be of great value clinically, although I am aware that the findings may not generalize and would always seek to understand a person's unique experiences.

This research has reminded me of the importance of cultivating mindfulness in clinical practice with clients, as previous studies have shown (Christopher, Chrisman, Trotter-Mathison, Schure, Dahlen, & Christopher, 2011; Christopher & Maris, 2010; Gokhan, Meehan & Peters, 2010). In becoming more mindful I have gained self-insight through becoming more aware of my own bodily reactions, and in being more present I feel that I am better able to work with transference and counter-transference. Compassion and wisdom seem to be important attributes for a therapist and this study has highlighted how mindfulness can help cultivate these, which I hope will also benefit my practice. I also feel that the process of listening to the interviews I conducted was helpful in developing self-awareness and enhancing my communication skills.

Question 4: If you were to undertake further research in this area what would that research project seek to answer and how would you go about doing that?

If I were to undertake further research in this area I would examine these processes further by interviewing more people who did not have intentions for spiritual growth prior to the course, and also target more people without spiritual backgrounds. In doing this I would perhaps not use the word 'spirituality' but seek to explore spiritual themes by using a different language that is less polarising. The research interview would focus on similar themes as those found in this research but look to explore links between themes in greater detail and a theoretical framework produced that potentially accounts for individual differences in impacts of MBIs. A grounded theory approach could be used and a larger sample of participants interviewed to increase generalisability. Participant validation would also be sought.

It could also be useful to conduct a randomised control trial that could look at both moderation and mediation in relation to aspects of spirituality. Rather than conceptualising

spirituality using a single scale, a range of short measures would be used to capture different aspects of this, including those which measured compassion, a sense of meaning, self-concept, relationship with a perceived transcendent source, as well as correlations between scales. Quantitative findings could be triangulated with qualitative findings to ensure comprehensiveness and encourage a more reflexive analysis of data (Jick, 1979; Mays & Pope, 2000). Such research could help elucidate understanding of change processes associated within MBIs, but may also increase understanding of change processes in spirituality and psychological well-being more generally, which could have applications in a wide range of clinical settings.

References

- Bloor, M. (1997). Techniques of validation in qualitative research: a critical commentary. In G. Miller & R. Dingwall (Eds.), *Context and method in qualitative research* (pp. 37–50). London: Sage.
- Christopher, J. C., Chrisman, J. A., Trotter-Mathison, M. J., Schure, M. B., Dahlen, P., & Christopher, S. B. (2011). Perceptions of the Long-Term Influence of Mindfulness Training on Counselors and Psychotherapists A Qualitative Inquiry. *Journal of Humanistic Psychology, 51*(3), 318-349.
- Christopher, J. C., & Maris, J. A. (2010). Integrating mindfulness as self-care into counselling and psychotherapy training. *Counselling and Psychotherapy Research, 10*(2), 114-125.
- Smith, J. A., Flowers, P., & Larkin, M. (2009). *Interpretative phenomenological analysis: Theory, method and research*. Sage.
- Glaser, B. G., & Strauss, A. L. (1967). *The discovery of grounded theory: Strategies for qualitative research*. Aldine de Gruyter.
- Gökhan, N., Meehan, E. F., & Peters, K. (2010). The value of mindfulness based methods in teaching at a clinical field placement 1, 2, 3. *Psychological reports, 106*(2), 455-466.
- Jick, T. D. (1979). Mixing qualitative and quantitative methods: Triangulation in

action. *Administrative science quarterly*, 24(4), 602-611.

Mays, N., & Pope, C. (2000). Qualitative research in health care: Assessing quality in qualitative research. *BMJ: British Medical Journal*, 320(7226), 50.

Section D:

Appendices of Supporting Material

Appendix A. Tables of studies in Section A

Table 1. Quantitative Studies Included in Section A.

