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Making time and space: the impact of mindfulness training on nursing and midwifery practice. A Critical Interpretative Synthesis.

ABSTRACT

Aims and Objectives: to explore qualitative literature to ascertain whether and how nurses and midwives perceive that mindfulness impacts on their practice, particularly their interactions with patients.

Background: Stress and burnout, which negatively impact patient care, are widely reported among nurses and midwives, who face unique stressors as professionals who often hold little organisational power but are expected to shoulder the burden of resource cuts and an increasingly complex workload. Mindfulness is increasingly used as a tool to decrease stress and burnout in health professionals, and may also increase practitioner compassion and improve patient interactions.

Design: a critical interpretative synthesis.

Methods: a systematic search was undertaken to identify qualitative studies where the majority of participants were qualified nurses and/or midwives who had attended mindfulness training. Retrieved literature was read and re-read to identify relevant material, which was then coded into themes. Related themes were grouped into synthetic constructs, and a synthetic argument was produced to illustrate the relationships between these.

Results: five relevant papers were identified. Findings indicate that mindfulness training enables nurses and midwives to gain some control over their thoughts and stress levels. This then creates a quiet mental space giving them agency and perspective and leading to improved caring, including a more patient-centred focus and increased presence and listening. Mindfulness appears to alter the way nurses and midwives operate within a

stressful work environment, thereby changing the way the environment is experienced by themselves and, potentially, the people in their care.

Conclusions: Further research is needed, but current qualitative research suggests mindfulness may enable nurses and midwives to work with compassion in stressful and demanding work environments.

Relevance to clinical practice: Mindfulness may offer an enabling way of coping with stress, in contrast to longstanding strategies such as task-orientation and depersonalisation.

KEYWORDS: Mindfulness, critical interpretative synthesis, compassion, burnout

INTRODUCTION

Internationally, there has been a burgeoning interest in using mindfulness in health care in recent years, both as a therapeutic tool and a means of reducing stress amongst practitioners. Stress is widely reported amongst nurses and midwives, many of whom are now expected to care for an increasingly complex caseload with fewer and fewer resources (Heard et al 2014, Goh et al 2015). Burnout, a consequence of prolonged stress which includes depersonalisation of patient relationships, has been reported among nurses and midwives in different care settings in many countries, including Thailand, Canada and Switzerland (Howlett et al 2015, Kunaviktikul et al 2015, Lacher et al 2015). Moreover, current strategies employed in practice to cope with stress, such as task orientation, distance practitioners further from personal engagement with those in their care (Hunter et al 2015).

Mindfulness may offer an alternative way of coping with stress that also enhances patient care. Research carried out on trainee and practising health professionals in countries such as Spain, China and The United States has indicated that mindfulness training reduces anxiety, stress and the symptoms of burnout (Chen et al 2013, Fortney et al 2013, Asuero et al 2014). There is also some evidence to suggest that it increases empathy and compassion (Palmer 2010). This paper aims to explore qualitative literature investigating the views and experiences of nurses and midwives who have attended mindfulness training in order to ascertain whether it might provide a positive and enabling means of coping with stress at work and have a positive impact on patient care.

BACKGROUND

Mindfulness is an ancient Buddhist meditation practice that was first secularised for use in health care by Jon Kabat-Zinn in the late 1970s (Chiesa and Serretti 2009, Hemanth and Fisher 2015). Originally taught as a way of coping with chronic pain, Kabat-Zinn's Mindfulness-Based Stress Reduction (MBSR) programme, and its sister Mindfulness-Based Cognitive Therapy (MBCT), have since been used to help patients cope with a plethora of ailments, as well as being adapted for use with a variety of healthy populations, including health care professionals (Chiesa and Serretti 2009, Morgan et al 2014). Mindfulness comprises cultivating an ability to be fully conscious of and in the present moment, suspending rumination and concern about what might be happening elsewhere (whether in the past, the present or the future) to attend to what is, or what is unfolding, now with a non-judgemental acceptance, curiosity and open-heartedness (Cohen-Katz et al 2005, Chiesa and Serretti 2009). Described by Hirst (2003, p360) as 'an awareness of being aware', it is perhaps more easily understood in contrast to its opposite, mindlessness, which is characterised by rumination over the past or anxiety about the

future, resulting in behaviour being driven and ruled by emotional reactions to events (Newsome et al 2012). By focusing attention on the present moment, mindfulness aims to foster clear-thinking and non-judgemental open-heartedness, so that practitioners are able to take control of their actions, become more resilient, curious about life and compassionate towards others, improve emotional balance and well-being, and make better choices and decisions (Ludwig and Kabat-Zinn 2008, Warriner et al 2013). Originally viewed as a skill to be developed over a lifetime, Kabat-Zinn's MBSR course introduces the fundamentals of mindfulness to health professionals in an 8-week programme, comprising weekly group sessions lasting between two and three and a half hours. Each session consists of different meditation exercises, beginning with observation of and focus on the act of breathing, and gradually encompassing awareness of internal factors such as body sensations and thoughts, and external events such as sight, sound and how one acts within the world. These are supplemented with exercises and discussion around cultivating compassion towards the self and others. In addition to the weekly group sessions, the original MBSR course included a day-long silent retreat and an expectation that participants would practice specific skills for 45 minutes a day, six days a week over the eight weeks of the course (Chiesa and Serretti 2009, Williams and Penman 2011, Dobkin and Hutchinson 2013). Multiple variations of Kabat-Zinn's course now exist, but many seek to replicate all of part of this original format.

