

**The Role of Mindfulness
in the Relationship Between
Self-Care Practice and Vicarious Traumatization
in Trainee Therapists**

Submitted by Anabelle June Denney, to the University of Exeter
as a thesis for the degree of Doctor of Clinical Psychology, May 2014

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**Benefits of Mindfulness Practice
in Trainee and Qualified Therapists
A Literature Review**

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Abstract

Mindfulness has been developed as intervention for clinical populations but so far not for therapists. This review sought to establish if any empirical research exists on the effects of mindfulness used by therapists working with trauma clients in relation to reducing risk of vicarious traumatization. Fourteen studies met inclusion criteria and comprised quantitative, qualitative, mixed methods studies, and reviews spanning UK, Australia, Canada and America. Key findings from intervention research suggest that mindfulness practice has positive physical and psychological effects for therapists, such as reduced stress and increased self-compassion. Findings from qualitative research point in the same direction and emphasise positive changes in aspects such as empathy and self-awareness. One of the limitations of the review was the inability to make comparisons between studies due to the variation of intervention parameters and outcome measures. An implication for future research is to develop a standardised mindfulness programme for practitioners and a relevant measurement tool for vicarious traumatization to enhance research quality and to improve the evidence base.

Introduction

Although an ancient system of understanding and practice, mindfulness is a recent concept in the Western world with international research and publication on its effects and uses increasing in the past ten years (Williams & Kabat-Zinn, 2011). It has been defined as “the awareness that emerges through paying attention on purpose, in the present moment, and nonjudgmentally to the unfolding of experience moment to moment” (Kabat-Zinn 2003, p. 145).

Development of interventions for patient groups in the medical and mental health fields have involved mindfulness as a central feature, including Mindfulness Based Stress Reduction (MBSR)¹, Dialectical Behaviour Therapy (DBT)², and Mindfulness Based Cognitive Therapy (MBCT)³. Both MBSR and MBCT have also been trialled with healthcare professionals (HCPs), although in small-sample studies. One study (Cohen-Katz, Wiley, Capuano, Baker, & Shapiro, 2005) involving hospital nurses attending MBSR found that the intervention both significantly reduced the nurses’ burnout scores⁴ and increased their mindfulness attention and awareness compared with the wait-list control group, mirroring findings in patient groups. In a separate study using MBCT modified for people without depression, a range of HCPs attending the programme were measured pre and post intervention, and improved

¹ MBSR is an 8-week structured programme incorporating yoga, meditation and body-scan awareness, and now boasts a considerable evidence base, predominantly in the medical field in which it was developed (Newsome, Christopher, Dahlen, & Christopher, 2006).

² DBT is a 12-month structured skills-based group programme for people with Borderline Personality Disorder including mindfulness as a core element of the therapy for improved regulation of intense negative emotions (Linehan, 1993).

³ MBCT is an 8-week group therapy programme attended on a weekly basis, incorporating mindfulness practice and cognitive therapy (Williams, Teasdale, & Segal, 2000).

⁴ As measured on the Maslach Burnout Inventory (MBI) defining burnout as emotional exhaustion, depersonalisation, and reduced personal accomplishment in care-giving work (Cohen-Katz et al., 2005).

significantly in psychological well-being and in mindful awareness and attention (Ruths et al., 2012). For those who continued to practice mindfulness following completion of the study the enhancing effects continued. These studies suggest that mindfulness practice can play a role in modifying work-related stress in workers at risk of high levels of stress.

While burnout⁵ in therapists has been particularly linked with organisational stressors through job satisfaction, job role clarity, and autonomy (Deighton, Gurriss, & Traue, 2007; Linnerooth, Mrdjenovich, & Moore, 2011), client related stressors are connected with compassion fatigue (Hensley, 2008; Hunter, 2012) and vicarious traumatization (VT), often through the exposure to clients' traumatic stories or a high-level stressful work environment (Dunkley & Whelan, 2006; Pearlman & Mac Ian, 1995). VT is a relatively recent term defined as an experience of negative changes in aspects of personhood such as altered worldview or frame of reference resulting in cynicism and pessimism, a disrupted belief system, and questioning one's identity (Saakvitne, 2002). Specifically, it includes PTSD-like symptoms and recently received psychiatric recognition by being included in the fifth edition of the Diagnostic and Statistical Manual for Mental Disorders, stating that extreme or repeated but indirect exposure to aversive details of an event through professional work is now considered a trigger of post-traumatic stress disorder (PTSD; DSM-V; American Psychiatric Association, 2013). This was predominantly in response to its wide recognition as an occupational hazard for people who work in high-risk environments, such as humanitarian aid workers (Pearlman & McKay, 2008), police officers (Peñalba, McGuire, & Leite, 2008), military therapists (Jordan,

⁵ Burnout was defined as "a syndrome of emotional exhaustion, depersonalization, and reduced accomplishment," by Maslach (1982, p. 3) who devised the Maslach Burnout Inventory still in use today.

2010; Linnerooth et al., 2011), and psychiatrists (Boscarino, Adams, & Figley, 2010).

Literature in the field of psychotherapy from the past two decades have addressed the importance of self-care for the prevention of VT (Baker, 2012; Norcross, 2000; Pearlman & Mac Ian, 1995; Pearlman & Saakvitne, 1995; Sanderson, 2010a) as taking care of oneself is seen as an integral element of safe therapeutic practice aimed at ensuring the therapist's own, and in turn the client's well-being (Egan, 2002). This is highlighted by the professional expectation that therapists have the skills to manage emotionally charged sessions when working with the potentially disturbing stories of clients with trauma experiences (Cloitre, Stovall-McClough, Miranda, & Chemtob, 2004).

Despite the wide-spread recognition of the risks of VT, development of a specific measurement tool has either been limited (Adams, Matto, & Harrington, 2001) or researchers have struggled to clarify the concept (Jenkins & Baird, 2002) leading to the wide use of either PTSD-related measures (e.g. the Post-traumatic Stress Disorder Checklist⁶ and The Impact of Events Scale⁷) or job stress related measures (e.g. the Maslach Burnout Inventory⁸ and the Compassion Fatigue Scale⁹). Additionally, specific guidance that clearly outlines practical self-care strategies for therapists remains to be produced, either on its own or as part of treatment guidelines, and instead individual authors have compiled known contributing factors to stress in therapists as a way of advocating and educating therapists and trainees about self-care (Baker, 2012; Norcross, 2000; Pearlman & Caringi, 2009; Sanderson, 2010b). However,

⁶ The PCL-S (Weathers, Litz, Herman, Huska, & Keane, 1993) measures diagnostic symptoms of PTSD.

⁷ The IES (Horowitz, Wilner, & Alvarez, 1979) assesses subjective distress, particularly posttraumatic stress symptomatology, as a result of exposure to a life event.

⁸ The MBI (Maslach, Jackson, & Leiter, 1996) measures elements of job burnout related to stress.

⁹ The CFS (Adams, Figley, & Boscarino, 2008) measures reduced empathy and some components of VT.

empirically tested strategies, including mindfulness, appear to remain few or non-existent.

Aims and Objectives

In light of the positive outcomes reported in mindfulness research, this review sought to establish if any empirical research exists reporting benefits of mindfulness practice in therapists working with trauma clients in relation to reducing risk of vicarious traumatization (VT). The objectives were to explore the evidence-base for effective mindfulness practice for use by therapists at all stages of training and in their careers by posing the following questions:

1. Is there evidence that mindfulness practice is beneficial for trainee and qualified therapists and healthcare professionals?
2. Can these benefits be considered to contribute to lowering the risk of VT?

Methodology

Eligibility criteria of studies

For the purpose of this review only English language publications were considered and a time limit of twenty years was determined to capture literature relevant to the more recent emergence of the constructs of mindfulness and vicarious traumatization (VT) in the research literature. Inclusion criteria relating to interventions, target population, study design and outcome measures are detailed below:

Interventions

Studies were included with mindfulness as an intervention in high-risk practitioner groups, as an integrated course in training programmes, and as evaluated guidance for relevant practitioners, including trainee therapists. Other types of programmes were included if any other eligibility criteria were met as mindfulness is often imbedded within the broader areas of stress reduction, self-care strategies and coping skills.

Target population

Due to the wide range of professionals providing therapeutic interventions or support to people with trauma experiences target populations included any type of practitioner engaged in work that involves exposure to trauma content in a therapeutic setting. All types of traumatic experiences in their clients or patients were considered including past psychological or emotional trauma experiences (e.g. abuse, rape, war, natural disasters, terrorist attacks, domestic violence, accidents, bereavement/loss of loved ones, or secondary traumatization), including clients or patients with mental health diagnoses (e.g. PTSD, depression, anxiety, personality disorder, etc.) or personal/emotional difficulties relating to trauma.

Study design

Studies included for review were any peer-reviewed empirical quantitative studies using within subjects or between subjects design including randomised controlled trials and single case studies as well as empirical qualitative studies and reviews. Studies were included from non-peer reviewed journals such as

professional publications if other criteria were met due to the relevance of communication about research results but unpublished studies were excluded (i.e. 'in press' and dissertations).

Outcome measures

Outcome measures included were any type of mindfulness measure (including practice, skills and attitude) as well as measures relating to self-care, resilience, coping, stress management, job stress, self-compassion, and empathy. Studies were also included if outcome measures covered physiological aspects of VT (such as startle response, heart rate, etc.) measured using PTSD-related tools, or other outcomes linked to VT (such as job burnout, compassion fatigue, maladaptive coping styles, past personal trauma, etc.).

Search strategy

To address the review questions the search strategy was developed to capture a wide set of mindfulness research, and search terms pertaining to the inclusion criteria were employed. Databases searched with use of a more comprehensive strategy (see Appendix A Example of search strategy) using Boolean terms such as 'AND', 'OR', 'exp' (explode) and * (wildcard) included Psychology and Behavioural Sciences Collection, PsycARTICLES, PsycINFO, CINAHL Plus with Full Text, AMED (The Allied and Complementary Medicine Database), MEDLINE, and HMIC (Health Management Information Consortium). British Medical Group online journal articles and The Cochrane Library were searched using a single search term 'mindfulness'. Combined word searches (e.g. 'mindfulness trauma coping') were carried out using

Internet search engines Google and AltaVista. Hand searches of full-text papers and hardcopies of some journals were also conducted.

Study selection

Combined database and internet searches yielded 1879 records of which 1526 were excluded based on not meeting all four elements of the inclusion criteria (see Figure 1 for details of the selection process). Ninety-eight full-text articles were assessed for eligibility of which 88 were excluded for not meeting all the inclusion criteria. Ten studies were included in the final review stage.