Author	Participants	Design	Intervention	Relevant Measures *	Significant Outcomes?
Greeson et al (2011) (US)	279, 180 for post intervention. Self pay, self-selected. Mean age 45, elevated stress. Christian 39.4%, without religion 36.9%.	Pre/ post intervention within one week of course. Test for mediation of relationships. No control group.	MBSR	CAMS-R DSES SF-12	Sig increase in daily spiritual experiences, mindfulness and mental health. Increased spirituality and mindfulness associated with improved mental health.
Grabbe et al (2011) (US)	Homeless youths 18-21 years in shelter. 79 enrolled, 39 with complete data	No control group	Mindfulness based group program	FACIT-SP	Increased spirituality.
Birmie et al (2010) (US)	51 full data, 41 with SCS Mean age 47.5 58.8% Christian. Self selecting, self pay 'Psychologically healthy', free from physical health condition	Pre/post intervention. No control group Also qualitative data from interviews	MBSR	SCS IRI MAAS FACIT-Sp	Increased spirituality, self-compassion and mindfulness. Spirituality associated with self-compassion, empathy and mindfulness.
Ando (2009) (Japan)	28 participants, cancer patients. Excluded if severe pain Mean age 60.	Pre/post intervention.	2 sessions of mindfulness based meditation therapy and home practice for 2 weeks.	FACIT-Sp	Spirituality increased but NON SIGNIFICANT.
Carmody et al (2008) (US)	44 participants Mean age 47.8 75% female Self-pay, referred by health practitioner	Pre/post intervention. No control group.	MBSR	FACIT-Sp TMS MAAS	Increases in spirituality associated with increases in mindfulness. Changes in spirituality associated with reductions in psychological distress.
Garland et al (2007) (US)	60 in MBSR group, 44 in HA group. Cancer patients, majority breast cancer. Participants elected which group.	MBSR program compared with Creative Arts program, correlations between measures. Also qualitative data	MBSR or 6 week Creative Arts Program	PTGI FACIT-Sp SOSI POMS	MBSR group greater increase in spirituality. Increased PTG related to increased spirituality, increased spirituality related to decreased stress and mood disturbance. Qualitative data supported findings.
Geary et al. (2007) (US)	59 university employees, Elevated stress 94 healthcare providers as controls.	Pre/post intervention and 1 yr follow up, no intervention control group.	MBSR	DSES	Intervention group greater increases in spirituality, sustained at follow up.
Shapiro et al (1998) (US)	78 pre medical and medical students, 36 in intervention group completed measures, 38 in control group. Self-selected.	RCT. Randomisation matched for gender, race, medical/pre-medical. Pre/post intervention.	MBSR	INSPIRIT	Increased spirituality.
Astin et al (1997)	28 undergrads, 14 MBSR, 14 control. 10 completed	RCT. Comparing MBSR with no	MBSR	INSPIRIT	Increased spirituality.

(US)	intervention, 7 completed control measures.	intervention control group.
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*Relevant measures refers to those where the related findings are mentioned in the main review.

CAMS-R – Cognitive and Affective Mindfulness Scale – Revised (Feldman, Hayes, Greeson & Laurenceau, 2007)

DSES – Daily Spiritual Experiences Scale (Underwood & Teresi, 2002)

SF-12 – Short Form Health Survey (Gandhi, Warren Salmon, Zhao, Lambert, Gore & Conrad, 2001).

FACIT-Sp – Functional Assessment of Chronic Illness Therapy – Spiritual Well-Being (Petman, Min, Brady & Cella, 2002)

SCS – Self Compassion Scale (Neff, 2003)

IRI – Interpersonal Reactivity Index (Davis, 1983)

MAAS – Mindful Attention Awareness Scale (Brown & Ryan, 2003)

TMS – Toronto Mindfulness Scale (Lau, Bishop, Segal, Buis, Anderson, Carlson et al., 2006).

PTGI – Post Traumatic Growth Inventory (Tedeschi & Calhoun, 1996)

SOSI – Calgary Symptoms of Stress Inventory (Carlson & Thomas, 2007)

POMS – Profile of Mood States (McNair, Lorr & Droppelman, 1979)

SAS – Spirituality Assessment Scale (Howden, 1992)

INSPIRIT – The Core Index of Spiritual Experiences (Kass, 1991)

Table 2. Qualitative Studies Included in Section A.

Author	Intervention	Participants	Method	Themes	Quality
Christopher et al. (2011)	MBSR based mm self care course over 5 year period Mid 20s to mind 50s.	16 counsellors self selected	Content analysis Semi structured interviews	More compassionate, less judgemental, more able to tolerate feelings, intentional compassion to others	Good detail of procedures for analysis. No reflexive journaling.
Frisvold et al. (2012)	MBSR Interview one year after	20 midlife nurses	Content analysis Semi structured interviews	'Spiritual awakening' as theme. Renewed focus and sense of purpose, peace and contentment, increased connection with higher power.	Good detail of procedures Reflexive journaling
Dellbridge & Lubbe (2009)	MBSR based one to one mindfulness	Single case study 17 year old girl purposefully selected	Interpretivist paradigm (Creswell, 200) Data from creative expressions, unstructured interviews, observations	More self-compassion, letting go of self-criticism and judgement	No reflexive journaling but there were checking procedures Subjective methods
Mackenzie et al. (2007)	MBSR drop in, had been going for several years	9 people with cancer, av age 60.	Grounded theory	Spirituality theme. Comfort and meanings in adversity, mindfulness enhancing prayer practice, growth and transformation	Detailed account of methods. No reflexive journaling.
Bailie et al (2012)	MBCT	16 Parents with depression	Thematic analysis	Increased empathy and acceptance	Detail, checking, reflexive journaling
Ando et al (2009)	2 week MBSR based intervention	28 people with cancer	No established method, categories given to transcripts	Personal growth and spirituality. Sense of importance of life, gratitude	Was a checking procedure but no established method
Allen et al (2009)	MBCT within 12 months	20 people, recurrent depression	Thematic analysis	Self-compassion, recognition of own needs	Detail of procedures and checking
Gokhan et al (2002)	Mindfulness based training course 12	22 counselling students	No established qualitative methodology	Increased empathy and compassion	Sufficient detail and checking

	weeks		reported.		
Newsome et al. (2006)	15 week MBSR	Counselling students Quantitative and qualitative	Narrative analysis of diary entries Content analysis	Theme of spiritual awareness,: reflect on belief systems, challenged to look at worldviews. Increased empathy and compassion towards self and others	No detail of procedures or validation

