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ORIGINAL PAPER

Exploration of the Effectiveness and Acceptability of a Professional Mindfulness Retreat for Psychiatrists

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Abstract Mindfulness has a growing evidence base demonstrating its efficacy for mental health patients; however, less is known about its usefulness for psychiatric staff. This study aimed to evaluate the effectiveness of a newly developed mindfulness retreat designed for psychiatrists. Twenty-two consultant psychiatrists, two middle grade doctors and two trainees attended a mindfulness retreat designed by a consultant psychiatrist with long-term experience in mindfulness meditation, in collaboration with a Zen Master. The retreat lasted 2 days, was part silent and involved a range of mindfulness exercises, including meditation and mindful walking. Teaching was provided around establishing one's own regular practice, as well as how to teach patients to do the same. Questionnaires were distributed to participants before the retreat, immediately after and at 1-week follow-up to evaluate the retreat efficacy. Results illustrated that the retreat significantly increased perceived mindfulness and therapeutic alliance and significantly reduced burnout. This was further supported by a thematic analysis of retreat feedback which identified themes of *individual development* and *retreat experience*. The mindfulness retreat appeared to be an effective and acceptable intervention for psychiatrists. Further large-scale evaluation is required.

Keywords Staff intervention · Mindfulness · Burnout · Therapeutic alliance · Compassion

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Introduction

Mindfulness can be defined as "the awareness that emerges through paying attention on purpose, in the present moment, and nonjudgmentally to the unfolding of experience moment by moment" (Kabat-Zinn 2003, page 145). In recent years, a growing evidence base has emerged regarding mindfulness as an effective clinical intervention in both physical and mental health. A number of randomised control trials have illustrated that mindfulness-based interventions are effective for alleviating anxiety, depression, psychosis and physical pain (Hofmann et al. 2010; Khoury et al. 2013; Lakhan and Schofield 2013). It is now recommended as a standard treatment by numerous international treatment agencies, including the National Institute for Health and Care Excellence (NICE) in the UK (Baer 2003).

Mindfulness has a number of benefits for both patients and therapists alike, if regular practice is maintained. Indeed, there is a growing evidence base to demonstrate the value of mindfulness practice in clinicians, such as improving professional practice and personal well-being (Krasner 2009). A comprehensive synthesis of the broader evidence around mindfulness identified gains in both these areas, this includes affective benefits for patients (emotional regulation, decreased reactivity and increased flexibility, interpersonal and intrapersonal benefits) and additional benefits for therapists (empathy, compassion, counselling skills, decreased stress and anxiety) (Davis and Hayes 2011). This review also indicated that mindfulness should not be seen as something a therapist does to the patient; rather, it is something that involves mutual practice. Therefore, the way in which mindfulness differs from most other interventions is that, to deliver it, the clinician must possess a degree of mindfulness him or herself.

It has been highlighted that if a clinician holds a certain degree of mindfulness, they are more able to understand and

empathise with a patient thus improving the therapeutic relationship (Razzaque et al. 2013). The therapeutic relationship has been highlighted as an essential factor in positive patient outcomes for care within a number of different disciplines, such as psychological therapy and psychiatric care (Gilbert and Leahy 2007; Mccabe and Priebe 2004). A recent review has illustrated that the therapeutic relationship is a significant predictor of a patients' recovery (Priebe et al. 2011). Therefore, improving professional's mindfulness is likely to have significant benefits for the patient via the therapeutic relationship. Studies have also examined the efficacy of mindfulness-based interventions on mental health professionals in a ward setting and found that training staff in mindfulness can improve the relationship staff have with their patients in hospitals and reduce the number of restraints used (Shapiro et al. 2005, 2007; Singh et al. 2009).