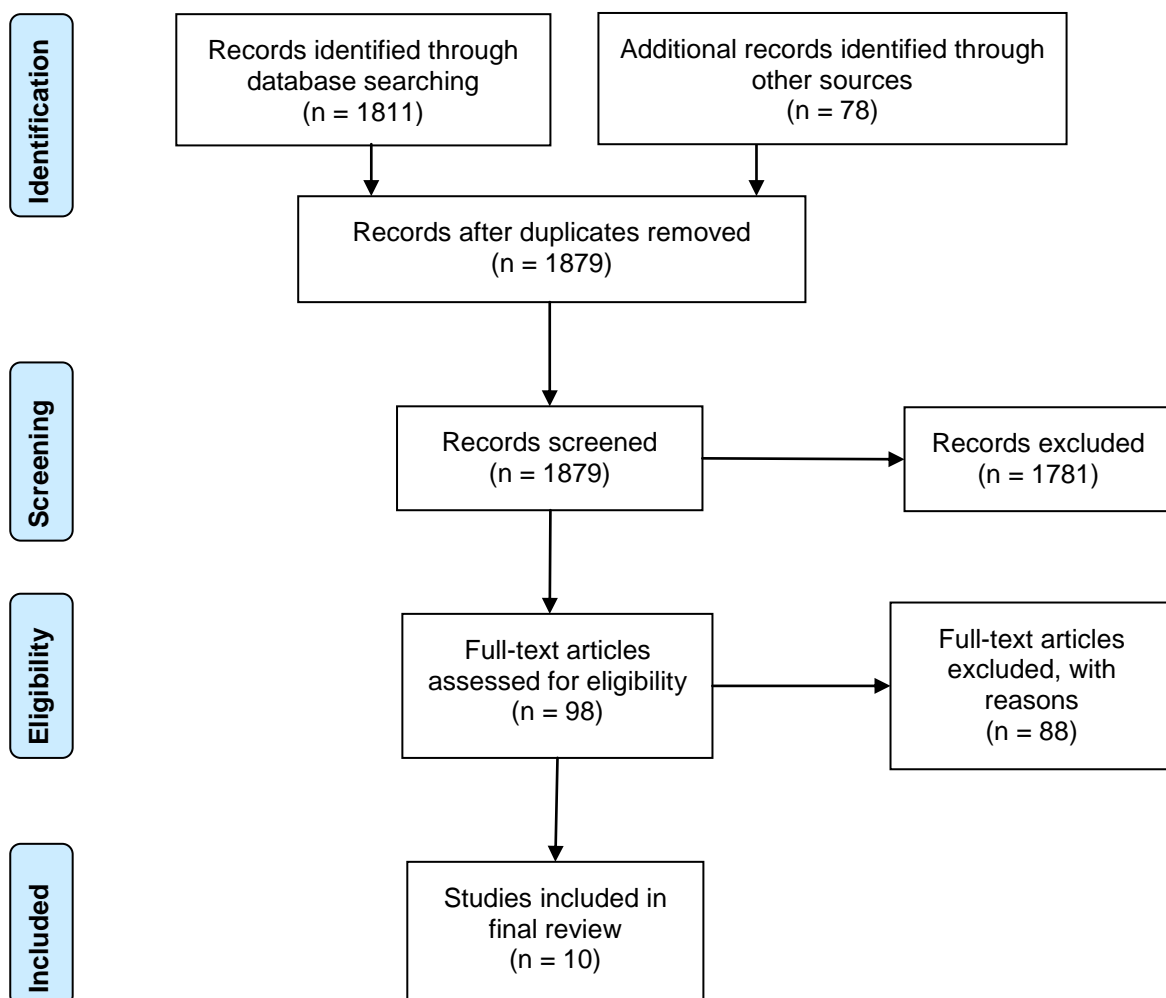


Figure 1 Stepwise diagram of review eligibility selection process using PRISMA flow diagram adapted from Moher, Liberati, Tetzlaff, & Altman, *The PRISMA Group* (2009).

Data extraction

Data extracted from the ten reviewed studies are presented in Appendix B (characteristic of included studies) and include study design, setting, participants, interventions and comparisons, and outcomes measured. Studies in the Results section are referred to by the number given in this table.

Data synthesis

Data was synthesised in this review using a narrative method based on the mixed methodology of the studies reviewed.

Results

Study characteristics

Of the ten studies reviewed three were carried out in the UK (1, 5, 7), five were carried out in the USA (2, 4, 8, 9, 10), one in Canada (4), and one in Sweden (9). All papers described empirical studies and reported relatively small participant numbers (ranging from N=6 to N=54) with four of the studies including only post-graduate trainee therapists (1, 4, 8, 10) and six studies using qualified healthcare professionals (2, 3, 5, 6, 7, 9). Of the latter only two reported recruiting professionals based on their work with trauma clients (7, 9), one from a hospital for war veterans and the other based on self-report of experience of trauma work. The remaining four papers were described as literature reviews.

Interventions described included established evidence-based interventions including Mindfulness-Based Stress Reduction (MBSR) (10), Mindfulness-Based Cognitive Therapy (MBCT) (1, 8), and Dialectical Behaviour

Therapy (DBT) (10) as well as a range of other mindfulness-based courses (2, 5, 9). Self-report measures were used in six empirical studies (1, 2, 6, 7, 9, 10) but varied greatly and are listed in Table 1 for easy overview.

Study methodology

Studies identified varied greatly in their methodology. Of the ten empirical papers six were quantitative studies (1, 2, 4, 7, 9, 10) of which four were uncontrolled pre-post designs (1, 2, 4, 7), one was a randomised controlled trial (9), and one used a quasi-experimental design (10). A further three papers were qualitative studies using an uncontrolled design with post-intervention data collection only (5, 8), and a qualitative interview design (3). One paper was a mixed methods study using uncontrolled pre-post and qualitative designs (6).

Table 1 *Full range of self-report outcome measures used in six studies under review.*

Self-report Measures	
<u>Mindfulness measures</u>	<u>Stress-related measures</u>
Freiberg Mindfulness Inventory (FMI)	Perceived Stress Scale (PSS)
Mindful Awareness and Attention Scale (MAAS)	Satisfaction With Life Scale (SWIS)
<u>Physical health measures</u>	<u>Psychological distress measures</u>
Brief Symptom Inventory (BFI)	Penn State Worry Questionnaire (PSWQ)
General Health Questionnaire (GHQ)	Positive And Negative Affect Scale (PANAS)
<u>Burnout measures</u>	Profile Of Mood States – Short Form (POMS-SF)
Maslach Burnout Inventory (MBI)	State-Trait Anxiety Inventory (STAI)
Maslach Burnout Inventory – GS (Swedish language)	<u>Other measures</u>
	Self-Compassion Scale (SCS)
	Interpersonal Reactivity Index (IRI)
	Aleamoni Course/Instructor Evaluation Questionnaire

Uncontrolled pre-post studies

All five studies employing an uncontrolled pre-post design (1, 2, 4, 6, 7) evaluated a particular mindfulness-based programme with baseline and follow-up measures but only studies 1, 6, and 7 reported evidence-based interventions (MBCT, DBT) including details on the integrity of the programme and trainers/facilitators. Study 2 evaluated a 'mindfulness meditation' programme, which was described as adapted from a range of evidence-based sources but there were no examples of materials given making it very difficult to replicate. Statistical analyses employed were appropriate to repeated measures design using dependent or paired t-tests and correlation tests but only study 1 reported on effect sizes. Considering the small sample sizes (N = 16-64) used it would have been relevant for all the papers to report on power analyses.

RCT/experimental studies

Both studies reported to evaluate MBSR and reported on the integrity of interventions describing programme details and qualification of the trainer thereby enhancing comparability across studies. Study 9 was described as a randomised controlled study but did not describe the randomisation process as is usually required. Authors reported an intervention group of eighteen participants and a wait-list control group of twenty but statistical analysis was not described in full. Study 10 was described as a prospective non-randomised cohort-controlled study using post-graduate counselling psychology students with twenty-two in the intervention group and fifty-four in two control course groups. Despite the small samples power analyses and effect sizes were not reported by either study. Both studies would be difficult to replicate based on

the opportunistic nature of the samples and the incomplete reporting of methodological detail.

Qualitative studies

Data collection methods included interviews (3), focus groups (5), creative writing (5), audio diaries (5), and a structured journal assignment (8) all reported in sufficient detail for replication, however, reporting of data analysis methods varied in detail. Study 3 and 5 both reported thematic analyses, which appeared appropriate to their research questions, but study 8 were less clear on their methods. While describing at length how they went about ensuring validity they also both referenced grounded theory methodology without stating that this was their analytical method, which reduces the possibility of comparison and replicability (see Appendix C Data extraction of reviewed studies).

Is there evidence that mindfulness practice is beneficial for trainee and qualified therapists and healthcare professionals?

Only three studies (1, 7, 10) used a mindfulness measure as part of their research (see Appendix C for summary of study results including outcome measures) and all reported increased mindfulness scores following intervention (study 1, study 7, study 10). Of the three studies measuring burnout¹⁰ only study 2 found a decrease on the emotional exhaustion sub-scale following mindfulness meditation practice. Study 9 and 10 both used the self-compassion scale¹¹ (SCS) and found this increased following participation in MBSR and SCS was also a predictor of this increase. Other reported associations with

¹⁰ Using Maslach Burnout Scale (Maslach, Jackson, & Leiter, 1996).

¹¹ Self-Compassion Scale (Neff, Kirkpatrick, & Rude, 2007).

mindfulness include decreased negative affect (study 1), and improvement in mood states (study 2), psychological well-being (study 7), and reduced psychological distress, and trait worry. Additionally, study 10 showed that mindfulness predicted reduced rumination, perceived stress, and trait anxiety.

Less positive associations with mindfulness practice were reported in study 6 where HCPs experienced increased stress levels when starting to use dialectical behaviour therapy (DBT) although this decreased in direct client work. Study 5 reported similar findings in HCPs where discomfort was more acutely felt when attending to unpleasant emotions as mindfulness required attention to emotional states.

Overall, reviewed studies showed benefits of mindfulness in relation to improvement in mindfulness, self-compassion and a range of psychological distress measures. Less positive associations were related to early experiences of applying mindfulness to negative emotions.

Can these benefits be considered to contribute to lowering the risk of VT?

Of the ten studies reviewed only two studies, both qualitative, mentioned VT as one of several reasons for undertaking the research (3, 8; see Appendix B for further details), however, only study 3 focused directly on VT. Findings from this very small sample of nine experienced trauma therapists suggest that the benefit of mindfulness practice was indirect by eliciting an enhancing function of the ability to engage in other self-care practices. Mindfulness was also found to support therapists' client work through a greater acceptance of boundaries, personal vulnerability, responsibility and empathy. Similar findings were suggested in a study involving trainees (8) and reported professionally improved

focus on the therapeutic process, lower emotional reactivity and tolerance of ambiguity, while on a personal level they reported an enhanced self-awareness and ability to recognise feelings and fears. Reported implications for risk of VT in study 8 lies in practitioners' development of abilities attributed to mindfulness practice which are viewed as protective of psychological distress, such as the ability to process emotional content experienced during therapeutic work with clients, learning new techniques for being less emotionally reactive, greater self-acceptance, greater awareness of physical signs of stress, and greater tolerance of ambiguity.

Overall, research involving mindfulness does not consider reduced risk of VT as a possible outcome and only one study focuses specifically on this but the sample is very small and findings cannot be generalised.

Discussion

This review examined the evidence-base for the benefits of mindfulness practice in trainee and qualified therapists and healthcare professionals (HCPs), and sought to establish whether these benefits can be considered to contribute to reducing the risk of vicarious traumatization (VT).

With regard to the benefits of mindfulness, studies involved a range of HCPs, both qualified and in training, including psychologists. Results of this review suggest that mindfulness practice brought benefits across both physical and psychological health indices, including mood states, psychological stress and distress, self-compassion, and empathy, when these were used as outcome measures before and after participating in a specific mindfulness-

based programme. Only a few studies measured mindfulness itself but some reported increased scores after a mindfulness programme, and in one study showed a continuation of the positive effect. Findings from qualitative research were more specific to the experience of using mindfulness including the ability to engage in other self-care practices; on awareness of self, client, and therapeutic process; and on the ability to manage strong emotions. There was a general lack of reporting on adverse associations of mindfulness practice, although results from two studies suggest that stress or discomfort was experienced when starting to practice mindfulness because of the attention given to emotional states, and that this reduced when working directly with clients. This suggests that there is an underlying mechanism which has not been explored and a process of mindfulness that could impact on early practice.

In relation to whether benefits of mindfulness practice can be considered to contribute to lowering the risk of VT very little evidence exists as VT is not a specific focus of mindfulness research. However, findings pointed to a possible mechanism of mindfulness as enhancing self-care practice overall and thus reducing risk of VT as it provides a new technique in dealing with strong emotions and emotional reactivity, as well as developing a mental stance of greater openness and self-acceptance. In relation to possible adverse experiences of early practice, such findings emphasise the need for continuation of practice and for standardised programmes that support new practitioners.

Overall, a considerable limitation for existing evidence on the benefits of mindfulness practice in therapists is the study methodologies of the reviewed studies and the quality of reporting, as well as the absence of randomized

controlled trials, which creates limitations such as not controlling for individual factors, measuring at follow-up and sustained effects over time, and the use of non-standardised interventions with non-replicable protocols.