Appendix B: Section A search strategy

The following databases were searched up until the end of January 2013: Google scholar, PsychInfo, medline, the cochrane library. The terms 'mindfulness' and 'spirituality' were combined and searched in the title, and/or abstract, and/or keyword to identify studies of MBIs in relation to spirituality. Approximately 450 articles were initially identified. Reference lists were also reviewed for relevant studies and abstracts of articles were screened according to the following criteria:

Inclusion criteria:

- MBIs that included a spirituality outcome measure
- Secular interventions (to avoid the potential impact of associated doctrine)
- Articles in English
- Articles in peer reviewed journals

Exclusion criteria:

- Dissertations and commentaries
- Interventions that included teaching of doctrines or spiritual philosophies

This yielded a total of nine studies.

A further search of the same databases was conducted for qualitative studies. The words 'mindfulness' and 'qualitative' were searched in the title, and/or abstract, and/or keyword to identify studies of MBIs in relation to spirituality. Approximately 570 articles were initially identified. Reference lists were also reviewed for relevant studies and abstracts of articles were screened according to the following criteria:

Inclusion criteria:

- Qualitative studies on MBIs
- Articles containing themes that come under Baer's (2010) definition of spirituality (compassion, a sense of meaning, no self, or a sense of connection with a transcendent source.)
- Secular interventions
- Interventions in English
- Articles in peer reviewed journals

Exclusion criteria:

- Dissertations and commentaries
- Interventions that included teaching of doctrines or spiritual philosophies

This yielded a total of nine studies.

Appendix C: Participant details

Table 3. Table showing Participant details

Name	Age	Spiritual/religious orientation
Alice	65-70	Previously had a Buddhist practice. Aligned with Peganism.
Clare	40-45	Spiritualist
John	40-45	Followed Buddhist practice
Louise	50-55	Atheist (departed from Christian upbringing)
Michael	60-65	Atheist
Stephanie	50-55	Had done yoga, qi gong (departed from Catholic upbringing)
Susan	40-45	Previously followed Buddhist practice

Appendix D: Participant information sheet

04/09/2012 Version 5
Faculty of Social and Applied Sciences
Clinical Psychology Doctoral Programme
Canterbury Christ Church University
Tunbridge Wells Campus

Participant Information Sheet

Title of study: Exploring the Relationship Between MBCT and Religion/Spirituality

My name is Becky Watmough and I am a trainee clinical psychologist at Canterbury Christ Church University. I would like to invite you to take part in a research study. Before you decide whether or not you would like to take part, it is important that you understand why the research is being done and what it would involve for you.

What is the purpose of the study?

The purpose of this study is to find out about people's experiences of MBCT to help us more fully understand how it works. Mindfulness practices came from a spiritual tradition before being researched scientifically. I am interested to explore whether MBCT may have helped you and whether or not you see your experience of MBCT as spiritual. I am also interested in whether or not you had any religious or spiritual beliefs before to the course. This will hopefully help with our understanding of how people's differences may affect their experience of MBCT.

Why have I been invited?

I have approached you as I am being supervised with the project by Dr Robert Marx and Dr. Fergal Jones, clinical psychologists who run MBCT groups in Sussex Partnership Trust. I am looking for around 8-10 people to interview who have finished the course, within 3 months of finishing it.

Do I have to take part?

It is up to you to decide to join the study. If you agree to take part, I will then ask you to sign a consent form. You are free to withdraw at any time, without giving a reason. This would not affect the standard of care you receive.

What will happen to me if I take part?

If you want to take part in the study I will arrange a time to meet with you and carry out an interview. I can meet you at an NHS clinic room that is used by the service. The interview will last up to an hour and I will record this by Dictaphone.

What will happen to the results of the research study?

Once the study has been completed it will be submitted to a Journal that publishes research. They will then choose whether they want to publish the research study. It will also be read and marked by Canterbury Christ Church University and published in their library.

Who is organising and funding the research?

Canterbury Christ Church University are funding the research as part of the Doctorate programme in Clinical Psychology.

What will I have to do?