Around the world, nurses and midwives work in extremely busy and short-staffed environments where they hold little power and are expected to achieve more and more with fewer and fewer resources (Cohen-Katz et al 2005, Heard et al 2014, Smith 2014). Chronic stress and burnout (emotional exhaustion leading to apathy, depression, a negative attitude to one's work, low self-esteem and depersonalisation of patient

relationships) are recurring themes in nursing and midwifery literature (Beddoe and Murphy 2004, Hunter and Warren 2014, Smith 2014, Goh et al 2015). Quantitative studies conducted in the United States (US), Australia, Malaysia, Canada and Japan have evaluated the effects of mindfulness training on nurses' and/or midwives' wellbeing using self-report psychological inventories. These studies have demonstrated statistically significant reductions in stress (Foureur et al 2013, Lan et al 2013, Gauthier et al 2014), emotional exhaustion and depersonalisation (Cohen-Katz et al 2005), anxiety, depression and burnout (MacKenzie et al 2006, Penque 2009, Lan et al 2013, Gauthier et al 2014); and significant improvements in general health and sense of coherence (Ando et al 2011, Foureur et al 2013), self-compassion, work and life satisfaction, relaxation and happiness (MacKenzie et al 2006, Penque 2009, Lan et al 2013).

The focus within mindfulness on non-judgemental open-heartedness makes it a doubly attractive tool in nursing and midwifery at a time when compassion has been pushed to the fore-front of patient care, particularly in the United Kingdom in the wake of the Francis and Kirkup reports (Department of Health 2012, Francis 2013, Kirkup 2015). Two studies have found that mindfulness training increased nurses' clinical empathy (Penque 2009, Palmer 2010), and an observational study of physician and nurse interactions with patients with HIV found that clinicians rating themselves as more mindful had more patient-centred communication styles and more satisfied patients (Beach et al 2013). Within medicine, mindfulness is increasingly adopted as an extension of reflective practice, in part to improve interactions with patients, and by 2013 was being taught in 14 medical and dental schools across the world (Epstein 2003, Dobkin and Hutchinson 2013).

Although the weight of evidence from quantitative research indicates that mindfulness is an effective tool for combatting symptoms of nurse and midwife burnout, it should be noted that the only randomised controlled trial (RCT) to date investigating the effects of a mindfulness programme on a group comprised mainly of nurses (in the US and Israel) found no significant improvements on burnout, perceived stress or depression in the intervention group (Moody et al 2013). Furthermore, quantitative research cannot unpick the mechanisms through which mindfulness training might impact on nurses' and midwives' work, particularly their interactions with patients. This information would best be explored using qualitative methods, which enable an open and inductive inquiry (Hemanth and Fisher 2015).

METHODS

A critical interpretative synthesis of qualitative research addressing nurses' and midwives' experiences and use of mindfulness training was conducted. The focus of the review was the effects of mindfulness training on nurses' and midwives' practice, particularly their interactions with patients. Studies were included if they incorporated a qualitative element, the majority of the participants were nurses or midwives, and they contained qualitative findings relevant to the focus of the review.

Critical interpretative synthesis is derived from meta-ethnography and aims to generate theory grounded in the studies included in the review (Dixon-Woods et al 2006). It is a form of interpretative review employing critical scrutiny to question and re-conceptualise findings to 'push beyond the original data to a fresh interpretation of the phenomena under review' (Barnett-Page and Thomas 2009, p15), thereby providing 'more insightful, formalised and generalizable ways of understanding a phenomena' (Dixon-Woods et al

2006, p5). Although originally designed to scrutinise a large and heterogenous amount of data, its ability to include papers of differing quality generating very different amounts of data subjected to varying levels of analysis made it ideally suited to the small corpus of literature identified for this review. However, the limited number of relevant studies identified meant that the theoretical sampling techniques described by Dixon-Woods et al (2006) were unnecessary here.

In line with Dixon-Woods et al's (2006) description of literature searching for CIS as an organic process, papers were identified for this review through an initial broad sweep of CINAHL and medline to scope the extent of literature on the subject using the search terms 'mindfulness' and 'nurse or midwife or doctor or healthcare professional' in the title or abstract of a paper. This was followed by a more focused search using CINAHL, Medline and Psychinfo, detailed in Table 1. No date limits were set. Papers were limited to those in English, and the search terms had to appear in the title or abstract. Further papers were identified through reference chaining. The search and selection process is summarised in Figure 1.

CIS does not employ a formal process of critical appraisal when judging the suitability of a paper for inclusion in a review. Instead, papers are judged on the basis of relevance, and the review employs an ongoing critique of included material and emerging theoretical concepts (Dixon-Woods et al 2006, Barnett-Page and Thomas 2009). Dixon-Woods et al (2006) argue that methodologically weak papers can demonstrate the breadth of evidence considered in the construction of particular categories, as well as contributing to and corroborating emerging theory.

Analysis of the papers included in a CIS is similar to that used in primary qualitative studies, with the addition of an element of deconstruction as categories are critiqued and re-formulated to answer the question posed in the review. In the current instance, papers were read a number of times to identify relevant data (this could be at the level of raw data or author-identified themes). The data was coded inductively into themes, and similar themes were linked together to form synthetic constructs. Synthetic constructs are grounded in the evidence, but allow different elements (or themes) to be unified in a more useful and explanatory way (Dixon-Woods et al 2006). Development of constructs is an iterative process whereby emerging structures are constantly compared to the data in the papers. The synthetic constructs were then developed into a synthetic argument which linked them into a whole, showing the relationships between them and generating theory to illustrate and explain how current evidence suggests mindfulness training impacts on nurses' and midwives' practice.

