The University Of Sheffield.

Improving Therapist Wellbeing and the Role of Resilience

Rosalyn S. Nelson

A thesis submitted in partial fulfilment of the requirements for the award of

Doctor of Clinical Psychology

Clinical Psychology Unit

Department of Psychology

The University of Sheffield

May 2019

This page is left intentionally blank.

Declaration

I declare that the work has not been submitted for any other degree or to any other institution.

Word Count

Section One: Literature Review

Excluding references and tables: 7985

Including references and tables: 13 986

Section Two: Empirical Study

Excluding references and tables: 7951

Including references and tables: 11 865

Total word count

Excluding references and tables: 15 936

Including references and tables: 25 851

Including references, tables and lay summary: 26 343

Lay Summary

Research has shown that therapists might be vulnerable to stress, as they offer support to clients and see their distress. It is suggested that therapists might benefit from training to help improve their own wellbeing and resilience.

Section One looked at the current studies on interventions (or training) to help therapists with their own wellbeing. Twenty-five studies were found which looked at three main types of therapies. These were therapies that helped therapists to focus on the here-and-now, to be flexible in their thinking, and to be kinder towards themselves. When the findings from the studies were combined together, the overall results were mixed. Interventions were sometimes helpful to reduce stress and anxiety and showed possible promise to help manage emotions, reducing negative feelings and burnout. They had less impact on broader mental health and depression. An assessment of the quality of the studies showed many were on small numbers of participants and had no comparison group who had not received the training. Interventions may help therapists but longer studies with more participants are needed.

Resilience is an individual's ability to cope and bounce back after difficulties. Section Two considers a resilience workshop for trainee therapists. It is a study which looked at the role of resilience in the wellbeing of trainee Psychological Wellbeing Practitioners (TPWPs) and if a resilience workshop is feasible, acceptable and helpful during training. The one-day workshop aimed to help trainees to build positive feelings, flexible thinking and self-care skills. TPWPs invited to attend the workshop were asked to complete a questionnaire on resilience before, at the end of, and 10-weeks after the workshop. Other questionnaires on burnout, wellbeing, depression and anxiety were also completed before and at follow-up. Feedback on the workshop was collected. Sixty-five trainees initially took part and fifty-six

completed all the questionnaires across the three time-points. Trainee's supervisors were invited and eighteen completed a questionnaire which looked at if a good relationship can help a trainee to be more resilient.

The results supported that trainees with higher resilience might have higher wellbeing and lower anxiety, depression and burnout. Trainees reported the workshop was acceptable and gave positive feedback and suggested some changes for future courses, because they felt familiar with some of the content. Overall, self-reported resilience increased over time and by follow-up the scores were higher than before or post-workshop. However, wellbeing, burnout, depression and anxiety did not improve as much. It was found that the changes in resilience may account for small amounts of improvement in wellbeing, burnout and depression at follow-up. Trainee resilience and the supervisory relationship were not found to be related.

In conclusion, resilience may be important during training and the resilience workshop might be helpful. Whether there might be a longer-term impact on wellbeing is not clear. Overall, this project supports that it might be helpful to train therapists in skills that aim to help with managing stress and self-care, but future research is still needed.

Acknowledgements

I would like to thank those who made this project possible and the participants who took the time to participate. I am thankful to Jo Burrell and Felicity Baker for their flexibility and taking the time to work collaboratively on delivering the intervention for this project. Thanks to Steve Kellett for helping to organise the sessions. Thank you to my supervisor, Professor Gillian Hardy, for your time, reflections and flexibility.

Table of Contents

This page is left intentionally blank.

Section One: Literature Review

Psychological Interventions for Therapists and the Impact on Therapist Wellbeing: A Systematic Review

This page is left intentionally blank.

Abstract

Objectives. The aim of this systematic review was to summarise and critically review the evidence-base on psychological interventions for therapists and the impact on therapist wellbeing.

Methods. A systematic search of Medline, Scopus and PsycInfo was conducted in December 2018. Eligible studies included a sample of qualified or trainee psychological therapists receiving a psychological intervention, and measured therapist wellbeing (e.g. distress, mental health, wellbeing, or burnout). Secondary outcomes on mindfulness, self-compassion and acceptance were included. A narrative summary is supplemented with calculated effect sizes. A quality assessment with excellent inter-rater reliability was conducted.

Results. Twenty-six relevant papers of twenty-five studies were identified. Mindfulness (*n*=13), acceptance (*n*=8) and compassion-focused (*n*=4) interventions were found to have been investigated. Most studies were assessed as fair or good in quality. Findings were mixed, especially for higher quality studies. The most frequently assessed outcomes were stress and anxiety and some, but not all, mindfulness and compassion-focused interventions benefitted moderate reductions. The support for direct improvements to therapist wellbeing following ACT was limited but increases in psychological flexibility were found. Some studies found support for improved negative affect, emotional regulation, and burnout. Studies also considered mental health, depression, positive wellbeing, quality of life and life satisfaction, with mixed results. The secondary outcomes showed more robust moderate-to-large effects. Interventions that were longer and focused on self-care, rather than skill acquisition, had possible benefits.

Conclusions. The current review demonstrates that the evidence is mixed and despite some possible benefits, no strong conclusions on the direct benefit of psychological interventions to therapist wellbeing can currently be drawn.

Practitioner points

Clinical Implications

- Psychological interventions have mixed results on therapist wellbeing.
- Acceptance-based interventions may improve psychological flexibility.
- Longer interventions focused on self-care rather than skill acquisition may be most helpful.

Limitations

- The findings are based on studies which were conducted on opportunistic samples and had no control group (n=15).
- The studies were based mostly on a trainee therapist population and some results may not generalise to qualified staff.
- Few studies included follow-up, which may be important to consider the longer-term impact of strategies on therapist wellbeing.

Key terms*: Therapists, Stress, Burnout, Mindfulness, Acceptance and Commitment Therapy, Compassion Focused Therapy.*

Introduction

Stress and wellbeing in therapists

Being a therapist can be a challenging role, as a professional helper who witnesses the trauma and distress of others. Though therapists bring personal strengths to the role (e.g. sensitivity, resource, knowledge), they may also have vulnerabilities (e.g. childhood experiences, perfectionist traits, over-achievement; Advisory Committee on Colleague Assistance, n.d.; Pica, 1998; D'Souza, Egan, & Rees, 2011). These internal factors may interact with work- and client-related sources and lead to the subjective experience of professional self-doubt (Cushway, Tyler, & Nolan, 1996) and stress (Wise, Hersh, & Gibson, 2012). The impact of this on professional wellbeing is well-documented, with risk of emotional drain and compassion fatigue, and increased rates of occupational stress or burnout in therapists (McCann & Pearlman, 1990; Figley, 2002; Shapiro & Carlson, 2009; Craig & Sprang, 2010; Kumary & Baker, 2008; Rønnestad & Skovholt, 2003) with perceived impact on quality of treatment (Garcia et al., 2016).

This may appear incongruent, as therapists are trained in client-focused self-care and stress management. However, personal self-care is often given insufficient emphasis during training, presented as an individual responsibility (Christopher, Christopher, Dunnagan, & Schure, 2006). Therapists tend to disregard their own self-care needs to focus on the needs of clients (Figley, 2002). Whilst clinical supervision, personal therapy, support, humour and further training benefit wellbeing (Linley & Joseph, 2007; Pack, 2014), there is an argument that mindfulness, acceptance and the positive psychology movement may have a role to play in the development of meaningful and sustainable self-care strategies for therapists (Wise et al., 2012). This paper will focus on how these psychological interventions, based on psychological theory, are beneficial to wellbeing and specifically to therapists.

Mindfulness

Mindfulness is a psychological process which encourages non-judgemental moment-to-moment awareness of one's thoughts and feelings (Kabat-Zinn, 1994). Through purposeful intention, attention and attitude, mindfulness is proposed to improve engagement and connection and improve emotional regulation (Shapiro, Carlson, Astin, & Freedman, 2006), positive emotional states (Brown & Ryan, 2003) and benefit depression and anxiety through reduced worry and rumination (Parmentier et al., 2019). Similarly, increased mindfulness is associated with lower burnout in psychologists (Di Benedetto & Swadling, 2014) and mindfulness training has been shown to decrease stress and burnout and increase quality of life in health professionals (Cohen-Katz, Wiley, Capuano, Baker, & Shapiro, 2004; Shapiro, Astin, Bishop, & Cordova, 2005). Mindfulness practises have further been found to benefit professional practice through empathy and listening skills in counselling students (Newsome, Christopher, Dahlen, & Christopher, 2006).

Acceptance and compassion

Additionally, Acceptance and Commitment Therapy (ACT) and Compassion-Focused Therapy (CFT) incorporate mindfulness within broader therapeutic approaches which may be relevant to a therapist population.

ACT. The ACT model emphasises that human suffering stems from habitual cognitive and language processes and so focuses on cultivating psychological flexibility through acceptance, cognitive defusion, contact with the present and self-as-context, whilst connecting with and committing to life values (Hayes, 2004). Psychological flexibility has been proposed to be key to psychological health, encouraging mental and behavioural adaptation, to promote focus on living in-line with values (Kashdan & Rottenberg, 2010). ACT has been found to be effective in

treating anxiety and depression with benefits to psychological flexibility and life satisfaction (A-Tjak et al., 2015).

Specifically, ACT may help therapists to accept challenges and reduce control, and to tolerate ambiguities in their work and focus on their values, allowing connection with personal as well as professional values. Advocates have highlighted the benefits of ACT training (to implement with clients) due to associated impact on therapist wellbeing from the experiential nature of the training (Pakenham, 2017).

CFT. CFT focuses primarily on self-compassion, an important predictor of wellbeing (MacBeth & Gumley, 2012). Self-compassion is proposed to include self-kindness, common humanity and mindfulness, as compared to self-judgement, isolation and over self-identification (Neff, 2003a; Neff, 2003b). The priority is to be understanding with oneself when reflecting on mistakes and failures (Smeets, Neff, Alberts, & Peters, 2014). Increased self-compassion buffers against anxiety (Neff, Kirkpatrick, & Rude, 2007) and increases happiness, optimism and life satisfaction (Neff, 2003b).

Self-compassion may benefit therapists who often hold self-critical perfectionistic traits (Pica, 1998). Development of self-compassion may help trainees remember that imperfection is normal and human (Neff & Vonk, 2009) making it easier to admit mistakes and ease emotional reactions to negative feedback (Rønnestad & Skovholt, 2003). It may also aid practice, as compassion for self is essential to building compassion for others (Newsome, Waldo, & Gruszka, 2012).

Positive psychology (PP)

Interventions such as mindfulness and ACT promote accepting negative experiences. However, PP directly aims to increase positive experiences (Wise et al., 2012). PP promotes that psychological wellbeing results from practices which intentionally strengthen positive emotions, for example gratitude practices. Gratitude

arises from attention to and appreciation of the positive aspects of life with benefits to satisfaction, mood and wellbeing through schematic biases, coping and increased positive affect (Wood, Froh, & Geraghty, 2010). Further, gratitude is associated with resilience – the ability to 'bounce back' in the face of adversity (Smith et al., 2008). Traits such as hope, optimism and resilience, also relate to job satisfaction and work happiness (Youssef & Luthans, 2007). Overall, PP interventions may have a role in positive wellbeing.

Improving wellbeing in therapists

There is evidence to support the benefits of mindfulness, acceptance, compassion and PP-based psychological interventions to professional wellbeing. In health-care professionals such as doctors and nurses, benefits of mindfulness and acceptance (Lomas, Medina, Ivtzan, Rupprecht, & Eiroa-Orosa, 2018) and resilience-focused approaches (Mealer et al., 2014; Sood, Sharma, Schroeder, & Gorman, 2014) have been found.

A recent literature review on mindfulness and acceptance therapies in mental health professionals found that programmes improve mindfulness and, at times, self-compassion; decrease stress with partial support for reduced burnout and less support for psychological wellbeing; and that psychological flexibility tended to improve over time (Rudaz, Twohig, Ong, & Levin, 2017). This review was limited as it did not conduct a thorough critical appraisal, limiting the integrity of the findings (Mhaskar et al., 2009). Further, no effect sizes or p-values were reported, limiting the extent to which intervention outcomes could be quantified.

Current review

Overall, no reviews have been published solely on 'therapists', defined as psychological practitioners (i.e. clinical or counselling psychologist, psychotherapist

or counsellor) in an applied role providing psychologically-informed treatment. Therapists are a distinct professional group of unique interest who are psychologically trained and routinely provide interventions to clients. The aim of this review is to systematically search and collate, summarise and critically review the evidence base to answer the following questions:

1. What are the psychological interventions used with therapists for therapist wellbeing?
2. What is the evidence for the impact on therapist wellbeing?

This review will attempt to overcome previous limitations in the literature by providing a thorough quality assessment and calculating effect sizes to facilitate meaningful comparison. This review will explore the evidence for mindfulness, acceptance and compassion-based therapies, and additionally investigate the presence of studies with a PP focus (e.g. gratitude or resilience).

Method

Search strategy

Following preliminary scoping to identify terms and an overview of the evidence, a comprehensive search of Medline, Scopus and PsycInfo was conducted on 22nd December 2018. Auto-alerts were monitored until May 2019. To collect relevant studies examining the use of psychological interventions with therapists for therapist wellbeing, broad search terms were used (Table 1). Terms were combined using the Boolean terms ‘OR’ and ‘AND’ to group and combine searches. The complete search strategy for each data-base is presented in Appendix A. No limits were applied to year of publication or language.

Table 1

Search Terms Used in Search Strategy

'Therapist'	'Psychologically-informed' [intervention]	'Intervention'	Psychological wellbeing
Psychologist	Mindfulness	Intervention	Mental Health
Psychotherapist	Acceptance and Commitment Therapy	Training	Stress
Clinical psychologist	Compassion-focused Therapy	Workshop	Depression
Counsellor	Self-Care	Program	Anxiety
Therapist	Meditation		Compassion
Mental health [personnel]	Resilience		Compassion Fatigue
[worker]	Gratitude		Burnout
[provider]	Self-compassion		Quality of Life
[practitioner]			Wellbeing
[professional]			Resilience
			Job Satisfaction

Inclusion and exclusion criteria

The PICOs Framework (Huang, Lin, & Demner-Fushman, 2006) was followed to guide the inclusion criteria, as recommended for clinical questions. The key inclusion and exclusion criteria are displayed in Table 2.

Table 2

PICOs Framework of Inclusion and Exclusion Criteria

Variable	Inclusion	Exclusion
Population	Participants were defined as psychological practitioners (i.e. clinical or counselling psychologist, psychotherapist or counsellor) in an applied role, either qualified, training or student;	Studies which focused on health-care professionals, psychiatric nurses and psychiatrists, or with population which were unclear or where less than 50% of the population were demarcated as therapists.
Intervention	A psychologically-informed intervention (i.e. mindfulness, compassion, acceptance, or positive psychology-based)	If the intervention was not a psychological therapy intervention (e.g. Yoga; Thompson et al., 2018)
Comparator	Studies were included that compared the intervention with treatment-as-usual (TAU), no intervention (i.e. cohort or wait-list control) or had no control group.	None
Outcomes	Primary outcomes: Therapist wellbeing (i.e. psychological wellbeing, stress, quality of life, and burnout). Secondary outcomes: Mindfulness, self-compassion or acceptance (i.e. psychological flexibility).	Studies with no measure of therapist wellbeing with a focus on skill acquisition or therapeutic outcomes of clients only (e.g. Grepmair, Mitterlehner, Loew, & Nickel, 2007)
Study Design	Randomised Controlled Trials (RCTs), non-randomised controlled or cohort-controlled, or within subject studies with no control. Mixed methodology studies were included, but only quantitative data was extracted.	Qualitative papers, unpublished grey literature papers, systematic reviews, book chapters and non-interventional cross-sectional or theoretical pieces.

Search Findings

A PRISMA Diagram is included in Figure 1 to summarise the search (Moher, Liberati, Tetzlaff, & Altman, 2009). A total of 2,135 records were identified. Duplicates were removed and titles and abstracts were inspected. The full-texts of ninety-four articles were obtained and read in full. Those that did not meet the inclusion criteria were excluded. The most common reason for exclusion was due to the studied population, followed by intervention type and lack of intervention. The twenty-one articles which met the inclusion criteria were reference checked and a forward citation search was conducted. Relevant systematic reviews were checked. This identified four papers and the auto-alert identified one paper published after the search.

Data Synthesis

A meta-analysis was not performed and a narrative summary of the data is presented. This was due to heterogeneity across the trials, which did not satisfy the assumption of homogeneity required to meaningfully combine study results (Higgins & Green, 2011). These differences included the range of study designs and comparators and diversity in treatments, lengths, outcomes and measures. Further, the Cochrane Handbook (Higgins & Green, 2011) does not accept the single-group pre-to-post-test as an acceptable design for inclusion in a meta-analysis, due to the high risk of bias and issues such as regression to the mean (Linden, 2013).

In addition to *p*-values, effect sizes (Cohen's *d*; Cohen, 1992) were used to aid the strength of the synthesis (Sullivan & Feinn, 2012). Data was requested from papers which did not report sufficient data. If data was not received, the narrative and significance value are presented. The standardised mean difference is calculated from the reported means and standard deviations. Effect sizes and 95% lower and upper limit confidence intervals were calculated for within-subject and between-

subject samples with Meta-Essentials (Suurmond, van Rhee, & Hak, 2017). For within-subject studies, effect sizes were calculated using the pre- and post-scores and standard deviations. For between-group studies, the effect sizes were calculated using the post-means and standard deviations for both groups. The effects were interpreted as follows: 0.2 for small, 0.5 for medium and 0.8 for large (Cohen, 1992).