The development of self-compassion has been identified as a significant benefit of regular mindfulness practice. Developing self-compassion involves having awareness of the pain and suffering of the self and others, and having a desire to alleviate it (Neff, 2003). Self-compassion can be distinguished from empathy due to the additional requirement of needing to act upon or alleviate distress (Birnie et al. 2010). Mindfulness acts as a means to develop compassion through the practise of non-judgemental attention and awareness, thus having benefits for both the individual and those with whom they interact (Raab 2014; Razzaque et al. 2013; Westphal et al. 2015). Self-compassion has been found to be associated with improved therapeutic relationships, decreased burnout and decreased distress fatigue (Raab 2014; Razzaque, et al. 2013). The development and cultivation of compassion is currently high on the agenda of National Health Service (NHS) providers and policy makers since the recent Francis report (2013). There is a significant drive to make NHS care more compassionate, and the development of mindfulness practice with staff could be a key component of this.

Mental health staff can suffer from burnout as a consequence of significant stress and pressure within the workplace. Burnout has been outlined as a stress-reaction among mental health professionals as a result of demanding and emotionally charged relationships between professionals and service users (Maslach and Schaufeli 1993). Burnout can lead to depression, anxiety, compassion fatigue (Morse et al. 2012) and hinder the therapeutic relationship (Shapiro et al. 2005). A recent review paper examined the role of burnout in psychiatrists and identified important stress triggers and outcomes (Fothergill et al. 2004). Key stress triggers identified were negative characteristics of patients and their relatives, lack of positive feedback, patient suicide, psychological distress and non-work-related stress. Outcomes of stress in psychiatrists included burnout, poor job satisfaction and psychological disturbance illustrating that psychiatry is a stressful profession. Burnout has been highlighted as a significant issue in NHS services which involved emotional exhaustion, depersonalisation and reduced personal accomplishment (Morse et al. 2012).

Given that mindfulness can facilitate emotional regulation, it is likely that mindfulness could provide a method to help staff manage work-related stress and burnout. Indeed, there is emerging evidence illustrating the relationship between mindfulness and burnout (Di Benedetto and Swadling 2014), and that a mindfulness-based intervention can reduce burnout (Goodman and Schorling 2012). Krasner et al. (2009) also found that a mindfulness-based intervention for primary care physicians reduced burnout significantly. Ruths et al. (2013) examined the efficacy of an 8-week mindfulness-based cognitive behaviour therapy (MCBT) intervention for mental health staff. They found that the intervention significantly improved personal well-being and reduced symptoms of anxiety which were maintained at 18-month follow-up.

Despite this growing evidence base around the benefits of mindfulness for clinicians—both for their wellbeing and their work—there has been no examination of the effect of a mindfulness-based retreat for clinicians. Mindfulness-based retreats differ from interventions as they involve submerging oneself into intensive mindfulness practice for a prolonged period of time (Midlands Centre for Mindfulness and Compassion 2015). It was on this basis that a Mindfulness-Based Professional Development (MBPD) retreat was designed specifically for psychiatrists. The aim of this study was to evaluate the effectiveness of this newly developed MBPD innovation. As this is a relatively new concept, the aim was to both explore the beneficial outcomes and subjective personal experiences of the psychiatrists. From reviewing the literature, the outcomes of mindfulness, compassion, burnout and working alliance were chosen to evaluate the efficacy of the retreat. They were deemed most likely to be sensitive to change following a mindfulness intervention. This study aimed to (i) examine the retreat's impact on psychiatrists' self-reported mindfulness, self-compassion, burnout and therapeutic relationship, and (ii) explore psychiatrists' subjective experiences of the retreat.

Method

Participants

Participants were psychiatrists who applied to attend the mindfulness-based professional development retreat. They were free to withdraw at any point throughout the retreat. Inclusion criteria included (a) a qualification/working towards a qualification in psychiatry, (b) experience of clinical practice in psychiatry and (c) an interest in mindfulness. The retreat was advertised in the British Journal of Psychiatry in May 2013. The retreat was open to psychiatrists of all grades. After the advert was placed, the retreat ran in September 2013

in a retreat centre in a rural setting in the UK. Twenty-six participants attended the retreat, 9 males and 17 females. Twenty-two (84 %) were consultant psychiatrists, 2 (8 %) were middle-grade doctors (specialist registrars) and 2 (8 %) were core trainees (second year trainees in psychiatry). Eighteen (69 %) participants were white, 2 were black (8 %), 3 were Asian (12 %) and 2 were from other ethnic backgrounds (8 %).