Reflexivity is important in a potentially subjective process such as CIS, and measures were undertaken to ensure that the process was as comprehensive, critical and objective as possible. A thorough search was undertaken using an open and transparent process. All relevant data was included in the analysis (this is not usual in CIS, but was possible due to the small amount of data retrieved), and the included papers were read independently by a third party who then critiqued the analysis and confirmed that it was rooted in the included literature. The plausibility of the findings is confirmed by comparing them to the experiences of other populations within the discussion.

RESULTS

Five studies met the criteria for inclusion in the synthesis – see Table 2. All included a qualitative element within a mixed methods approach. The extent of the qualitative investigation varied considerably between studies, with two (Ando et al 2011, Horner et al 2014) providing very little qualitative data and not appearing to analyse this. At the other end of the scale, Cohen-Katz et al (2005) devote a whole paper to their qualitative findings. The nature of the data included varied from formal focus groups and journals to informal discussions and unsolicited emails. Only one study (Foureur et al 2013) included midwives. Two of the studies were conducted in the US, one in the US and Israel, one in Australia and one in Japan.

The available qualitative data indicates that mindfulness training enables nurses and midwives to gain some control over their thoughts and stress levels. This then creates a quiet mental space which gives them agency (an ability to focus, plan and reflect) and perspective (an awareness of the bigger picture encompassing an acceptance and understanding of themselves and others and an appreciation of small or ordinary moments of happiness or kindness). Agency and perspective lead to improved caring, including a more patient-centred focus and increased presence and listening. Overall, the data indicate that mindfulness alters the way nurses and midwives operate within a stressful work environment, thereby changing the way the environment is experienced by themselves and, potentially, the people in their care. The incidence of the identified themes in each study is tabulated in Table 3. Figure 2, which illustrates the relationships between the themes identified in a 'mindfulness cascade'. The themes are discussed in more detail below.

Gaining control, creating space

Nurses and midwives who participated in mindfulness programmes described how the breathing and relaxation exercises they learnt provided 'easy and practical ways to diminish stress level[s]' (Horner et al 2014, p200) by putting aside negative or worrisome thoughts, quietening brain chatter and anxiety, and allowing the mind 'to relax and take a break' (Moody et al 2013, p281). Mindfulness exercises led to feelings of calm and peace (Cohen-Katz et al 2005), increasing coping ability and enabling practitioners to feel less overwhelmed:

'Before I let my feelings escalate. STOP [a mindfulness exercise] helped me, and allowed me not to be agitated' (Moody et al 2013, p281).

Mindfulness training appeared to engender increased self-efficacy as nurses and midwives realized that decreasing stress and thereby improving their working lives was within their own control:

'Every time I practice, I'm encouraged that I can do this, and I can take care of myself' (Cohen-Katz et al 2005, p82).

'There is nowhere to go here... no time or space... but we can make time and space (Foureur et al 2013, p121).

The quiet, calm time and space created when the nurses and midwives employed mindfulness techniques then enabled them to gain agency over their actions and a new perspective on their environment and their place within it.

Agency

Increased control over their thoughts gave nurses and midwives more agency over their actions, described by Moody et al (2014, p280) as 'an ability to observe one's thoughts and consciously make a plan before acting instead of just reacting'. Participants in the studies talked of examining situations before reacting, making better decisions, prioritising their work more effectively, planning and setting goals and reflecting on their performance at the end of each day in a positive and enabling way – recognising what had gone well, as well as what could have been improved (Ando et al 2011, Cohen-Katz et al 2005, Moody et al 2013):

'At the end of the day felt good about self that completed what needed to do' (Moody et al 2013, p281).

Mindfulness training also taught participants to focus on the present moment, making them less distracted and more effective and efficient:

'This experience has shown me how to be in the moment, to get the benefit of switching to the now' (Foureur et al 2013, p120).

'I've learned to do one day at a time, one duty at a time, one thing at a time' (Cohen-Katz et al 2005, p83).

In addition to enabling greater agency, increased focus on the now appeared to be stress reducing in itself, thereby freeing up more mental space and time.

Perspective

Participants thought that since attending mindfulness training they were 'stepping back and looking at the bigger picture more' (Cohen-Katz et al 2005, p84). This gave them a 'clearer perspective on what was important to think about' (Moody et al 2013, p280: researcher comment), leading to renewed appreciation of the everyday encounters that bring happiness and pleasure to life, as well as enabling participants to linger over pleasurable events and see the value of routine activities such as documentation:

'I can find meaning and reward in everything I do' (Horner et al 2014, p200).

Seeing value in routine activities appeared to enhance self-esteem:

'I should be grateful for an ordinary day and not viewing what I do as unimportant' (Moody et al 2013, p282).

A wider perspective also led to increased tolerance, acceptance and understanding of other people, including themselves:

'helped me accept things and self as they or I am' (Moody et al 2013, p281).

Participants described not only recognizing the effects of current stress on their own and other peoples' emotions and behaviour (Cohen-Katz et al 2005, Horner et al 2014), but also being able to acknowledge and let go of the anger and sadness they felt over past events such as divorce and childhood trauma:

'I've realised it's OK to be angry... before I used to brew and brew on it' (Foureur et al 2013, p121).