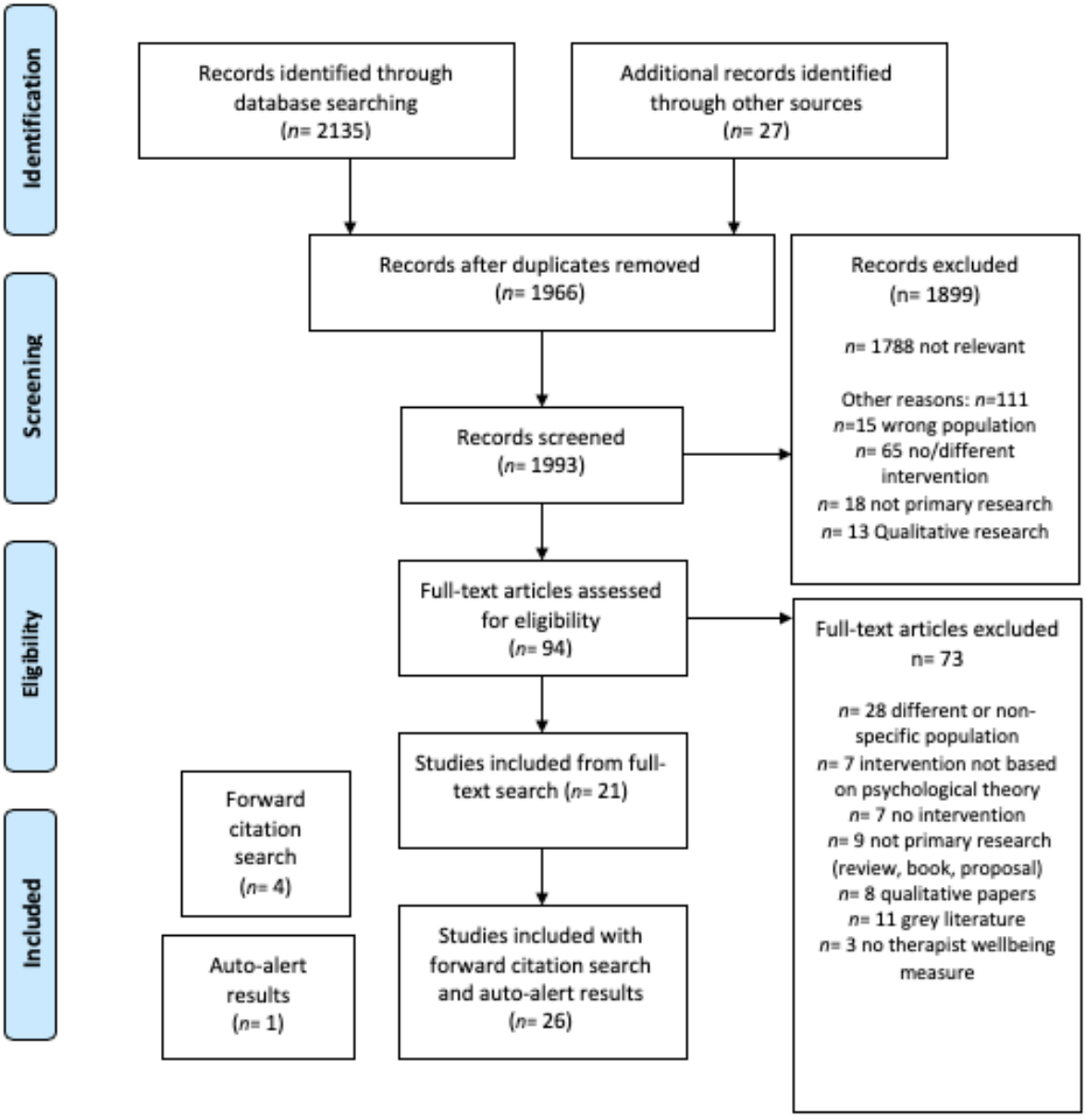


Figure 1. PRISMA Diagram of the search procedure and results

Quality Assessment

All studies were assessed using the 27-item Downs & Black's (1998) checklist, a quality checklist recommended for health-care intervention studies. It considers quality of reporting, internal validity and bias, and external bias. It was selected due to the heterogenous methodology of the included papers. The checklist is validated with randomised and non-randomised studies with no difference found in its performance between these study designs. High internal consistency (KR-20: .89), test re-test reliability (r= .88) and good inter-rater reliability (r= .75) has been found (Downs & Black, 1998).

Some adaptations were made, for example the term participant was changed to 'therapist'. Item 27 regarding power was altered to have a maximum value of 1 (rather than 5; Korakakis, Whiteley, Tzavara, & Malliaropoulos, 2017). A score of 1 was obtained if a power analysis was conducted and met, and a 0 if it was not met or a calculation was not made. The final version is in Appendix B. The maximum score was 28 if all items were rated, which was achievable if a study had a control group and a follow-up. For studies which had no control group or no follow-up, the items which were not applicable were discounted from the total. A percentage was calculated to allow comparison between study designs. Percentages were classified as excellent, good, fair and poor (Hooper, Jutai, Strong, & Russell-Minda, 2008; see Appendix B for calculations). As most studies had items excluded, the impact of each score on the total increased, reducing the chance of studies being 'excellent'.

A third-year trainee clinical psychologist acted as an independent assessor and repeated the appraisal on six randomly selected included papers (25%). Inter-rater reliability was estimated by calculating a two-way mixed-effects intra-class correlation coefficient (ICC) in SPSS. This indicated 'excellent' inter-rater reliability, ICC=.983 [CI .881 - .998] where values over .90 indicate excellence

(Koo & Li, 2016). Scores were maximum one-point different. All ratings were discussed thoroughly and resolved. No papers were excluded on quality assessment.

Results

Study characteristics of the twenty-six included papers are presented in Table 3. Studies will be cited in the text using the allocated number. One study (9) was a follow-up of another included study (8). These studies were collated to give a total of twenty-five studies.

The studies are categorised by intervention-type (mindfulness, acceptance and compassion-focused) and study design (within or between-group). Thirteen studies (52%) were classified as mindfulness-based studies, including one Dialectic Behavioural Therapy (DBT) study. Eight interventions were acceptance-based (32%), and four were compassion-focused (16%). No studies were found that were categorised as a PP intervention.

The studies included psychologists, psychotherapists and counsellors. Nineteen studies were on a training population, predominantly clinical psychology trainees, whilst six were with qualified therapists. Some studies were on a mixed population but were included as over 50% were defined as therapists (e.g. 1). One study included undergraduate students in applied clinical placements (11). Most studies were on a small population and included from 10 to 93 participants.

Fifteen studies were within-subject design with no control group, five were RCTs, one was a randomised between-group trial, and four were quasi-experimental studies which were non-randomised with cohort or wait-list control. Nine studies had follow-ups from 10-weeks to 18-months in length.

Table 3

Summary of Study Characteristics

Study No	Study	Year	Study Design	Population	Total N: Completers (non-completers)	Loc-ation	Intervention	Duration	Control (N)	Follow up (N)
Mindfulness										
1	Aggs & Bambling	2010	Within-subject	Psychotherapists (mainly psychologists)	47 (30)	Aus	Mindful Therapy	8-week (2h/week)	No	No
2	Cohen & Miller	2009	Within-subject	Counselling/ clinical psychology trainees	21 (7)	USA	MBSR - Interpersonal Mindfulness Training (IMT)	6-week (90-min/week)	No	No
3	Collard, Avny, & Boniwell	2008	Within-subject	Counselling and Psychotherapy students	15 (1)	UK	MBCT (for Depression)	8-week (2h/week)	No	No
4	Hopkins & Proeve	2013	Within-subject	Trainee Clinical Psychologists	11	Aus	MBCT	8-week	No	2-month (all)

5	Lalande, King, Bambling, & Schweitzer	2016	Within-subject	Therapists (psychologists, trainees, counsellors)	61	Aus	GRMT	2-day (14h)	No	No
6	Moore	2008	Within-subject	First-year trainee Clinical Psychologists	10 (7)	UK	Brief mindfulness skills	14 ten-minute practices	No	No
7	Rimes & Wingrove	2011	Within-subject	Trainee Clinical Psychologists	20	UK	MBCT (for stress)	8-week	No	No
8	Ruths et al.	2013	Within-subject	Psychologists: Clinical, trainees, researchers	24 (3)	UK	MBCT (for 'healthy' individuals)	8-week (2h/week)	No	20-week (18) & 18-month (10)
9	de Zoysa, Ruths, Walsh, & Hutton	2014	18-month follow-up							
10	Bohecker & Doughty Horn	2016	RCT - Four Group Design	Counsellors-in-training	22	USA	MESG	8-week (1.5h/week)	TAU: Process group (10)	No
11	Gökhan, Meehan & Peters	2010	Quasi-experimental	Applied behavioural placement students	42	USA	Mindfulness-based training	12-week	Cohort control: Psychology students (20)	No
12	Shapiro, Brown, & Biegel	2007	Quasi-experimental	Counselling psychology trainees	54 (10)	USA	MBSR	8-week (2h/week)	Cohort control (32)	No

13	Swift, Callahan, Dunn, Brecht, & Ivanovic	2017	RCT	Trainee psycho-therapists	40	USA	Mindfulness	5-week (30-min/week)	Waitlist control (20)	No
14	Robins, Roberts, & Sarris	2019	Quasi-experimental	Psychology trainees	53	Aus	DBT	8-week	Waitlist control (37)	6-month (IG only; 15)
Acceptance-focused										
15	Pakenham	2015	Within-subject	Clinical Psychology Trainees	32 (19)	Aus	ACT	12-week (2-h/week)	No	No
16	Pakenham	2017	Within-subject	Clinical Psychology Trainees	22	Aus	ACT	12-week (2-h/week)	No	No
17	Pakenham, Scott, & Uccelli	2018	Within-subject	Psychologists in Multiple Sclerosis Society	34	Italy	ACT	2-day	No	6-month (all)

18	Moyer, Murrell, Connally, & Steinberg	2017	Within-subject	Clinical/ counselling psychology doctorate students	10	USA	ACT	14-week (3h/week)	No	4-month (9)
19	Hayes et al.	2004	RCT	Substance Abuse Counsellors	93 (30 ACT, 63 control)	USA	ACT	6-hour	Between-group: MCT (34) or EC (29)	3-month (all)
20	Luoma & Vilardaga	2013	Randomised between group	Therapists (15 psychologists)	19 (1)	USA	ACT	2-day	Between-group: ACT (9) vs ACT plus consultation (10): Six 30-min consultations	3-month (all)
21	Paliliunas, Belisle, & Dixon	2018	RCT	Graduate students in Behaviour Therapy	34	USA	ACT -informed	6-week	Active control: study skills group (17)	No
22	Stafford-Brown & Pakenham	2012	Quasi-experimental	Clinical Psychology Trainees	56 (2)	Aus	ACT	4-week (3h/week)	Waitlist control (28)	10-week (IG only; all)

Compassion-focused										
23	Beaumont, Rayner, Durkin, & Bowling	2017	Within-subject	Student psycho-therapists	21	UK	Compassionate Mind Training	3 day	No	No
24	Finlay-Jones, Kane, & Rees	2017	Within-subject	Clinical and counselling psychology trainees	20 (17)	Aus	Self-compassion cultivation training	6-week (online)	No	3-month (13)
25	Gentry, Baggerly, & Baranowsky	2004	Within-subject	Master's psychologists, counsellors and social workers	83	Can-ada	Compassion Fatigue Specialist Training	17 or 20-hours	No	No
26	Eriksson, Germundsjö, Åström, & Rönnlund	2018	RCT	Practicing psychologists	81 (20)	Swe-den	Mindful self-compassion	6-week (online)	Waitlist control (41)	No

Note: MBSR= Mindfulness-based stress reduction; MBCT= Mindfulness-based Cognitive Therapy; ACT= Acceptance and Commitment Therapy; MESG = Mindfulness Experiential Small Groups; GMRT= Guided Respiratory Mindfulness Training; DBT= Dialetical Behavioural Therapy; MCT= Multi-cultural Training; EC= Educational control. Study design: RCT= randomised controlled trial; IG = intervention group; UK= United Kingdom, USA= United States of America, Aus= Australia, TAU= treatment as usual (i.e. what was already provided) vs active control (i.e. a course designed and delivered specifically for the purpose of the study) as defined by the study authors.

Primary Outcomes

Data was extracted from 24 questionnaires relevant to the primary outcome of therapist wellbeing (Table 4).

Psychological distress. Twelve studies measured psychological distress (stress, anxiety and worry) with seven questionnaires. Ten studies (six within-subject and four between-subject) used the Perceived Stress Scale (PSS; Cohen, Kamarck, & Mermelstein, 1983). Six additional stress, worry, and mixed depression-anxiety scales were used.

Mental health. Two studies measured depression, three measured negative symptoms, and five measured psychiatric health (three within-subject and two between-subject studies). Three studies measured emotional regulation.

Psychological wellbeing. Six studies measured psychological wellbeing: happiness, self-care self-efficacy, general wellbeing, and positive symptoms.

Quality of life. Ten studies measured elements of quality of life. Four measured satisfaction, four measured burnout and three measured professional stress.

Secondary Outcomes

Data from secondary outcomes were extracted (Appendix D). Seven different outcomes measures were used to measure mindfulness across fifteen studies. Eight studies measured compassion using the Self-Compassion Scale (Neff, 2003a). Seven studies measured acceptance and/or fusion. Direct measures of values and home practise were not extracted for the purpose of this review.

Quality Appraisal

The quality assessment scores and ratings for all studies are in Appendix C and summarised in Table 4. Seventeen papers (68%) were rated as ‘fair’ in quality,

three were ‘fair-good’ and three were ‘good’. Two papers were rated as ‘poor’ (6, 17) which should be accounted for during interpretation.

Items 1-10. The quality of the reporting was reasonable with studies overall providing clear aims and hypotheses, main outcomes and intervention outlines, although four papers failed to provide detailed participant characteristics. A number of studies did not sufficiently report clear main findings and outcome data, reporting statistical results in the absence of simple summary data (e.g. 6, 7) or failing to report the estimates of random variability required to calculate effect sizes (e.g. 4). Only four studies assessed for adverse events, a possible concern due to the interventional nature. Those that reported intent to measure adverse events did not report on them in the results. Although it is possible that this is because there were none, this cannot be clarified. Of the nine studies which had follow-ups, seven had small attrition rates (i.e. less than three participants) whilst two lost substantial numbers (24, 8/9). These did not report on differences between post and follow-up groups and did not include the participants in intent-to-treat analysis. One study checked the differences between completers and non-completers (24).

Items 11-13. External validity presented a consistent weakness across studies due to the lack of random and representative sampling of the participants, with all studies using opportunistic and convenience sampling of trainees or professionals from a university or mental health trust. Two online studies attempted to recruit through email lists and social media (24, 26) but were non-random. This is perhaps to be expected due to the otherwise face-to-face intervention nature of the studies, requiring participants to attend one location.

A strength of the included studies was in ecological validity (i.e. whether the intervention was representative of training clinicians might receive) as the majority

of studies were monitoring training and continued professional development events (at the expense of random sampling).

Items 14-20. Internal validity was mixed. One of the ten controlled studies provided evidence of 'blinding' the participant allocation (10) and none 'blinded' the researchers, who were often the course facilitators presenting possible bias. It was challenging to assess whether attendees were intervention compliant. Some studies reported homework or knowledge-based examination post-course; however, only four studies reported or analysed practise time. Frequently, practises were set but not monitored. The majority of studies described validated outcome measures, although four partially used unvalidated self-developed measures.

Items 21-26. For confounding bias, the lack of control groups across the studies increases the risk of bias, as well as the quasi-experimental nature of the majority of the controlled studies which were not randomised or concealed, introducing systematic error or bias. Participants selected which course they wished to attend (19) or the cohort-control were advised that they were the control group (14). These possible confounders were often not discussed or accounted for in the analysis, although some checked for between-group differences (12, 13, 19).

Item 27 referred to power analysis. Only one study calculated a power analysis sample size which it met (10). Four studies conducted power analyses which were not adhered to. No other studies conducted power analyses.

Findings

The primary outcome measures and effect sizes for each outcome are in Table 4. Mindfulness, acceptance-focused and compassion-focused interventions will be discussed respectively with regard to the primary outcomes of therapist wellbeing. The secondary outcomes and effect sizes in Appendix D will also be discussed.

Mindfulness-based studies

Varied mindfulness-based interventions were used by 13 studies. Four used Mindfulness-Based Cognitive Therapy (MBCT) in a standardised format (3, 4) or adapted for stress (7) or a healthy population (8). Others utilised experiential methods, including guided respiratory mindfulness (5), mindfulness-based stress reduction (MBSR) (12), interpersonal MBSR (2), and an experiential group (10). One used a DBT intervention (14). Ten interventions were 5-8 weeks long, one was 12-weeks (11), and two facilitated briefer skills training (5, 6). Moore (2008; 6) used the briefest intervention, which focused on ten-minute practises. Ten studies had a fair quality rating, one was poor (6), and three scored over 70% and were assessed as good (2, 5, 10). Only three included follow-up measures (4, 8, 14), although one included follow-up at 3 and 18-months (8/9).

Within-subject studies. Mixed results were found for psychological distress. One study reported on within-session stress and tension and found large reductions of over 33% in both (1). Notably, this was on a 2-item 10-point self-developed scale with undetermined validity. Other studies which used validated measures extracted more varied results. In support, medium reductions in stress and anxiety were found (2) alongside a non-significant medium trend towards improved satisfaction with life. This good quality study had strengths in reporting accuracy and clarity.

In trainees, Rimes & Wingrove (2011; 7) found a medium reduction in stress in first-years, but no significant changes in second and third years. First years had the highest pre-MBCT stress indicating possible effectiveness for those who are more stressed and/or in early training. However, overall, a slight increase in anxiety was found despite MBCT, suggesting that anxiety was increasing during this time-frame. This may be due to external training-related pressure, in particular for second

and third years. This could have wider implications for other uncontrolled studies in training populations where external stress may increase.

Correspondingly, two studies found non-significant results for stress in training populations (6, 4). The latter found a medium reduction in PSS score, by an average of 5-points out of 40. However, the lack of statistical significance means the results may be due to chance, although this study was possibly underpowered. Both studies were small and lacked detail in their reporting of simple outcome data, limiting their power and quality. Both conducted qualitative interviews and suggested that the PSS may not be sensitive to subjective changes reported by participants. For example, the way of responding may change, even if stress did not (4).

Studies that included a follow-up in qualified therapists indicated that effects may increase over time (8, 9). Reductions in trait anxiety that were non-significant at post-test became significant by follow-up, and reductions in worry that were not significant after 3-months were at 18-month (9). This was not true for all measures, as reductions in GHQ-12 scores at post were not significant at 3 or 18-months. Further, there was no change in satisfaction with life. Suggested improvements over time may be anxiety or worry-specific. These results should be interpreted with caution due to attrition to follow-up, from 24 to 18 to 10 participants, with a risk that participants who continued were those that experienced benefit. Due to limited reporting of standard deviations, effect sizes could not be calculated.