For therapists avoidance of the emotions that may be elicited by clients' traumatic stories underlies a risk of developing VT (Krans, Naring, Holmes, & Becker, 2010; Pearlman & Mac Ian, 1995), but if mindfulness can provide a means by which therapists can learn an effective strategy to manage these emotions then there can be a tangible benefit through improved professional well-being and client care. Although it appears any type of mindfulness can have benefits, because of the broad variation of mindfulness-based programmes and outcome measures included in the research reviewed, meaningful comparisons across studies are not possible. Additionally, the studies were not designed to test underlying mechanisms of mindfulness and it is not known if it serves a mediating or moderating role in the risk of VT. One of the problematic issues is that VT has not been systematically examined experimentally in the same way as post-traumatic stress disorder (PTSD) (Krans et al., 2010), providing an insubstantial evidence base for exploring connections with risk reducing factors.

Several specific gaps were identified through this review process including inconsistent reporting of results, variable methodology and reporting of rationale, missing details of mindfulness programmes and practices, little or no focus on risk of VT, no direct measures of VT used, and variable reporting of rationale for use of outcome measures.

Based on present findings, there is currently no evidence base to inform development of mindfulness practice guidelines for therapists working with

trauma clients, which reflects that mindfulness is a relatively new field of research with a historical focus on treatment of stress and mental health problems in patients (Williams & Kabat-Zinn, 2011). It would be of particular interest to gain insight into the associations between self-care, mindfulness and VT in trauma therapists to explore if mindfulness has a mediating effect of self-care on VT. For example, by using existing measures to capture a cross-sectional snapshot of the status of these factors in a professional population working with trauma clients, we could start to address underlying mechanisms of mindfulness.

Limitations and future implications

While a thorough literature search was conducted it is possible that some relevant research has been missed due to limitations for sole researchers, which affect quality assurance (Harden & Gough, 2012). Another limitation is that current research involving both VT and mindfulness was minimal which prevented meaningful comparisons across studies.

Williams (2010) argued that the key implications for future research involving mindfulness is that currently research parameters are too varied to allow researchers to link observed benefits or outcomes of practice with underlying mechanisms of mindfulness, which is supported by the findings of this review based on the broad range of outcome measures used, the study-specific mindfulness practice observed, and absence of the systematic measurement of mindfulness. Another key implication is VT not being routinely measured as a construct in research, perhaps because of varied definitions and lacking standardised measurement tools (Sabin-Farrell & Turpin, 2003), such as

that developed for the multi-faceted construct of mindfulness (Baer et al., 2008). With both constructs more clearly defined within the context of the target population, the relationship between mindfulness and VT can then be empirically researched with a view to developing clear and useful guidance for effective self-care to reduce the risk of VT. There is also scope for future well-designed research with focus on VT and other relevant occupational hazards (such as burnout and compassion fatigue) using well-considered outcomes (such as professional quality of life, self-compassion, and measures of VT) and addressing practice elements (such as frequency of practice or practice over time). The underpinning mechanism of mindfulness also needs to be explored in greater depth in order to clarify different aspects of mindfulness in relation to effectiveness and to identify any direct links with other outcomes.

Conclusions

The results of this review show that there are both quantitative and qualitative research studies exploring benefits of mindfulness involving professionals and that this field is still growing. While some publications are clear about what the observed mindfulness practice entailed, other reports omit this information particularly when evidence-based mindfulness programmes are adapted to fit a non-clinical or professional participant group. Results from this review suggest that regardless of type of mindfulness practice engaged in, when delivered as an intervention, it is related to a range of positive physical and psychological benefits for therapists and healthcare professionals, however, due to the variation in outcome measures used between studies it has not been possible to examine consistency in the reported benefits. Although qualitative research

findings suggest that mindfulness is also used as a self-care method the impact has proven difficult to quantify, as the use of a mindfulness measure is rare and precludes investigation of changes in mindfulness. With regard to vicarious traumatization (VT) this review found that only a small qualitative study directly explored mindfulness in relation to risk of VT while two others make only brief mention of this in their rationale. Although the findings were indicative of mindfulness as serving a mediating role between self-care and VT, results of this review suggest that the two constructs are not commonly linked despite VT being a much-discussed and realistic occupational risk for therapists working with clients' trauma stories.

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Appendix A Example of search strategy used as part of literature search

1. PsycINFO; exp VICARIOUS EXPERIENCES/ OR exp EMOTIONAL TRAUMA/; 13869 results
2. PsycINFO; ("vicarious trauma*" OR "secondary trauma*").af; 2489 results
3. PsycINFO; exp THERAPISTS/ OR exp MENTAL HEALTH PERSONNEL/ OR exp COUNSELORS/; 57259 results
4. PsycINFO; exp CLINICAL PSYCHOLOGISTS/ OR exp COUNSELING PSYCHOLOGISTS/ OR exp PSYCHOLOGISTS/; 25247 results
5. PsycINFO; exp THERAPIST TRAINEES/; 1371 results
6. PsycINFO; exp PSYCHOTHERAPISTS/; 13670 results
7. PsycINFO; (psychotherapist* OR counsel?or* OR psychologist* OR therap* OR counsel?ing).af; 886848 results
8. PsycINFO; exp POSTTRAUMATIC STRESS DISORDER/ OR exp EMOTIONAL TRAUMA/; 28091 results
9. PsycINFO; ("posttraumatic stress" OR "post adj traumatic adj stress" OR "PTSD" OR "emotional trauma*").af; 66178 results
10. PsycINFO; exp COPING BEHAVIOR/ OR exp STRESS REACTIONS/; 41860 results
11. PsycINFO; exp SELF CARE SKILLS/ OR exp MINDFULNESS/; 4984 results
12. PsycINFO; exp "RESILIENCE (PSYCHOLOGICAL)"/; 5122 results
13. PsycINFO; exp COUNTERTRANSFERENCE/ OR exp EMPATHY/ OR exp FATIGUE/ OR exp SYMPATHY/; 18593 results
14. PsycINFO; ("compassion fatigue" OR "burn out" OR "burnout" OR "resilience").ti,ab; 14196 results
15. PsycINFO; 1 OR 2; 15539 results
16. PsycINFO; 3 OR 4 OR 5 OR 6 OR 7; 901973 results
17. PsycINFO; 15 AND 16; 8814 results
18. PsycINFO; 10 OR 11 OR 12 OR 13 OR 14; 78445 results
19. PsycINFO; 17 AND 18; 1750 results
20. PsycINFO; 8 OR 9; 66178 results
21. PsycINFO; 19 AND 20; 1527 results
22. PsycINFO; 21 [Limit to: Publication Year 1991-Current and English Language]; 1425 results

Appendix B Characteristics of the ten included studies including results and whether the study focused on vicarious traumatization (VT)

Study	Methods	Participants	Interventions	Outcomes measured	Results	Focus on VT
<u>Study 1</u> Collard, Avny, & Boniwell (2008)	Uncontrolled pre-post design	University setting; Students on Diploma course in Integrative Counselling and Psychotherapy N=16	Mindfulness-Based Cognitive Therapy (MBCT) Duration not reported	Freiberg Mindfulness Inventory; Satisfaction With Life Scale; Positive and Negative Affect Scale	Increased level of mindfulness (MF): $t(14)=-1.97$ Decreased negative affect: $t(14)=2.40$ Increased MF level associated with longer weekly MF practice time: $r=0.46$ (effect sizes medium-strong for MF, strong for negative affect)	No Examines psychological wellbeing.
<u>Study 2</u> Galantino, Baime, Maguire, Szapary, & Farrar (2005)	Uncontrolled pre-post design	University hospital setting; Employees within one insititue of the hospital N=64	Mindfulness Meditation programme 8 weeks duration	Salivary cortisol; Profile of Mood States – Short Form; Maslach Burnout Inventory (MBI); Interpersonal Reactivity Index	Improved mood states Decreased emotional exhaustion on MBI	No Interested in stress levels in relation to burnout.

Study	Methods	Participants	Interventions	Outcomes measured	Results	Focus on VT
<u>Study 3</u> Harrison & Westwood (2009)	Qualitative interview design	Multiple healthcare settings; Therapists trained at masters or doctoral level, minimum 10 years' professional experience with traumatised clients, self-identified as having managed well in their work. N=6	Non-intervention study	Qualitative data analysis	Key MF related finding: mindfulness practice enhanced ability to engage in other protective self-care practices, e.g. accepting boundaries, personal vulnerability, responsibility, "exquisite empathy", clear work/life separation	Yes Main aim was to explore protective practices to prevent VT
<u>Study 4</u> Newsome, Christopher, Dahlen, & Christopher (2006)	Uncontrolled pre-post design	University Post-graduate counselling programme (first- and second year students on three eligible courses) N=11	MBSR adapted to academic term time-frame with added academic elements 4 years duration	Aleamoni Course/Instructor Evaluation Questionnaire: four time points (end of academic year); focus group evaluation: once (end of 4-year course); qualitative report evaluation: four time points (end of academic year)	Personal changes: more patient, aware, conscious and able to focus. Practice: being present with self and client, increased comfort with silence, focus on therapeutic process.	No Explores how mindfulness can reduce stress and burnout for students
<u>Study 5</u> Nugent, Moss, Barnes, & Wilks (2011)	Uncontrolled post-collection design (Qualitative methodology)	Contemporary Buddhist centre; Experienced healthcare practitioners N=9	Mindfulness-based workshops 11 months duration	Qualitative data collected at 3 time points; Thematic analysis	Key themes: difficulty being with discomfort (i.e. mindful attention to discomfort), MF good reflective space, connection with self, increased presence with self and client.	No Key interest is in how mindfulness supports reflective practice

Study	Methods	Participants	Interventions	Outcomes measured	Results	Focus on VT
<u>Study 6</u> Perseius, Kåver, Ekdahl, Åsberg, & Samuelsson (2007)	Mixed methods (uncontrolled pre-post and qualitative designs)	Healthcare setting; Therapists working in a DBT-project N=22	Dialectical Behaviour Therapy training 2 years duration	Maslach Burnout Inventory-GS (Swedish language) Content analysis	Quantitative: no significant changes in burnout despite trend towards improvement; Qualitative: DBT increases stress in beginning but reduces in direct client work. Components most helpful: mindfulness training, team and supervision	No Interested in occupational stress and levels of professional burnout
<u>Study 7</u> Ruths, de Zoysa, Frearson, Hutton, Williams, & Walsh (2012)	Uncontrolled pre-post design	Workplace setting (healthcare and academic); Employees of a mental health trust and a research institute (Clinical psychologists, research psychologists, social worker, psychiatrists) N=24	Mindfulness-Based Cognitive Therapy (MBCT) 20 weeks	Mindful Awareness and Attention Scale; General Health Questionnaire; Satisfaction With Life Scale; Brief Symptom Inventory; Penn State Worry Questionnaire; State-Trait Anxiety Inventory; frequency and duration of meditation practice Time points: baseline (week 0), end of intervention (week 8), 3-month follow up (week 20)	Improved mindful attention and awareness: $Z=-2.654$ sustained at 3-month follow-up: $Z=-3.248$, psychological wellbeing: $Z=-2.949$ Continued use of MF at 3 months improvement in MF: $Z=-2.868$ psychological wellbeing: $Z=-2.145$; psychological distress: $Z=-2.801$, trait anxiety: $Z=-2.106$ trait worry: $Z=-2.262$ Time spent practising MF correlated with trait anxiety: $\rho=-0.524$, and psychological wellbeing $\rho=0.520$,	No Considers stress in relation to burnout.