'Things aren't personal or intentional, people are just people, doing the best they can in most situations' (Cohen-Katz et al 2005, p84).

In addition to letting go of feelings, participants described being able to let go of aspects of work that they were unable to control or did not have time to do:

'Now I've acknowledged that I can't do it all' (Foureur et al 2013, p121).

Looking at the bigger picture and letting go of unhelpful thoughts and feelings enabled practitioners to focus on the present, and what they were able to achieve. It also made them realise that they, too, had needs, and that these needed to be attended to before they could provide better care to others:

'When you take care of yourself, you just have more to give'
(Cohen-Katz et al 2005, p84).

Despite being socialised to care for everyone but themselves (Cohen-Katz et al 2005), participants began to appreciate the value of 'me time' (Foureur et al 2013), and learning how to acknowledge and express their needs appeared to build confidence (Cohen-Katz et al 2005).

Finally, a wider perspective also tended towards a more spiritual outlook, as participants considered their place in the bigger picture and expressed an awareness of interconnectivities between people and environments:

'I think by being more aware of your surrounding it makes you more aware of your inner being' (Horner et al 2014, p200).

Enhanced caring

Nurses and midwives described how the agency and perspective gained through mindfulness training had made them more aware of and attentive to colleagues and patients. Creating mental space and focusing on the present moment created an opportunity to listen to others and give them space to speak (Cohen-Katz et al 2005, Moody et al 2013):

'I am listening more without rushing in to provide an answer or a response' (Horner et al 2014, p200).

Participants felt that this considerate listening made them less judgemental and better able to handle difficult situations:

‘I’m able to think that they’re just telling their story and how they see it’ (Cohen-Katz et al 2005, p84).

Nurses in Cohen-Katz et al’s 2005 study described how their newly-acquired fair-mindedness had affected their work environment by enabling greater consistency and fairness in allocating off duty and making it less likely that they would be drawn in to workplace gossip and griping.

Mindfulness appeared to have given practitioners a greater awareness of how they appeared to the people they were caring for, with comments in the studies showing that they prepared themselves for patient encounters:

‘I like to breathe and pause and check in before dealing with certain patients’ (Horner et al 2014, p200)

Oncology nurses in Moody et al’s study described making their faces ‘soft’ before seeing patients, using their posture to instil confidence and being

‘mindful of what ... would create [the] best experience’

for those they were looking after (Moody et al 2013, p281).

Participants also believed that the quality of their interactions with patients had improved following mindfulness training. They reported being more present and attentive to

individual patients, rather than worrying about what they had to do next, and taking the time to talk to people while performing tasks such as temperature taking:

‘I’ve more to give to others. That ‘more’ is patience, presence and caring’ (Cohen-Katz et al 2005, p82).

Perhaps because of their wider perspective, nurses and midwives in Foureur et al’s 2013 study reported seeking help from others with patient care earlier than in the past.

DISCUSSION

The findings of this review suggest that mindfulness training may lead to improved patient care by enabling nurses and midwives to create time and space to employ agency and perspective, resulting in considerate listening, increased presence and attentiveness, a less judgemental attitude and increased awareness of the patient’s perspective, and an ability to prepare for and handle difficult situations. The ‘mindful cascade’ proposed here resonates with other theories of how mindfulness training for health professionals impacts on patient care. For Example, using his own experience and knowledge of mindfulness, the American physician Epstein suggested that mindfulness training improved patient interactions by incorporating attentive observation, presence and critical curiosity (an ‘open mind’) into medical consultations (Epstein 2003). In Canada, Irving et al (2014) used qualitative methodology to develop a model of how health professionals may experience change during an adapted MBSR course. 27 participants (principally physicians and complementary health care providers) attended focus groups to discuss their experiences. Irving et al used the data from these groups to develop a model with a core theme of enhanced awareness. Enhanced awareness led to changed interaction strategies

(including increased focus, detached observation, acceptance and change), which in turn led to mindful communication, self-compassion and self-care, discomfort, choice and pleasure (Irving et al 2014). The descriptors in the last category perhaps reflect the fact that the focus of Irving et al's enquiry was on how the participants experienced change, rather than on how the training influenced their practice. Neither Epstein or Irving et al include the theme of making time and space that emerged so strongly in the current synthesis. An increased sense of agency and control is present, but remains in the background of Morgan et al's (2014) synthesis of health care workers' experiences of mindfulness training. It may be that it is a central theme in the current review due to the unique blend of stress and low levels of autonomy experienced by many nurses and midwives (Hunter et al 2015) and the focus on how mindfulness impacts on practice, rather than experience of training. The ability of mindfulness training to enable health professionals to take control and change stressful environments is, however, expressed by a physiotherapist in Turner's 2013 Scottish study:

'It's just a wee switch that goes on and makes you stop and slow down, recognise how you're feeling, recognise what's going on around you and erm it doesn't have to be like that, you have the ability to change it' (Turner 2013 p87).

Qualitative research with mothers and birth support partners has also shown that mindfulness training led to feelings of empowerment and facilitated a sense of control during childbirth (Fisher et al 2012).