Table 4

Therapist Wellbeing Outcome Data Extracted from Included Studies

Study No	Study	Primary data: Therapist wellbeing		Quality	
		Outcome measure	Findings	%	Rating
Mindfulness					
Within-subject					
1	Aggs & Bambling	STM	Within-session decrease in stress and tension; *d* = -0.83 (-1.17 - -0.49), *p* = .01	66.7	Fair
2	Cohen & Miller	PSS; BAI; CESD; SwLS; MLQ	Significant decrease in stress; *d* = -0.54 (-1.02 - -0.05) *p* = .001 and anxiety; *d* = -0.47 (-0.95 - 0.01) *p* = .027 post-IMT No change in depression; *d* = -0.12 (-0.57 - 0.34), *ns* Trend towards increased satisfaction, *d* = 0.44 (-0.26 - 1.15), *p* = .051 and decreased 'searching' for meaning, *d* = 0.36 (-0.83 – 0.11), *p* = .069	72.2	Good
3	Collard et al.	PANAS; SwLS	Reduced negative affect; *d* =-0.63 (-1.24 - -0.03), *p* = 0.016, small increase in positive affect; *d* = 0.14 (-0.42 - 0.69), *ns,* and trend towards increased satisfaction; *d* = 0.40 (-0.18 – 0.97), *p* = .052	62.5	Fair
4	Hopkins & Proeve	PSS	No significant changes in stress from pre to post, *d* = -0.68 (-1.42 – 0.07) or pre to follow-up, *d* = -0.41 (-1.11 – 0.29)*, ns*	63.2	Fair
5	Lalande et al.	GMRT-IM	Increase in wellbeing within-session, *d* = 1.33 (1.17 - 1.49), *p* <.01	75.0	Good
6	Moore*	PSS	No significant changes in stress	50.0	Poor

7	Rimes & Wingrove	PSS; HADS	No reduction in stress overall, but significant reduction within first-years; d = -0.59 (-1.42 - 0.25, p = .028) (based on 9 participants) Trend towards increased (overall) anxiety; d = 0.26 (-0.22 - 0.74, p = .160) No change in depression; d = 0.00 (-0.47 - 0.47), *ns*	62.5	Fair
8 9	Ruths et al.*; de Zoysa et al. *	PSWQ; STAI; GHQ-12; BSI; SwLS	Non-significant reduction in worry at post, but trend at 3-month (p = .09) and significant at 18-month (p = .020). No change in trait anxiety (*ns*) at post, but significant decrease from baseline to 3-month (p = .003) and 18-month (p = .034). No change for state anxiety. Mental distress decreased at post (p = .003), and 3-month (p = .087), but non-significant at 18-month (p = .083). Non-significant change in symptoms (BSI) at post, but significant reduction at 3-month (p = .021) No change in satisfaction, *ns*	68.4	Fair
Between-group					
10	Bohecker & Doughty Horn	PSS	No change in stress; d = 0.04 (-0.82 – 0.90), *ns*	72.0	Good
11	Gokhan et al. **	NA		64.0	Fair
12	Shapiro et al.	PSS; STAI; PANAS	Lower stress post-MBSR than controls; d = 0.68 (0.12 - 1.24), and lower state, d = 0.56 (0.00 - 1.11), and trait anxiety, d = 0.92, (0.35 - 1.50) in IG than CG. Interactions were significant for stress, p = .0001, state anxiety, p = .0005 and trait anxiety, p = .0002. Higher negative affect d = 0.47 (-0.09 - 1.02) and lower positive affect in CG than IG; d = -0.58 (-1.14 - -0.02). Interactions were significant for negative p = .04 and positive affect p = .0002.	68.0	Fair

13	Swift et al. **	NA		60.0	Fair
14	Robins et al.	GHQ-12; Emotional Stability; MBI; MHP-SS	Post-intervention, DBT group had lower scores than controls for mental distress, *d* = 1.27 (0.63 - 1.91), emotional stability, *d* = 0.42 (-0.17 – 1.02), burnout (exhaustion), *d* = 1.32 (0.68 - 1.97), burnout (cynicism), *d* = 0.83 (0.21 - 1.44), and study stress, *d* = 0.70 (0.09 - 1.31). Significance values for change scores only were reported and were statistically significant in the expected direction for all reported variables. DBT group had no significant change in scores at follow-up, except GHQ-12 was higher.	64.3	Fair
Acceptance-based					
Within-subject					
15	Pakenham (2015)	GHQ-28; MHP-SS	No significant changes on the total score for psychological distress; *d* = -0.16 (-0.52 - 0.20). Decrease on sub-scale of somatic symptoms, *d*= -0.34 (-0.71 – 0.03), *p*<.08 (*ns*), but not anxiety, depression and social functioning. No significant change for work-related stress; *d* = 0.22 (-0.14 - 0.59), *ns*	70.6	Fair-Good
16	Pakenham (2017)	Self-care self-efficacy	Increase in self-efficacy; *d*= 0.39 (-0.07 - 0.84), *p* <.05 (small sample size)	56.3	Fair
17	Pakenham et al.	PANAS; MHC-sf; Job satisfaction	No statistical changes in positive, *d* = 0.32 (-0.03 - 0.68), negative symptoms pre-to-post, *d* = 0.03 (-0.31 - 0.38) mental wellbeing, *d*= 0.08 (-0.27 - 0.43), or job satisfaction, *d* = -0.25 (-0.60 – 0.10), *ns*. All non-significant at follow-up.	63.2	Fair

18	Moyer et al.	PSS; DERS	RCI: None considered reliable change in stress, but eight of ten cases achieved reliable improvements in emotional regulation	57.9	Fair
Between-group					
19	Hayes et al.	MBI	Overall time by treatment interaction, p = .004 on burnout. Depersonalisation scores were lower in the ACT group than the MCT group at post d = 0.26 (-0.36 – 0.87), *ns,* and follow-up, d = 0.54 (-0.09 – 1.16). p = .008. ACT vs ET significant at post, d = 0.69 (0.04 – 1.34), p = .02, but not follow-up, d = 0.56 (-0.08 – 1.20), *ns.* ACT within-group reduction at post d = -0.23 (-0.61 – 0.15), p = .005 and follow-up: d = -0.27 (-0.65 – 0.11), p = .012 No ACT within-group improvement for accomplishment, *ns*.	64.3	Fair
20	Luoma & Vilardaga	MBI	Overall small non-significant improvement on total burnout from pre to follow-up (p = .059) and on personal accomplishment (p = .019) for all groups. Workshop group had a smaller within-group reduction in depersonalisation; d = -0.25 (-0.97 - 0.48) than consultation group d = -0.32 (-1.05 - 0.42) and a smaller increase in accomplishment, d = 0.11 (-0.61 – 0.82) vs d = 0.27 (-0.46 – 1.00). Between-group differences were non-significant for depersonalisation and exhaustion, d=0.10 (-0.82 - 1.03) and accomplishment, d=0.38 (-0.55 – 1.32).	60.7	Fair
21	Paliliunas et al.	PSS	No significant change in stress, d= -0.61 (-1.31 - 0.09), *ns.*	48.0	Poor
22	Stafford-Brown & Pakenham	GHQ-28; MHP-SS; SwLS	Distress decreased for the IG group and increased for CG; d = 0.78 (0.22 - 1.34) and for professional self-doubt, d = 0.20 (-0.34 - 0.74). Significant time x group interactions emerged, p < .05. Higher post-intervention satisfaction in IG group, d = -0.44 (-0.98 - 0.11), but no significant interaction; p = .06 *ns*.	64.3	Fair

			IG changes non-significant at follow-up (indicating effects maintained).		
Compassion-focused					
Within-subject					
23	Beaumont, Rayner, Durkin, & Bowling	NA		68.8	Fair – Good
24	Finlay-Jones et al*	PSS; DAS-21; AHI; DERS	Improvements in PSS stress pre-to-post (d = 0.52, p = .002) and follow-up (d = 0.48, p = .005). Improvement in DAS-21 stress pre-post (d = 0.85, p < .001) and pre-follow-up (d = 0.46, p <.007), but significant improvements in anxiety only pre-follow-up (d = 0.52, p = .003), with smaller decrease pre-to-post (d = 0.23, p = .165). Depression reduced at post (d = 0.54, p = .002) but no further at follow-up (d = 0.31, p = .067, *ns*). Happiness increase at pre-post (d = 0.59, p <.001) but not pre-follow-up (d = 0.23, p = .164, *ns*). Significantly lower emotion regulation difficulties scores at post (d = 0.62, p <.001) and follow-up (d = 0.52, p <.002).	70.0	Fair-good
25	Gentry, Baggerly & Baranowsky	CSF-ST	Reduction in burnout; d = -0.38 (-0.61 - -0.16) and compassion fatigue; d = -0.55 (-0.78 – -0.32) and increased compassion satisfaction: d = 0.94 (0.68 - 1.20), all p <.05	62.5	Fair
Between-group					
26	Eriksson et al.	PSS; SMBQ	Intervention group had significantly lower stress, d = 0.54 (0.09 - 0.98) and burnout, d = 0.50 (0.06 - 0.95) at post than controls. Interactions were significant for stress, p <.001 and burnout, p <.01.	68.0	Fair

Note. *indicates study where author was contacted for additional data to calculate effect size, but there was either no response or sufficient data could not be provided; Finlay-Jones et al (2017) reported effect sizes in the paper so these were reported, but could not be checked due to lack of paired outcome data; ** indicates study where primary outcome was not measured, but study was included due to secondary outcome; IG=intervention group, CG= control group, RCI=reliable change index, ACT=Acceptance and Commitment Therapy, MCT=multicultural training, ET=educational training; p-values were reported when available, ns= non-significant.

STM = Stress and Tension Measure (Aggs & Bambling, 2010); PSS= Perceived Stress Scale (Cohen, Kamarck, & Mermelstein, 1983); BAI= Beck Anxiety Inventory (Beck, Brown, Kiyosaki, & Lechter, 1988), CES-D= Center for Epidemiologic Studies Depression Scale (Radloff, 1977); SwLS= Satisfaction with Life Scale (Diener, Emmons, Larsen, & Griffin, 1985); MLQ= Meaning in Life Questionnaire (Steger, Frazier, Oishi, & Kaler, 2006): PANAS= Positive and Negative Affect Scale (PANAS; Watson, Clark, & Tellegen, 1988); GRMT-IT= Guided Respiration Mindfulness Therapy Impact Measure (Lalande et al., 2016); HADS= Hospital Anxiety and Depression Scale (Zigmond & Snaith, 1983); PSWQ= Penn State Worry Questionnaire (Meyer, Miller, Metzger, & Borkovec, 1990); STAI= State-Trait Anxiety Inventory (Spielberger, Gorsuch, & Lushene, 1970); GHQ-12= General Health Questionnaire- 12 item (Goldberg & Hillier, 1979); BSI=Brief Symptom Inventory (Derogatis & Melisaratos, 1983); Emotional Stability; 20-item scale from the International Personality Item Pool website http://ipip.ori.org/newMultiple constructs.htm, MBI= Maslach Burnout Inventory (Maslach & Jackson, 1981); MHP-SS=Mental Health Professional Stress Scale (Cushway et al., 1996); GHQ-28= General Health Questionnaire- 28 item (Goldberg, 1978); MHC-sf= Mental Health Continuum short form (Keyes, Dhingra, & Simoes, 2010); DERS= Difficulties with Emotional Regulation Scale (Gratz & Roemer, 2004); DAS-21= Depression and Anxiety Stress Scales (Lovibond & Lovibond, 1995); AHI= Authentic Happiness Inventory (Peterson & Park, 2008): CSF-ST= Compassion Fatigue Self Test (Figley & Stamm, 1996); SMBQ= Shirom-Malamed Burnout Measure (Shirom, 1989)

Of the three studies that measured mood (2, 3, 7), two that directly measured clinical depression found no effect (2, 7), although depression scores did not reach clinical levels pre-intervention. However, a moderate reduction in negative affect and a medium trend towards improved satisfaction with life was found (3). The authors concluded an improvement in subjective wellbeing, despite no improvement in positive affect. It was suggested that the positive affect sub-scale is biased towards excitement rather than positive wellbeing, so does not capture relative change. Congruently, wellbeing increased with a large effect pre-post session on a 10-point scale (GRMT-IM) to measure relaxation, anxiety, worry, enthusiasm and open-ness which all improved, in particular relaxation and anxiety (5). Although this study was good quality, the specific measure is unvalidated which limits the result. Combined with the other results, tentative support for benefit to subjective wellbeing is suggested.

Between-subject studies. Two of five studies used random allocation (10, 13) whilst three were cohort-controlled (11, 12, 14). One study used participant allocation blinding (11), increasing risk of allocation and confounding bias due to between-group factors. Pre-test between-group differences were non-significant.

Shapiro et al.'s (2007; 12) fair-quality study found medium-to-large between-group effects on stress, state and trait anxiety, and positive and negative affect indicating post-MBSR benefits over the controls. The largest effect reduction was for trait anxiety (d = 0.92) followed by stress (d = 0.68). This was of interest when considering the absence of effect in some within-subject studies and could highlight how benefits emerge when a control group is used, although the controls were not concealed. In contrast, Bohecker and Doughty-Horn's (2016; 10) good-rated four-group design study found no impact on stress. This result was suggested to be due to the PSS score being based on perception of life events as unpredictable with less

validity during training, because of an inherent perception of lack-of-control. This does not account for the difference between these two studies on the same tool in two training populations. However, the control group pre-test scores were low, with a close-to-significant 7-point difference (p = .061) between-groups, with possible bias on post-test comparisons. Although there was limited difference post-group, the intervention group scores had decreased and the control group scores had increased.

One study considered DBT (14) with a large, robust between-group effect on mental wellbeing, with lower GHQ-12 scores and moderate improvements in emotional stability post-DBT compared to the controls. Further, post-test professional stress and burnout were higher in the controls than the DBT group, with large effect sizes. The proportion of participants who met criteria for high exhaustion decreased post-DBT whilst the control group remained stable, suggesting relative benefit of DBT to wellbeing and burnout. This study was restricted by its non-randomised non-concealed control group, limiting the reliability of the true controlled effects.

Secondary outcomes. All thirteen studies measured mindfulness. The results were generally consistent and robust. Two studies measured only secondary outcomes. One found increased mindful awareness and overall mindfulness with a large effect, when comparing post-scores to pre-scores and control post-scores (11). The other (13) found medium within-session increases in mindfulness and large post-training differences between-groups.

Overall, within-subject studies reported medium increases in mindfulness. Mindfulness was higher post-intervention in intervention groups compared to control groups with medium-to-large between-group effects from d = -0.36 (12) to d = -1.05 (10). Small increases in mindful attention predicted rumination, trait anxiety and stress decreases, and self-compassion increases (12).

Summary. Mindfulness-based interventions had mixed results for mental distress, stress and anxiety. Effects may strengthen over time. Qualified therapists may report larger benefits to wellbeing, although only one study measured change over time rather than within-session. Findings were not fully consistent or robust due to the absence and quality of follow-up. Studies showed tendencies towards improved subjective well-being and satisfaction and reduction in negative affect, but not depression. DBT found initial positive effects including benefits to burnout.

ACT-based interventions

Of the eight ACT-based studies, four studies were within-subject and four compared groups. Three within-group studies had the same lead author (15, 16, 17). Two evaluated the same 12-week course on a clinical psychology programme in different years with an explicit 'self-care' focus (15, 16). The third was a modified two-day version translated into Italian, delivered by the same author (17). This focus on one researcher could cause possible bias from one source. Although this consistency could offer more rigorous analysis, the same measures were not used and so could not corroborate across studies. Three further studies used standard ACT (19, 20, 22) and one study (21) used an ACT-informed approach, with focus on values and committed action (not acceptance). Overall, one study (15) was rated as good, six as fair (although two were under 60%) and one as poor (21). Five studies had follow-ups with low attrition.

Within-subject studies. The three studies by Pakenham and colleagues were varied in their measures. The first found a negligible decrease in distress but a small, marginally significant decrease in somatic symptoms (15), possibly suggesting a trend towards specific changes not captured by the overall score. A small increase in work stress was found, with an increase in client-related stress. This could be circumstantial due to a more challenging caseload, with an impact on general stress.

If this is the case, without a control group, it is not known whether the training was protective in preventing increased stress. The authors concluded benefits to wellbeing from related measures such as counselling self-efficacy which are not direct measures of wellbeing and are not included. These conclusions are not supported from the direct measures of wellbeing.

The second study (16) included one non-validated measure relevant to wellbeing: self-care self-efficacy. The four-item scale measured confidence in and perception of skill in stress management. Self-efficacy increased across the course with a medium effect. However, there was no measure of stress to assess whether self-efficacy had a tangible impact on wellbeing. The author also recognised low power, due to the small sample. The third study (17) found small effects on mental health and negative affect, although positive symptoms had a medium increase. However, none were found to be significant. This study was a two-day intervention and took a knowledge-based rather than self-care focus and included an examination, possibly limiting the impact on wellbeing.

Similarly, another paper studied a 14-week ACT course requirement with graded examinations (18). The quality was limited due to the lack of clear reporting on participant characteristics and main findings. The analysis was based on Reliable Change Indexes (RCI) and, out of 10 cases, 1 reliably reduced stress at follow-up, although 7 reliably maintained improvement for emotion regulation. Again, perceived stress may be affected by naturally occurring stressors during training.

Between-subject studies. One study randomised participants to groups (20) and none had concealment from participants or blinding from researchers, again highlighting possible bias. Only two checked for between-group differences at pre-test (19, 22). Two studies had active control groups who received interventions (19,

20; discussed below). Overall, the presence of an active control might reduce effect sizes, as all participants receive an intervention.

One study (22) found that mental health scores decreased for the treatment group and increased for the waitlist controls, with a significant and large between-group effect (d = -0.78) and 'case-ness' levels reducing from 64% to 37% post-intervention. This was the only ACT study to measure distress and find a meaningful improvement. It was also the only one that appeared to conduct the training purely for self-care purposes. In contrast, another study found mixed results for stress change between groups (21). Although the treatment group demonstrated a greater average decrease in stress, these results were inconsistent, with 10 participants in the treatment group showing decreased stress and 8 in the control group. Despite the medium effect size, this was not significant due to variability in the data. These findings should be interpreted with caution, due to the poor quality of reporting of characteristics and main findings.

Two studies measured burnout on the MBI. Hayes et al. (2004; 19) evaluated the impact of ACT versus multi-cultural training (MCT) or educational (methamphetamine) training (ET) on the depersonalisation and exhaustion sub-scale. ACT showed a small but significant reduction in burnout and a significant improvement above ET on the post-scores, but not above MCT. By follow-up, ACT attendees reported reduced burnout scores beyond MCT (d = 0.54), indicating a provisional benefit of MCT but sustained benefit of ACT. This result should be interpreted in the context of the one-day training. Similarly, Luoma & Vilardaga (2013; 20) provided two groups with two-day ACT and supplemented one with additional ACT consultation. Burnout for the combined groups decreased from pre to follow-up, but effects were small and non-significant with negligible between-group effects for the additional benefits of consultation. These brief interventions

may be expected to have lesser effects and both studies were limited by lack of concealment.

Secondary outcomes. Six ACT studies considered secondary outcomes. Acceptance and fusion were widely measured. The two longest within-subject courses (12-14 weeks) found contradictory results (15, 18). One found large improvements in psychological flexibility with strong reductions in fusion scores (d = -1.89; 15) whilst the other found limited reliable change in fusion scores (18). Two between-subject studies found medium-to-large effects of improved psychological flexibility in the treatment group over the controls following 4-6-week courses (d = 0.64, 21; d = 0.67, 22) Two brief interventions found limited change on scores of acceptance or cognitive fusion (17, 20). Again, Luoma & Villardaga (2013; 20) found no between-group differences for acceptance, suggesting the additional consultation had limited supplementary effect.

Summary. The support for direct improvements to therapist wellbeing following ACT were limited. Few studies directly measured wellbeing and they lacked heterogeneity across measures, focusing on secondary outcomes with mixed results. Only one study demonstrated benefits to wellbeing, as others found small effects. Small within-group decreases in burnout were found. Psychological flexibility may increase over time.

Compassion-focused (CF) interventions

Of the four CF studies, two were 6-week online interventions; one (26) with a focus on self-compassion cultivation exercises (15-minutes-a-day, 6-days-a-week) and the other (24) with psycho-education modules, reflection and self-compassion homework, exercises and practises. The face-to-face groups were a three-day compassionate mind training based in psycho-education and behavioural exercises (23) and a compassion fatigue training, a two-day didactic and experiential training

on stress and burnout (25). All interventions had a primary aim to benefit therapist's self-compassion and wellbeing, rather than to train therapists with the model.

Only one study was an RCT (26) and three were within-subject. The quality was relatively high (68-70%) and one scored 62.5% (25). The study designs should be taken into account, as they may have limited external validity. Only one study had a follow-up time-point (24), making it difficult to assess long-term effectiveness. Due to the few papers, the results are summarised together.

Finlay-Jones et al. (2017; 24) found medium reductions in stress on the PSS at post- and follow-up, and a large reduction in stress pre-post which was medium at pre-to-follow-up (measured on the DAS-21, an integrated measure of stress, anxiety and depression). Further, a small decrease in anxiety at post had improved to a moderate decrease at follow-up. Low pre-test anxiety scores may have required substantial change for meaningful effect, hence the delayed effect. The effect sizes reported were calculated by the researchers and not, as preferred, by the researcher (due to limited reporting of paired data). The attrition rates were high, with 37, 20 and 13 participants across the three time-points, increasing risk of attrition bias in those who continued to participate, especially as stress was higher in non-completers than completers. Eriksson et al. (2018; 26) also found a moderate between-group improvement in stress for intervention over control participants, with lower rates of attrition and an intention-to-treat analysis. This strengthens the conclusions regarding stress.

Complimentary findings for depression and emotional regulation were found, with moderate improvements at post, sustaining a small-medium effect at follow-up (Finlay-Jones et al., 2017; 24). This was the only study to measure happiness and a moderate-to-large effect was found post-intervention, which decreased to a small effect at follow-up.

Two studies measured the impact on burnout. Robust moderate improvements in burnout were found for the intervention group over the control group (26). This was supported tentatively by small-to-medium reductions within-subject on the burnout sub-scale of the Compassion Satisfaction/Fatigue (CS/CF) self-test (25). Further, medium reductions in compassion fatigue and a large increase in compassion satisfaction were found. The CS/CF is a self-developed measure which lacked validity data, although the authors reported the burnout items were from the well-validated MBI scale. However, comparisons have not been published; therefore, these results must be interpreted with caution, especially for the fatigue and satisfaction sub-scales.