Study	Methods	Participants	Interventions	Outcomes measured	Results	Focus on VT
<p><u>Study 8</u></p> <p>Schure, Christopher, & Christopher (2008)</p>	<p>Uncontrolled post-collection design</p> <p>(Qualitative methodology)</p> <p>4 years duration</p>	<p>University setting; First and second year postgraduate counselling students</p> <p>N=33</p>	<p>15-week elective course comprising mindfulness, yoga, meditation and qigong</p>	<p>Range of qualitative outcomes including effects of course, self-care practices, influence on counselling practice, and use of mindfulness</p> <p>Once at end of 15-week course</p>	<p>Personal: Increased ability to deal with strong emotions, new techniques for being less reactive and less attached to emotional responses, being more open and conscious of self and surroundings, greater acceptance. Practice: more comfortable with silence, more focused, present, attentive to therapeutic process.</p>	<p>Yes</p> <p>Addresses stress and related outcomes including burnout, compassion fatigue and VT.</p>
<p><u>Study 9</u></p> <p>Shapiro, Astin, Bishop, & Cordova (2005)</p>	<p>RCT/ Experimental design</p>	<p>Healthcare workplace (hospital); Current healthcare professionals (including doctors, nurses, social workers, physical therapists and psychologists) over the age of 18 who were English-speaking</p> <p>N=38</p>	<p>Intervention group: Mindfulness-Based Stress Reduction (MBSR);</p> <p>Control group: placed on a wait-list</p>	<p>Brief Symptom Inventory; Maslach Burnout Scale; Satisfaction With Life Scale; Self-Compassion Scale</p> <p>Pre- and post intervention time points</p>	<p>Intervention group reduced perceived stress $F(2,24)=4.4$; increased self-compassion: $F(2,24)=9.8$</p> <p>Regressions analysis: self-compassion significantly predicted improvement in perceived stress (statistics not reported).</p>	<p>No</p> <p>Considers stress in relation to professional effectiveness.</p>

Study	Methods	Participants	Interventions	Outcomes measured	Results	Focus on VT
Study 10 Shapiro, Brown, & Biegel (2007)	Quasi-experimental design	University setting; Post-graduate counselling psychology students enrolled in one of three eligible courses N=54	Intervention group: 8-week MBSR; Control group: time-equivalent course-specific meetings	Mindful Awareness and Attention Scale; Positive and Negative Affectivity Schedule; Perceived Stress Scale; Self-Compassion Scale; Daily Mindfulness Practice Diaries Time points at week 1 and week 9	Intervention group significant decrease in perceived stress, negative affect, state and trait anxiety, rumination and increased in positive affect and self-compassion. MF predicted reduced rumination, perceived stress, trait anxiety = increased self-compassion; MF practice time no significant association	No Considers stress tolerance in relation to well-being

Mindfulness and Vicarious Traumatization in Trainee Therapists

**Examining Mindfulness as a Mediator
in the Relationship Between
Self-Care Practice and Vicarious Traumatization
in Trainee Therapists: An Empirical Paper**

Supervisor: Dr Anke Karl

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Target Journal: Journal of Traumatic Stress

Abstract

Vicarious traumatization (VT) has been defined as an experience of change in several domains of personhood including worldview, identity, and beliefs related to major psychological needs. Self-care practice is widely considered essential in sustaining personal and professional well-being, and a lack of appropriate practice can enhance the risk of VT in trainee and newly qualified therapeutic practitioners. Both quantitative and qualitative research suggests that mindfulness practice can have a protective role in the risk of VT for trainees. This study examined the relationship between VT, self-care and mindfulness in a sample of 238 trainee therapists from the UK, Australia, Canada and Ireland. Structural equation modelling was used to test a mediation model with good fit with self-care as predictor variable, mindfulness as mediator, and VT as outcome variable. The hypothesis that when controlling for the effects of mindfulness on VT the effect of self-care on VT is no longer significant could not be confirmed as no mediational effect was present. The hypothesis that predicted a negative association between self-care practice and VT was confirmed with a significant total effect although the direct effect of self-care on VT was not significant. Findings are discussed in relation to previous research involving mindfulness in trainee cohorts. Links are made with neuroscience research to consider underlying mechanisms of mindfulness within the context of VT.

Background

Stress in Therapists and the Risk of Vicarious traumatization

When practitioners who undertake therapeutic work¹² encounter clients¹³ traumatic stories they may be affected personally, which can have both positive and negative outcomes for the therapeutic alliance, and for their own and their clients' emotional well-being (Rothschild, 2006). When the experience is predominantly negative they may be at risk of vicarious traumatization (VT), which has been defined as an experience of negative changes in aspects of personhood such as altered worldview or frame of reference resulting in cynicism and pessimism, a disrupted belief system, and questioning one's identity (Saakvitne, 2002). Some make a distinction between burnout in therapists, which has been particularly linked with organisational stressors through job satisfaction, job role clarity, and autonomy (Deighton, Gurriss, & Traue, 2007; Linnerooth, Mrdjenovich, & Moore, 2011), and compassion fatigue connected with client related stressors (Hensley, 2008; Hunter, 2012). However, because of the overlap of work tasks in different work settings, for example the exposure to clients' traumatic stories for social workers as well as therapists, or a high-level stressful work environment (Dunkley & Whelan, 2006; Pearlman & Mac Ian, 1995), it means that the constructs are not always considered separate and distinct in the research setting.

¹² Practitioners may include psychotherapists, counsellors, nurse therapists, psychologists, psychiatrists, psychological therapists, IAPT practitioners, combat or military therapists/psychologists, or mental health workers, support workers or social workers engaged in therapeutic work including trainees or students of these disciplines. The term 'practitioner' or 'therapist' will be used throughout this paper.

¹³ Clients may include a variety of client populations some of whom may be patients diagnosed with post-traumatic stress disorder (PTSD), people who have experienced sexual abuse, refugees or people with other personal traumatic experiences.

Some believe that VT and burnout are components of compassion fatigue (Boscarino, Adams, & Figley, 2010) whereas others consider VT a separate and more serious condition because the symptoms have a long-standing link with those of post-traumatic stress disorder (PTSD; Pearlman & Mac Ian, 1995). Nevertheless, VT only recently received psychiatric recognition through inclusion in the fifth edition of the Diagnostic and Statistical Manual for Mental Disorders (DSM-V), which states that extreme or repeated but indirect exposure to aversive details of an event *through professional work* is considered a trigger of post-traumatic stress disorder (American Psychiatric Association, 2013). Such deleterious effects of vicarious exposure to trauma stories on practitioners have been shown in studies on the impact of disaster events, such as the destruction of the World Trade Centres in New York, where findings suggest that the likelihood of practitioners developing VT depended on whether there was an increase in traumatised clients encountered (Eidelson, D'Alessio, & Eidelson, 2003; Boscarino, Adams, & Figley, 2010). For practitioners whose trauma cases remained unchanged VT symptoms remained low. Equally, in routine clinical practice, for example in working with child and adult sexual abuse cases, the cumulative exposure over time leads to higher PTSD like symptoms (Brady, Guy, Poelstra, & Brokaw, 1999). Therefore the psychiatric recognition of practitioners' adverse experiences only emphasises a long-standing acknowledgement in at-risk professions, such as humanitarian aid workers (Pearlman & McKay, 2008), police officers (Peñalba, McGuire, & Leite, 2008), and military therapists (Jordan, 2010). However, a systematic review spanning the UK, Australia, New Zealand, and North America highlights that clinical psychologists (CPs) are at least as vulnerable to occupational

stressors as other caring professions (Hannigan, Edwards, & Burnard, 2004). For trainee CPs the picture is similar although the specific stressors may be slightly different (Pakenham & Stafford-Brown, 2012).

With the knowledge that VT adversely affects job satisfaction, performance, and clinical effectiveness (Figley, 2002) it accentuates the prevalent need to enhance understanding of this occupational hazard where the existing evidence-base for PTSD can contribute significantly. The Cognitive Model of PTSD (Ehlers & Clark, 2000; see Figure 1) offers a plausible explanation for understanding this mechanism of negative experience. It identifies a 'fault' in information processing occurring at the time of the traumatic event causing a sense of 'reliving' with repeated intrusions and flashbacks (Holmes & Bourne, 2008). While an extreme emotional response to the traumatic event is seen as the trigger, it is the cognitive appraisals of the trauma and subsequent avoidance of thoughts and images that forms the basis for maladaptive coping, which in turn maintains the fragmented memories and distorted appraisals of the trauma event (Ehlers & Clark, 2000). In experimental studies, exposure to verbal reports of traumatic stories was as effective in generating intrusions as exposure to visual material, suggesting that VT was likely to occur through the same information processing mechanism as PTSD (Krans, Naring, Holmes, & Becker, 2010). While this seems to support the current understanding that VT is not experientially a separate phenomenon from PTSD, although the two are distinguished by the exposure criteria, it is an area where research does not yet hold firm answers. With regard to negative appraisals and avoidance this model points to a role for adaptive coping at a cognitive level in preventing cognitive avoidance of the emotional experience,

and the ability to establish or maintain behavioural adaptive coping strategies to counter behavioural avoidance. For therapists this could be supported through appropriate self-care practice.

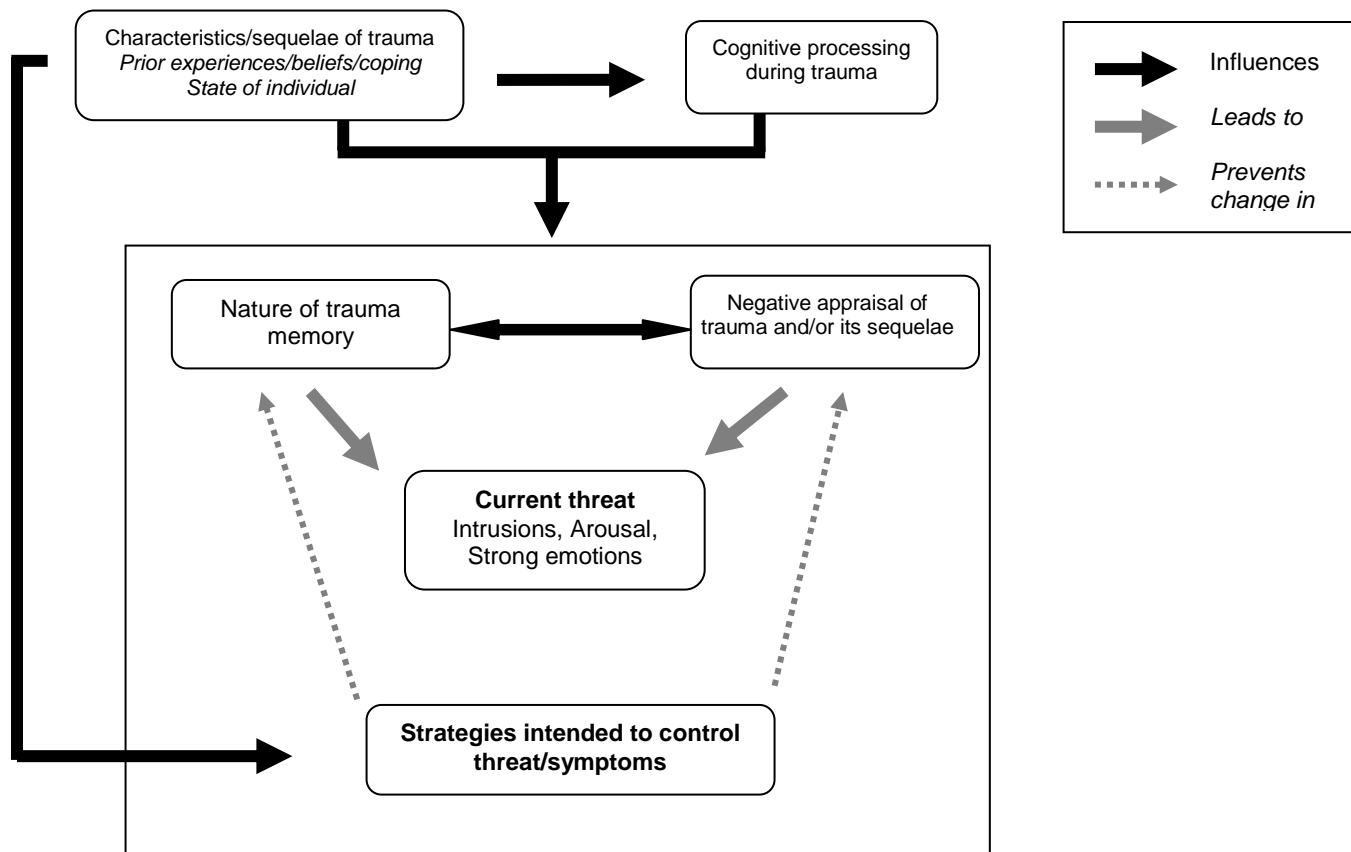


Figure 1 *Cognitive Model of PTSD adapted from Ehlers & Clark, 2000.*

Self-care as a protective factor for therapists

The importance of self-care is widely recognised and there is a general consensus that it involves sustaining personal and professional well-being (Sanderson, 2010). The term describes the degree to which an individual maintains health through various health-promoting activities, including diet, exercise, hobbies, and leisure activities, and when multiple self-care strategies

are engaged they can function as a preventative measure against effects of occupational stress in therapists (Norcross, 2000). This is particularly relevant when working with clients' trauma stories where there is a professional expectation that therapists have the skills to manage emotionally charged sessions (Cloitre, Stovall-McClough, Miranda, & Chemtob, 2004). Therapists are also expected to provide evidence-based interventions to help clients overcome their trauma (Deighton, Gurriss, & Traue, 2007), which predominantly involve guiding the client through their traumatic memories (National Institute for Clinical Excellence (NICE), 2005).