If you would like to take part or want to ask questions about the study, please either contact me by telephone or email, or give your contact details to the group facilitator and I will get in touch with you. My contact details are at the bottom of this form and there is another sheet for you to write your contact details on if you would prefer me to get in touch with you. If you decide you would like to take

part in the study, I can arrange a time and place to meet with you to do the interview. (Part about home visits deleted). There will be a consent form for you to sign.

What will happen if I don't want to carry on with the study?

It is okay for you to change your mind about participating in the study, and arrangements for being interviewed can be cancelled. You also have the right to withdraw information you have given after the interview at any time up to when it is written up. You have the right to recall the transcript of your interview without my keeping any copies.

What if there is a problem?

Complaints

If you have a concern about any aspect of this study, you should ask to speak to me and I will do my best to answer your questions (contact number). If you remain unhappy and wish to complain formally, you can do this by following the Trust Complaints Procedure.

Will my taking part in this study be kept confidential?

Yes. We will follow the ethical and legal practice guidance and all information about you will be handled in confidence. Your consent form with your contact details will be stored securely in NHS premises and destroyed once the research has been written up. Information given in interview will be recorded by Dictaphone, which will be stored securely and the recording will be destroyed once it has been transcribed. The interview data will be transcribed onto a password protected computer that is kept securely on NHS or University premises. No names or identifiable personal information will be included in the report. Anonymised quotes from interviews will be used in the final published report. After the report has been completed the interview transcriptions will be stored on CD and locked away securely at Canterbury Christ Church University for 10 years, and then destroyed.

What will happen to the results of the research study?

Once the study has been completed it will be submitted to a Journal that publishes research. They will then choose whether they want to publish the research study. It will also be read and marked by Canterbury Christ Church University and published in their library.

Who is organising and funding the research?

Canterbury Christ Church University are funding the research as part of the Doctorate programme in Clinical Psychology.

Who has reviewed the study?

All research in the NHS is looked at by independent group of people, called a Research Ethics Committee, to protect your interests. This study has been reviewed and given favourable opinion by Sussex Partnership Research Ethics Committee.

If you would like further information about this research project please contact Becky Watmough on:

r.j.watmough@canterbury.ac.uk

Telephone number:

Appendix E: Semi-structured interview schedule

This schedule might be subject to amendments as a result of experience in the initial interviews, as is usual with qualitative methods.

Prior experiences-

- I want to find out a little bit about your experiences/beliefs about spirituality or religion prior to the course in order to place your experiences of MBCT in context.

5) Prior to the course, did you have any experiences of mindfulness or similar practices?

2) Are you a religious person at all?

If yes: Could you tell me more about that?

If no: So religion as such is not really important to you. How would you describe your philosophy on life, or sort of, what it's all about- if you have a view of that?

4) (If not covered in above answer) What does 'spirituality' mean to you?

5) Spirituality definitions vary and it has been said to include a number of things, for example, a sense of inner peace; love, compassion and connectedness; peak experiences; no self; a connection to a higher meaning; a sense of the sacred; mystical experience and a sense of transcendent awareness of a higher being or linking to a higher being.

Have you experienced any of these? Please describe. (If yes) Does this influence the way that you cope with difficulties?

-Experiences of MBCT

6) Can you tell me about your experience of MBCT?

7) Since doing the course, would you say that anything changed in the way that you approach life or cope with difficulties?

If yes:

a) Please could you explain a bit?

b) Does this feel different from before? If so, how?

Appendix F: Ethics Approval Letter

- These pages have been removed from electronic copy.

Appendix G: Consent form

04/09/2012 Version 5
Faculty of Social and Applied Sciences
Clinical Psychology Doctoral Programme
Canterbury Christ Church University
Tunbridge Wells Campus

CONSENT FORM

Title of Project: Exploring the relationship between MBCT and spirituality.

Name of Researcher: Rebecca Watmough

1. I confirm that I have read and understand the information sheet dated 04/09/12 (version 5) 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 or legal rights being affected.
3. I agree for the interviews to be audio taped. I agree that anonymous quotes from my interview may be used in published reports of the study findings.
4. I agree to take part in the above study.

Name of Participant _____ Date _____

Signature _____

Name of Person taking consent _____ Date _____

Signature _____

Appendix H: Example interview transcript with initial notes

- Notes in ordinary text are summary notes from the transcript, underlined text refer to interpretative note taking and italics are comments on a linguistic level.

Table 5. Interview transcript with initial notes.

- This information has been removed from the electronic copy

Appendix I: Sample of initial development of themes

- The numbers next to the quote refer to other themes that the quote could also be relevant to.