Measures

Four questionnaires were used for the purposes of this study. The first was the Freiberg Mindfulness Inventory (FMI) (Walach et al. 2006). This is a 14-item validated self-report measure examining the degree of an individual's mindfulness skills. This measure was employed as it is widely used and considered reliable in measuring levels of mindfulness. This scale has illustrated good internal consistency (Cronbach's α=0.93). Participants rate items (e.g., I am friendly to myself when things go wrong) on a 5-point Likert scale from 1 (rarely) to 5 (almost always). Participants can score from 14 to 70 with higher scores demonstrating increased mindfulness.

The second questionnaire utilised was the Santa-Clara Self-Compassion Scale (Hwang et al. 2008). It is a five-item self-report questionnaire, measuring individual's self-compassion. This measure was chosen because it is a brief and reliable measure of self-compassion. The scale has good internal consistency (Cronbach's α=0.90). It is rated on a 7-point Likert scale from 1 (not at all true of me) to 7 (very true of me). Participants can score from 5 to 35 with higher scores indicating greater self-compassion.

The Working Alliance Inventory short form (WAI) (Hatcher and Gillaspy 2007) is a 12-item validated and robust measure (Cronbach's α=0.92) of the therapeutic alliance and compares well to other similar instruments (Fenton et al. 2001). It exists as either a therapist/clinician questionnaire or a client/patient questionnaire. Both have good validity and, for the purposes of this study, the clinician questionnaire was used. Minor referencing modifications were made to the questionnaire to make it more relevant to professionals working in acute mental health, e.g., referring to "patients" instead of "clients" and also using the plural "my patients" instead of the singular "my client". Participants rate the 12 items (e.g., I appreciate each of the patients I treat) on a 7-point Likert scale from 1 (never) to 7 (always). Participants can score from 12 to 84 with higher scores signifying a better perceived working alliance.

The Maslach Burnout Inventory (Maslach and Jackson 1981) is a 22-item measure that assesses professional burnout in the following three areas: emotional exhaustion (measures feelings of being emotionally overextended and exhausted by one's work), depersonalisation (measures an unfeeling and impersonal response toward recipients of one's service, care treatment, or instruction) and personal accomplishment (measures feelings of competence and successful achievement in one's work). It is a widely used and reliable measure of burnout. Participants have to rate their level of burnout on a 6-point Likert scale ranging from 1 (never) to 6 (every day). All subscales illustrate good internal consistency (Cronbach's α>0.70). Participants can score from 22 to 132 with higher scores indicating higher levels of burnout.

Finally, participants were asked whether they practised mindfulness on a regular basis using a simple yes or no response. Regular was defined as at least five times a week.

Procedure

This study adopted a mixed method design to assess the efficacy of the mindfulness retreat for participant psychiatrists. Mixed method designs "combine elements of qualitative and quantitative research approaches for the broad purposes of breadth and depth of understanding and corroboration" (Burke Johnson et al. 2007; pp. 124). This current study gathered quantitative data through the use of outcome measures and qualitative data through feedback questionnaires. Both quantitative outcomes and qualitative feedback are of equal importance to examine the efficacy and acceptability of an intervention. Having both quantitative outcomes and qualitative feedback allowed for a deeper understanding of this newly developed mindfulness retreat.

Assessment questionnaires were provided online for each participant to complete 1 week before the retreat along with demographic questions. Additional questions were asked regarding the participant's previous and current level of mindfulness practise.

The Mindfulness-Based Professional Development (MBPD) retreat is a new innovation that was designed by an experienced consultant psychiatrist (first author RR) along with a Zen Master. An ordained Zen Master is a practitioner who has long-term practice in meditation and deemed to have achieved a level of advancement which allows them to organise and provide teaching for others. The psychiatrist has over 8 years of experience in mindfulness meditation—including numerous retreats in this time—and had additionally received personal training and supervision from the Zen Master. The retreat was solely led by the first author. To teach mindfulness in the UK, there are no formal qualifications per se, but good practice guidelines are outlined by the UK Mindfulness-Based Teacher Trainer Network (2011). They recommend teachers to have some mindfulness-based training, a professional mental health background and ongoing practice, which the teacher of this retreat adhered to.