Although it has been suggested that the combination of expected skill, being a novice, and lack of robust or appropriate self-care practice enhances the risk of VT in trainee and newly qualified therapists (Pearlman & McKay, 2008), guidance clearly outlining practical self-care strategies is still lacking, and is absent both in professional training curricula (Jordan, 2010) and in official professional guidelines for treatment of PTSD (NICE, 2005). Although many authors have attempted to fill this gap (Baker, 2012; Norcross, 2000; Pearlman & Caringi, 2009; Sanderson, 2010) empirically tested self-care strategies remain limited. As fitness to practice is a professional requirement stipulated by the Health Care Professions Council (HCPC), and student healthcare professionals are expected to take some responsibility for their fitness to practice (Boak, Mitchell, & Moore, 2012), it would seem that evidence-based professional guidelines of self-care for both trainees and qualified practitioners are highly relevant.

Mindfulness as a protective strategy for therapists

The concept of mindfulness commonly discussed in research literature is a meditation-based activity founded on Zen Buddhist principles of maintaining one's awareness in the present moment by noticing and observing one's thoughts, physical sensations, and immediate environment through a non-judgemental and accepting stance (Williams, 2010). Mindfulness Based Stress Reduction (MBSR), is an 8-week structured programme incorporating yoga, meditation and body-scan awareness, which now boasts a considerable evidence base, predominantly in the medical field in which it was developed (Newsome, Christopher, Dahlen, & Christopher, 2006). It was first introduced as a treatment for anxiety in the 1970s, but has more recently been used in quantitative research to test its effectiveness as measured by a range of instruments relating to stress and burnout (Williams & Kabat-Zinn, 2011). In a randomised controlled study of HCPs the MBSR group showed a significant reduction in perceived stress and increased self-compassion compared with the control group, and that self-compassion¹⁴ was a predictor of this change (Shapiro, Astin, Bishop, & Cordova, 2005). Positive changes were also found in trainee counselling psychologists participating in MBSR training who showed significant reductions in perceived stress, anxiety, rumination and negative affect, and significant increases in positive affect, self-compassion and mindful awareness relative to the control group (Shapiro, Brown, & Biegel, 2007). More importantly, an increase in mindful awareness was a predictor of some of these reductions and of the increase in self-compassion.

¹⁴ As measured by the Self-Compassion Scale (Neff, Kirkpatrick, & Rude, 2007).

In qualitative research with experienced trauma therapists mindfulness practice was found to be an effective strategy in itself but essential in enhancing other protective self-care activities suggesting that, cognitively, mindfulness aids the process of making sense of experience that helps counter avoidance of the emotional experience, and that the ability to be fully present in the moment has a behavioural effect by supporting the boundary between personal and professional time (Harrison & Westwood, 2009). Equally, in qualitative research involving MBSR developed for counselling students, participants reported significant personal changes, such as being more patient, aware, and focused, as well as being more attentive to the therapy process (Newsome et al., 2006). A recent narrative summary of five qualitative studies supports that mindfulness practice can be used as a self-care strategy, and showed a marked positive effect on both personal well-being and professional practice for trainee therapists. Cognitive benefits reported included observation of emotional reactivity, tolerance of ambiguity, greater self-compassion, greater comfort with silence in client sessions, improved ability to recognise fears relevant to being a trainee, less pre-occupation with selves, and more presence with the client (Christopher & Maris, 2010).

This range of positive outcomes and benefits of mindfulness training supports the notion that there is an underlying mechanism of mindfulness and this warrants further investigation.

The relationship between VT, self-care and mindfulness

It is evident that VT is a genuine affliction with serious consequences and that the awareness, knowledge, and ability to prevent it is considered to be of great

importance in training therapists. Particularly with an emphasis on strengthening psychological coping, and actively engaging in adaptive self-care practice to reduce the longer-term impact of working with traumatised clients. Mindfulness has a particular influence on psychological coping and behavioural effects on adaptive self-care, which may be explained using the Williams' (2010) 'two modes of mind' theory of information processing in mindfulness. He describes a 'doing' mode involving verbal/conceptual processing, and a 'being' mode involving sensory/perceptual processing, and proffers that mindfulness training cultivates the shifting between the two modes to prepare the mind for an integration of all experience (Williams, 2010). This suggests that mindfulness is a possible underlying mechanism of self-care as it provides a new technique in dealing with strong emotions and emotional reactivity, as well as developing a mental stance of greater openness and self-acceptance. This can be depicted in a simple mediation model (see Figure 2) emphasising the relationships between the three factors.

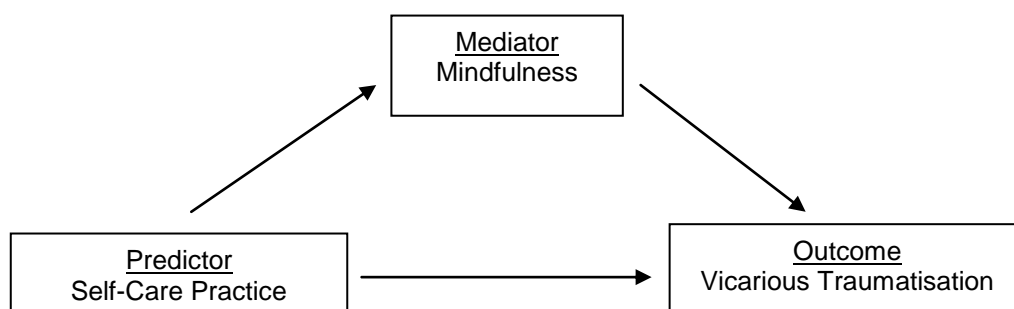


Figure 2 *Mediation model depicting the proposed mediating role of mindfulness in the relationship between self-care practice and vicarious traumatization.*

Aim and hypotheses

Aim

The aim of this study is to investigate the mediating role of mindfulness in the relationship between self-care practice and levels of vicarious traumatization in trainee therapeutic practitioners.

Hypotheses

1. Lower levels of self-care are significantly associated with higher levels of VT.
2. Higher levels of self-care are associated with higher levels of mindfulness.
3. Higher levels of mindfulness are associated with lower levels of VT.
4. When controlling for the effects of mindfulness on VT the effect of self-care on VT is no longer significant.
5. There will be a significant indirect effect of self-care on VT.

Method

Design

This study used a correlational design in a cross-sectional questionnaire-based online survey design using Lime Survey software (Schmitz, 2012). There were three latent variables: the independent variable was self-care practice with four observed variables (control, mastery, relaxation psychological detachment); the outcome variable was indicators of vicarious traumatization (VT) with three observed variables (hyperarousal, re-experiencing/intrusions, effortful avoidance/numbing of responsiveness); and mindfulness was the mediator variable with five observed variables (observe, describe, non-judgemental, non-reactive, acting with awareness).

Participants

Inclusion/exclusion criteria

To be eligible for participation individuals were required to be 18 years or older, be enrolled in or have recently completed a training course in counselling or clinical psychology or any type of counselling and psychotherapy training (e.g. psychodynamic therapy, cognitive behaviour therapy), have worked with or currently working with clients using psychotherapeutic interventions/methods, and have one or more experiences of a client sharing a personal experience which was traumatic to them. Survey entrants were automatically excluded from completing the survey if they did not complete the consent form items (see Appendix A for consent form used in online survey).

Recruitment

Emails containing an introduction of the study along with a web link to the online material was sent for approval direct to identified course directors, administrators, lecturers or researchers at universities and other higher education institutes and centres running postgraduate courses across the UK, Ireland, Australia, Canada and USA where eligible participants might be approached. Upon approval a recruitment email and/or flyer was distributed to eligible individuals internally. Additionally, independent counselling services and trauma clinics were contacted and asked to invite either trainee therapists or qualified therapists training in trauma-focused interventions to participate. A notice was placed in *The Psychologist* and a Facebook page was created to reach potential participants internationally and via social media. As an incentive for completion of the survey participants could enter a prize draw with a selection of prizes relating to self-care activities.

Sample

Of a total of 449 individuals who entered the survey site, 238 completed the full survey including the consent form ranging in age from 22 to 67 with a mean of 31.8 years ($SD = 8.8$). Further demographic details are presented in Table 1. Participants were also asked about their work setting with the majority working in a specialist setting ($N = 54, 22.7\%$) followed by adult mental health ($N = 35, 14.7\%$), children and young people's service ($N = 33, 13.9\%$), trauma-related service ($N = 31, 13\%$), and learning disability service ($N = 24, 10.1\%$). Additional services reported include community mental health, older adult

services and child and adolescent mental health, which provides good insight into the range of services in which trainees have encountered client trauma stories. Types of trauma-specific interventions most commonly used by participants was cognitive restructuring (N = 151, 63.4%), followed by narrative exposure therapy (N = 14, 5.9%), and cognitive processing therapy (N = 10, 4.2%). Interestingly, 14.7% reported using 'other' methods while the remaining participants reported using imaginal exposure, in vivo exposure, imagery rescripting and reprocessing, with only one participant reporting using eye movement desensitisation and reprocessing (EMDR).

In line with previous research suggesting that regular mindfulness training impacts on mindfulness outcome measures (Baer, et. al., 2006) it was also of interest to know if participants had any previous experience of mindfulness. In response to the question "Have you ever undertaken any mindfulness training?" 52.9% (N = 172) of participants responded affirmatively (see Appendix B for details of self-reported mindfulness training).

Table 1 *Number and percentage of sample for gender, country of study, ethnicity, and stage of training as reported by study participants.*

Participant details	<i>N</i>	% of sample
<u>Gender</u>		
Women	212	88
Men	26	12
<u>Country of study</u>		
UK (incl. England, Scotland, Wales)	166	69.5
Australia	55	23
Canada	14	5.9
Ireland	3	1.3
<u>Ethnicity</u>		
White British	147	61.5
White European	44	18.4
Other	25	10.5
Asian British, Indian, Pakistani	6	2.4
Mixed White and Asian	3	1.3
Black African, White African	2	0.8
Chinese	2	0.8
<u>Stage of training</u>		
First year	63	26.4
Second year	76	31.8
Third year	54	22.6
Fourth or fifth year	34	14.2

Measures

Independent variable

Self-care practice was measured using the widely employed Recovery Experience Questionnaire (REQ) which has good construct validity ($\alpha = .85$) (Sonnentag & Fritz, 2007) including the current sample ($\alpha = .87$). The REQ assesses recovery from work stress by asking about recuperation activities during non-work hours (e.g. free evenings, weekends, holidays) and comprises four four-item subscales measuring psychological detachment from work, relaxation, mastery experiences, and control. Sample items include: “I get a break from the demands of work” and “I make time for leisure” and all are

measured on a 5-point Likert scale (1 = I do not agree at all, 5 = I fully agree; see Appendix C for questionnaire in full).