Table 6. Sample of table showing initial theme development

Subordinate theme	(1)Compatibility between MBCT and prior beliefs/practices	(3)Insights occurring	(6)Letting go versus goals/intentions	(1)Connecting with the self on a deep level
Emergent themes and Quotes	Experience of meditation through 'spiritualism' practices, accessing altered states of consciousness. Belief in God within. compatible with spiritual beliefs in that there's an honouring of free will. <i>'it lets you simply be and really that's what spirituality's about as well its about your own free will, being who you are, coming into your own much much more.'</i> (1)	Insights occur through connecting with the self. <i>'...its about your own free will, being who you are, coming into your own much much more.'</i> (1)(4) Connect more with feelings and act accordingly <i>'mbct helps you...feel into how you feel about things how they sit with you so you're much more able to say no that isn't right for me and to go a different way'. (1)</i> ,	Intentions – wanting to connect with self in a new way. Old way led to some difficulties.(1) Had begun on this path before (connecting with self) but was reinforced through mbct <i>'through mbct that path has been strengthened and has become much clearer'.</i>	Connected with self in deep, non-judgemental way <i>'mbct really helped me to connect with myself in a very deep but non-judgmental way.'</i> (5) <i>'...its about your own free will, being who you are, coming into your own much much more.'</i> (4)(3)

- Participants were each assigned a colour so and quotes were assembled under the relevant theme subheading. This meant that the identity of individual participants was maintained within the context of the whole sample. A narrative was then constructed around the themes.

Appendix J: Further development of themes with quotes

- This was section has been removed for confidentiality purposes.

Appendix K: Researchers responses to interview questions

Interview firstly recorded in conversation with follow trainee, then was added to. October 2012.

1) Prior to the course, did you have any experiences of mindfulness or similar practices?

Yes I've done a bit of meditation before. I tried it out in Thailand at a Buddhist centre and I studied a PGDip in Consciousness and Transpersonal Psychology, which involved a certain amount of learning through practice, which included meditation. However, I did this without a guide and was practicing a more concentrative rather than mindful type of meditation, which was different. It lacked the observing, self-awareness elements of mindfulness.

2) Are you a religious person at all?

No, although my mother is so I was exposed to Christianity and went to a C of E primary school. I stopped going to church as soon as I was old enough to and always questioned the teachings, although believed in some of the moral aspects.

If yes: Could you tell me more about that?

If no: So religion as such is not really important to you. How would you describe your philosophy on life, or sort of, what it's all about- if you have a view of that?

This is something that changes somewhat, but generally the meaning I make of my life is through relationships and connection, with other people, and to a slightly lesser extent with myself and with nature. Creativity is a big part of it, and contributing our abilities. For me there is something about the process of creativity that involves a connecting with something within us that is a higher state of consciousness and part of a greater life force. I suppose I have encountered a lot of Buddhist philosophy so take some of my views from that. I see us as being part of a greater whole, and that we are manifestations of something greater than anything living. I'm not sure what that thing is, not a 'being' but I see it as within all life forms and as responsible for all of creation. I do not believe in reincarnation in the sense of survival of a personal soul or spirit, but I think that the consciousness within us gets transformed into other forms. I believe that we are able to experience this greater whole or sense of spirituality through our consciousness, and that consciousness can be achieved through connection to ourselves, others or nature. It can be experienced as creativity or a deep love, or something like it, and compassion arises from it.

4) (If not covered in above answer) What does 'spirituality' mean to you?

5) Spirituality definitions vary and it has been said to include a number of things, for example, a sense of inner peace; love, compassion and connectedness; peak experiences; no self; a connection to a higher meaning; a sense of the sacred; mystical experience and a sense of transcendent awareness of a higher being or linking to a higher being.

Have you experienced any of these? Please describe. (If yes) Does this influence the way that you cope with difficulties?

Yes, although with regards to things like inner peace, love, compassion and peak experiences I'm not sure whether you need to refer to spirituality in understanding these things or whether they can be understood as human values that contribute towards good mental health and a functional society. Some of these may be explained by purely biochemical processes. This raises the question about whether causal attributions are what distinguish what is perceived as spiritual from what is not, and

these attributions are likely to be shaped by someone's social context and other belief systems. So then there is the question of embodied experience, as this is something that people can draw upon and describe. However, it seems likely that belief systems would influence both the experience and the way that it is interpreted.

Personally I feel that I have experienced all of those things at different times. When I have difficulties, I can draw upon these things and gain strength and wisdom, I believe, depending on what the difficulty is. I believe that over the years, it has been the experience of difficulties that allowed me to develop in this way. However, I can also feel disconnected from these things at times, particularly if my concerns are about the ego or the self. I find I can get stuck in this smaller, ego state of consciousness which can be very difficult to transcend. Connection, or the idea of it, is fraught with anxiety in these states. Transcendental can help you to re-establish what those needs are in accordance with something greater, and so I think it can help you develop more self-acceptance of the more trivial things.

-Experiences of MBCT

6) Can you tell me about your experience of MBCT?

I did the course back in February last year. I found it to be a valuable and challenging experience, from which I gained a lot.

7) Since doing the course, would you say that anything changed in the way that you approach life or cope with difficulties?

If yes:

a) Please could you explain a bit?