The retreat lasted 2 days (48 h) and followed a traditional format for mindfulness retreats encompassing a balance between active teaching and extended periods of mindfulness practice. The retreat also had specific additions pertinent to the needs and demands of working clinicians. The first half day of the retreat was dedicated to didactic teaching of

mindfulness meditation at a foundation level, as well as further practices such as mindful walking, mindful standing and mindful eating. In this period, regular group sessions of mindfulness practice were offered, with several talks and question and answer sessions interspersed throughout the day. The aim was to develop mindfulness skills through taught learning and experiential practice. At the end of the first day, a silent period began, which lasted a full 24 h, punctuated by a further couple of question and answer sessions.

In each of the direct teaching sessions, a key focus was on developing a comprehensive understanding and ability to practice mindfulness. Participants were taught how to observe the ever-present fluctuations of the mind and one's internal thought processes, and compare this to the more externally observable, though nevertheless parallel, turmoil often experienced by one's patients. Each session of direct teaching, therefore, was designed to enhance mindfulness skills, increase self-awareness and also an outer empathy for one's patients. These sessions were designed to directly relate mindfulness to professional practise in order to help facilitate the development of the therapeutic relationship and compassion towards patients.

Specific instructions were given about how to initiate and sustain a daily mindfulness practice through group workshops where practical solutions could be sought to overcome the numerous barriers that might often prevent one from engaging in a regular daily mindfulness practice. Towards the end of the retreat, further teaching was provided around mindfulness-based therapies and techniques that can be used with and taught directly to patients, with particular emphasis on more flexible and adaptable models such as Acceptance & Commitment Therapy (Hayes et al. 2006).

At the end of the retreat, all participants were asked to complete paper copies of the Friedberg Mindfulness Inventory (Walach et al. 2006) and the Self-Compassion Scale (Hwang et al. 2008) along with a feedback questionnaire which included a number of open questions about their retreat experience. The Working Alliance Inventory (Fenton et al. 2001) and the Maslach Burnout Inventory (Maslach and Jackson 1981) were not assessed post-retreat as participants would not have experienced their work environment. Participants were again asked to complete all questionnaires at 1-week follow-up. A short follow-up point was chosen to minimise attrition in an already small sample and to give participants time to reflect upon the retreat and complete questionnaires in a neutral environment thus minimising performance bias.

Data Analyses

Questionnaire data were inspected for normality using visual inspection and analysis of skewness (<2) and kurtosis (<7) (Kim 2013). As all data were normally distributed, *t* tests and one-way analysis of variance (ANOVA) were used to analyse changes in outcome measures (Field 2013). Bonferroni post hoc comparisons were made for outcomes assessed across three time points to identify significant changes between time points (Breakwell et al. 2003). The ordinal data from the question examining regular mindfulness practice was analysed using a Wilcoxon signed rank test to compare the means from baseline and follow-up (Field 2013).

Qualitative data taken from the feedback questionnaires were subject to a thematic analysis in order to identify key themes. Thematic analysis is a qualitative analytic method that searches for themes or patterns, and in relation to different epistemological and ontological positions (Braun and Clarke 2006). A realist, inductive approach was taken identifying codes at a semantic level with the aim of developing a rich description of the data (Braun and Clarke 2006). The thematic analysis was conducted in three phases. The second author (LW) read through each questionnaire line-by-line in order to identify codes, and these were extracted into a predefined table. Codes were extracted if they were thought to reflect the participants' subjective experiences of attending the retreat. Once codes were identified, they were collapsed together to form overarching themes. Themes were developed by analysing codes at a broader level, collapsing similar codes into potential themes. An evolving thematic map was used as a visual tool to guide the development of themes and subthemes (Braun and Clarke 2006). The final stage of the analysis of reviewing and refining the potential themes was done collaboratively with the first author (RR)

Results

The results firstly describe the quantitative analysis of outcome measure pre- and post-retreat. The thematic analysis of retreat feedback is then subsequently described.