Mediator variable

Mindfulness was measured using the Five-Facet Mindfulness Questionnaire (FFMQ; please see Appendix D for questionnaire in full) (Baer et al., 2008), which is an instrument based on a factor analytic study of five independently developed mindfulness questionnaires and has shown adequate to good internal validity for all facets in samples of experienced meditators and non-meditating groups (alpha coefficients range from .72 to .92) (Baer et al., 2006). Cronbach's alpha for the current sample was .74. The analysis yielded five facets that represent elements of mindfulness as it is currently conceptualised: observing, describing, acting with awareness, non-judging of inner experience, and non-reactivity to inner experience. These are measured by a thirty-nine-item questionnaire and sample items include "When I'm walking, I deliberately notice the sensations of my body moving", and "It's hard for me to find the words to describe what I'm thinking". Respondents are asked to consider items based on what "best describes your own opinion of what is generally true for you" and are scored using a 5-point Likert scale (1 = never or very rarely true, 5 = very often or always true). Scores are summed for each of the sub-scales.

Outcome variables

VT was operationalised as level of PTSD symptoms which were measured by the Post-traumatic stress disorder Checklist – Specific (PCL-S; please see Appendix E for full questionnaire), an established PTSD symptom measure with

high internal consistency ($\alpha = .93$) (Weathers, Litz, Herman, Huska, & Keane, 1993). For the present sample $\alpha = .88$. The PCL-S first asks about symptoms in relation to an identified "stressful experience", which in the context of this study will be recent work with a trauma client. Respondents are asked to consider "how much you have been bothered by that problem in the past month" in relation to seventeen self-report items representing key symptom groups of PTSD including hyperarousal, re-experiencing/intrusions, effortful avoidance/numbing of responsiveness (Weathers, et. al, 1993). Sample items include "Repeated, disturbing memories, thoughts, or images of the stressful experience", and "Feeling distant or cut off from other people" and responses are measured using a Likert scale ranging from 1 "Not at all" to 5 "Extremely".

Procedure

The first section of the online survey contained the inclusion criteria, participant information and consent form. Consent was obtained through mandatory selection of the four items and completion date following which respondents could proceed to the full survey. Demographic information including age, gender, ethnicity, education type and level, therapy training, work setting, and client numbers was collated as well as information about previous experience of mindfulness meditation training (see Appendix F Demographic Questions). Following completion of the self-report measures participants proceeded to the debrief page where more detailed information about the study and relevant contact details were given, as well as the option of requesting a summary of the research was given (see Appendix G Dissemination Statement). Total time to complete the online survey took between 12 and 15 minutes. Two trainee

clinical psychologists and one qualified trauma therapist with experience of working with clients with personal trauma stories participated in a pilot of the online survey and their feedback on self-report measures, recruitment strategy, and ethical considerations helped inform the final version of the survey. Ethical approval was obtained by the School of Psychology Ethics Committee (see Appendix H). Ethical considerations included ensuring participants were sufficiently briefed prior to participation and debriefed post-participation, including sign-posting to relevant support organisations and web-sites if needed and contact details of the researcher.

Data preparation

The data analysis method used was structural equation modelling (SEM), which is a set of statistical methods used to analyse relationships between multiple independent and dependent variables (Ullman, 2013). For data preparation preliminary tests were done for normal distribution (Kolmogorov-Smirnov Test of Normality) and for outliers (using Mahalanobis distance) (Tabachnick & Fidell, 2013). Zero order correlations were computed to check which predictor variables were significantly correlated with the outcome variables, and whether any of the predictor variables were highly correlated (> 0.80) to address multicollinearity (see Table 2). Demographic variables age, gender and mindfulness experience were also included in this computation (see Table 2). Finally, to ensure variance of errors was the same across all levels of the predictor variables plots of standardized residuals and the regression standardized predicted value were examined.

A power analysis for SEM was calculated to estimate the sample needed (Soper, 2014). With three latent variables (REQ, FFMQ, PCL-S) and twelve observed variables (including four subscales of the REQ, five from the FFMQ and three from the PCL-S) a medium effect size of an indirect or mediational effect was assumed (.30). To ensure stable estimation and adequate statistical power in the chosen data analysis (Kline, 2010) calculations suggested that a minimum of 100 participants were needed (alpha error of probability = 0.05; statistical power (1-beta) of 0.80). Accounting for normal response rates for online surveys of 10-20% (Smith, Pettigrew, Seo, & Dorward, 2012) and conservatively for low attrition rates (McSherry & Jamieson, 2011; Newton, Davidson, & Sanderson, 2012) a target sample size of 185 was set and was exceeded.

Data analysis strategy

The IBM SPSS Statistics and IBM SPSS Amos versions 21.0 were used to analyse and test the SEM using a measurement model consisting of the three latent variables and twelve observed variables (measurement subscales). Five indices were used to assess goodness of fit of the theoretical model using cut-off values that tend to reduce Type II errors (Hu & Bentler, 1999): the root-mean-square error of approximation (RMSEA; cut-off value should be around .06), the comparative fit index (CFI; cut-off value near .95), standardized root-mean-square residual (SRMR; cut-off value .08), and Akaike's Information Criterion (AIC) for which a smaller value indicates a better fit (Byrne, 2001). A chi-squared test and a normed chi-square (χ^2 / df) was calculated to decrease

sensitivity of the chi-square test based on the sample size ($N = 238$; cut-off should be <3) (Kline, 2010).

SEM using the maximum-likelihood method was carried out to test the hypothesised model with the three latent and twelve observed variables (as shown in Figure 3 above) in three steps. Firstly, the measurement model was tested and refined using confirmatory factor analysis (CFA). Where model fit was not following the above guidelines, adjustments were made to improve overall fit of the model based on the model modification indices (Brown, 2006) and the factor structure of the measurement model. Secondly, the final adjusted model was used for structural analysis of the mediation model, and thirdly, tests for direct and indirect effects were used to test the mediational hypothesis using the bootstrap procedure (Shrout & Bolger, 2002). This tests the total effect of the mediation model by estimating the overall variance of the predictor variable (self-care practice) on the outcome variable (VT) when mediated by mindfulness, which includes testing the direct effect of self-care on VT and the indirect effect of the self-care practice on the VT in the presence of the mediator.

Table 2 *Zero order correlations, means and standard deviation for 12 observed variables*

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. PSYCH_DETACH	-														
2. RELAXATION	.55**	-													
3. MASTERY	.16*	.20**	-												
4. CONTROL	.34**	.56**	.29**	-											
5. OBSERVE	.12	.09	.29**	.19**	-										
6. DESCRIBE	.05	.14*	.14*	.25**	.22**	-									
7. ACT_AWARE	.25**	.31**	.26**	.29**	.34**	.29**	-								
8. NON-JUDGE	.29**	.33**	.23**	.28**	.27**	.24**	.52**	-							
9. NONREACT	.28**	.32**	.24**	.34**	.52**	.29**	.48**	.51**	-						
10. REEXP_INTRS	-.15*	-.09	-.02	-.10	.01	-.07	-.05	-.14*	-.05	-					
11. AVOID_NUMB	-.11	-.15*	-.01	-.14*	.01	-.29**	-.13*	-.26**	-.08	.60**	-				
12. HYPER_AROUS	-.17**	-.20**	.002	-.20**	.05	-.14*	-.10	-.26**	-.10	.55**	.68**	-			
13 AGE	-.03	-.20**	-.16*	-.04	.23	.01	.21**	.01	.12	-.01	.02	-.04	-		
14 GENDER	.08	.03	-.00	.09	-.04	.03	.08	-.02	.06	-.12	.02	-.01	.08	-	
15 MF EXP	.00	-.01	.02	-.07	-.24**	-.07	-.07	.02	-.09	-.09	-.07	-.10	.00	-.03	-
N	238	238	238	238	238	238	238	238	238	238	238	238	238	238	238
Mean	11.91	14.72	13.81	14.87	26.73	30.73	26.11	30.66	22.50	6.66	8.42	6.59	31.81	-	-
Standard deviation	3.33	3.26	3.44	3.21	5.61	5.18	5.72	6.36	4.52	2.12	2.51	2.70	8.79	.31	.50

* $p < .05$ ** $p < .01$

Abbreviated variables are as follows: psychological detachment from work (psych_detach), mastery experiences (mastery), acting with awareness (act_aware), non-judging of inner experience (non_judge), non-reactivity to inner experience (non_react), re-experiencing/intrusions (reexp_intrs), effortful avoidance/numbing of responsiveness (avoid_num), and hyper arousal (hyper_arous). Gender codes were 0 = male, 1 = female.

Results

Step 1: Establishing a measurement model

Table 3 summarises all model fit indices for measurement and structural models. The original measurement model (Model A; see Figure 3) converged but had two potential problems: shared error variances between two observed variables of mindfulness (Observe and Non-react), and factor loadings below .40 of two other observed variables (Mastery and Describe). When the bidirectional correlation between the measurement errors of the Observe and Non-reactivity variables was taken into account (Model B) the goodness of fit significantly improved as indicated by the chi square difference test, and further adjustment to factor loadings by removing the two observed variables gave the best fit (Model C) and was used as the theoretical model.

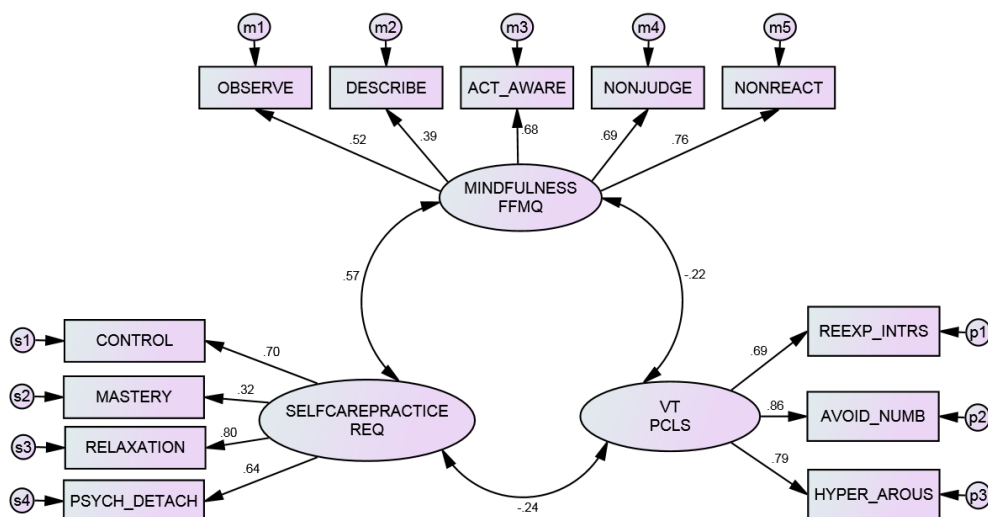


Figure 3 Original measurement model showing standardised estimates

Step 2: Establishing goodness of fit of the structural model

The structural model represented a good approximation of the mediational process as demonstrated by the fit indices. Degrees of freedom was lower and the normed chi-squared test of difference was < 3 as would indicate a good model fit (Tabachnick & Fidell, 2006). RMSEA and SRMR were both well below recommended cut-offs suggesting a very good model fit (Kline, 2010).

Differences in both χ^2 and AIC were favourable of a parsimonious good fitting model (Ullman, 2013). No further adjustments were made to this model (see Figure 4 for accepted structural model used for SEM).