During some of the meditations I began to connect with some difficult emotional experiences, the origin of which I did not initially understand. It was experienced as an overwhelming emotion, and I felt it in my chest, in my heart. I think I eventually worked out what it was about, and it was something that I had been trying to avoid.

I still use the breathing space and will meditate if my mind is particularly busy, although mostly I feel pretty good so forget about meditating. Generally I try to be more connected with and aware of my emotions and my body than I was before and I think that this has happened over the last few years due to a number of things, and mindfulness is definitely one of them. I would say that I have become more aware of the emotional impact that things have on me, which has led to some changes in my life, which have not been easy. But I do feel that these changes have helped me move forward.

b) Does this feel different from before? If so, how?

It does feel different from before. I think that I previously did not allow myself to feel certain things, which led to me become somewhat disconnected from myself emotionally and I developed a tendency to only experience things that were rational and reasonable. This would manifest as anxiety in certain situations. I think it has been really important, however, for me to have a context in which I can try to make sense of the emotions that arose through mindfulness, as without this, I think it could have become confusing and overwhelming. In states where defensive strategies are operating, it is very difficult to become mindful. In these states I may seemingly be 'in the present' as I am not thinking about the past or future and I may not be feeling any particular emotion, however, it is still a smaller type of awareness that is more akin to disconnection than the ebb and flowing true presence of more expanded states of consciousness. I feel that an analytical approach is needed to make sense of and differentiate these states.

If no:

- c) How does this compare with your expectations of the course?

I am interested in mindfulness for what I would consider to be spiritual reasons and reasons to do with higher development, as well as seeing it as being beneficial to mental health. I also wanted to experience it for professional development.

- 8) Does any of what you've described relate to your philosophy on life or sense of religion/spirituality? (If yes) In what ways?

I guess it fits with my view that connection is what it's all about and suffering is disconnection. Mindfulness can help to establish that lost connection to yourself and your emotions and connect with feelings of love and compassion, but I believe that for interpersonal issues, a more analytical stance might also be needed to deal with negative emotions that arise through connection, such as fear and pain.

From an existential perspective, ideas about living in the present and the notion of impermanence are important to me. Through accessing a particular state of consciousness and awakening your senses to the present, you can appreciate the beauty in the world without striving for a sense of purpose, which I feel paradoxically can give you a deeper sense of purpose and life direction. Goals and what is important to you become clearer.

- 9) Is there anything else you want to say about your experiences of MBCT and religion/spirituality?

Appendix L: Sample reflexive diary entry

Diary 24th November 2012 (after interview 1).

As I was transcribing I analysed my interview style – I think that there were a couple of places where I summarised – this was useful as it invited clarification and development of ideas. There were a couple of places though where I perhaps missed the point slightly. On p. 5 he began to speak about how more and more things came up the more he did, needing all the help he could possibly get. I could have asked if there started to be a resolution and how those things were currently rather than moving straight on to experiences of MBCT. Maybe I could have asked more specific questions about how MBCT has impacted on his experience of his difficulties. There were times when I tried to direct the conversation that way but I think I needed to do it when there was an opening, even though at the beginning it felt like perhaps this was too soon to be going there and it was better to keep things more general and closer to the schedule. There was a tendency for both of us to get carried away into the abstract, towards the end there was a point when I was clarifying some abstract reflections, rather than doing this I could have directed it back to his own experience of those issues he was describing. However, there's a lot of rich data there to try to make sense of.

- Text removed for confidentiality purposes

I'm thinking that there may be a number of negative themes that come from the data, but caution needs to be taken in how this is reported, if it is different to how the participant may have portrayed things. In this case it could be framed that MBCT helped with realisation of those perhaps more negative aspects.

- Text removed for confidentiality purposes

Next time I could query which practices/aspects of the group they found spiritual/or deepest.

Appendix M: Summary of findings for participants and research ethics panel

Dear Study Participants,

I would like to thank you for participating in my study and giving your time to be interviewed. I thoroughly enjoyed meeting with you and appreciate you sharing your experiences of MBCT with me. As promised, I am writing to share a brief summary of the results with you. I will share a full version of the report with those who have requested this once it is completed in due course.

Study Title:

Exploring the Relationship Between MBCT and Spirituality

Rationale

Mindfulness is a spiritual concept adopted from Buddhism by Western clinicians and while change processes in Mindfulness Based Cognitive Therapy (MBCT) were initially explained in terms of cognitive/emotional impacts, there is now growing interest in the relationship between mindfulness and spirituality. Previous research has found increases in spirituality in association with mindfulness based interventions (MBIs) using a measurement based on a single scale. However, there is controversy over the validity of such scales that attempt to measure spirituality by a single construct. Previous qualitative research has identified spiritual themes in relation to MBIs, although this research has not focused on spirituality specifically and lacked detail. This study aimed to explore people's experiences of spiritual changes associated with MBCT, and the factors that may influence these.