An increased ability to cope and function well in a stressful environment is a recurrent theme in qualitative research investigating other health and trainee health professionals' experiences and uses of mindfulness. Student nurses (Beddoe and Murphy 2004), medical students (Bond et al 2013), trainee psychologists (Hopkins and Proeve 2013) and social workers (McGarrigle and Walsh 2011) have all reported that mindfulness training helped them manage stress and handle difficult situations more effectively. Although mindfulness is often presented as a way of coping in stressful environments (Heard et al 2014), it is also possible that changing the way people operate within an environment may ultimately change the environment itself. The mindfulness cascade suggests a mechanism through which nurses' and midwives' mindful ways of responding to and coping with stress might transform both their and their patients' experiences within an environment. Mindfulness may therefore provide an alternative to the long-standing coping mechanisms employed by many nurses and midwives working in stressful environments, such as task-orientation, reductionism, denial of emotions and resistance to change (Menziés 1960, Kirkham 1999). Unlike these mechanisms, which maintain and embed stress, mindfulness may have the potential to transform practitioner experiences and improve care.

An ability to step back, see the bigger picture, and provide a more considered response also emerges in qualitative research with other health and trainee health professionals (Morgan et al 2014). Psychology trainees in particular recognised that mindfulness provided them with a way of attending to and sitting with, but not being caught up in, their clients' distress (Hopkins and Proeve 2013, Hemanth and Fisher 2014). Somewhat counter-intuitively, stepping back appears to enable practitioners to be more fully present with patients, focussing on and attending to their needs. It is also linked elsewhere to increased compassion and empathy (Irving et al 2014, Morgan et al 2014).

Limitations

Only a limited amount of qualitative literature has been undertaken relevant to this review, and some of the data in the included studies was circumstantial, consisting of unsolicited emails and press interviews. The data collected in some studies had not been subject to any apparent analysis. Furthermore, only one of the included studies (Foureur et al 2013) specifically set out to answer the question posed in this review. Further primary research is therefore required in order to investigate the impact of mindfulness training on nurses' and midwives' practice and test and develop the theory suggested here. However, the current review adopted a comprehensive search strategy and included all relevant data in its analysis. Findings resonate with and develop those from similar reviews and studies, suggesting that the mindfulness cascade represents a credible interpretation of knowledge to date regarding ways in which nurses and midwives use mindfulness in their practice.

CONCLUSION

By focusing on ways in which nurses and midwives use mindfulness in their practice, this review has suggested that mindfulness training might provide a tool for nurses and midwives to create time and space for the agency and perspective needed to cope and function in, and perhaps ultimately to change, the stressful environments within which they work to the benefit of both themselves and patients. The findings of this interpretative review resonate with qualitative research of other health professionals' experiences of mindfulness training, but highlight the importance of agency as a precursor to providing compassionate care. Mindfulness appears to have a positive impact on patient care through considerate listening, increased empathy, presence and attentiveness, and a less judgemental attitude on the part of care givers.

RELEVANCE TO CLINICAL PRACTICE

Mindfulness training has been shown to be of benefit to nurses and midwives in different care settings and countries. Although further research is necessary, this review suggests that it facilitates the use of compassionate practices in stressful environments and thereby improves patient care. It potentially represents a more positive and enabling coping strategy than task-orientation, reductionism, denial of emotions and resistance to change, all of which maintain and embed stressful environments and have a negative impact on patient interactions.

SUMMARY BOX

What does this paper contribute to the wider global clinical community?

- Identifies mindfulness as a potential tool for enabling nurses and midwives to work with compassion in stressful and demanding environments
- Suggests mechanisms through which mindfulness impacts on practice

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References

- Ando M, Natsume T, Kukihara H, Shibata H and Ito S (2011) Efficacy of mindfulness-based meditation therapy on the sense of coherence and mental health of nurses. *Health. Scientific Research Publishing* **03**(02), 118–122.
- Asuero A, Queralto J, Pujol-Ribera E, Berenguera A, Rodriuez-Blanco T and Epstein R (2014) Effectiveness of a mindfulness education program in primary health care professionals: a pragmatic controlled trial. *Journal of Continuing Education in the Health Professions* **34**(1), 4–12.
- Barnett-Page E and Thomas J (2009) *Methods for the synthesis of qualitative research: a critical review. NCRM Working Paper Series*. Available at: <http://eprints.ncrm.ac.uk/690/1/0109%20Qualitative%20synthesis%20methods%20paper%20NCRM.pdf>.
- Beach M, Roter D, Korthuis P, Epstein R, Sharp V, Ratanawongsa N, Cohn J, Eggly S, Sankar A, Moore R and Saha S (2013) A multicentre study of physician mindfulness and health care quality. *Annals of Family Medicine* **11**(5), 421–8.
- Beddoe A and Murphy S (2004) Does Mindfulness Decrease Stress and Foster Empathy Among Nursing Students? *Journal of Nursing Education* **43**(7), 305–12.
- Bond AR, Mason HF, Lemaster CM, Shaw SE, Mullin CS, Holick EA and Saper RB (2013) Embodied health: the effects of a mind–body course for medical students. *Medical Education Online* **18**. Available at: <http://med-ed-online.net/index.php/meo/article/view/20699> (accessed 25/09/15).
- Chen Y, Yang X, Wang L and Zhang X (2013) A randomised controlled trial of the effects of brief mindfulness meditation on anxiety symptoms and systolic BP in Chinese nursing students. *Nurse Education Today* **33**(10), 1166–72.
- Chiesa A and Serretti A (2009) Mindfulness-based stress reduction for stress management in healthy people: a review and meta-analysis. *Journal of alternative and complementary medicine* **15**(5), 593–600.
- Cohen-Katz, J, Wiley, S, Capuano, T, Baker, D, Deitrick, L and Shapiro S (2005) The effects of mindfulness-based stress reduction on nurse stress and burnout: a qualitative and quantitative study, part III. *Holistic Nursing Practice* **19**(2), 78–86.
- Department of Health (2012) *Compassion in Practice*. Available at: <http://www.england.nhs.uk/wp-content/uploads/2012/12/compassion-in-practice.pdf> (accessed 25/09/15).
- Dixon-Woods M, Cavers D, Agarwal S, Annandale E, Arthur A, Harvey J, Hsu R, Katbamna S, Olsen R, Smith L, Riley R and Sutton AJ (2006) Conducting a critical interpretive synthesis of the literature on access to healthcare by vulnerable groups. *BMC medical research methodology* **6**(1), 35. Available at: <http://www.biomedcentral.com/1471-2288/6/35> (accessed 12/08/15).