Table 3 *Model fit indices for measurement models.*

Model	Model A	Model B	Model C
χ^2	109.632	88.061	34.710
<i>df</i>	51	50	31
χ^2/df	2.150/	1.761	1.120
CFI	.929	.954	.995
SRMR	.0658	.0612	.0450
RMSEA	.070	.057	.022
90% CI for RMSEA	.052-.088	.036-.076	.000-.055
AIC	187.632	168.061	102.710
$\Delta \chi^2$		-21.571	-53.351
ΔAIC		-19.571	-65.351

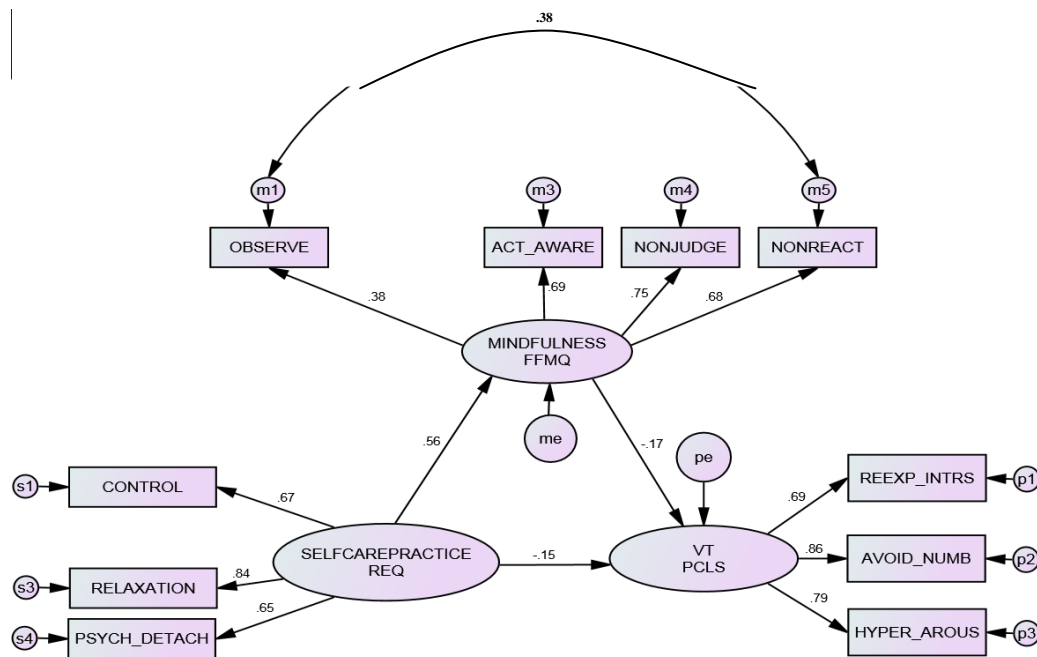


Figure 4 *Final accepted structural model (N = 238) showing standardised estimates.*

Step 3: Testing for Significant Predictor and Mediator Effects

To establish the mediational role of mindfulness in the effect of self-care practices on VT the total, direct and indirect effects of the structural model were tested. Analyses showed a significant standardised total effect of self-care practice on VT ($\beta = -.25$, $p = .006$, 95% CI = -0.25, -0.03), however, for a mediation to exist the indirect effect must be significant. The standardised direct effect was not significant ($\beta = -.15$, $p = .22$, 95% CI = -.34 - .11) and there was no significant standardised indirect effect ($\beta = -.10$, $p = .09$, 95% CI = -.25 - .03) although it was noted that the path coefficient from self-care practice to VT was reduced from -.15 to -.10.

Based on these results the first hypothesis that higher levels of self-care practice significantly predicts lower levels of VT when mindfulness levels are

higher could not be confirmed as a non-significant indirect effect indicated that no significant mediational effect was present. The hypothesis that predicted a negative association between self-care practice and VT was confirmed with a significant total effect although the direct effect of self-care on VT was not significant in this mediational model.

Discussion

The aim of this research was to investigate if self-care in trainee therapists who work with traumatised clients predicted vicarious traumatisation (VT) and if mindfulness as a multi-faceted trait mediated this relationship. Although previous literature has made efforts to include mindfulness in both quantitative and qualitative studies there is a tendency for research to focus on outcomes, effects, and experiential changes rather than to offer theories about an underlying mechanism for mindfulness in the context of self-care for therapists (Baer, et. al., 2008), although some have made tentative suggestions (Harrison & Westwood, 2009). The idea of mindfulness serving a mediating role drew on such study findings and was also based in Williams' (2010) 'two modes of mind' theory, which emphasised the theory that the practice of mindfulness enhances the ability to integrate two different aspects of cognitive processing, the verbal/conceptual and the sensory/perceptual. This formed the hypothesis that when controlling for the effects of mindfulness on VT the effect of self-care on VT is no longer significant. In line with the chosen analysis the hypotheses that lower levels of self-care significantly predict higher levels of VT, and higher levels of self-care are associated with higher levels of mindfulness, were also tested and drew on the literature advocating self-care as a necessity for preventing VT (Norcross, 2000; Pearlman & McKay, 2008).

Based on the study results the mediation hypothesis that when controlling for the effects of mindfulness on VT the effect of self-care on VT is no longer significant was not confirmed as a non-significant indirect effect of

self-care on VT and a non-significant direct effect of mindfulness on VT indicated that no significant mediational effect was present, and that mindfulness did not add variance beyond that of self-care. This meant that when testing the overall mediation model mindfulness was not a significant mediating factor of self-care in relation to VT. In contrast, the hypothesis that predicted a significant negative association between self-care practice and VT was confirmed with a significant total effect, although the direct effect of self-care on VT was not significant in this mediational model. This means that while mindfulness explains some of the variance in the relationship between self-care and VT this does not reach significant levels.

The issues highlighted in the literature review relating to the fluid construct definitions of self-care, mindfulness, and VT, and the scarcity of empirical research incorporating all of these concepts, or focusing on underlying mechanisms of these, present a challenge in comparing present research findings with previous literature. The immediate interpretation of results would be that mindfulness operationalised as a trait measure does not explain variance in VT beyond that explained by self-care practices. This can only be partly compared to previous research, both because the present study design differs greatly from previous studies, and because of the mix of studies that met inclusion in the literature review. One of the few publications that, on the surface, combined the three constructs was Christopher & Maris' (2010) review of five longitudinal qualitative studies using adapted MBSR intervention for counselling trainees, where the aim was to consider the effects of mindfulness as self-care in helping to prevent burnout, compassion fatigue, and vicarious

traumatisation. While a range of positive effects were found these are not related to symptoms of VT nor was mindfulness measured.

It can thus be suggested in comparison that it appears mindfulness may function as a predictive variable rather than a mediating variable if it can be considered as part of self-care practice, as has previously been found in trainee therapists where mindful awareness training was a predictor of significant reductions in perceived stress, anxiety, rumination and negative affect, and of significant increases in positive affect, and self-compassion (Shapiro, Brown, & Biegel, 2007). Because of the combined significant variance of self-care and mindfulness found in the present study it is suggestive of a construct overlap. This was evident from the zero order correlations where almost all subscales correlated significantly despite relatively low coefficients. Three particular subscales from the Five-Facet Mindfulness Questionnaire (FFMQ) - acting with awareness, non-judgemental, and non-reactive – had the strongest associations with the relaxation and control subscales of the Recovery Experience Questionnaire (REQ). However, statistically, this could not be confirmed.¹⁵

An alternative interpretation of results could therefore be that the construct definitions as operationalised by the measures currently available for self-care and mindfulness overlap to such a degree as to prevent mindfulness from having a mediational role in this particular structural model. The FFMQ was developed through factor analysis of a number of other mindfulness questionnaires, assesses five facets of a general tendency to be mindful in daily

¹⁵ An equivalent analysis was carried out using mindfulness as the predictor variable but did not yield any statistically significant results.

life (Baer, et. al., 2006), and has been shown to be well-suited to cross-sectional research (Baer, et. al., 2008). REQ was developed in the context of occupational stress by drawing on mood regulation theory and job stress recovery research, and assesses specific ways in which people choose to recuperate and unwind from work in their leisure time (Sonnentag & Fritz, 2007). However, in terms of content the subscale items do not appear to be very similar. This raises an opportunity for further investigation to determine the nature of these relationships, and to consider what it might tell us about the mechanism of mindfulness in relation to self-care practice, in order to clarify whether a construct overlap is being observed or the measurements were inappropriately chosen for this research.¹⁶

It could then be of interest to combine the observed variables of self-care and mindfulness to generate new models adjusted to this new finding, but also to consider creating a self-care measure specific to therapists, which includes mindfulness-specific items. This would make sense in light of the particularly surprising finding reported above that more than half of participants in the present study reported having undertaken mindfulness training and some regular practice. With this natural grouping further research could examine differences between these two groups, for example, type of training, frequency of practice, and VT scores, and analysed using, for example, multiple group structural equation modelling.

In relation to VT scores it was also interesting to note that overall in this sample they were very low resulting in low variance, which may have impacted

¹⁶ An equivalent analysis was carried out using mindfulness and self-care as predictor variables but this did not yield any statistically significant results.

on the null mediation findings. Nevertheless, most subscale scores correlated negatively, as was expected, with both self-care and mindfulness subscales. This brings consideration to the underlying mechanism of the constructs explored here and emphasise the need for research to further examine what we already know from neuroscience about cognitive processes of mindfulness, and from experimental research on post-traumatic stress disorder (PTSD). For example, from a neurobiological perspective investigation of mindfulness emphasises the experiential and behaviourally measurable element of practice, similar to the focus of qualitative research, in order to examine the cognitive processes underpinning this activity (Brown & Cordon, 2009). As mindfulness takes as its central idea the bottom-up experience of information processing where both external and internal, sensory and cognitive, stimuli is attended to, but not engaged with, it challenges the mind to remain apart from the usual subjective interpretations, which are based on our beliefs, schemas, and personal understanding of self (Siegel, Germer, & Olendzki, 2009). This line of research forms the foundation for trying to understand how mindfulness serves a therapeutic role in client populations, and can equally be used to shed light on the experience of therapists. One study using brain scanning looked specifically at the idea of self-reference (Farb et al., 2007), which when severely challenged is known from both the VT literature and PTSD research as a core symptom of traumatisation, namely the adverse change in domains of personhood including changes in world view or frame of reference, and changes in spirituality, identity, and beliefs related to major psychological needs (Pearlman & Saakvitne, 1995; Trippany, White Kress, & Allen Wilcoxon, 2004). Based on a historical distinction of momentary self-awareness focused on present

experience, and extended self-reference in relation to lasting characteristics, the study hypothesised that mindfulness, through the practice of separating oneself from one's experience without engaging one's personal narrative, enabled people to maintain an internal distinction between these two domains. Findings showed that a significant overlap occurred in brain regions that activated when switching between the two domains, thus maintaining normal integration, but for those who did the mindfulness tasks this did not happen. Farb, et al. suggested that this pointed to a possible mechanism of action for mindfulness practice by detaching the two neural networks linked with the self-reference domains, as well as strengthening the networks linked with experiential activity.

In relation to therapists and the risk of VT one interpretation is that the ability to observe and recognise emotions, and tolerate ambiguity, means therapists can focus on their own experience while remaining present with the client, which is supported by the findings of qualitative mindfulness research as previously mentioned (Christopher & Maris, 2010). For further research involving the FFMQ it might therefore be considered that specific facets of mindfulness act on particular elements of the VT risk factors, for example, the non-judgement facet of the FFMQ may inadvertently alleviate negative self-appraisals, whereas acting with awareness may have a function in preventing avoidant behaviour. Additionally, regular mindfulness practice would, over time, neurobiologically enhance overall resilience to developing VT.

This line of enquiry begins to point towards a more integrated comprehension of the possible mechanisms of mindfulness, if exploration in a much more holistic context is possible. For example, in relation to VT PTSD researchers have already hinted at the link between PTSD and VT (Krans, et.

al., 2010), which suggests that broadening the experimental base to include VT and involving therapists could start to build an essential evidence base for the cognitive processes in VT that can then be linked with those observed in mindfulness as suggested above. An in vivo approach to experimenting could also be considered with use of technology, such as wrist-worn heart rate and skin conductance monitors and mobile phone apps, which would allow researchers to enter the realm of a therapist's life to gain experimental insight into stressors related to VT. By adding a mindfulness element, either by introducing or encouraging practice an experimental parallel can be achieved to the qualitative and self-report data we already have. This has been suggested previously by Brown & Cordan (2009) who also stress that mindfulness as a phenomenon requires clear definitions and operationalisations before it can be studied effectively. One possibility is using a single case study design which would measure change over time across a range of parameters and different types of data, such as cognitive data from the FFMQ and behavioural data from practice diaries, that could be linked with the biological data. This would allow statistical analyses to be employed in order to consider a different role for mindfulness other than as a mediator between self-care and VT.