Procedure for the Study

Seven participants who had completed an MBCT course within the previous three months were interviewed in-depth about their experiences of the course. Questions included those about pre-existing spiritual beliefs and practices, intentions and expectations for the course, whether they perceived spiritual changes associated with the course and the impacts of these, and experiences of the course more generally. Interviews were transcribed and analysed according to a qualitative method which focused on how a phenomenon appears, and the analyst is implicated in facilitating and making sense of this appearance. Transcripts were coded and a number of themes developed from the data.

Overview of Results

The themes represented a range of interconnected processes, including connecting with the body, experiencing thoughts and feelings in a less reactive way, a changed perspective on the self, self-insight, a greater sense of compassion and connection, wisdom, a sense of meaning and a sense of connection to a transcendent source. For some, mindfulness helped create a context in which painful experiences could be brought into awareness, and unusual or difficult experiences integrated so that people could experience a deeper and more authentic way of being. While intentions seemed to be important in mapping the particular aspects of change that occur, themes were common to people from a variety of spiritual backgrounds, and spiritual changes occurred in some people who had no prior spiritual orientations. The dialect between the role of intentions and 'letting go' in relation to mindfulness was explored.

Potential Impact of Study

This research has elucidated a range of change processes associated with MBCT, which may broaden its application. For example, this type of therapy may be particularly well suited to people seeking an approach to help with existential issues, such as people facing terminal illnesses or bereavement. These results could be used to inform decisions by both clinicians and service users regarding the suitability of MBCT. Where people have a religious or spiritual practice already, MBIs may be beneficial for people who see this aspect of wellbeing as important. This research has also highlighted some of the difficulties that can be associated with change in MBIs. These potential impacts should also be recognised to help people to make informed decisions, and have arguably highlighted the need for an experienced facilitator through the process.

If you have any further questions, please do not hesitate to get in touch. Thank you again for participating in the study,

Yours Sincerely,

Rebecca Watmough
Trainee Clinical Psychologist
Salomons at Canterbury Christ Church University

CC. NHS Ethics Panel

Appendix N: Instructions to author for submission to Mindfulness journal

<http://www.springer.com/psychology/cognitive+psychology/journal/12671>

This journal publishes peer-reviewed papers that examine the latest research findings and best practices in mindfulness. It explores the nature and foundations of mindfulness, its mechanisms of actions, and its use across cultures. In addition, Mindfulness features papers that address issues involving the training of clinicians, institutional staff, teachers, parents, and industry personnel in mindful provision of services.

Coverage in the journal includes reliability and validity of assessment of mindfulness; clinical uses of mindfulness in psychological distress, psychiatric disorders, and medical conditions; alleviation of personal and societal suffering; the nature and foundations of mindfulness; mechanisms of action; and the use of mindfulness across cultures.

Mindfulness features diverse viewpoints, including psychology, psychiatry, medicine, neurobiology, psychoneuroendocrinology, cognitive, behavioral, cultural, philosophy, spirituality, and wisdom traditions. It serves as a much-needed forum for the broad-based, leading-edge research in this burgeoning field.

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Editorial procedure

Double-blind peer review

This journal follows a double-blind reviewing procedure. Authors are therefore requested to submit:

- A blinded manuscript without any author names and affiliations in the text or on the title page. Self-identifying citations and references in the article text should be avoided.
- A separate title page, containing title, all author names, affiliations, and the contact information of the corresponding author. Any acknowledgements, disclosures, or funding information should also be included on this page.

Manuscript submission

Title page

Text

Terminology

Scientific style

References

Citation

Cite references in the text by name and year in parentheses. Some examples:

- Negotiation research spans many disciplines (Thompson 1990).
- This result was later contradicted by Becker and Seligman (1996).
- This effect has been widely studied (Abbott 1991; Barakat et al. 1995; Kelso and Smith 1998; Medvec et al. 1999).

Reference list

The list of references should only include works that are cited in the text and that have been published or accepted for publication. Personal communications and unpublished works should only be mentioned in the text. Do not use footnotes or endnotes as a substitute for a reference list.

Reference list entries should be alphabetized by the last names of the first author of each work.

- Journal article
Harris, M., Karper, E., Stacks, G., Hoffman, D., DeNiro, R., Cruz, P., et al. (2001). Writing labs and the Hollywood connection. *Journal of Film Writing*, 44(3), 213–245.
- Article by DOI
Slifka, M. K., & Whitton, J. L. (2000) Clinical implications of dysregulated cytokine production. *Journal of Molecular Medicine*, doi:10.1007/s001090000086
- Book
Calfee, R. C., & Valencia, R. R. (1991). *APA guide to preparing manuscripts for journal publication*. Washington, DC: American Psychological Association.
- Book chapter
O'Neil, J. M., & Egan, J. (1992). Men's and women's gender role journeys: Metaphor for healing, transition, and transformation. In B. R. Wainrib (Ed.), *Gender issues across the life cycle* (pp. 107–123). New York: Springer.
- Online document
Abou-Allaban, Y., Dell, M. L., Greenberg, W., Lomax, J., Peteet, J., Torres, M., & Cowell, V. (2006). Religious/spiritual commitments and psychiatric practice. Resource document. American Psychiatric Association. http://www.psych.org/edu/other_res/lib_archives/archives/200604.pdf. Accessed 25 June 2007.