Examination of Outcome Measures

Means, standard deviations and *p* values from all measures are seen in Table 1. The Friedberg Mindfulness Inventory (FBI) showed a significant within subjects effect in mindfulness ($F(2, 46)=17.626$, $p<.001$). Bonferroni post hoc comparisons illustrated a significant difference between pre-retreat and post-retreat (.001) means, and pre-retreat and 1-week follow-up (.001) illustrating a significant positive impact of the retreat on individual mindfulness. The Self-Compassion Scale did not reach significance ($F(2, 46)=2.919$, $p>.05$). There is a clear increase between pre-retreat and post-retreat means of self-compassion showing a positive impact of the retreat, but this decreased at follow-up.

The Working Alliance Inventory illustrated a significant increase between pre-retreat and 1-week follow-up ($t(24)=2.039$, $p<.05$). The Maslach Burnout Inventory significantly decreased from pre-retreat to 1-week follow-up showing that

Table 1 Means and standard deviations of all outcome measures

Measure	Pre-retreat	Post-retreat	1 week follow-up	*p* values
Friedberg mindfulness inventory	32.63 (6.80)	40.31 (5.67)	40.29 (8.11)	0.000
Self-compassion scale	23.72	26.15	24.08	0.064
Working alliance inventory	59.479	–	62.417	0.049
Maslach burnout inventory	54.72	–	46.72	0.005
Mindfulness practice (*N*)	3/26 (11.5 %)	–	23/26 (88.4 %)	0.000

the retreat had a positive impact on participant burnout ($t(24)=3.187$, $p<.01$).

Mindfulness practice significantly increased following the retreat from 11.5 % of participants reporting regular practice prior to the retreat to 88.4 % 1 week following the retreat ($Z=4.500$, $p<0.001$).

Thematic Analysis of Retreat Feedback

A thematic analysis of the qualitative retreat feedback was conducted. Two superordinate themes were identified: individual development and retreat experience. The theme individual development outlined the positive impact the retreat had on individual participants. Three subordinate themes were identified within this: personal development, mindful development and personal change. Retreat experience reflects the broad experiences of attending the retreat. Two subordinate themes were identified, retreat benefits and retreat challenges. All themes are illustrated in Table 2.

Individual Development

Individual development encompasses a learning process which participants experienced from attending the retreat. It impacted upon a number of areas within the individual's personal and professional life.

Professional Development

Professional development outlines the skills that participants had gained from the retreat which benefitted their professional development. The majority of participants outlined that they thought the retreat would help them develop a therapeutic alliance with patients. This was through the development of patience and increased self-understanding.

> "If I can establish the patience and benefits for myself I will be able to incorporate that into transactions with patients." Participant L

Retreat participants also spoke about their motivation to develop their own mindfulness group within their own practise. This indicated that the mindfulness retreat had direct benefits for service users almost immediately.

> "I certainly think elements could be brought into my general practice and I hope to be part of the larger change in our profession." Participant K

Mindful Development

Participants spoke about how the retreat had developed their mindfulness practice in two broad ways. Firstly, they had developed more understanding what mindfulness is, the value of practise and how it relates to themselves.

> "I feel this had opened my mind to a basic understanding of health and well-being as well as the onset of mental illness." Participant G

Secondly, they commented on feeling more motivated and confident in using mindfulness in their personal and professional lives.

> "This has certainly kindled my enthusiasm further and was extremely useful for consolidating knowledge and laying down useful foundation for future practise." Participant K
> "I will also propose again, with renewed confidence, the introduction of mindful based treatments." Participant F.

Personal Change

Participants commented upon the impact the retreat had on their own personal development. This involved being more mindful of themselves and having a deeper self-understanding. Participants commented on how they had incorporated key mindfulness skills.