Strengths and Limitations

A key strength of this research is the use of existing measures with good validity that incorporate experiential phenomena providing a good structural model for testing hypotheses about observable experiential variables. Drawing together the three core areas of self-care, mindfulness and VT could be seen as a strength in itself as an attempt was made to highlight that needs identified in

therapist populations are linked with known occupational risks, and that effective intervention for possible self-care should be considered. Another strength was the use of SEM, which allows the use of latent variables and reduced measurement error, and was possible because of the sample size, and had a distinct advantage over regression analysis in providing a means of testing a model for understanding an observed phenomenon with multiple variables, especially because the scoring of individual subscales fitted well with the latent variable criteria.

Limitations of this study was that feasibility of other study designs were tied to the limitations of time in which to complete the research and precluded a longitudinal design, which foreclosed the idea of observing change over time. This also meant that a mixed methods design was not feasible although qualitative data could have been used to explore in more depth factors such as the nature of self-care practice not captured by the REQ, an experiential account of exposure to trauma stories, and reflections on personal observations about the use of mindfulness within this context. Additionally, data on individual differences and possibly confounding variables such as personality traits and previous personal trauma experience was not collated and therefore not controlled for in this study.

While the recruitment strategy was thought to be successful a larger sample size could have made possible a multiple grouping SEM but would have impacted on the original aim of the study. What seems clear is that there is still a need for focused objectives to enhance effectiveness studies aimed at gathering intervention data, and to improve the replicability and comparability across studies. Another limitation regards the methodology used in this study.

An online survey can have advantages, such as paperless and international sampling of data, and was a good choice for the target population chosen, but a disadvantage was not being able to sample from an experienced therapist population. While ideas for recruiting working therapists were considered at length, for the brevity of this project it was deemed unfeasible.

Conclusions

This study set out to examine the relationships between self-care practice, mindfulness as a multi-faceted trait, and symptoms of vicarious traumatisation in a trainee therapist population. The sample yielded a broad range of English-speaking trainees across the UK, Australia, Ireland, and Canada with just over half of trainees reporting previous mindfulness training and practice. Structural equation modelling was used to test if mindfulness had a mediating role in the relationship between self-care practice and levels of vicarious traumatisation but this could not be confirmed. Interpretations included problems with construct overlap and generally low levels of traumatisation experienced in this target population. The fundamental need for clarity of construct definitions underpins both the development of reliable measurement tools with good construct validity, and of reliable qualitative analysis. Only then can we begin to draw conclusions by systematically comparing results from both of these areas of research. Dissemination of findings from this study will therefore be a useful addition to the research literature in these areas (see Appendix G Dissemination Statement).

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APPENDIX A: Consent form used in online survey.**Please tick each box**

I confirm that I have read and understood the information about the study given here. I have had the opportunity to consider the information and to ask questions.

I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason and without any negative consequences.

I understand that personal information collected as part of the survey will be seen by the researcher where it is relevant to my taking part in the prize draw and/or request my personal survey results.

I agree to take part in the above study.

Participant's Name:

Date of consent:

Appendix B Types of mindfulness training reported by participants.

Category of mindfulness training	Examples of what it includes (as reported by participants)	N	%
Self-taught	Reading books, using public media sources, yoga, tai chi, attending conferences	33	19.2
Meditation based courses	Vipassana retreats, meditation workshops/retreats	8	4.7
Buddhist-based courses	Buddhist practice, retreats, contemplative prayer group	6	3.5
Acceptance and Commitment Therapy (ACT) courses	Formal training, as part of personal therapy	13	7.6
Mindfulness-based training for personal use	MBSR, retreats, as part of personal therapy, compassion-focused therapy	32	18.6
Mindfulness-based training for professional use	MBCT training, DBT training	22	12.8
Workshops/courses as part of academic training programme or placement	Learned through placement/workplace by having to teach clients 1:1 or running groups, introductory workshops, as part of teaching	58	33.7

Appendix C Recovery Experience Questionnaire

REQ

This questionnaire looks at how you spend your leisure time. If you are a university student you can think about your course as “work”. If you are in employment you can think about your job as “work”. If you are a university student and have a job alongside your studies or you are employed but have more than one job please think of leisure time as the time you have when you are not engaged in studies or work.

Please read each item below and answer the question by indicating on the scale your level of agreement:

1=I do not agree at all

5=I fully

agree

1. I forget about work
2. I kick back and relax
3. I learn new things
4. I feel like I can decide for myself what to do
5. I do relaxing things
6. I don't think about work at all
7. I decide my own schedule
8. I seek out intellectual challenges
9. I determine for myself how I will spend my time
10. I do things that challenge me
11. I use the time to relax
12. I distance myself from my work
13. I do something to broaden my horizons
14. I take care of things the way that I want them done
15. I get a break from the demands of work
16. I make time for leisure

Appendix D Five Facet Mindfulness Questionnaire

Subject number _____ Date _____

5-FACET M QUESTIONNAIRE

Please rate each of the following statements using the scale provided. Write the number in the blank that best describes your own opinion of what is generally true for you.

1	2	3	4	5
never or very rarely true	rarely true	sometimes true	often true	very often or always true

- _____ 1. When I'm walking, I deliberately notice the sensations of my body moving.
- _____ 2. I'm good at finding words to describe my feelings.
- _____ 3. I criticize myself for having irrational or inappropriate emotions.
- _____ 4. I perceive my feelings and emotions without having to react to them.
- _____ 5. When I do things, my mind wanders off and I'm easily distracted.
- _____ 6. When I take a shower or bath, I stay alert to the sensations of water on my body.
- _____ 7. I can easily put my beliefs, opinions, and expectations into words.
- _____ 8. I don't pay attention to what I'm doing because I'm daydreaming, worrying, or otherwise distracted.
- _____ 9. I watch my feelings without getting lost in them.
- _____ 10. I tell myself I shouldn't be feeling the way I'm feeling.
- _____ 11. I notice how foods and drinks affect my thoughts, bodily sensations, and emotions.
- _____ 12. It's hard for me to find the words to describe what I'm thinking.
- _____ 13. I am easily distracted.
- _____ 14. I believe some of my thoughts are abnormal or bad and I shouldn't think that way.
- _____ 15. I pay attention to sensations, such as the wind in my hair or sun on my face.
- _____ 16. I have trouble thinking of the right words to express how I feel about things
- _____ 17. I make judgments about whether my thoughts are good or bad.
- _____ 18. I find it difficult to stay focused on what's happening in the present.
- _____ 19. When I have distressing thoughts or images, I "step back" and am aware of the thought or image without getting taken over by it.
- _____ 20. I pay attention to sounds, such as clocks ticking, birds chirping, or cars passing.
- _____ 21. In difficult situations, I can pause without immediately reacting.

1	2	3	4	5
never or very rarely true	rarely true	sometimes true	often true	very often or always true

- _____ 22. When I have a sensation in my body, it's difficult for me to describe it because I can't find the right words.
- _____ 23. It seems I am "running on automatic" without much awareness of what I'm doing.
- _____ 24. When I have distressing thoughts or images, I feel calm soon after.
- _____ 25. I tell myself that I shouldn't be thinking the way I'm thinking.
- _____ 26. I notice the smells and aromas of things.
- _____ 27. Even when I'm feeling terribly upset, I can find a way to put it into words.
- _____ 28. I rush through activities without being really attentive to them.
- _____ 29. When I have distressing thoughts or images I am able just to notice them without reacting.
- _____ 30. I think some of my emotions are bad or inappropriate and I shouldn't feel them.
- _____ 31. I notice visual elements in art or nature, such as colors, shapes, textures, or patterns of light and shadow.
- _____ 32. My natural tendency is to put my experiences into words.
- _____ 33. When I have distressing thoughts or images, I just notice them and let them go.
- _____ 34. I do jobs or tasks automatically without being aware of what I'm doing.
- _____ 35. When I have distressing thoughts or images, I judge myself as good or bad, depending what the thought/image is about.
- _____ 36. I pay attention to how my emotions affect my thoughts and behavior.
- _____ 37. I can usually describe how I feel at the moment in considerable detail.
- _____ 38. I find myself doing things without paying attention.
- _____ 39. I disapprove of myself when I have irrational ideas.

APPENDIX E Posttraumatic stress disorder Check List – Specific

PCL-S

The event you experienced was (event) on (date)

INSTRUCTIONS: Below is a list of problems and complaints that people sometimes have in response to stressful life experiences. Please read each one carefully, then circle one of the numbers to the right to indicate how much you have been bothered by that problem in the past month.

Not at all	A little bit	Moderately	Quite a bit	Extremely
1	2	3	4	5

1. Repeated, disturbing memories, thoughts, or images of the stressful experience?
2. Repeated, disturbing dreams of the stressful experience?
3. Suddenly acting or feeling as if the stressful experience were happening again (as if you were reliving it)?
4. Feeling very upset when something reminded you of the stressful experience?
5. Having physical reactions (e.g., heart pounding, trouble breathing, sweating) when something reminded you of the stressful experience?
6. Avoiding thinking about or talking about the stressful experience or avoiding having feelings related to it?
7. Avoiding activities or situations because they reminded you of the stressful experience?
8. Trouble remembering important parts of the stressful experience?
9. Loss of interest in activities that you used to enjoy?
10. Feeling distant or cut off from other people?
11. Feeling emotionally numb or being unable to have loving feelings for those close to you?
12. Feeling as if your future will somehow be cut short?
13. Trouble falling or staying asleep?
14. Feeling irritable or having angry outbursts?
15. Having difficulty concentrating?
16. Being "super-alert" or watchful or on guard?
17. Feeling jumpy or easily startled?

PCL-S for DSM-IV (11/1/94) Weathers, Litz, Huska, & Keane
National Center for PTSD - Behavioral Science Division

Appendix F Demographic Questions

About you

1. What is your age _____
2. What is your gender? Female Male Transgender
3. What is your nationality? (If you have dual nationality please state both.)
 a) _____ b) _____
4. What is your ethnic background? (Please tick a box or state where required.)

White

English/Welsh/Scottish/Northern Irish/British

Irish

Gypsy or Irish Traveller

Other White – please state (e.g. Australian, European)_____

Black/African/Caribbean/Black British

African

Caribbean

Other Black – please state (e.g. African American)_____

Asian/Asian British

Indian

Pakistani

Bangladeshi

Chinese

Other Asian – please state (e.g. Chinese American)_____

Other ethnic group

Arab

Any other ethnic group – please state (e.g. Maori, Hispanic)_____

Mixed/multiple ethnic group

White and Black Caribbean

White and Black African

White and Asian

Other Mixed – please state (e.g. Australian and Pakistani)_____

About your training

5. What professional qualification are you studying/training for?

Clinical Psychology

Psychotherapy

Counselling

Other _____

6. What year of study/training are you in?

First

Second

Third

Fourth

Other (please state and/or explain) _____

7. What is the professional accrediting organisation that has approved your course?

8. In which country are you studying/training?

UK (Includes England, Scotland, Wales and Northern Ireland)

Australia

New Zealand

USA

Canada

Other _____

About meditation/mindfulness

9. Do you have any formal training in meditation or mindfulness for personal or professional use?

If yes, please give brief details (e.g. type of course, length of study, any qualification achieved)

10. Do you regularly practice meditation and/or mindfulness (regardless of training)?

Daily

Weekly

Monthly

Annually

Other (please specify) _____

Appendix G Dissemination Statement

Following completion of this research findings will be disseminated to those research participants who requested a summary of findings. Findings will also be disseminated through publication in a suitable peer-reviewed journal, and through conference presentation should the opportunity arise.

In line with University of Exeter Open Access Research and Research Data Management Policy for PGR Students the final passed thesis will be submitted to Open Research Exeter (ORE).

Appendix H Ethics approval email from online approval system

From: apache@exeter.ac.uk [apache@exeter.ac.uk] on behalf of Ethics Approval

System [D.M.Salway@exeter.ac.uk]

Sent: 21 May 2013 12:58

To: Denney, Anabelle

Subject: Your application for ethical approval (2013/365) has been accepted

Ethical Approval system

Your application (2013/365) entitled Examining the Role of Mindfulness in the Relation Between Adaptive Coping and Well-Being in Trainee Therapists: Is it a Protective Factor Against Vicarious Traumatism? has been accepted

Please visit <http://www.exeter.ac.uk/staff/ethicalapproval/>