Journal names and book titles should be italicized.

For authors using EndNote, Springer provides an output style that supports the formatting of in-text citations and reference list.

- [EndNote style \(zip, 3 kB\)](#)

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- All tables are to be numbered using Arabic numerals.
- Tables should always be cited in text in consecutive numerical order.
- For each table, please supply a table caption (title) explaining the components of the table.
- Identify any previously published material by giving the original source in the form of a reference at the end of the table caption.
- Footnotes to tables should be indicated by superscript lower-case letters (or asterisks for significance values and other statistical data) and included beneath the table body.

Artwork and Illustrations Guidelines

For the best quality final product, it is highly recommended that you submit all of your artwork – photographs, line drawings, etc. – in an electronic format. Your art will then be produced to the highest standards with the greatest accuracy to detail. The published work will directly reflect the quality of the artwork provided.

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- Supply all figures electronically.
- Indicate what graphics program was used to create the artwork.
- For vector graphics, the preferred format is EPS; for halftones, please use TIFF format. MS Office files are also acceptable.
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- Name your figure files with "Fig" and the figure number, e.g., Fig1.eps.
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- Do not use faint lines and/or lettering and check that all lines and lettering within the figures are legible at final size.
- All lines should be at least 0.1 mm (0.3 pt) wide.
- Scanned line drawings and line drawings in bitmap format should have a minimum resolution of 1200 dpi.
- Vector graphics containing fonts must have the fonts embedded in the files.
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- If any magnification is used in the photographs, indicate this by using scale bars within the figures themselves.
- Halftones should have a minimum resolution of 300 dpi.

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- Color art is free of charge for online publication.
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- No punctuation is to be included after the number, nor is any punctuation to be placed at the end of the caption.
- Identify all elements found in the figure in the figure caption; and use boxes, circles, etc., as coordinate points in graphs.
- Identify previously published material by giving the original source in the form of a reference citation at the end of the figure caption.

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- When preparing your figures, size figures to fit in the column width.
- For most journals the figures should be 39 mm, 84 mm, 129 mm, or 174 mm wide and not higher than 234 mm.
- For books and book-sized journals, the figures should be 80 mm or 122 mm wide and not higher than 198 mm.

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In order to give people of all abilities and disabilities access to the content of your figures, please make sure that

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- Patterns are used instead of or in addition to colors for conveying information (color-blind users would then be able to distinguish the visual elements)
- Any figure lettering has a contrast ratio of at least 4.5:1

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Springer accepts electronic multimedia files (animations, movies, audio, etc.) and other supplementary files to be published online along with an article or a book chapter. This feature can add dimension to the author's article, as certain information cannot be printed or is more convenient in electronic form.

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- Always use MPEG-1 (.mpg) format.

Text and Presentations

- Submit your material in PDF format; .doc or .ppt files are not suitable for long-term viability.
- A collection of figures may also be combined in a PDF file.

Spreadsheets

- Spreadsheets should be converted to PDF if no interaction with the data is intended.
- If the readers should be encouraged to make their own calculations, spreadsheets should be submitted as .xls files (MS Excel).

Specialized Formats

- Specialized format such as .pdb (chemical), .wrl (VRML), .nb (Mathematica notebook), and .tex can also be supplied.

Collecting Multiple Files

- It is possible to collect multiple files in a .zip or .gz file.

Numbering

- If supplying any supplementary material, the text must make specific mention of the material as a citation, similar to that of figures and tables.
- Refer to the supplementary files as “Online Resource”, e.g., "... as shown in the animation (Online Resource 3)", "... additional data are given in Online Resource 4”.
- Name the files consecutively, e.g. “ESM_3.mpg”, “ESM_4.pdf”.

Captions

- For each supplementary material, please supply a concise caption describing the content of the file.

Processing of supplementary files

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Accessibility

In order to give people of all abilities and disabilities access to the content of your supplementary files, please make sure that

- The manuscript contains a descriptive caption for each supplementary material
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Integrity of research and reporting

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Manuscripts submitted for publication must contain a statement to the effect that all human and animal studies have been approved by the appropriate ethics committee and have therefore been performed in accordance with the ethical standards laid down in the 1964 Declaration of Helsinki and its later amendments.

It should also be stated clearly in the text that all persons gave their informed consent prior to their inclusion in the study. Details that might disclose the identity of the subjects under study should be omitted.

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