> "My self-awareness has increased and could grow further" Participant H
> "I hope I will be able to stay in the present and calmer rather than in the past or worrying about the future" Participant S

Participants spoke about a renewed confidence and increase in self-esteem. This was precipitated by the

Table 2 Themes developed from thematic analysis

Individual development	Retreat experience
Professional development	Retreat benefits
• Development of mindfulness skills	• Experiential experiences
• Improvements in clinical practise	• Opportunity for extended practise
• Improvements in the therapeutic alliance	• Peer support
• Improvements in professional relationships	• Having a break from normal life
• Development of own mindfulness group	• Relaxing venue
• Understanding of client	Retreat challenges
Mindful development	• Difficulties in experiential learning
• Confidence in applying mindfulness	• Uncertainty about ability to apply regular practise
• Deeper understanding of mindfulness	• The need for more downtime
• Motivation to apply mindfulness	• Feeling unprepared for the retreat
• Understanding of its applications to mental health	
• Importance of practising mindfulness	
Personal change	
• Improvement in self-esteem	
• Personal learning	
• Emotional regulation	
• Self-compassion	
• Being present	
Self-awareness	

mindfulness practice and the development of skills in paying attention to themselves non-judgmentally.

> "A first for me, prolonged period of quiet introspection and increased self-awareness, [I was also having] thoughts about the pertinence of positive growth and development." Participant J
> "I think my self-esteem could rise, and my confidence." Participant H

Retreat Experience

The second superordinate theme pertained to *retreat experience*. This incorporated two subthemes *retreat benefits and retreat challenges*. Overall, participants found the retreat a beneficial and helpful experience but acknowledged the difficulty of extended periods of mindfulness.

Retreat Benefits

The primary benefit that was outlined by participants was the opportunity to learn experientially through extended practise.

> "Immersing myself in 24 hours of silence and solid practise is a good way to learn the technique that if consistency applied can take you to some interesting places." Participant M

Another important part of the retreat was the opportunity to meet like-minded clinicians who shared a passion for mindfulness and develop supportive networks.

> "It was fantastic to meet colleagues who are equally interested in mindfulness and to hear about potential ways to incorporate mindfulness into my practise, for the benefits of patients" Participant K
> "The opportunity to discuss with someone experienced and sharing the experience with the rest of the group is really encouraging." Participant F

Retreat Challenges

It was acknowledged by almost all participants that the retreat and extended mindfulness practise was a challenge for them. They commented upon how different it was from their day-to-day lives and some felt unprepared for extended practise.

"I felt ill prepared for the retreat despite some limited knowledge in mindfulness. I was not expecting such long days and significant periods being spent outside." Participant B.

> "I considered the introduction on Friday too short and a lot of the information given on Friday would have helped me prepare for the retreat, instead I felt almost forced to go into meditation without feeling prepared for it." Participant C.

Participants were also unsure about their ability to continue regular mindfulness practise although there was much motivation to continue.

> "I am pretty poor at doing anything (besides the basics) on a regular basis so it will take some determination to practise daily. However I accept that I can't know what it will give me and therefore anyone else unless I do it." Participant O

Discussion

The aim of this study was to examine the efficacy of a mindfulness-based professional development retreat for mental health professionals. It aimed to examine whether it could improve participants' mindfulness, self-compassion, therapeutic relationship with patients and decreased work-related burnout. This paper suggests that there is real value in mindfulness training for mental health professionals, to improve their own awareness as well as their subjective working alliance. The retreat was found, by almost all who attended, to be of benefit in terms of both personal and professional development. This was reflected in the qualitative and quantitative results themselves. However, it is acknowledged that the conclusions drawn from this study are tentative due to the small sample size and study design which lacked a control group.

Perceived mindfulness was shown to significantly increase following the retreat and was maintained at follow-up. This was supported by the thematic analysis where participants mentioned improved emotional regulation, self-compassion and self-awareness. As outlined, having the ability to be mindful has been shown to have four key benefits: increased emotional regulation, decreased reactivity and increased response flexibility, interpersonal benefits, and intrapersonal benefits (Davis and Hayes 2011). All these skills are arguably the key to emotional well-being and would show personal and professional benefits for staff members. Mindful awareness of one's own thoughts and feelings would facilitate a deeper, more open, empathic, accepting and non-judgemental awareness of the patient's experience. This attitude is, in turn, noticed by the patient who feels more emotionally understood, safer and, therefore, more able to open up and relate to the clinician.