- Dobkin PL and Hutchinson TA (2013) Teaching mindfulness in medical school: where are we now and where are we going? *Medical Education* **47**(8): 768–779.
- Epstein B (2003) Mindful practice in action (1): technical competence, evidence-based medicine, and relationship-centred care. *Families, Systems and Health* **21**(2), 1–9.
- Fisher, C, Hauck, Y, Bayes, S and Byrne J (2012) Participant experiences of mindfulness-based childbirth education: a qualitative study. *BMC Pregnancy And Childbirth* **12**: 126.
- Fortney L, Luchterhand C and Zakletskaia L (2013) Abbreviated Mindfulness Intervention for Job Satisfaction, Quality of Life, and Compassion in Primary Care Clinicians: A Pilot Study. *Annals of Family Medicine* **11**(5), 412–420.
- Foureur, M, Besley, K, Burton, G, Yu, N and Crisp J (2013) Enhancing the resilience of nurses and midwives: pilot of a mindfulness-based program for increased health, sense of coherence and decreased depression, anxiety and stress. *Contemporary Nurse* **45**(1), 114–125.
- Francis R (2013) *Report of the Mid Staffordshire NHS Foundation Trust Public Inquiry. New directions for youth development*. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/23589203>.
- Gauthier T, Meyer R, Grefe D and Gold J (2014) An on-the-job mindfulness-based intervention for pediatric ICU nurses: a pilot study. *Journal of Alternative and Complementary Medicine* **20**(5), A87.
- Goh Y, Yong-Shian L, Chan A, Wai-Chi S and Chan M (2015) Profiling nurses' job satisfaction, acculturation, work environment, stress, cultural values and coping abilities: A cluster analysis. *International Journal of Nursing Practice* **21**(4), 443–52.
- Heard PL, Hartman S, Beal BD and Bushardt SC (2014) Nurse comfort...more than helpful hands. *Nursing Management* **45**(4): 30–35.
- Hemanth P and Fisher F (2015) Clinical psychology trainees' experiences of mindfulness: an interpretive phenomenological analysis. *Mindfulness* **6**(5), 1143–52.
- Hirst IS (2003) Perspectives of mindfulness. *Journal of Psychiatric and Mental Health Nursing* **10**(3), 359–366.
- Hopkins A and Proeve M (2013) Teaching mindfulness-based cognitive therapy to trainee psychologists: Qualitative and quantitative effects. *Counselling Psychology Quarterly*. Routledge **26**(2), 115–130.
- Horner J, Piercy B, Eure L and Woodward E (2014) A pilot study to evaluate mindfulness as a strategy to improve inpatient nurse and patient experiences. *Applied Nursing Research* **27**: 198–201.
- Howlett M, Doody K, Murray J, LeBlanc-Duchin D, Fraser J and Atkinson P (2015) Burnout in emergency department healthcare professionals is associated with coping style: a cross-sectional survey. *Emergency Medicine Journal* **32**(9), 722–7.

Hunter B and Warren L (2014) Midwives' experiences of workplace resilience. *Midwifery* **30**(8), 926–934. Available at: <http://dx.doi.org/10.1016/j.midw.2014.03.010>.

Hunter L, Magill-Cuerden J and McCourt C (2015) 'Oh no, no, no, we haven't got time to be doing that': Challenges encountered introducing a breast-feeding support intervention on a postnatal ward. *Midwifery* **31**(8), 798–804.

Irving, J, Park-Saltzman, J, Fitzpatrick, M, Dobkin, P, Chen, A and Hutchinson T (2014) Experiences of health care professionals enrolled in mindfulness-based medical practice: A grounded theory model. *Mindfulness* **5**(1), 60–71.

Kirkham M (1999) The culture of midwifery in the National Health Service in England. *Journal of Advanced Nursing* **30**(3), 732–9.

Kirkup B (2015) *The Report of the Morecambe Bay Investigation: An independent investigation into the management, delivery and outcomes of care provided by the maternity and neonatal services at the University Hospitals of Morecambe Bay NHS Foundation Trust*. Available at: <https://www.gov.uk/government/publications>.

Kunaviktikul W, Wichaikhum O, Nantsupawat A, Nantsupawat R, Chontawan R, Klunklin A, Roongruangsri S, Nantachaipan P, Supamanee T, Chitpakdee B, Akkadechanunt T and Sirakamon S (2015) Nurses' extended work hours: Patient, nurse and organizational outcomes. *International Nursing Review* **62**(3), 386–93.