Secondary outcomes. Three studies used the SCS to measure self-compassion (23, 24, 26). One used the CS/CF test (25). Beaumont et al. (23) found significant, moderate increases in self-compassion and decreases in self-critical judgment within-subject. Finlay-Jones et al. (24) found large effects (from d=0.86 to 1.15 between post and follow-up), reporting a 0.67-point increase (out of 5) at post-test in completers. Similarly, Erikkson et al. (2018; 26) found higher self-compassion and lower self-coldness scores in the intervention than control group, with medium between-group effects. Notably, the control group had higher SCS scores at pre-test, indicating a possible resilience which may have reduced between-group effects.

Summary. Two CF studies showed impact on stress and three on self-compassion, with two supporting reduced burnout and one for anxiety and emotional regulation. Due to the small numbers of studies which are uncontrolled with few follow-ups, the scope of the evidence is currently limited.

Discussion

The aim of this review was to collate, synthesise and critically appraise the evidence of the impact of psychological interventions on therapist wellbeing. The review of 25 studies highlights that mindfulness, acceptance and compassion-based interventions have been used with therapist populations. No interventions directly targeted PP constructs, such as gratitude and resilience; highlighting that this field remains in its early stages. The findings are summarised in the context of the wider literature, followed by a critique of the review, clinical implications and recommendations for future research.

Mindfulness interventions had mixed results for anxiety and stress within and across sessions. Not all studies supported this, with one study showing a possible increase in anxiety. Further, within high quality RCTs there were mixed results. Tentative support was found for reduced negative affect and increased emotional stability but not clinical depression. There was support for increased mindfulness.

Evidence has suggested that changes in mindfulness and compassion correlate with changes in anxiety and stress (Khoury, Sharma, Rush, & Fournier, 2015). Reviews have found that reduced emotional exhaustion, stress, depression, anxiety and occupational stress, and improvements in mindfulness and self-compassion, have been found in employees post-mindfulness training (Janssen, Heerkens, Kuijer, van der Heijden, & Engels, 2018). In the current review only one mindfulness-based study directly measured burnout but found a large reduction for burnout and study stress, whilst two studies found increased life satisfaction.

The benefits of mindfulness have been proposed to be in “reperceiving”, or a shift in perspective, allowing stepping back from the subjective experience, noticing of judgmental or self-critical thoughts, and increased objectivity about experiences to promote self-regulation, cognitive and emotional flexibility, and reduce reactivity

(Shapiro et al., 2006). Mindfulness was, overall, the most widely researched approach for therapists, although the results were mixed for high-quality and RCT studies.

ACT had limited support for direct impact on therapist wellbeing from the included studies. Of five studies measuring stress or mental health, one found reductions in stress (Stafford-Brown & Pakenham, 2012), one found improvements in emotional regulation (Moyer et al., 2017), and three found no change. However, two studies found small decreases in burnout following brief interventions. Though this could be interpreted as limited impact on burnout, a small reduction in chronic burnout from a brief intervention may be encouraging. As expected, the studies that found larger reductions were 6-8 weeks long (Eriksson et al., 2018; Robins et al., 2019) suggesting additional benefits of long-term interventions. Furthermore, four of six ACT studies measuring acceptance and fusion found some benefit, which was generally more in lengthier interventions.

The particular change in flexibility, over wellbeing, is in-line with the argument that in ACT the goal is acceptance, and focus on behavioural flexibility, rather than symptom reduction (Hayes, Levin, Plumb-Vilardaga, Villatte, & Pistorello, 2013). Although studies have highlighted that ACT reduces symptoms (Hayes, Luoma, Bond, Masuda, & Lillis, 2006), this impact is secondary to the primary focus on valued living. This is supported by some current studies which indicate some functional benefits. For example, Palilunas et al. (2018) found no impact on stress, but improved psychological flexibility and academic outcomes, indicating benefit to behaviour, perhaps from increased commitment to values.

Compassion-focused interventions for therapist wellbeing is a more novel field. Self-compassion may have relevance to therapists due to the impact of self-critical perfectionism on stress and burnout (Richardson, Trusty, & George, 2018).

Evidence supports the benefits of CFT to those high in self-criticism (Leaviss & Uttley, 2015). The studies found medium-to-large effects for self-compassion, and the two studies that measured stress and anxiety found improvements. Tentative support was found once for each emotional regulation, burnout, and happiness. Overall, compassion-focused studies demonstrated preliminary benefits and reduced self-critical thinking and coldness with increased self-care (Beaumont et al., 2017).

Across all modalities, the most frequently assessed outcome was stress and anxiety. Tentative, mixed findings were found for improvements in these domains. These results partially corroborate previous conclusions that stress may be reduced by mindfulness interventions and that mindfulness can be improved (Rudaz et al., 2017), adding evidence that self-compassion may be developed in therapists. However, the inclusion of quality analysis and effect sizes highlights the paucity of high quality, robust evidence.

Further, in the current review, impact on general mental health symptoms was limited, including little impact on depression, with some possible benefits to negative affect and regulation. The impact on positive symptoms was limited. Therefore, the questions raised over benefits to psychological wellbeing in Rudaz et al. (2017) are upheld. They also raised questions regarding benefits to burnout which, in the current review, did receive some tentative support. However, although both showed potential, it is hard to draw firm conclusions from the few studies and brief interventions.

Similarly, this review substantiated that secondary outcomes of mindfulness, acceptance and self-compassion may change to a larger extent than the primary outcomes. The possible argument presented by Rudaz et al. (2017) that it might be the role – intensity, workload, staffing, and limited support - more than internal processes that contribute to staff stress is therefore also supported by this review. It

is also possible that changes to therapist wellbeing, mediated by secondary outcomes, might take longer to develop. It was difficult to assess change over time, due to absence of quality follow-ups. Generally, the current critical appraisal highlights weaknesses in the field with regard to external validity and lack of controlled studies with quality follow-ups.

There are several features of this review worthy of comment. As mentioned, some interventions were attended for continuing professional development rather than self-care. This issue emerged particularly for ACT. Some studies even included examinations which would potentially exacerbate stress. Although ACT supporters advocate that training benefits therapists because it is experiential (Pakenham, 2017), the course aim (as either personal or professional) will affect delivery. Receiving self-care strategies within a training course represents a challenge, requiring personal input, and the impact will be limited if clinicians have no intention to apply the skills (Collard et al., 2008).

Further, most studies were conducted with trainee therapists, where anxiety and stress might be acutely high due to academic and evaluation aspects of training, as well as increased self-doubt and expectations (Pakenham & Stafford-Brown, 2012). Firstly, this may impact on pre-post outcomes if external stress is increasing across the training. It is a limitation of this review that most studies had no comparison group to assess wellbeing without the intervention. Secondly, acute stress may reduce the ability of trainees to integrate new skills into their immediate repertoire but they may learn skills for the future. Finally, the job stress and strain experienced by trainees is distinctive from chronic burnout, which results from a sense of hopelessness and helplessness (Pines & Keinan, 2005). As such, they will likely respond differently to intervention. Future studies will have to explore this further to see if different presentations can be targeted more effectively.

Critique

This rigorous systematic review used broad search terms and thorough forward citation and reference checks, providing a full review of the current literature. It is possible that despite the use of broad search terms, interventions under the PP umbrella might have been missed. During scoping, the term 'positive psychology' was trialled but was too broad, and specific terms (e.g. resilience and gratitude) were considered sufficient. Terms such as hope and optimism were not used following scoping, due to the small number of articles. Due to the novel field with developing terms and outcomes, interventions may have been missed. This review did not include unpublished studies which may have increased access to a wider variety of interventions.

A further strength is that a comprehensive quality assessment was conducted with excellent inter-rater reliability. Although the assessment may be limited by the report of a percentage without weighting of pertinent issues, the methodological strengths and limitations have been discussed.

The heterogeneity in study design and outcome measures was too varied to allow meaningful integration into overall effect sizes. Further, a meta-analysis would not have been appropriate due to the inclusion of lower quality studies, exacerbating the risk of bias present in using non-randomised or pre-post studies (Higgins & Green, 2011). The lack of statistical integration may however limit the generalisability of the review. To improve reporting and allow for comparisons, effect sizes were independently calculated to quantify effects. Few studies had sample size calculations, and some were small with lower power, with an impact on type 1 and 2 errors. Although effect sizes can highlight the clinical significance of the result and help to overcome such potential bias, it must also be noted that small sample sizes can also overestimate the effect size due to bias of the standard

deviation (Button et al., 2013). Future reviews might consider Hedge's *g* to decrease bias in sample sizes under 20 as it uses weighted standard deviations (Hedges, 1981).

Clinical Implications

It is important to teach self-care early in a therapist's career to support the development of sustainable, resilient therapists (Wise et al., 2012; Nelson, Hall, Anderson, Birtles, & Hemming, 2018). The findings of this review show mixed results for stress and anxiety, negative affect and emotional regulation with possible effects for burnout. Overall, qualitative evidence supported subjective benefits to wellbeing and that self-care opportunities are well received by therapists.

Considering the limitations, mixed results and small evidence base, it cannot be strongly concluded that therapist wellbeing will benefit from mindfulness, ACT and CFT. External stressors may limit impact beyond internal processes that contribute to staff stress. Further research into interventions and the impact of external pressures are required before recommendations on methods to promote therapist wellbeing can be made.

Future Research

It is hoped that the limitations highlighted by this review may stimulate future, well-powered and high-quality studies that examine the efficacy of psychological interventions on wellbeing. Where the foundation has indicated mixed benefits of mindfulness, ACT and CFT, future research should focus on developing rigorous evidence with more focus on RCTs based on sufficient power and sample sizes. For PP, research should consider whether integration of resilience and gratitude is of value. There is also a need for more long-term follow-up as self-care skills may take time to impact. Studies might additionally consider mediators of change. For example, self-compassion change scores have been found to have

predictive effects on stress and burnout (Eriksson et al., 2018). Few studies conducted mediational analysis due to sample size (Pakenham, 2015), but where conducted ACT processes mediated intervention effects on distress, self-compassion, and counselling self-efficacy (Stafford-Brown & Pakenham, 2012). This would be useful to explore further to understand the mechanisms of change in therapists. Increased understanding of work intensity and load, staffing, and supervision or support may highlight if there are additional interventions required at the organisational level to improve workplace wellbeing.

Conclusions

The current review demonstrates that the evidence remains mixed. Despite some possible benefits, no strong conclusions were found on the benefits of mindfulness, acceptance and compassion-focused interventions specifically to therapist wellbeing. The benefits to stress and anxiety were varied, especially for higher quality and RCT studies. Interventions may have a preventative role, given that therapists may initially present with acute stress and anxiety, which may increase into more chronic burnout or mental health conditions. However, future and more longitudinal research is needed with consideration of external factors. Interventions that are longer in duration and focused on self-care may be more effective.

References

Advisory Committee on Colleague Assistance. (n.d.). The stress-distress-impairment continuum for psychologists. Retrieved from the American Psychological Association, Practice Organization website: http://www .apapracticecentral.org/ce/selfcare/colleague-assist.aspx

A-Tjak, J. G. L., Davis, M. L., Morina, N., Powers, M. B., Smits, J. A. J., & Emmelkamp, P. M. G. (2015). A meta-analysis of the efficacy of Acceptance and Commitment Therapy for clinically relevant mental and physical health problems. *Psychotherapy and Psychosomatics*, *84*, 30–36. https://doi.org/10.1159/000365764

Aggs, C., & Bambling, M. (2010). Teaching mindfulness to psychotherapists in clinical practice: the mindful therapy programme. *Counselling and Psychotherapy Research*, *10*, 278–286. https://doi.org/10.1080/14733145.2010.485690

Baer, R. A., Smith, G. T., & Allen, K. B. (2004). Assessment of mindfulness by self-report. *Assessment*, *11*, 191–206. https://doi.org/10.1177/1073191104268029

Baer, R. A., Smith, G. T., Lykins, E., Button, D., Krietemeyer, J., Sauer, S., … Williams, J. M. G. (2008). Construct validity of the Five Facet Mindfulness Questionnaire in meditating and nonmeditating samples. *Assessment*, *15*, 329–342. https://doi.org/10.1177/1073191107313003

Beaumont, E., Rayner, G., Durkin, M., & Bowling, G. (2017). The effects of compassionate mind training on student psychotherapists. *The Journal of Mental Health Training, Education and Practice*, *12*, 300–312. https://doi.org/10.1108/JMHTEP-06-2016-0030

Beck, A. T., Epstein, N., Brown, G., & Steer, R. A. (1988). An inventory for measuring clinical anxiety: Psychometric properties. *Journal of Consulting and*

Clinical Psychology, *56*, 893–897. https://doi.org/10.1037/0022-006X.56.6.893

Bohecker, L., & Doughty Horn, E. A. (2016). Increasing students' empathy and counseling self-efficacy through a mindfulness experiential small group. *The Journal for Specialists in Group Work*, *41*, 312–333. https://doi.org/10.1080/01933922.2016.1232322

Bond, F. W., & Bunce, D. (2003). The role of acceptance and job control in mental health, job satisfaction, and work performance. *Journal of Applied Psychology*, *88*, 1057–1067. https://doi.org/10.1037/0021-9010.88.6.1057

Brown, K. W., & Ryan, R. M. (2003). The benefits of being present: Mindfulness and its role in psychological well-being. *Journal of Personality and Social Psychology*, *84*, 822–848. https://doi.org/10.1037/0022-3514.84.4.822

Button, K. S., Ioannidis, J. P. A., Mokrysz, C., Nosek, B. A., Flint, J., Robinson, E. S. J., & Munafò, M. R. (2013). Power failure: Why small sample size undermines the reliability of neuroscience. *Nature Reviews Neuroscience*, *14*, 365–376. https://doi.org/10.1038/nrn3475

Christopher, J. C., Christopher, S. E., Dunnagan, T., & Schure, M. (2006). Teaching self-care through mindfulness practices: The application of yoga, meditation, and qigong to counselor training. *Journal of Humanistic Psychology*, *46*, 494–509. https://doi.org/10.1177/0022167806290215

Cohen-Katz, J., Wiley, S. D., Capuano, T., Baker, D. M., & Shapiro, S. (2004). The effects of mindfulness-based stress reduction on nurse stress and burnout. *Holistic Nursing Practice*, *18*, 302–308. https://doi.org/10.1097/00004650-200411000-00006

Cohen, J. (1992). A power primer. *Psychological Bulletin*, *112*, 155–159. https://doi.org/10.1037/0033-2909.112.1.155

Cohen, J. S., & Miller, L. J. (2009). Interpersonal mindfulness training for well-

being: A pilot study with psychology graduate students. *Teachers College Record*, *111*, 2760–2774. Retrieved from https://www.tcrecord.org/

Cohen, S., Kamarck, T., & Mermelstein, R. (1983). A global measure of perceived stress. *Journal of Health and Social Behavior*, *24*, 385–396. https://doi.org/10.2307/2136404

Collard, P., Avny, N., & Boniwell, I. (2008). Teaching mindfulness based cognitive therapy (MBCT) to students: The effects of MBCT on the levels of mindfulness and subjective well-being. *Counselling Psychology Quarterly*, *21*, 323–336. https://doi.org/10.1080/09515070802602112

Craig, C. D., & Sprang, G. (2010). Compassion satisfaction, compassion fatigue, and burnout in a national sample of trauma treatment therapists. *Anxiety, Stress & Coping*, *23*, 319–339. https://doi.org/10.1080/10615800903085818

Cushway, D., Tyler, P. A., & Nolan, P. (1996). Development of a stress scale for mental health professionals. *British Journal of Clinical Psychology*, *35*, 279–295. https://doi.org/10.1111/j.2044-8260.1996.tb01182.x

D'Souza, F., Egan, S. J., & Rees, C. S. (2011). The relationship between perfectionism, stress and burnout in clinical psychologists. *Behaviour Change*, *28*, 17–28. https://doi.org/10.1375/bech.28.1.17

de Zoysa, N., Ruths, F. A., Walsh, J., & Hutton, J. (2012). Mindfulness-based cognitive therapy for mental health professionals: A long-term quantitative follow-up study. *Mindfulness*, *5*, 268–275. https://doi.org/10.1007/s12671-012-0176-4

Derogatis, L. R., & Melisaratos, N. (1983). The Brief Symptom Inventory: An introductory report. *Psychological Medicine*, *13*, 595–605. https://doi.org/10.1017/S0033291700048017

Di Benedetto, M., & Swadling, M. (2014). Burnout in Australian psychologists:

Correlations with work-setting, mindfulness and self-care behaviours. *Psychology, Health & Medicine*, *19*, 705–715. https://doi.org/10.1080/13548506.2013.861602

Diener, E., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The satisfaction with life scale. *Journal of Personality Assessment*, *49*, 71–75. https://doi.org/10.1207/s15327752jpa4901_13

Downs, S. H., & Black, N. (1998). The feasibility of creating a checklist for the assessment of the methodological quality both of randomised and non-randomised studies of health care interventions. *Journal of Epidemiology & Community Health*, *52*, 377–384. https://doi.org/10.1136/jech.52.6.377

Eriksson, T., Germundsjö, L., Åström, E., & Rönnlund, M. (2018). Mindful self-compassion training reduces stress and burnout symptoms among practicing psychologists: A randomized controlled trial of a brief web-based intervention. *Frontiers in Psychology*, *9*, 02340. https://doi.org/10.3389/fpsyg.2018.02340

Figley, C.R. & Stamm, B. H. (1996). Psychometric review of compassion fatigue self test. In B. H. Stamm (Eds.), *Measurement of Stress, Trauma and Adaptation.* (pp. 127–130). Lutherville, MD: Sidran Press.