The significant rise in personal mindfulness scores was also accompanied by an improvement in therapeutic relationships after the retreat. This was also reflected in the qualitative feedback through a number of key themes, which related to mindfulness development and improvement in the therapeutic alliance. This finding supports previous literature which has found a positive increase in therapeutic relationship following a mindfulness intervention (Schomaker 2013). As previous evidence states, being more emotionally aware and mindful improves the therapeutic relationship (Razzaque et al. 2013). This is achieved by developing an awareness and understanding of patients' emotional experiences. The therapeutic relationship is a significant predictor of outcome within mental health patients (Priebe et al. 2011), so any intervention which may improve this is beneficial. A large-scale mindfulness retreat evaluation study needs to be conducted to examine this tentative finding further.

Perceived burnout was shown to be significantly reduced by attending the retreat. The thematic analysis also identified themes of improving emotional regulation and the importance of having time out from normal life. These findings support previous studies which have found a decrease in burnout following a mindfulness-based intervention (Goodman and Schorling 2012; Krasner 2009). As noted, burnout can have significant impacts on staff well-being which can be detrimental to the service user's care (Goodman and Schorling 2012). Therefore, an intervention, such as this retreat, which significantly reduces burnout offers important benefits for both staff and service user's alike. Again, this would need to be examined in a larger controlled study.

Self-compassion was the only outcome not found to have significant main effect across the time points. It can be seen that there was a significant increase in self-compassion immediately following the retreat, but this was not maintained at follow-up, although the p value was close to being significant. There have been a multitude of studies which have found a significant link between mindfulness and self-compassion (Gilbert and Procter 2006; Mayhew and Gilbert 2008), however. Therefore, it may be that the retreat intervention was not specific enough to the development of self-compassion. The use of more compassion-specific exercises may help improve self-compassion, such as compassionate letter writing and developing compassionate behaviours (Gilbert 2010).

The qualitative feedback gave some insight into the important mechanisms of change within the retreat. Participants outlined extended practice, being around like-minded peers, and experiential experiences of mindfulness as the three main change mechanisms. It also identified prolonged silence, feeling unprepared for the retreat and the need for more downtime as significant challenges to the retreat. This suggests that future retreats should place more focus on the experiential exercises as this is where participants felt they learnt the most about mindfulness. Having more opportunities for participants to have peer sessions also appeared important. The retreat can be improved by giving participants an agenda of the retreat in

advance of attending it. It also indicated that the 24-h silence was too long for some participants, though not all by any means.

It is acknowledged that given the opportunistic nature of the study, there are a number of limitations to the methodology. Firstly, the small sample size limits the generalisability of the study in a scientific sense. As this was a pilot of a newly developed retreat, there were only a small number of places limiting the sample size. Furthermore, there was no control group within this study which increases the risk of bias within this study. However, the Medical Research Council's guidance for the evaluation of complex interventions states that for an initial pilot study, small sample sizes and the absence of control group are acceptable for initial tentative exploration of a newly developed intervention (Medical Research Council 2000). The sample self-selected to take part in a mindfulness retreat which meant that participants had some knowledge of mindfulness and therefore are not representative of mental health professionals as a whole. However, it is likely that practitioners who benefit from such a retreat will be ones who are undertaking mindfulness in their professional practise. Moreover, as it was an uncontrolled study, we cannot reliably determine that the improvements in scores were solely caused by the retreat itself. It is likely that having time away from work may also have had some benefit. One other limitation was the 1-week follow-up following the retreat. A week was chosen to minimise drop outs given the already small sample. Future studies would require a longer follow-up point. Overall, the benefits outweighed the costs as there is little evidence examining the efficacy of such an intervention.

Despite limitations and given the paucity of research in this area, the findings suggest that the mindfulness retreat format shows promise as a form of combined professional and personal development that could be of benefit to both professionals and patients alike. Further large-scale controlled studies into the effects of such retreats are recommended, as well as wider exploration of possible benefits in other disciplines, including across other fields of medicine.

Conflict of Interest None

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