Lacher S, Geest S, Denhaerynck K, Trede I and Ausserhofer D (2015) The Quality of Nurses' Work Environment and Workforce Outcomes From the Perspective of Swiss Allied Healthcare Assistants and Registered Nurses: A Cross-Sectional Survey. *Journal of nursing Scholarship* **47**(5), 458–67.

Lan H, Subramanian P, Rahmat N and Kar P (2013) The effects of a mindfulness training program on reducing stress and promoting well-being among nurses in critical care units. *Australian Journal of Advanced Nursing* **31**(3), 22–31.

Ludwig DS and Kabat-Zinn J (2008) Mindfulness in medicine. *JAMA* **300**(11): 1350–2.

MacKenzie C, Poulin P and Seidman-Carlson R (2006) A brief mindfulness-based stress reduction intervention for nurses/ nurse aides. *Applied Nursing Research* **19**(2) 105–9.

McGarrigle T and Walsh C (2011) Mindfulness, self-care, and wellness in social work: effects of contemplative training. *Journal of Religion and Spirituality in Social Work* **30**, 212–33.

Menzies I (1960) A case study in the functioning of social systems as a defence against anxiety: a report on a study of the nursing service in a general hospital. *Human Relations* **13**, 95–121.

Moody K, Kramer D, Santizo R, Magro L, Wyshogrod D, Ambrosio J, Castillo C, Lieberman R and Stein J (2013) Helping the helpers: mindfulness training for burnout in pediatric oncology - a pilot program. *Journal of Pediatric Oncology Nursing* **30**(5), 275–84.

Morgan P, Simpson J and Smith A (2014) Health Care Workers' Experiences of Mindfulness Training: a Qualitative Review. *Mindfulness* **6**(4) 744–758.

Newsome S, Waldo M and Gruszka C (2012) Mindfulness Group Work: Preventing Stress and Increasing Self-Compassion Among Helping Professionals in Training. *The Journal for Specialists in Group Work* **37**(4), 297–311.

Palmer E (2010) Compassionate caring: an evaluated pilot of mindfulness-based cognitive therapy training for hospice at home nurses (conference abstract). *Journal of Palliative Care* **26**(3), 111–2.

Penque S (2009) Mindfulness-Based Stress Reduction: effects on registered nurses. Doctoral thesis: University of Minnesota.

Smith SA (2014) Mindfulness-Based Stress Reduction: An Intervention to Enhance the Effectiveness of Nurses' Coping With Work-Related Stress. *International Journal of Nursing Knowledge*. **25**(2), 119–130.

Turner RK (2013) A qualitative study examining the experiences of healthcare staff 12 months after their completion of an 8-week Mindfulness Based Stress Reduction course and Clinical Research Portfolio. Doctoral thesis: Glasgow University.

Warriner S, Dymond M and Williams M (2013) Mindfulness in maternity. *British Journal of Midwifery* **21**(7), 520–522.

Williams M and Penman D (2011) *Mindfulness: a practical guide to finding peace in a frantic world*. London: Piatkus.

Table 1. Focused search terms

Mindfulness	+	Healthcare professional* OR Nurse* OR Midwi* OR	+	Experience* OR Perception* OR Behavio?r OR Practice OR Patient care OR Patient interactions OR Relationships OR Coping OR Resilience	+	Qualitative
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Table 2. Details of included studies

Study	Sample for qualitative element	Mindfulness exposure	Methods of data collection for qualitative element	Methods of qualitative data analysis	Aim of qualitative element
<p>Cohen-Katz et al 2005 US</p> <p>Mixed-methods study exploring effect of mindfulness training on nurse stress and burnout</p>	<p>N=25 81-90% nurses (also social work, therapy, pastoral care)</p> <p><u>Inclusion Criteria</u> - regular patient contact - speak and read English - at least 18 years old - not actively suicidal or current substance abuse</p>	<p>8-week MBSR programme, modelled on that designed by Kabat-Zinn</p>	<p>46 documents comprising: - forms completed during course ('getting to know you' form and weekly evaluation forms)</p> <p>-16 unsolicited emails from 7 participants</p> <p>Interviews with 4 participants conducted by a hospital newsletter journalist</p> <p>2 interviews with a clinical leader, and 1 with a course participant/observer</p> <p>A focus group with 7 participants</p>	<p>Thematic analysis comprising:</p> <p>- codebook developed by research team - Independent coding of 5 transcripts using codebook - Revision of codes - Coding of remaining documents - Computer analysis using Nvivo software</p>	<p>To enhance understanding of how MBSR may reduce nurse burnout and stress</p>