Figley, C. R. (2002). Compassion fatigue: Psychotherapists' chronic lack of self care. *Journal of Clinical Psychology*, *58*, 1433–1441. https://doi.org/10.1002/jclp.10090

Finlay-Jones, Amy, Kane, R., & Rees, C. (2017). Self-compassion online: A pilot study of an internet-based self-compassion cultivation program for psychology trainees. *Journal of Clinical Psychology*, *73*, 797–816. https://doi.org/10.1002/jclp.22375

Garcia, H. A., McGeary, C. A., Finley, E. P., McGeary, D. D., Ketchum, N. S., & Peterson, A. L. (2016). The influence of trauma and patient characteristics on

provider burnout in VA post-traumatic stress disorder specialty programmes. *Psychology and Psychotherapy: Theory, Research and Practice*, *89*, 66–81. https://doi.org/10.1111/papt.12057

Gentry, J. E. E., Baggerly, J., & Baranowsky, A. (2004). Training-as-treatment: Effectiveness of the certified compassion fatigue specialist training. *International Journal of Emergency Mental Health*, *6*, 147–155. Retrieved from https://www.omicsonline.org/international-journal-of-emergency-mental-health-and-human-resilience.php

Gillanders, D. T., Bolderston, H., Bond, F. W., Dempster, M., Flaxman, P. E., Campbell, L., … Remington, B. (2014). The development and initial validation of the Cognitive Fusion Questionnaire. *Behavior Therapy*, *45*, 83–101. https://doi.org/10.1016/j.beth.2013.09.001

Gökhan, N., Meehan, E. F., & Peters, K. (2010). The value of mindfulness-based methods in teaching at a clinical field placement. *Psychological Reports*, *106*, 455–466. https://doi.org/10.2466/pr0.106.2.455-466

Goldberg, D. (1978). Manual of the General Health Questionnaire. *Windsor NFER*. Retrieved from https://trove.nla.gov.au/version/11878284

Goldberg, D. P., & Hillier, V. F. (1979). A scaled version of the General Health Questionnaire. *Psychological Medicine*, *9*, 139-145. https://doi.org/10.1017/S0033291700021644

Gratz, K. L., & Roemer, L. (2004). Multidimensional assessment of emotion regulation and dysregulation: Development, factor structure, and initial validation of the Difficulties in Emotion Regulation Scale. *Journal of Psychopathology and Behavioral Assessment*, *26*, 41–54. https://doi.org/10.1023/B:JOBA.0000007455.08539.94

Greco, L.A., Murrell, A.R., & Coyne, L. (2005). *Avoidance and Fusion*

Questionnaire for Youth. Retrieved from www.contextualscience.org

Grepmair, L., Mitterlehner, F., Loew, T., & Nickel, M. (2007). Promotion of mindfulness in psychotherapists in training: Preliminary study. *European Psychiatry*, *22*, 485–489. https://doi.org/10.1016/j.eurpsy.2007.02.004

Hayes, S. C. (2004). Acceptance and Commitment Therapy, relational frame theory, and the third wave of behavioral and cognitive therapies. *Behavior Therapy*, *35*, 639–665. https://doi.org/10.1016/S0005-7894(04)80013-3

Hayes, S. C., Bissett, R., Roget, N., Padilla, M., Kohlenberg, B. S., Fisher, G., … Niccolls, R. (2004). The impact of acceptance and commitment training and multicultural training on the stigmatizing attitudes and professional burnout of substance abuse counselors. *Behavior Therapy*, *35*, 821–835. https://doi.org/10.1016/S0005-7894(04)80022-4

Hayes, S. C., Levin, M. E., Plumb-Vilardaga, J., Villatte, J. L., & Pistorello, J. (2013). Acceptance and Commitment Therapy and contextual behavioral science: examining the progress of a distinctive model of behavioral and cognitive therapy. *Behavior Therapy*, *44*, 180–198. https://doi.org/10.1016/j.beth.2009.08.002

Hayes, S. C., Luoma, J. B., Bond, F. W., Masuda, A., & Lillis, J. (2006). Acceptance and Commitment Therapy: model, processes and outcomes. *Behaviour Research and Therapy*, *44*, 1–25. https://doi.org/10.1016/j.brat.2005.06.006

Hedges, L. V. (1981). Distribution theory for Glass's estimator of effect size and related estimators. *Journal of Educational Statistics*, *6*, 107–128. Retrieved from https://www.jstor.org/

Higgins, J., & Green, S (Eds). (2011). *Cochrane Handbook for Systematic Reviews of Interventions*. *The Cochrane Collaboration, 2011* (Version 5.1.0 [updated March 2011]). Retrieved from www.handbook.cochrane.org

Hooper, P., Jutai, J. W., Strong, G., & Russell-Minda, E. (2008). Age-related macular degeneration and low-vision rehabilitation: A systematic review. *Canadian Journal of Ophthalmology*, *43*, 180–187. https://doi.org/10.3129/i08-001

Hopkins, A., & Proeve, M. (2013). Teaching mindfulness-based cognitive therapy to trainee psychologists: Qualitative and quantitative effects. *Counselling Psychology Quarterly*, *26*, 115–130. https://doi.org/10.1080/09515070.2013.792998

Huang, X., Lin, J., & Demner-Fushman, D. (2006). Evaluation of PICOs as a knowledge representation for clinical questions. In *AMIA Annual Symposium Proceedings. AMIA Symposium.* (pp. 359–63). Retrieved from http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=1839740&tool=pmcentrez&rendertype=abstract

Janssen, M., Heerkens, Y., Kuijer, W., van der Heijden, B., & Engels, J. (2018). Effects of mindfulness-based stress reduction on employees' mental health: A systematic review. *PLOS ONE*, *13*, e0191332. https://doi.org/10.1371/journal.pone.0191332

Kabat-Zinn, J. (1994). *Wherever you go, there you are: Mindfulness meditation in everyday life*. New York, NY: Hyperion.

Kashdan, T. B., & Rottenberg, J. (2010). Psychological flexibility as a fundamental aspect of health. *Clinical Psychology Review*, *30*, 865–878. https://doi.org/10.1016/j.cpr.2010.03.001

Keyes, C. L. M., Dhingra, S. S., & Simoes, E. J. (2010). Change in level of positive mental health as a predictor of future risk of mental illness. *American Journal of Public Health*, *100*, 2366–2371. https://doi.org/10.2105/AJPH.2010.192245

Khoury, B., Sharma, M., Rush, S. E., & Fournier, C. (2015). Mindfulness-based

stress reduction for healthy individuals: A meta-analysis. *Journal of Psychosomatic Research*, *78*, 519–528. https://doi.org/10.1016/j.jpsychores.2015.03.009

Koo, T. K., & Li, M. Y. (2016). A guideline of selecting and reporting intraclass correlation coefficients for reliability research. *Journal of Chiropractic Medicine*, *15*, 155–163. https://doi.org/10.1016/j.jcm.2016.02.012

Korakakis, V., Whiteley, R., Tzavara, A., & Malliaropoulos, N. (2017). The effectiveness of extracorporeal shockwave therapy in common lower limb conditions: A systematic review including quantification of patient-rated pain reduction. *British Journal of Sports Medicine*, *52*, 387–407. https://doi.org/10.1136/bjsports-2016-097347

Kumary, A., & Baker, M. (2008). Stresses reported by UK trainee counselling psychologists. *Counselling Psychology Quarterly*, *21*, 19–28. https://doi.org/10.1080/09515070801895626

Lalande, L., King, R., Bambling, M., & Schweitzer, R. D. (2016). Guided respiration mindfulness therapy: Development and evaluation of a brief therapist training program. *Journal of Contemporary Psychotherapy*, *46*, 107–116. https://doi.org/10.1007/s10879-015-9320-5

Lau, M. A., Bishop, S. R., Segal, Z. V., Buis, T., Anderson, N. D., Carlson, L., … Devins, G. (2006). The Toronto Mindfulness Scale: development and validation. *Journal of Clinical Psychology*, *62*, 1445–1467. https://doi.org/10.1002/jclp.20326

Leaviss, J., & Uttley, L. (2015). Psychotherapeutic benefits of compassion-focused therapy: An early systematic review. *Psychological Medicine*, *45*, 927–945. https://doi.org/10.1017/S0033291714002141

Linden, A. (2013). Assessing regression to the mean effects in health care initiatives.

BMC Medical Research Methodology, *13*, 119. https://doi.org/10.1186/1471-2288-13-119

Linley, P. A., & Joseph, S. (2007). Therapy work and therapists' positive and negative well–being. *Journal of Social and Clinical Psychology*, *26*, 385–403. https://doi.org/10.1521/jscp.2007.26.3.385

Lomas, T., Medina, J. C., Ivtzan, I., Rupprecht, S., & Eiroa-Orosa, F. J. (2018). A systematic review of the impact of mindfulness on the well-being of healthcare professionals. *Journal of Clinical Psychology*, *74*, 319–355. https://doi.org/10.1002/jclp.22515

Lovibond, P. F., & Lovibond, S. H. (1995). The structure of negative emotional states: Comparison of the depression anxiety stress scales (DASS) with the Beck Depression and Anxiety Inventories. *Behaviour Research and Therapy*, *33*, 335–343. https://doi.org/10.1016/0005-7967(94)00075-U

Luoma, J. B., & Vilardaga, J. P. (2013). Improving therapist psychological flexibility while training Acceptance and Commitment Therapy: A pilot study. *Cognitive Behaviour Therapy*, *42*, 1–8. https://doi.org/10.1080/16506073.2012.701662

MacBeth, A., & Gumley, A. (2012). Exploring compassion: A meta-analysis of the association between self-compassion and psychopathology. *Clinical Psychology Review*, *32*, 545–552. https://doi.org/10.1016/j.cpr.2012.06.003

Maslach, C., & Jackson, S. E. (1981). The measurement of experienced burnout. *Journal of Organizational Behavior*, *2*, 99–113. https://doi.org/10.1002/job.4030020205

McCann, I. L., & Pearlman, L. A. (1990). Vicarious traumatization: A framework for understanding the psychological effects of working with victims. *Journal of Traumatic Stress*, *3*, 131–149. https://doi.org/10.1007/BF00975140

Mealer, M., Conrad, D., Evans, J., Jooste, K., Solyntjes, J., Rothbaum, B., & Moss,

M. (2014). Feasibility and acceptability of a resilience training program for intensive care unit nurses. *American Journal of Critical Care*, *23*, 97–105. https://doi.org/10.4037/ajcc2014747

Meyer, T. J., Miller, M. L., Metzger, R. L., & Borkovec, T. D. (1990). Development and validation of the Penn State Worry Questionnaire. *Behaviour Research and Therapy*, *28*, 487–495. https://doi.org/10.1016/0005-7967(90)90135-6

Mhaskar, R., Emmanuel, P., Mishra, S., Patel, S., Naik, E., & Kumar, A. (2009). Critical appraisal skills are essential to informed decision-making. *Indian Journal of Sexually Transmitted Diseases and AIDS*, *30*, 112–119. https://doi.org/10.4103/0253-7184.62770

Moher, D., Liberati, A., Tetzlaff, J., & Altman, D. G. (2009). Preferred reporting items for systematic reviews and meta-analyses: The PRISMA statement. *PLoS Medicine*, *6*, e1000097. https://doi.org/10.1371/journal.pmed.1000097

Moore, P. (2008). Introducing mindfulness to clinical psychologists in training: An experiential course of brief exercises. *Journal of Clinical Psychology in Medical Settings*, *15*, 331–337. https://doi.org/10.1007/s10880-008-9134-7

Moyer, D. N., Murrell, A. R., Connally, M. L., & Steinberg, D. S. (2017). Showing up for class: Training graduate students in Acceptance and Commitment Therapy. *Journal of Contextual Behavioral Science*, *6*, 114–118. https://doi.org/10.1016/j.jcbs.2016.12.001

Neff, K. D. (2003a). The development and validation of a scale to measure self-compassion. *Self and Identity*, *2*, 223–250. https://doi.org/10.1080/15298860309027

Neff, K. D. (2003b). Self-compassion: An alternative conceptualization of a healthy attitude toward oneself. *Self and Identity*, *2*, 85–101. https://doi.org/10.1080/15298860309032

Neff, K. D., Kirkpatrick, K. L., & Rude, S. S. (2007). Self-compassion and adaptive psychological functioning. *Journal of Research in Personality*, *41*, 139–154. https://doi.org/10.1016/j.jrp.2006.03.004

Neff, K. D., & Vonk, R. (2009). Self-compassion versus global self-esteem: two different ways of relating to oneself. *Journal of Personality*, *77*, 23–50. https://doi.org/10.1111/j.1467-6494.2008.00537.x

Nelson, J. R., Hall, B. S., Anderson, J. L., Birtles, C., & Hemming, L. (2018). Self–compassion as self-care: A simple and effective tool for counselor educators and counseling students. *Journal of Creativity in Mental Health*, *13*, 121–133. https://doi.org/10.1080/15401383.2017.1328292

Newsome, S, Christopher, J., Dahlen, P., & Christopher, S. (2006). Teaching counselors self-care through mindfulness practices. *Teachers College Record*, *108*, 1881–1900. https://doi.org/10.1111/j.1467-9620.2006.00766.x

Newsome, Sandy, Waldo, M., & Gruszka, C. (2012). Mindfulness group work: Preventing stress and increasing self-compassion among helping professionals in training. *The Journal for Specialists in Group Work*, *37*, 297–311. https://doi.org/10.1080/01933922.2012.690832

Pack, M. (2014). Vicarious resilience. *Affilia*, *29*, 18–29. https://doi.org/10.1177/0886109913510088

Pakenham, K.I., Scott, T., & Uccelli, M. M. (2018). Evaluation of Acceptance and Commitment Therapy training for psychologists working with people with multiple sclerosis. *International Journal of MS Care*, *20*, 44–48. https://doi.org/10.7224/1537-2073.2016-080

Pakenham, Kenneth I. (2015). Effects of Acceptance and Commitment Therapy (ACT) training on clinical psychology trainee stress, therapist skills and

attributes, and ACT processes. *Clinical Psychology & Psychotherapy*, *22*, 647–655. https://doi.org/10.1002/cpp.1924

Pakenham, K. I. (2017). Training in Acceptance and Commitment Therapy fosters self-care in clinical psychology trainees. *Clinical Psychologist*, *21*, 186–194. https://doi.org/10.1111/cp.12062

Pakenham, K. I., & Stafford-Brown, J. (2012). Stress in clinical psychology trainees: Current research status and future directions. *Australian Psychologist*, *47*, 147–155. https://doi.org/10.1111/j.1742-9544.2012.00070.x

Paliliunas, D., Belisle, J., & Dixon, M. R. (2018). A randomized control trial to evaluate the use of Acceptance and Commitment Therapy (ACT) to increase academic performance and psychological flexibility in graduate students. *Behavior Analysis in Practice*, *11*, 241–253. https://doi.org/10.1007/s40617-018-0252-x

Parmentier, F. B. R., García-Toro, M., García-Campayo, J., Yañez, A. M., Andrés, P., & Gili, M. (2019). Mindfulness and symptoms of depression and anxiety in the general population: The mediating roles of worry, rumination, reappraisal and suppression. *Frontiers in Psychology*, *10*, 1–10. https://doi.org/10.3389/fpsyg.2019.00506

Peterson, C. & Park, N. (2008). *The Authentic Happiness Inventory*. Retrieved from https://www.authentichappiness.sas.upenn.edu/testcenter

Pica, M. (1998). The ambiguous nature of clinical training and its impact on the development of student clinicians. *Psychotherapy: Theory, Research, Practice, Training*, *35*, 361–365. https://doi.org/10.1037/h0087840

Pines, A. M., & Keinan, G. (2005). Stress and burnout: The significant difference. *Personality and Individual Differences*, *39*, 625–635. https://doi.org/10.1016/j.paid.2005.02.009

Radloff, L. S. (1977). The CES-D scale. *Applied Psychological Measurement*, *1*, 385–401. https://doi.org/10.1177/014662167700100306

Richardson, C. M. E., Trusty, W. T., & George, K. A. (2018). Trainee wellness: Self-critical perfectionism, self-compassion, depression, and burnout among doctoral trainees in psychology. *Counselling Psychology Quarterly*, 1–12. https://doi.org/10.1080/09515070.2018.1509839

Rimes, K. A., & Wingrove, J. (2011). Pilot study of mindfulness-based cognitive therapy for trainee clinical psychologists. *Behavioural and Cognitive Psychotherapy*, *39*, 235–241. https://doi.org/10.1017/S1352465810000731

Robins, T. G., Roberts, R. M., & Sarris, A. (2019). The effectiveness, feasibility, and acceptability of a dialectical behaviour therapy skills training group in reducing burnout and psychological distress in psychology trainees: A pilot study. *Australian Psychologist*, 1–10. https://doi.org/10.1111/ap.12389

Rønnestad, M. H., & Skovholt, T. M. (2003). The journey of the counselor and therapist: research findings and perspectives on professional development. *Journal of Career Development*, *30*, 5–44. https://doi.org/10.1177/089484530303000102

Rudaz, M., Twohig, M. P., Ong, C. W., & Levin, M. E. (2017). Mindfulness and acceptance-based trainings for fostering self-care and reducing stress in mental health professionals: A systematic review. *Journal of Contextual Behavioral Science*, *6*, 380–390. https://doi.org/10.1016/j.jcbs.2017.10.001

Ruths, F. A., de Zoysa, N., Frearson, S. J., Hutton, J., Williams, J. M. G. M. G., & Walsh, J. (2013). Mindfulness-based cognitive therapy for mental health professionals— A pilot study. *Mindfulness*, *4*, 289–295. https://doi.org/10.1007/s12671-012-0127-0

Shapiro, S. L., Astin, J. A., Bishop, S. R., & Cordova, M. (2005). Mindfulness-based

stress reduction for health care professionals: Results from a randomized trial. *International Journal of Stress Management*, *12*, 164–176. https://doi.org/10.1037/1072-5245.12.2.164

Shapiro, S. L., Brown, K. W., & Biegel, G. M. (2007). Teaching self-care to caregivers: Effects of mindfulness-based stress reduction on the mental health of therapists in training. *Training and Education in Professional Psychology*, *1*, 105–115. https://doi.org/10.1037/1931-3918.1.2.105

Shapiro, S. L., & Carlson, L. E. (2009). *The art and science of mindfulness: Integrating mindfulness into psychology and the helping professions.* Washington, DC: American Psychological Association. https://doi.org/10.1037/11885-000

Shapiro, S. L., Carlson, L. E., Astin, J. A., & Freedman, B. (2006). Mechanisms of mindfulness. *Journal of Clinical Psychology*, *62*, 373–386. https://doi.org/10.1002/jclp.20237

Shirom, A. (1989). Burnout in work organizations. In C. L. Cooper & I. T. Robertson (Eds.), *International Review of Industrial and Organizational Psychology* (pp. 25–48). Oxford, England: John Wiley & Sons.

Smeets, E., Neff, K., Alberts, H., & Peters, M. (2014). Meeting suffering with kindness: Effects of a brief self-compassion intervention for female college students. *Journal of Clinical Psychology*, *70*, 794–807. https://doi.org/10.1002/jclp.22076

Smith, B. W., Dalen, J., Wiggins, K., Tooley, E., Christopher, P., & Bernard, J. (2008). The Brief Resilience Scale: Assessing the ability to bounce back. *International Journal of Behavioral Medicine*, *15*, 194–200. https://doi.org/10.1080/10705500802222972

Sood, A., Sharma, V., Schroeder, D. R., & Gorman, B. (2014). Stress management

and resiliency training (SMART) program among department of radiology faculty: A pilot randomized clinical trial. *EXPLORE*, *10*, 358–363. https://doi.org/10.1016/j.explore.2014.08.002

Spielberger, C. D., Gorsuch, R. L., & Lushene, R. E. (1970). The State-Trait Anxiety Inventory manual. *CA: Consulting Psychologists Press*. Retrieved from http://hdl.handle.net/10477/2895

Stafford-Brown, J., & Pakenham, K. I. (2012). The effectiveness of an ACT informed intervention for managing stress and improving therapist qualities in clinical psychology trainees. *Journal of Clinical Psychology*, *68*, 592–513. https://doi.org/10.1002/jclp.21844

Steger, M. F., Frazier, P., Oishi, S., & Kaler, M. (2006). The Meaning in Life Questionnaire: Assessing the presence of and search for meaning in life. *Journal of Counseling Psychology*, *53*, 80–93. https://doi.org/10.1037/0022-0167.53.1.80

Sullivan, G. M., & Feinn, R. (2012). Using effect size—or why the p value is not enough. *Journal of Graduate Medical Education*, *4*, 279–282. https://doi.org/10.4300/JGME-D-12-00156.1

Suurmond, R., van Rhee, H., & Hak, T. (2017). Introduction, comparison, and validation of meta-essentials: A free and simple tool for meta-analysis. *Research Synthesis Methods*, *8*, 537–553. https://doi.org/10.1002/jrsm.1260

Swift, J. K., Callahan, J. L., Dunn, R., Brecht, K., & Ivanovic, M. (2017). A randomized-controlled crossover trial of mindfulness for student psychotherapists. *Training and Education in Professional Psychology*, *11*, 235–242. https://doi.org/10.1037/tep0000154

Thompson, I. A., Wolf, C. P., Mott, E., Baggs, A. S., Thompson, E. S., Callueng, C., & Puig, A. (2018). Luna yoga: A wellness program for female counselors and

counselors-in-training to foster self-awareness and connection. *Journal of Creativity in Mental Health*, *13*, 169–184. https://doi.org/10.1080/15401383.2017.1348918

Trapnell, P. D., & Campbell, J. D. (1999). Private self-consciousness and the five-factor model of personality: Distinguishing rumination from reflection. *Journal of Personality and Social Psychology*, *76*, 284–304. https://doi.org/10.1037/0022-3514.76.2.284

Walach, H., Buchheld, N., Buttenmüller, V., Kleinknecht, N., & Schmidt, S. (2006). Measuring mindfulness—the Freiburg Mindfulness Inventory (FMI). *Personality and Individual Differences*, *40*, 1543–1555. https://doi.org/10.1016/j.paid.2005.11.025

Watson, D., Clark, L. A., & Tellegen, A. (1988). Development and validation of brief measures of positive and negative affect: The PANAS scales. *Journal of Personality and Social Psychology*. https://doi.org/10.1037/0022-3514.54.6.1063

Wise, E. H., Hersh, M. A., & Gibson, C. M. (2012). Ethics, self-care and well-being for psychologists: Reenvisioning the stress-distress continuum. *Professional Psychology: Research and Practice*, *43*, 487–494. https://doi.org/10.1037/a0029446

Wood, A. M., Froh, J. J., & Geraghty, A. W. A. (2010). Gratitude and well-being: A review and theoretical integration. *Clinical Psychology Review*, *30*, 890–905. https://doi.org/10.1016/j.cpr.2010.03.005

Youssef, C. M., & Luthans, F. (2007). Positive organizational behavior in the workplace. *Journal of Management*, *33*, 774–800. https://doi.org/10.1177/0149206307305562

Zigmond, A. S., & Snaith, R. P. (1983). The Hospital Anxiety and Depression Scale.