<p>Ando et al 2011 Japan</p> <p>Pre-test/post-test study with control group investigating effect of mindfulness training on psychological well-being and sense of coherence</p>	<p>28 nurses working in a ward for elderly patients</p> <p><u>Inclusion criteria</u> - over 20 years old - no severe mental problems</p>	<p>Modified MBSR program using yoga-based cyclic meditation. 1 taught session, followed by practice at home with CD. Follow up session after 2 weeks to discuss experience.</p>	<p>Not stated explicitly (follow up discussions?). 14 comments on stressful issues and mindfulness therapy included in results</p>	<p>None described</p>	<p>None stated</p>
<p>Foureur et al 2013 Australia</p> <p>Pre test/post test study investigating effect of mindfulness training on health, sense of coherence, depression, anxiety and stress</p>	<p>14 nurses or midwives from 2 metropolitan teaching hospitals.</p> <p><u>Inclusion criteria</u> - needed support of manager to attend workshop and focus group/interview.</p>	<p>1-day MBSR workshop and CD for participants to use 20 minutes a day for 8 weeks</p>	<p>Focus group (8 participants) and interviews (2 participants) – recorded and field notes kept</p> <p>14 participant logs of mindfulness practice</p>	<p>Focus group and interview data transcribed</p> <p>Content analysis used by 2 researchers to elicit themes in transcripts, field notes and practice logs</p>	<p>Assess acceptability and feasibility of mindfulness intervention</p> <p>Explore experience of mindfulness and its impact on nursing/midwifery practice</p>
<p>Moody et al 2013 US and Israel</p> <p>RCT investigating effects of a mindfulness programme on burnout</p>	<p>47 health professionals working in pediatric oncology – 53% nurses (also physicians, child life specialists, social workers, psychologists)</p>	<p>8-week mindfulness-based course comprising 1 6-hour session, 6 weekly 1-hour sessions, and a final 3-hour session. Based on Kabat-Zinn's work</p>	<p>20 journals kept by those receiving intervention</p>	<p>Inductive thematic analysis</p>	<p>To capture subjective impressions of mindfulness course</p>

	<u>Inclusion criteria</u> - had completed minimum 1 year pediatric oncology practice				
Horner et al 2014 US Quasi-experimental pilot exploring impact of mindfulness training on nurse mindfulness, compassion satisfaction, burnout and stress, and patient satisfaction	43 registered nurses	10-week mindfulness training programme – weekly 30-min classes	Feedback shared by participants during course of programme Post-study evaluation forms (5 excerpts included in results)	None described	None stated

Table 3. Presence of themes across studies

Theme/sub-theme	Cohen-Katz et al 2005	Ando et al 2011	Foureur et al 2013	Moody et al 2013	Horner et al 2014
Control	✓		✓	✓	✓
Self-efficacy	✓		✓	✓	✓
Space			✓		
Relax, calm, peace	✓		✓	✓	
Agency					
Reflect		✓		✓	
Plan	✓			✓	
Focus	✓		✓	✓	✓
Perspective					
Stepping back	✓			✓	✓
Notice positives	✓			✓	
Appreciate ordinary and everyday	✓			✓	✓
Value self	✓		✓	✓	✓
Acceptance/letting go	✓		✓	✓	
Bigger picture (spirituality)	✓				✓
Improved caring					
Considerate listening	✓			✓	✓
Handling difficult situations	✓			✓	✓
Less judgemental	✓			✓	
Preparing for encounters				✓	✓
Mindful of patient experience				✓	
Presence/attentiveness	✓		✓	✓	
Involving others			✓		

Figure 1. Flowchart of search process

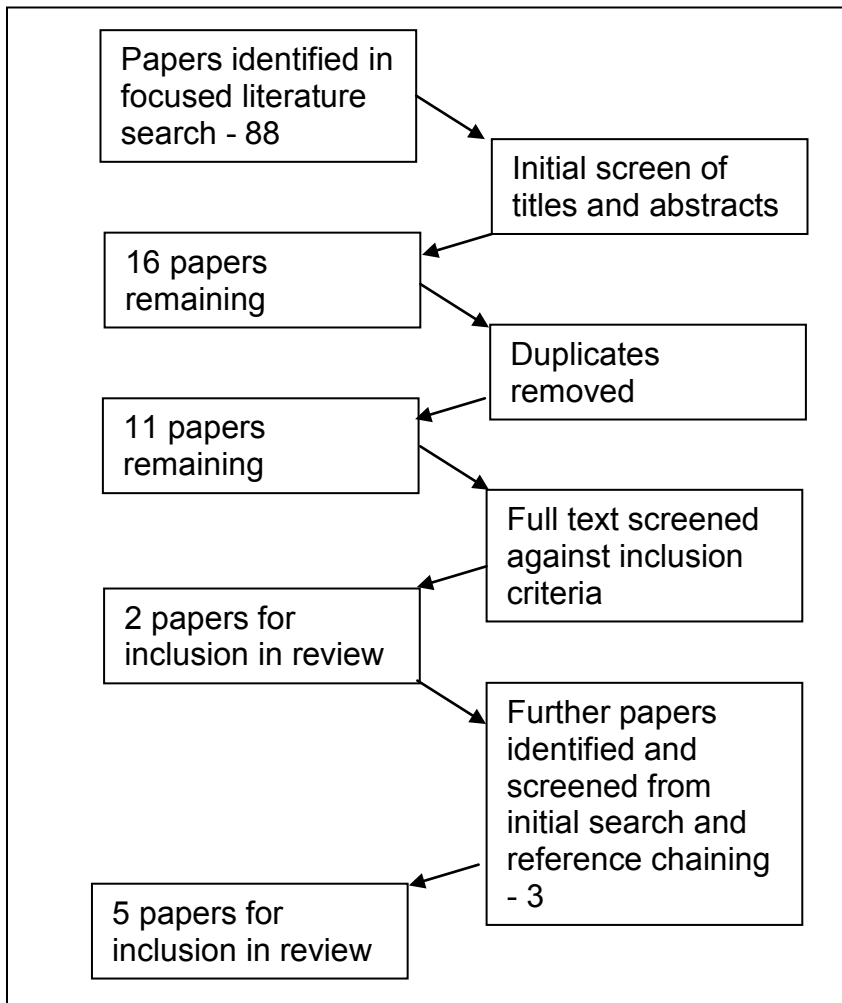


Figure 2. Mindfulness Cascade