Acta Psychiatrica Scandinavica, *67*, 361–370. https://doi.org/10.1111/j.1600-0447.1983.tb09716.x

Appendix

Appendix A

Full Search Strategy

1. Search Strategy used in Medline

1. exp Mental Health Services/
2. "mental health personnel".mp.
3. "mental health worker*".mp.
4. "mental health professional*".mp.
5. "mental health provider*".mp.
6. "mental health practitioner*".mp.
7. psychologist*.mp.
8. psychotherapist*.mp.
9. "clinical psychologist*".mp.
10. counsellor*.mp.
11. COUNSELORS/ or counselor*.mp.
12. therapist*.mp.
13. 1 or 2 or 3 or 4 or 5 or 6 or 7 or 8 or 9 or 10 or 11 or 12
14. exp RESILIENCE, PSYCHOLOGICAL/ or resilienc*.mp.
15. gratitude.mp.
16. self-compassion.mp.
17. MINDFULNESS/
18. Self Care/
19. MEDITATION/
20. compassion*.mp.
21. 14 or 15 or 16 or 17 or 18 or 19 or 20
22. "Acceptance and Commitment Therapy"/
23. 14 or 15 or 16 or 17 or 18 or 19 or 20 or 22
24. intervention*.mp.
25. training.mp.
26. workshop*.mp.
27. program*.mp.
28. 24 or 25 or 26 or 27
29. 23 and 28
30. Mental Health/
31. STRESS, PSYCHOLOGICAL/
32. Depression/ or depress*.mp.
33. ANXIETY/
34. compassion*.mp.
35. Compassion Fatigue/
36. exp BURNOUT, PROFESSIONAL/
37. "Quality of Life"/
38. Treatment Outcome/ or therapist effect*.mp.

39. wellbeing*.mp.
40. Resilience, Psychological/ or resilien*.mp.
41. Job Satisfaction/
42. 30 or 31 or 32 or 33 or 34 or 35 or 36 or 37 or 38 or 39 or 40 or 41
43. 13 and 29 and 42

---

2. Search Strategy used in PsycInfo

---

1. exp INTERVENTION/
2. workshop*.mp.
3. program*.mp.
4. exp TRAINING/ or exp ON THE JOB TRAINING/
5. 1 or 2 or 3 or 4
6. exp "RESILIENCE (PSYCHOLOGICAL)"/
7. resilienc*.mp.
8. exp GRATITUDE/
9. gratitude.mp.
10. compassion*.mp.
11. self-compassion.mp.
12. mindfulness.mp.
13. exp MINDFULNESS/
14. exp MEDITATION/
15. exp Self-Care Skills/
16. 6 or 7 or 8 or 9 or 10 or 11 or 12 or 13 or 14 or 15
17. (acceptance and commitment therapy).mp.
18. 6 or 7 or 8 or 9 or 10 or 11 or 12 or 13 or 14 or 15 or 17
19. Mental Health/
20. exp PSYCHOLOGICAL STRESS/
21. exp "DEPRESSION (EMOTION)"/
22. exp ANXIETY/
23. compassion*.mp.
24. exp Compassion Fatigue/
25. exp Occupational Stress/
26. burnout.mp.
27. exp "Quality of Life"/
28. Well Being/
29. therapist effect*.mp.
30. exp "Resilience (Psychological)"/
31. Job Satisfaction/
32. 19 or 20 or 21 or 22 or 23 or 24 or 25 or 26 or 27 or 28 or 29 or 30 or 31
33. "mental health worker*".mp.
34. "mental health professional*".mp.
35. "mental health provider*".mp.
36. "mental health practitioner*".mp.
37. exp Psychologists/ or exp Clinical Psychologists/ or exp Counseling Psychologists/ or Psychologist*.mp.
38. exp Clinical Psychology Graduate Training/
39. exp Psychotherapists/
40. exp THERAPISTS/
41. exp Counseling/ or exp Counselors/ or exp Counselor Trainees/

42. exp Psychiatric Hospital Staff/
43. exp Mental Health Personnel/
44. exp Therapist Trainees/
45. 33 or 34 or 35 or 36 or 37 or 38 or 39 or 40 or 41 or 42 or 43 or 44
46. 5 and 16 and 32 and 45

---

3. Search Strategy used in Scopus

(TITLE-ABS-KEY("mental health professional" OR "mental health practitioner" OR "mental health provider" OR "mental health worker" OR "psychologist*" OR "psychotherapist*" OR therapist OR counselor*) AND TITLE-ABS-KEY(resilienc* OR compassion OR mindfulness OR meditation OR gratitude OR "self-care" OR "acceptance and commitment therapy") AND TITLE-ABS-KEY(intervention OR program* OR workshop OR training) AND TITLE-ABS-KEY(stress OR depress* OR anxiety OR wellbeing OR burnout OR "quality of life" OR "job satisfaction"))

Appendix B

Adapted Down and Black's Critical Appraisal Tool

Downs and Black score ranges were given corresponding quality levels as previously reported (Hooper, Jutai, Strong, & Russell-Minda, 2008): excellent (26-28); good (20-25); fair (15-19); and poor (≤14). As a variety of study methodologies were included which varied in terms of presence/absence of control group or follow-up, the checklist was adapted to be suitable to each study design and the total score was adapted to account for removed items. A percentage was calculated from the total score divided by the number of items included in order to provide a method for comparison as shown below.

Percentage Classifications

Excellent	26 - 28	92.86 - 100.00
Good	20 - 25	71.43 - 89.29
Fair	15 - 19	53.57 - 67.86
Poor	14 - 0	50.00 - 0.00

1. Is the hypothesis/aim/objective of the study clearly described?

   Yes 1 No 0

2. Are the main outcomes to be measured clearly described in the Introduction or Methods section?

If the main outcomes are first mentioned in the Results section, the question should be answered no.

   Yes 1 No 0

3. Are the characteristics of the participants included in the study clearly described?

In cohort studies and trials, inclusion and/or exclusion criteria should be given.

   Yes 1 No 0

4. Are the training interventions clearly described?

   Yes 1 No 0

5. Are the distributions of principal confounders in each group of participants to be compared clearly described?

   A list of principal confounders is provided.

   Yes 2 Partially 1 No 0

6. Are the main findings of the study clearly described?

Simple outcome data should be reported for all major findings so that the reader can check the major analyses and conclusions. (This question does not cover statistical tests which are considered below).

   Yes 1 No 0

7. Does the study provide estimates of the random variability in the data for the main outcomes?

In non-normally distributed data the inter-quartile range of results should be reported. In normally distributed data the standard error, standard deviation or confidence intervals should be reported around the therapist effect. If the distribution of the data is not described, it must be assumed that the estimates used were appropriate and the question should be answered yes.

   Yes 1 No 0

8. Have all important adverse events that may be a consequence of the training intervention been reported?

This should be answered yes if the study demonstrates that there was a comprehensive attempt to measure adverse events. (A list of possible adverse events is provided).

   Yes 1 No 0

9. Have the characteristics of participants lost to follow-up been described?

This should be answered yes where there were no losses to follow-up or where losses to follow-up were so small that findings would be unaffected by their inclusion. This should be answered ‘no’ where a study does not report the number of patients lost to follow-up.

   Yes 1 No 0

10. Have actual probability values been reported (e.g. 0.035 rather than <0.05) for the main outcomes except where the probability value is less than 0.001?

    Yes 1 No 0

External validity

All the following criteria attempt to address the representativeness of the findings of the study and whether they may be generalised to the population from which the study subjects were derived.

11. Were the subjects asked to participate in the study representative of the entire population from which they were recruited?

The study must identify the source population for participants and describe how the participants were selected. Participants would be representative if they comprised the entire source population, or a random sample. Random sampling is only feasible where a list of all members of the relevant population exists. Where a study does not report the proportion of the source population from which the participants are derived, the question should be answered as unable to determine.

Yes 1 No 0 Unable to determine 0

12. Were those subjects who were prepared to participate representative of the entire population from which they were recruited?

The proportion of those asked who agreed should be stated. Validation that the sample was representative would include demonstrating that the distribution of the main confounding factors was the same in the study sample and the source population.

Yes 1 No 0 Unable to determine 0

13. Were the staff, places, and facilities where the participants received the training intervention, representative of training the majority of clinicians receive?

For the question to be answered yes the study should demonstrate that the training was representative of that in use in the source population.

Yes 1 No 0 Unable to determine 0

Internal validity –bias

14. Was an attempt made to blind participants to the training intervention they have received?

Yes 1 No 0 Unable to determine 0

15. Was an attempt made to blind those measuring the main outcomes of the training?

Yes 1 No 0 Unable to determine 0

16. If any of the results of the study were based on “data dredging”, was this made clear?

Any analyses that had not been planned at the outset of the study should be clearly indicated. If no retrospective unplanned subgroup analyses were reported, then answer yes.

Yes 1 No 0 Unable to determine 0

17. In trials and cohort studies, do the analyses adjust for different lengths of follow-up of patients?

Where follow-up was the same for all study participants the answer should be yes. If different lengths of follow-up were adjusted for by, for example, survival analysis the answer should be yes. Studies where differences in follow-up are ignored should be answered no.

Yes 1 No 0 Unable to determine 0

18. Were the statistical tests used to assess the main outcomes appropriate?

The statistical techniques used must be appropriate to the data. For example non-parametric methods should be used for small sample sizes. Where little statistical analysis has been undertaken but where there is no evidence of bias, the question should be answered yes. If the distribution of the data (normal or not) is not described it must be assumed that the estimates used were appropriate and the question should be answered yes.

Yes 1 No 0 Unable to determine 0

19. Was compliance with the training intervention assessed?

Where there was non-compliance with the allocated treatment or where there was contamination of one group, the question should be answered no. For studies where the effect of any misclassification was likely to bias any association to the null, the question should be answered yes.

Yes 1 No 0 Unable to determine 0

20. Were the main outcome measures used accurate (valid and reliable)?

For studies where the outcome measures are clearly described, the question should be answered yes. For studies which refer to other work or that demonstrates the outcome measures are accurate, the question should be answered as yes.

Yes 1 No 0 Unable to determine 0

Internal validity - Confounding (selection bias)

21. Were the participants in different training intervention groups recruited from the same population?

The question should be answered unable to determine for cohort studies where there is no information concerning the source of patients included in the study.

Yes 1 No 0 Unable to determine 0

22. Were study subjects in different training groups recruited over the same period of time?

For a study which does not specify the time period over which patients were recruited, the question should be answered as unable to determine.

Yes 1 No 0 Unable to determine 0

23. Were participants randomised to training groups?

Studies which state that participants were randomised should be answered yes except where method of randomisation would not ensure random allocation. For example alternate allocation would score no because it is predictable.

Yes 1 No 0 Unable to determine 0

24. Was the randomised training condition assignment concealed from both participants and trainers until recruitment was complete and irrevocable?

All non-randomised studies should be answered no. If assignment was concealed from patients but not from staff, it should be answered no.

Yes 1 No 0 Unable to determine 0

25. Was there adequate adjustment for confounding in the analyses from which the main findings were drawn?

This question should be answered no for randomised studies if: the main conclusions of the study were based on analyses of treatment rather than intention to treat; the distribution of known confounders in the different treatment groups was not described; or the distribution of known confounders differed between the treatment groups but was not taken into account in the analyses. In non-randomised studies if the effect of the main confounders was not investigated or confounding was demonstrated but no adjustment was made in the final analyses the question should be answered as no.

Yes 1 No 0 Unable to determine 0

26. Were losses of participants to follow-up taken into account?

If the numbers of patients lost to follow-up are not reported, the question should be answered as unable to determine. If the proportion lost to follow-up was too small to affect the main findings, the question should be answered yes.

Yes 1 No 0 Unable to determine 0

Power

27. Did the study have sufficient power to detect a clinically important effect where the probability value for difference being due to chance is less than 5%?

The question should be scored yes if the author reports statistical power and power was attained. Where a sample size analysis was not conducted the question should be scored unable to determine.

Yes 1 No 0 Unable to determine 0

Appendix C

Summary of Results from Quality Assessment

	FULL POINTS
	UNDETERMINABLE
	NO POINTS
	DISCOUNTED ITEM – NOT APPLICABLE

Author	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	%	Rating
Mindfulness																													
Within-subject																													
Aggs & Bambling																												66.7	Fair
Cohen & Miller																												72.2	Good
Collard et al.																												62.5	Fair
Hopkins & Proeve																												63.2	Fair
Lalande et al.																												75.0	Good
Moore																												50.0	Poor

Rimes & Wingrove																												62.5	Fair
Ruths et al.																												68.4	Fair
de Zoysa et al.																												68.4	Fair
Between-group																													
Bohecker & Doughty Horn																												72.0	Good
Gokhan et al.																												64.0	Fair
Shapiro et al.																												68.0	Fair
Swift et al.																												60.0	Fair
Robins et al.																												64.3	Fair
ACT																													
Within-subject																													
Pakenham 2015																												70.6	Fair-Good
Pakenham 2017																												56.3	Fair
Pakenham et al.																												63.2	Fair
Moyer et al.																												57.9	Fair
Between-group																													

Hayes et al.																											64.3	Fair
Luoma & Vilardaga																											60.7	Fair
Paliliunas et al.																											48.0	Poor
Stafford-Brown & Pakenham																											64.3	Fair
CFT																												
Within-subject																												
Beaumont et al.																											68.8	Fair – Good
Finlay-Jones et al.																											70.0	Fair-good
Gentry et al.																											62.5	Fair
Between-group																												
Eriksson et al.																											68.0	Fair

Appendix D

Table of Secondary Outcomes

Study No	Study	Outcome measure	Findings
Mindfulness			
Within-subject			
1	Aggs & Bambling	FMMS	All 4-facets (p <.01) increased; non-distraction: d = 0.52 (0.20 – 0.83), attention: d = 0.55 (0.24 – 0.87), letting go: d = 0.58 (0.26 - 0.90), mastery: d = 0.67 (0.35 – 1.00)
2	Cohen & Miller	MAAS	Increased mindfulness awareness post-IMT; d = 0.48 (0.00 - 0.97), p = .005
3	Collard et al.	FMI	Mindfulness significantly increased across course; d = 0.50 (-0.09 - 1.08), p = 0.035
4	Hopkins & Proeve	FFMQ	Pre-post increases in observe, d = 0.44 (-0.31 – 1.19), Non-judge, d = 1.25 (0.30 – 2.21); Non-react, d = 0.79 (-0.03 – 1.61), awareness d = 0.11 (-0.61 – 0.83), and describe, d = 0.18 (-0.54 – 0.90) were found. Across the three time-points (with follow-up), significant changes in observe, p < .05, non-judge p < .01, and non-react p < .01 were found, but not for awareness or describe. Scores were maintained at follow-up.
5	Lalande et al.	TMS	Increase in mindfulness within-session; d = 0.60 (0.32 - 0.88), p <0.01.
6	Moore*	KIMS; NCS	Increase in mindfulness overall (p = .04) and observe subscale (p <.01) but not on other facets. No significant change overall in compassion, *ns*, but significant increase on self-kindness sub-scale (p = .02)

7	Rimes & Wingrove	FFMQ; RRQ; SCS	Significant increase in mindfulness; d = 0.61 (0.10 - 1.12), p = .0008, decrease in rumination; d = -0.58 (-1.08 - -0.07), p <.0005, and increase in self-compassion; d = 0.48 (-0.01 - 0.98), p = .016. Reductions in stress correlated significant with reductions in rumination (p = .004) and anxiety (p = .20).
8	Ruths et al.	MAAS	Significant improvement in mindful attention and awareness at post (p = .008), 3-month (p = .001), 18-month (p = .010).
9	de Zoysa et al.		Changes in mindfulness correlates significant with changes in trait anxiety and changes in psychological wellbeing, p = .009 and p= .03 respectively, but not with trait worry, *ns.*
Between-group			
10	Bohecker & Doughty Horn	FFMQ	Significant difference between MESG group than control; d = -1.05 (-1.97 - -0.13), p = .023
11	Gokhan et al.	MAAS; FMI; KIMS	Post-mindfulness training MAAS and FMI scores higher than own pre-training scores and both measures of the control; d = -0.81 (-1.44 - -0.17), p = <.05; FMI d = -0.81 (-1.45 - -0.17), p = .03
12	Shapiro et al.	MAAS; RRQ; SCS	Higher post-intervention scores in intervention group relative to control group for mindfulness and self-compassion; MAAS; d = -0.36 (-0.92 - 0.19), RRQ; d = 0.41 (-0.14 - 0.96), SCS: d = -0.42 (-0.98 - 0.13). Significant time x group interactions, MAAS p = .006, RRQ p = .0006, SCS p = .0001
13	Swift et al.	TMS; FMMQ	Across session increase in state mindfulness (TMS) in intervention group between end of session 1 and 5; d = 0.39 (-0.09 - 0.88), with a linear trend for scores across time, p <.05 Post-mindfulness significant different between groups; d = -0.84 (-1.49 - -0.18), p <.001
14	Robins et al.	MAAS; AAQ	DBT-group had higher mindfulness than controls post-intervention, d = -0.52 (-1.13 - 0.08) and lower psychological inflexibility, d = 0.09 (-0.50 - 0.69) Significantly higher change scores were reported for mindfulness (p = .001) and psychological inflexibility (p = .002). No significant difference between scores at follow-up.

Acceptance-based			
Within-subject			
15	Pakenham 2015	FFMQ; SCS; AAQ	Significant increases in mindfulness, except act with awareness sub-scale; overall effect on total mindfulness, *d* = 0.59 (0.20 - 0.98), *p* <.001. No significant increase in total self-compassion; *d*= 0.14 (-0.23 - 0.50), *ns,* but self-kindness sub-scale increased, *p* <.05. Acceptance increased significantly (decrease in scores); *d* = -1.89 (-2.50 - -1.29), *p* <.001.
16	Pakenham 2017 **	NA	
17	Pakenham et al.	AAQ; CFQ	No statistical changes in acceptance, *d* = 0.09 (0.44 - 0.26) or cognitive fusion, *d* = 0.11 (-0.24 - 0.46), *ns,* between pre and post. No further changes at follow-up.
18	Moyer et al.	AFQ-Y	RCI: measures of psychological flexibility did not reach magnitude considered reliable (*n* = 4 deemed reliable, *n* = 5 not reliable, *n* = 1 had reliable decline at post-score), with different participants with reliable decline at follow-up.
Between-group			
19	Hayes et al **	NA	
20	Luoma & Vilardaga	AAQ	A small between-group difference in acceptance was found pre to post-intervention, with the consultation group showing more psychological flexibility than the workshop group, *d* = -0.22 (-1.12 - 0.68). The workshop group had a smaller decrease in psychological flexibility than the consultation group, *d*= -0.19 (-0.92 - 0.53) vs *d*= -0.25 (-0.97 - 0.48), with a significant condition by time effect, *p* = .032. The between-group difference had increased at follow-up, *d*= -1.80 (-2.86 - -0.73).
21	Paliliunas et al.	AAQ	Greater AAQ decrease for IG compared to slight increase in CG, *d* = 0.64 (-0.05 – 1.34), *p* = .034.

22	Stafford-Brown & Pakenham	FFMQ; SCS; AAQ	Mindfulness and acceptance improved more in intervention than control group; FFMQ d = -0.79 (-1.34 - -0.23), p <.001; AAQ: d = -0.67 (-1.22 - -0.11), p <.05. Both had significant time x group interaction; p <.001, p <.05 respectively. Both groups improved on self-compassion; d= -0.62 (-1.17 - -0.07) *ns.* Post-treatment to follow-up changes were non-significant; all treatment effects were maintained.
Compassion-focused			
Within-subject			
23	Beaumont et al.	SCS	Increases in self-compassion; d = 0.46 (-0.02 - 0.94), p = .022 and decreases in self-critical judgment; d = -0.40 (-0.87 - 0.07). p = .012.
24	Finlay-Jones et al.*	SCS	Significant positive changes in self-compassion, d = 0.86 pre-post and at follow-up, d = 1.15, p <.001.
25	Gentry et al. **	NA	
Between-group			
26	Eriksson et al.	SCS Total	IG had higher total self-compassion at post than controls, d = -0.61 (-1.06 - -0.16), higher self-compassion on the subscale, d= -0.66 (-1.11 - 0.21) and lower self-coldness, d = 0.52 (0.08 - 0.97). Time by group interaction effects were significant at p <0.001, p <.01, and p <.001 respectively.

Note: *indicates study where author was contacted for additional data to calculate effect size, but there was either no response or sufficient data could not be provided; ** indicates study where secondary outcome was not measured; IG=intervention group, CG= control group, RCI=reliable change index; *p*-values reported when available, *ns*= non-significant; FMMS= Five Facets of Mindfulness Scale (Aggs & Bambling, 2010), MAAS=Mindful Attention Awareness Scale (Brown & Ryan, 2003), FMI= Freiburg Mindfulness Inventory (Walach, Buchheld, Buttenmüller, Kleinknecht, & Schmidt, 2006), FFMQ= Five Facet Mindfulness Questionnaire (Baer et al., 2008), TMS= Toronto Mindfulness Scale (Lau et al., 2006), KIMS= Kentucky Inventory of Mindfulness Skills (Baer, Smith, & Allen, 2004), RRQ= Rumination and Reflection Questionnaire (Trapnell & Campbell, 1999), SCS= Self-compassion Scale (Neff, 2003), AAQ= Acceptance and Action Questionnaire (Bond & Bunce, 2003), CFQ= Cognitive Fusion Questionnaire (Gillanders et al., 2014), AFQ-Y= Avoidance and Fusion Questionnaire for Youth (Greco, Murrell, & Coyne, 2005)

This page is left intentionally blank.

Section Two: Empirical Study

The Role of Resilience in Therapist Wellbeing: Feasibility, Acceptability and Impact of a Resilience Intervention for Psychological Wellbeing Practitioner (PWP) Trainees

This page is left intentionally blank.

Abstract

Objectives. Resilience can protect against workplace adversity, benefit psychological wellbeing and promote effective clinical practice in mental health professionals. This study aimed to consider the role of resilience in the wellbeing of Psychological Wellbeing Practitioner trainees (TPWPs) and the feasibility, acceptability and impact of a resilience workshop.

Design. The study was a pre-post design with three time-points (pre, post and 10-week follow-up).

Methods. Mixed methods were used to evaluate a one-day resilience training for TPWPs. Self-report measures were used to investigate training acceptability, helpful aspects, and use of resilience skills. Sixty-five participants completed baseline measures of resilience, burnout, wellbeing, depression and anxiety. Fifty-six full data-sets were completed over time. Eighteen supervisors completed a relationship measure.

Results. Resilience was positively correlated with wellbeing and negatively correlated with anxiety, depression and burnout. The intervention was acceptable with high levels of satisfaction. Qualitative feedback highlighted benefits of self-reflection and learning new skills. Adaptations for future training were suggested. Resilience differed significantly across time-points and follow-up scores were significantly higher than pre and post-scores. The secondary outcomes of wellbeing, burnout, depression and anxiety did not significantly improve. Resilience change scores accounted for small but significant proportions of the variance in three of the four secondary outcomes at follow-up. There was no association between trainee resilience and the supervisory relationship.

Conclusion. Resilience may be important for wellbeing during training. Preliminary support was found for a brief resilience workshop for TPWPs.

Practitioner points

- Resilience is correlated with wellbeing and lower burnout, depression and anxiety.
- Resilience interventions are acceptable to TPWPs, although audience-specific adaptations may be beneficial.
- Resilience interventions may supplement training to improve resilience.
- The impact on overall wellbeing remains uncertain; however, strategies may take time to benefit wellbeing.

Limitations

- The study used a pre-post design and the findings may be influenced by confounding variables (e.g. stress during training).
- Small numbers of supervisors were recruited.
- Longer follow-up and measures on stress and quality of life may be beneficial.

Key terms*: Resilience, mental health professionals, Psychological Wellbeing Practitioners (PWPs), wellbeing, burnout.*

Introduction

There is variety in individuals' abilities to respond to stress (Rutter, 2013) and psychological resilience may play an important role. Resilience is an adaptive personal quality that allows individuals to cope or thrive in the face of adversity (Ahern, Ark, & Byers, 2008) which comes from controlled and successful exposure to manageable stressors with a 'steeling effect' to reduce sensitivity to later stress experiences, similar to how one builds resistance to an infection (Rutter, 1993; Rutter, 2013). Subsequently, resilience has associated benefits to anxiety and stress management, subjective wellbeing and reduced negative affect and depression (Burns & Anstey, 2010; Burns, Anstey, & Windsor, 2011; Smith et al., 2008).

Various models in the literature illustrate how resilience is developed. Firstly, the "Challenge Model" highlights the importance of exposure to challenge to improve resilience (O'Leary, 1998). Moderate levels of challenge can build positive outcomes with "resilient re-integration" when insight or growth occurs (although very low or high levels have negative outcomes; Richardson, 2002). Secondly, the "Compensatory Model" recognises the role of internal characteristics which neutralise contact with risk. Key characteristics include active problem-solving, perception of adverse experiences in a positive light and positive social skills (Werner & Smith, 2001). Protective attributes include emotional insight, self-reflection, optimism, self-efficacy, perseverance, academic ability, and planning or problem-solving skills (Ungar, 2004). Overall, the meaning attributed to an event alters the subjective experience (Saakvitne, Tennen, & Affleck, 1998).

In addition to individual resources, environmental or social resources that influence resilience include social relationships, organisational support, teamwork, and supervision (Tusaie & Dyer, 2004; Lee et al., 2015). These experiences can support the development of resilience through promoting self-care, reflection and

emotional insight (Jackson, Firtko, & Edenborough, 2007). Whilst individuals have pre-disposed characteristics, resilience appears to be a trait modifiable with connection, social support and internal skills (e.g. planning, self-reflection, agency; Rutter, 2013).

Resilience, occupational stress and burnout

The theory of resilience has been applied to the workplace. 'Career resilience' refers to an individual's resistance to career challenges in sub-optimal conditions (London, 1983) with poor outcomes for employee wellbeing if low resilience exists in high stress workplaces (Rees, Breen, Cusack, & Hegney, 2015).

In health-care settings, difficult clinical issues and conflicts, workplace stressors and external organisational pressures impact on staff wellbeing (Robertson et al., 2016). Lack of control has been reported as a stressor in the changing landscape of mental health services (Lamb & Cogan, 2016) with an important interplay with resilience, which decreases with a reduced sense of control at work (Keeton, Fenner, Johnson, & Hayward, 2007).

The benefits of resilience include increased self-directedness, high persistence and tolerance of uncertainty (in physicians; Eley et al., 2013). Further, therapist resilience and mindfulness may benefit therapist-client outcomes and effectiveness (Green, Barkham, Kellett, & Saxon, 2014; Pereira, Barkham, Kellett, & Saxon, 2017). Psychological Wellbeing Practitioners (PWPs) with average resilience produce more reliable and clinically significant change in their clients than those with resilience 'deficits' (Green et al., 2014). Further, resilience may personally protect against vulnerability to adversity, with the presence of resilience correlating with lower burnout and post-traumatic stress (in nurses; Jackson et al., 2007; Mealer et al., 2012).

Despite this level of need, caring professionals are not more resilient nor more able to cope with stressors than the general population (Frajo-Apor, Pardeller, Kemmler, & Hofer, 2016). Subsequently, long-term exposure to stress may have an adverse impact on wellbeing and effectiveness. Mental health professionals (MHPs) may be at increased risk of 'burnout' due to interpersonal stress and complexity of work (Volpe et al., 2014). Burnout is defined as a professional stress syndrome in response to excessive and prolonged stress where individuals feel exhausted, cynical and unable to meet demands (Maslach, Schaufeli, & Leiter, 2001). Early-career psychiatrists have shown emotional exhaustion and a low sense of personal accomplishment, whilst non-medical MHPS report higher depression and depersonalisation as a coping strategy (Volpe et al., 2014). The risk of burnout needs to be addressed in training in order to promote wellbeing.

A core workforce

Resilience development in MHPs may play a role to manage stress, anxiety and mood and prevent burnout. Studies have highlighted the importance of self-assessment and reflection to foster resilience during health-care training (Robertson et al., 2016; Delany et al., 2015; Horsfall, 2014; Kolar, von Treuer, & Koh, 2017).

A core workforce in psychological therapy provision in the National Health Service (NHS) is the Improving Access to Psychological Therapies (IAPT) service who provide a "step 2" service with high volumes of assessment and brief low-intensity treatments in a protocol-driven and standardised format (Clark, 2011). A key IAPT development has been the training of PWPs through a one-year practice-based programme to become a qualified PWP and deliver "step 2". Resilience may be important for this workforce who begin practice with minimal training. Training is an essential time to develop good self-care due to low self-efficacy and confidence

in times of stress and academic challenge (Coaston, 2019; Pakenham & Stafford-Brown, 2012). This training group will therefore be of interest during this study.

Development of resilience

Resilience training has been demonstrated to improve mental health and subjective well-being in workplace employees, benefitting psychosocial function and performance (Robertson, Cooper, Sarkar, & Curran, 2015). A recent meta-analysis found that studies used a range of psycho-education techniques to develop resilience, such as mindfulness, cognitive, relaxation and self-compassion skills, gratitude practice, emotional regulation training, and goal setting (Joyce et al., 2018). A moderate positive effect on resilience was found, $d = 0.44$ [CI 0.23 - 0.64]. Cognitive-behavioural, mindfulness and mixed interventions all demonstrated effectiveness. Similar strategies have been suggested for health-care professionals with the addition of reflection and mentoring (Rogers, 2016).

Few studies have investigated resilience interventions for health-care professionals. Small-group and one-to-one training in mindful attention, relaxation and compassionate thinking have been found to contribute to increased resilience, decreased stress and anxiety, and improved quality of life in physicians (Sood, Prasad, Schroeder, & Varkey , 2011; Sood et al., 2014). A 2-day workshop for nurses, based in cognitive-behavioural, mindfulness and expressive writing skills, supplemented with exercise and counselling, was found to decrease emotional exhaustion and post-traumatic stress with a significant reduction in depression, compared to a control group (Mealer et al., 2014). However, both the groups showed improved resilience. There are no studies exploring resilience interventions in MHPs to understand the role of resilience in wellbeing and the impact of interventions.

Supervision – A role in resilience?

Finally, external influences are important to resilience. A secure base, in a manager or supervisor, has been highlighted as significant to MHPs (Bowden, Smith, Parker, & Boxall, 2015). Supervision can be both a stressor and a coping strategy (Cushway, 1992) and a MHP's resilience and the quality of their supervisory relationship may be associated. A strong supervisory relationship and regular feedback, alongside factors such as social support, can alleviate the influence of demands on resilience and burnout regardless of stress (Bakker, Demerouti, & Euwema, 2005). It can build resilience skills, through self-reflection and self-compassion (Coaston, 2019). Though resilient therapists have been reported by supervisors as more active and open to learning in supervision (Green et al., 2014), the relationship is impacted by supervisor commitment and investment, as well as trainee contribution (Palomo, Beinart, & Cooper, 2010; Pearce, Beinart, Clohessy, & Cooper, 2013). Overall, trainee resilience and the supervisory relationship may be associated.

Research aims and hypotheses

The current study aims to investigate the feasibility, acceptability and impact of a one–day resilience training programme for trainee PWPs (TPWPs).

It will also be explored whether:

1. There is a relationship between trainee resilience and wellbeing;
2. The resilience intervention improves resilience and the impact on wellbeing over time;
3. There is relationship between trainee resilience and the quality of the supervisory relationship.

Hypotheses

The main hypothesis is that trainees who have higher levels of baseline resilience will have higher levels of personal wellbeing, and lower levels of burnout, depression and anxiety than trainees with lower levels of resilience (H1). It is also hypothesised that trainees who have higher resilience will have higher quality supervisory relationships, as reported by the supervisor (H2).

As this is a feasibility study, no directional hypotheses will be made as to the impact of the resilience training on resilience and wellbeing.

Methods

Study Design

The acceptability and usefulness of a brief one-day resilience intervention for PWP trainees will be examined in a within-subject design. This preliminary study is classified under the feasibility study umbrella and defined as a non-randomised pilot study due to the presence of a well-defined intervention, assessment of a primary outcome (resilience) and testing of trial processes (e.g. study recruitment, data collection and supervisor recruitment) and intervention acceptability (Eldridge et al., 2016). Absence of randomisation or a control group precludes the study from classification as a classic pilot study. The study aims to estimate parameters for future research and identify suitable variables, outcome measures and effect sizes to estimate sample size.

Participants

PWPs are a workforce within IAPT who complete high volumes of assessment and low-intensity treatments. To qualify, trainees are employed by IAPT services to complete a 1-year Post-Graduate Certificate following a national curriculum assessed by competency-driven academic assessment. Trainees work four

days in service supervised by a qualified senior practitioner with one day in academic study. The sample was an opportunistic sample of 90-100 TPWPs across two cohorts at a university in Northern England.

Eligible participants were TPWPs at the university who provided consent, completed baseline questionnaires and attended the resilience intervention. Participants were excluded from further analysis if they did not attend the training (e.g. due to sickness) or if post-intervention or follow-up data did not match a consent form or personalised identification number (PIN).

Sample size. As there was no control group, the use of Cohen's (1992) tables was not possible. Field (2005) recommends 10-15 participants per independent variable for regressions. The expected number of variables was not known, however for each Time 3 dependent variable (DV), resilience and the pre-score for each DV were expected to be included with possible further predictors. For an estimation of four predictors per model, 40-60 participants would be required. One purpose of this study was to calculate predictor variables for future research.

Recruitment

Participants were recruited from cohorts starting in October 2017 and March 2018. The resilience training was a mandatory part of the curriculum and study participation was optional. The main recruitment and data collection (Time 1) was face-to-face within a timetabled group teaching slot two weeks prior to the workshop. An email was sent prior to this to highlight the research study and invite participation. A further email was sent following the face-to-face slot to invite those who had not been present. Examples of the recruitment emails are in Appendix A. The participant information sheet (PIS) was included to provide study information (Appendix B). At Time 1, the researcher explained the study, provided the PIS, answered questions and collected consent (Appendix C) and the baseline

questionnaires. The measures were completed within this protected time. The consent form included optional consent for contact with the participant's clinical supervisor. The follow-up email included a Qualtrics link for those who were not present or able to complete the questionnaires. A reminder email was sent one week prior to the workshop to invite any remaining trainees. The researcher was present prior to each workshop to recruit any final trainees.

Ethical Considerations

Ethical approval was granted by the University of Sheffield, Department of Psychology Research Ethics Committee in February 2018 (Appendix D).

Procedure

Figure 1 outlines the procedure and collection of the measures. Participants provided informed consent and created a PIN to match data over time (see Consent Form; Appendix C). TPWP participants completed a full set of measures prior to the intervention (Time 1- T1). At the end of the intervention, the primary outcome measure (resilience) and a feedback questionnaire was completed (Time 2- T2). After ten-weeks a face-to-face follow-up session was timetabled to complete the full set of measures and follow-up feedback questionnaire (Time 3– T3). Data was collected face-to-face with the option to return measures in-session or to the researcher's pigeon hole. Alternatively, a Qualtrics link was sent after each session.

Resilience Intervention. The resilience workshop was delivered over one academic day in a face-to-face group by two qualified clinical psychologists who developed the resilience intervention to be implemented with organisations and employees with the aim to recognise and build on existing resilience skills. Appendix E provides an overview of the four modules (stress and resilience, emotional resilience, resilient thinking, and balance and recovery). The intervention

used a Prezi presentation and included a personal workbook with exercises, goals and action plans. Each cohort was split into two groups across two training days, so the standardised intervention was conducted four times in total. Between T2 and T3, a weekly prompt email was sent to TPWPs via MailChimp.

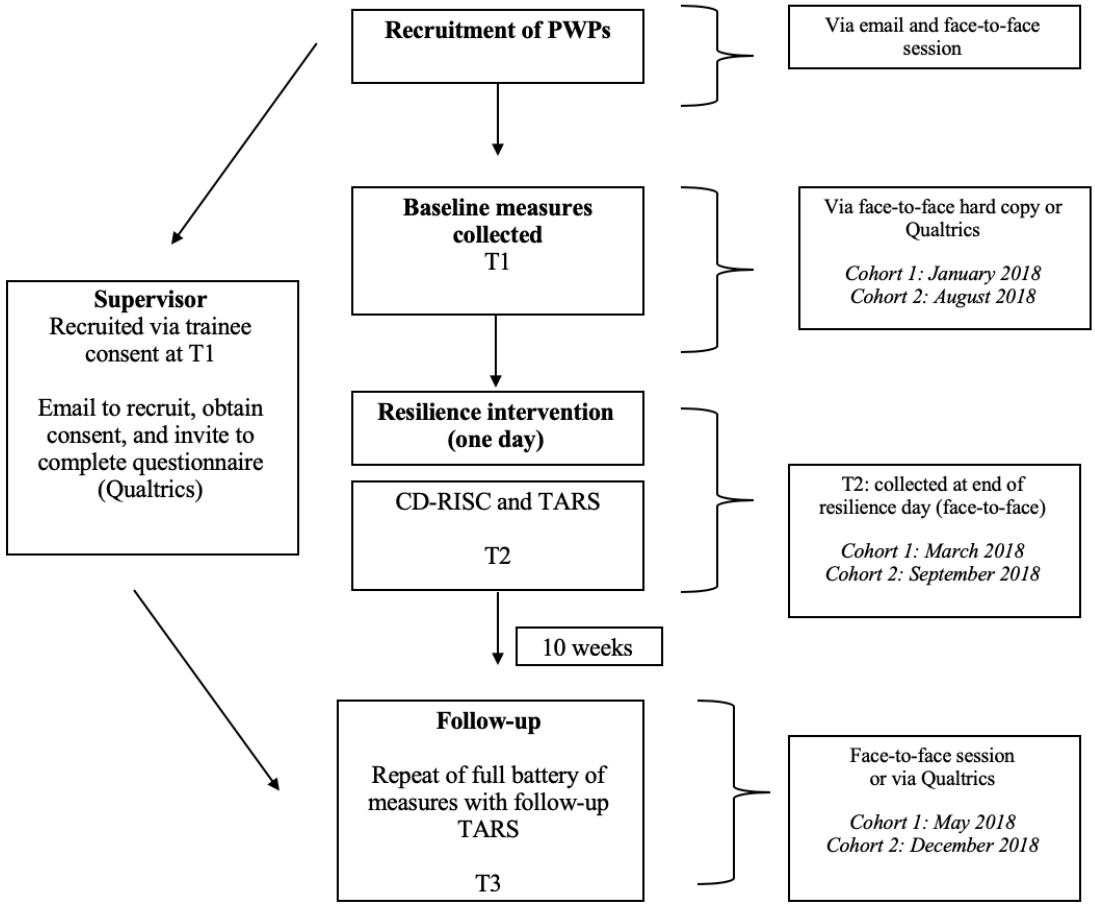


Figure 1. Overview of procedure, time-frames and data collection

Supervisor participants. If participants provided consent to contact their supervisor, supervisors were contacted at T2. Supervisors received a recruitment email (Appendix F) and a PIS (Appendix G). A Qualtrics link was sent with the associated trainee's PIN to pair supervisor and trainee data. Supervisors completed a

consent page to provide informed consent (Appendix H). They had ten weeks to complete the questionnaire with reminder emails at mid and end-points.

Measures

The questionnaire pack is in Appendix I. A demographic questionnaire was included at T1 for information on age, gender, current caseload on placement and previous number of years' experience.

Resilience. The 10-item Connor-Davidson Resilience Scale (CD-RISC-10; Campbell-Sills & Stein, 2007) is a shortened version of the original 25-item measure (Connor & Davidson, 2003). The five-factor CD-RISC-25 model was examined in relation to non-salient and inconsistent factor loadings. When items were dropped, the one-factor 10-item CD-RISC-10 maintained good construct validity and internal consistency (a = .85) (Campbell-Sills & Stein, 2007). A Cronbach's alpha of a = .87-.90 was found for students in classrooms and mental health offices (Hartley, 2012). Items such as "I am not easily discouraged by failure" are rated on a 5-point scale from "not at all true" to "true nearly all the time." Higher scores indicate higher resilience.

Burnout. The Shirom-Melamed Burnout Measure (SMBM) conceptualises burn-out as physical fatigue, emotional exhaustion and cognitive weariness (Shirom, 1989). The 14-item measure focuses on how individuals feel at work, including "I feel physically drained" (physical), "I feel I am unable to be sensitive [..]" (emotional) and "my thinking process is slow" (cognitive) rated on 7-points from "never or almost never" to "always or almost always". Higher scores indicate higher burnout. Internal consistency is reported as a = .92 for human service professionals (Shirom & Melamed, 2006). The total score of the three subscales was calculated.

Wellbeing. The Warwick-Edinburgh Mental Wellbeing Scale (WEMWBS) comprises 14 positively worded items to assess psychological wellbeing (e.g. mood,

relationships and functioning). Items include “I’ve been feeling interested in new things” rated on a 5-point scale from “none” to “all of the time”. Higher scores indicate higher wellbeing. The WEMWBS has been reported to have good content and face validity and a re-retest reliability of .83 (Tennant et al., 2007).

Depression. The Patient Health Questionnaire (PHQ-9) is a widely-used depression screening tool with 9 items based on the DSM-IV criteria. Frequency is rated 0-3 from “not at all” to “nearly every day” with higher scores suggesting higher depression. Sensitivity of 88% and specificity of 89% for major depression and an internal consistency of a = .89 have been reported (Kroenke, Spitzer, & Williams, 2001).

Anxiety. The Generalised Anxiety Disorder questionnaire (GAD-7) utilises the same scale as the PHQ-9 with 7 items on the diagnostic criterion in the DSM-IV. Higher scores indicate higher anxiety. Good construct validity, excellent internal consistency (a = .92) and good test re-test reliability (intra-class correlation of .83) have been found in primary care (Spitzer, Kroenke, Williams, & Löwe, 2006). In a normative population, an internal consistency of a = .89 has been found (Löwe et al., 2008).

Training Acceptability. Evaluation of the training was assessed with an adapted version of the training acceptability rating scale (TARS; Davis, Rawana, & Capponi, 1989). Adapted versions have been used with MHPs for therapy and supervision training (Ekers, Dawson, & Bailey, 2013; Milne, 2010; Milne, Keegan, Westerman, & Dudley, 2000; Myles & Milne, 2004). The adapted TARS has 10 items on the acceptability of the training, its usefulness and negative effects, the perceived outcomes for dealing with challenges at home or at work, and confidence in using these skills. Each item was rated from “not at all” (0) to “a great deal” (3) with a maximum score of 30. TARS has good test–retest reliability (r = .83) and

internal consistency (*a* = .99). Three qualitative items ask about the most helpful element, recommended changes, and any other comments. The follow-up questionnaire is a three-item version on use of the skills at home and at work and the most useful skills. Both are in Appendix J.

Supervisor Relationship. Supervisors completed the Supervisory Relationship Measure (SRM; Pearce et al., 2013) as a measure of the relationship from the perspective of the supervisor (Appendix K). It includes fifty-one items and five sub-scales based on five factors: safe base, supervisor commitment, trainee contribution, external influences and supervisor investment. Items include "my trainee is open about any difficulties they are experiencing" (safe base) and "I give clear and honest feedback to my trainee" (supervisor commitment) rated from "strongly disagree" (1) to "strongly agree" (7). Good internal consistency (*a* = .92), test–retest reliability (*r* = .94), and construct (convergent and divergent) validity were found with trainee clinical psychologist supervisors (Pearce et al., 2013).

Statistical Analysis

Questionnaire data was scored, entered into Microsoft Excel and imported into SPSS (version 24). Data from supervisors was exported from Qualtrics into SPSS. Demographic data was collated and descriptive statistics were calculated for each outcome. Correlational analyses were conducted to investigate the relationships between the key variables at T1 and 3. The main hypothesis (H1) was tested from the baseline data and a correlation analysis was used to determine the association between the variables. Correlation coefficients were interpreted in-line with Cohen's (1988) guidelines (> .50 = large; .30 - .49 = moderate; .10-.29 = small).

The primary aim was addressed in three ways. Engagement rates were recorded (trainee participation, supervisor contact consent and supervisor

participation) to assess recruitment as a measure of study acceptability. TARS scores were calculated and descriptive statistics and frequencies are reported as a measure of intervention acceptability. Qualitative TARS data was collected and the feedback was transcribed and collated in NVivo. A thematic analysis was conducted to identify themes (Braun & Clarke, 2006). Comments were clustered into initial codes, sub-themes and themes, under the framework of what was helpful, improvements and follow-up feedback.

To explore whether the intervention had an impact on resilience, a repeated measures ANOVA was used to compare T1, T2 and T3 CD-RISC scores. Paired t-tests were conducted for the secondary outcomes to assess change between T1 and T3. Effect sizes are calculated to consider treatment effects (Suurmond, van Rhee & Hak, 2017). Missing data was treated as missing in SPSS.

Support for the intervention should be obtained if changes in the target construct of resilience are associated with degrees of change on secondary outcomes. To determine whether change in resilience makes a significant contribution to change in other variables, hierarchical linear regression analyses were conducted. The T3 scores of secondary outcomes were used as the DV. The change in resilience score between CD-RISC at T1 and T3 was entered as the IV. The T1 score of each DV was controlled for in Step 1. Variables that were correlated with the DV were included to assess if they made a significant contribution and needed to be controlled for in the model. Non-significant IVs were removed.

To investigate H2, the relationship between trainee resilience and the SRM measure was assessed. A correlation analysis was used to determine the association between the two variables. A moderator analysis was conducted to see if the SRM moderated the relationship between resilience at T1 and T3 and explore if a higher SRM score (i.e. better supervisory relationship) facilitated change in resilience.

Data screening

Continuous variables were assessed for normal distribution using the Kolomogriv-Smirnov test. These statistical tests should be used with caution (Field, 2005). Additional skewness and kurtosis values were checked, and the distribution of histograms and Q-Q plots were inspected. Where inspection identified outliers, these were checked and deemed accurate and retained.

At T1, CD-RISC and SMBM scores were indicated to be normally distributed but WEMBWS, PHQ-9 and GAD-7 were non-normally distributed. T2 CD-RISC was normally distributed. At T3, PHQ-9 and GAD-7 were non-normally distributed. At both time-points, PHQ-9 and GAD-7 scores had a positive skew and kurtosis, indicating low scores (e.g. low depression and anxiety) and infrequent deviations/outliers. T1 WEMBWS had a negative skew, indicating a tendency towards higher scores (e.g. high wellbeing). Due to the variation in normality, the more robust spearman's rho test was used for the correlation analysis for all data to allow valid comparison. For within-subject paired data, the change scores were assessed for normal distribution. Non-parametric tests were used for paired data that was not normally distributed (WEMBWS). Appendix L displays the histograms and Q-Q plots of non-normally distributed data.

For regression analyses, the assumptions of multi-collinearity and residuals were assessed. These are reported with the regression models. The SRM was normally distributed and a Pearson's correlation was conducted.

Results

Sample characteristics

Sixty-five participants provided informed consent (T1) and fifty-six data-sets were matched and complete across time. A primary aim was to assess study engagement and recruitment (Figure 2; see Appendix M for specific cohort details). Overall, 65 of 90 trainees (72.22%) consented to participate and 64 completed questionnaires at T2. One participant did not attend the intervention. In total, 65 participants completed questionnaires at T3. Eight data-sets that could not be matched to T1 were excluded as this was required for informed consent (T2 $n = 5$, T3 $n = 3$). Nine incomplete data-sets were retained for partial analysis.

Thirty-two of 65 participants consented to contact with their supervisor (49.23%) and 19 supervisors completed the questionnaires (59.38%) resulting in a 29.23% recruitment rate (of 65 supervisors).

Table 1 summarises the baseline sample demographics ($n = 65$). The mean age was 28.75 years ($SD = 7.50$) with a range from 22-54 years. The majority of the sample were female (87.7%) and reported a highest previous educational level as a BA or BSc (60%). Prior to PWP training, the average years of experience was 2.58. Half of the participants (55.4%) reported 2 years or less whilst a third (35.4%) had 3 to 5 years of experience. The maximum experience reported was 10 years. A range of caseload sizes were reported from 3 to 70 clients. The average caseload size was 21.5 clients with the largest proportion (46.2%) reporting a current caseload of between 11 and 20 clients.

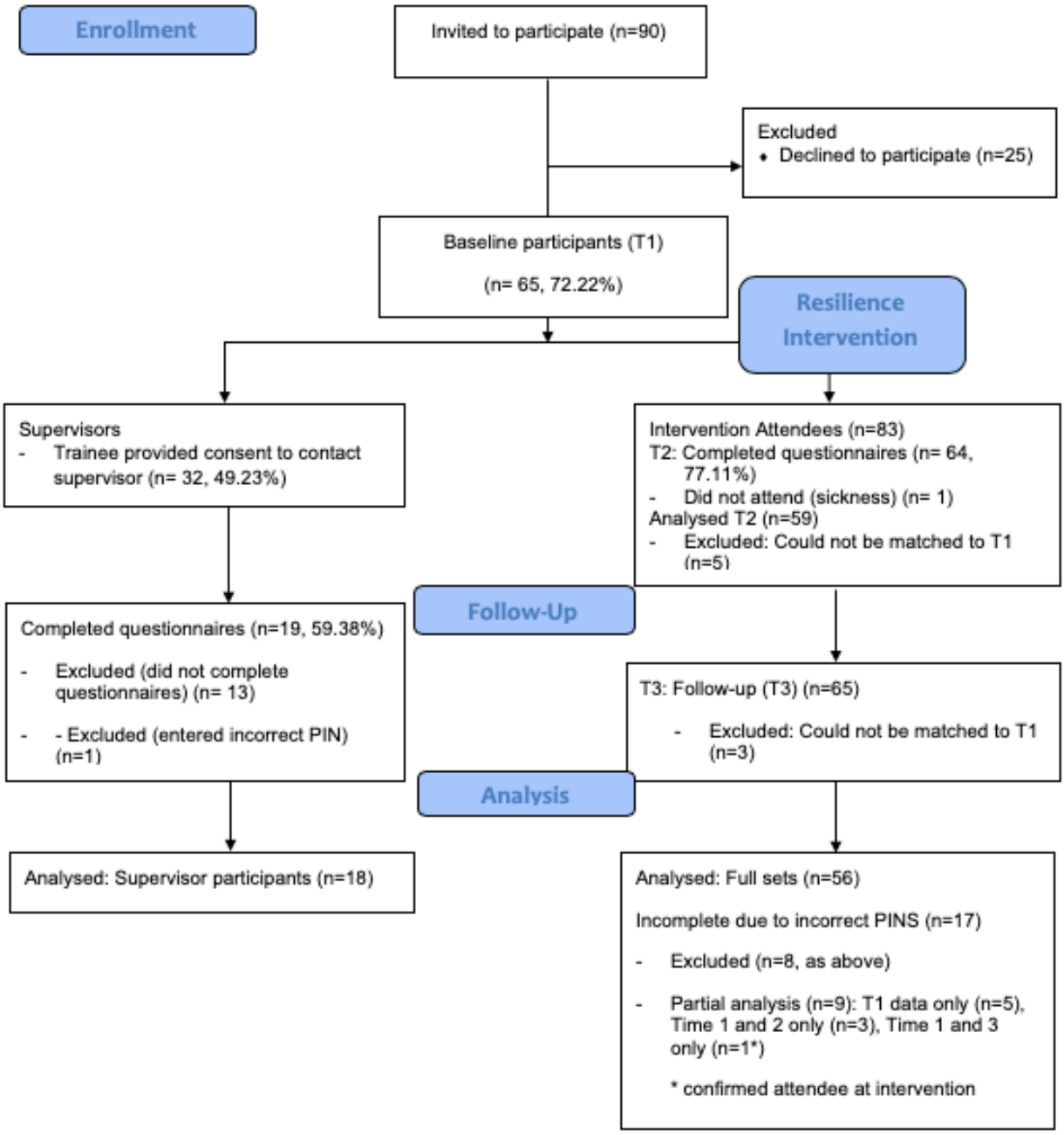


Figure 2. Adapted CONSORT Diagram showing participant flow, study engagement and recruitment

Table 1

Summary of Participant Demographic Characteristics (n=65)

Variable	
Age, *M (SD)*	28.75 (7.50)
Gender, *n* (%)	
Female	57 (87.69)
Male	8 (12.31)
Education, *n* (%)	
GCSE level	2 (3.10)
Bachelor's level (BA/BSc)	39 (60.00)
Master's level (MA/MSc)	21 (32.30)
Professional qualification	3 (4.60)
Experience prior to training, *n* (%)	
Up to 2 years (0-2)	36 (55.40)
3-5 years	23 (35.40)
More than 5 years	6 (9.20)
Caseload, *n* (%)	
0-10	14 (21.50)
11 to 20	30 (46.20)
21 to 30	7 (10.80)
30 +	14 (21.50)

Note. M= mean, SD= standard deviation

Descriptive statistics

Mean scores and standard deviations for each outcome measure are in Table 2. The mean score on the CD-RISC at T1 (M = 25.91; range 10-39) was below reported means from other populations. The median was 26 with lowest to highest quartiles from 0-22, 23-26, 27-30 and 31-40 respectively. This compares to a mean of 31.8 (SD = 5.4), median of 32 and interquartile ranges of 0-29, 30-32, 33-36 and 37-40 in a US study (Campbell-Sills, Forde, & Stein, 2009). For burnout, the SMBM mean was 44.05 (SD = 12.66) with a range of 17 to 74. The corrected mean for the SMBM was 3.15 (SD = 0.90) which was slightly higher than means reported for

healthy males (*M* = 2.05, *SD* = 0.79) and females (*M* = 2.33, *SD* = 0.87) (Armon & Shirom, 2008). For wellbeing, the mean score of 47 (*SD* = 8.61) with a range from 22-63 was below previously reported means (*M* = 50.7; Scottish population; Stewart-Brown & Janmohamed, 2008).

On the PHQ-9, the mean of 4.8 (*SD* = 3.74) fell within the mild range for depression. Scores ranged from 0-18 (maximum 27). Clinical 'case-ness' is reported to be 10 (moderate) with a clinical cut-off level of 8-11 with no differences in sensitivity or specificity at a cut-off of 10 (Manea, Gilbody, & McMillan, 2012). Six cases were above 10 with 2 participants scoring in the moderate-to-severe range (between 15 and 20). GAD-7 scores ranged from 0-21 (maximum 21). The mean score of 5.35 was below case-ness anxiety levels of 8 (Spitzer et al., 2006). Sixteen participants (24.6%) scored eight or above. No significant differences were found for gender, experience or caseload on any measure.

Table 2

Mean and Standard Deviation statistics for primary and secondary outcome measures pre-training (T1), post-training (T2) and at 10-week follow-up (T3)

	T1 (*n* = 65)		T2 (*n* = 59)		T3 (*n* = 57)	
	Mean	SD	Mean	SD	Mean	SD
CD-RISC	25.91	6.13	26.05	6.12	27.88	5.96
SMBM	44.05	12.66	-	-	43.81	12.97
WEMWBS	47.00	8.61	-	-	48.93	7.38
PHQ-9	4.80	3.74	-	-	4.72	3.60
GAD-7	5.35	4.07	-	-	5.12	4.10

Note. CD-RISC= Connor-Davidson Resilience Scale, SMBM= Shirom-Melamed Burnout Measure, WEMWBS= Warwick-Edinburgh Mental Wellbeing Scale, PHQ-9= Patient Health Questionnaire, GAD-7= Generalised Anxiety Disorder Questionnaire, SD= standard deviation.

Correlation Analyses

Table 3 presents the Spearman's rho correlation analysis between the main variables. For H1, the expected relationships between resilience and the other variables were present at baseline. At Time 1, resilience had a moderate positive relationship with wellbeing ($r = 0.52$, $p < .000$), moderate negative relationship with burnout ($r = -0.47$, $p < .000$), a weak to moderate negative relationship with depression ($r = -0.39$, $p = .001$) and a moderate negative relationship with anxiety ($r = -0.51$, $p < .000$). As levels of reported resilience increased, there was an increase in wellbeing scores and decreases in burnout, depression and anxiety scores. At follow-up, these associations were predominantly maintained.

Age had a moderate positive relationship with resilience ($r = 0.46$, $p < .000$), negative relationship with burnout ($r = -0.44$, $p < .000$) and a weak negative relationship with anxiety ($r = -0.35$, $p = .004$), suggesting an association between age and increased resilience and lower burnout and anxiety.

Years of experience had weak positive relationships with burnout ($r = 0.27$, $p = .028$) and depression ($r = 0.28$, $p = .023$) indicating an association between increased experience and increased burnout and depression. No other significant correlations were found for demographic variables.

Table 3

Spearman's rho correlation coefficient between outcomes pre-training (T1), post-training (T2) and at 10-week follow-up (T3)

		1	2	3	4	5	6	7	8	9	10	11	12
1	Age	-											
2	CD-RISC T1	.46**	-										
3	WEMWBS T1	-.12	.52**	-									
4	SMBM T1	-.44**	-.47**	-.61**	-								
5	PHQ-9 T1	-.22	-.39**	-.65**	.56**	-							
6	GAD-7 T1	-.35**	-.51**	-.55**	.53**	.55**	-						
7	CD-RISC T2	.48**	.72**	.46**	-.41**	-.39**	-.50**	-					
8	CD-RISC T3	.44**	.73**	.46**	-.37**	-.30*	-.45**	.78**	-				
9	WEMWBS T3	.16	.19	.48**	-.30*	-.34**	-.38**	.41**	.46**	-			
10	SMBM T3	-.25	-.25*	-.45**	.52**	.24*	.39**	-.35**	-.42**	-.64**	-		
11	PHQ-9 T3	-.23	-.07	-.40**	.45**	.53*	.43**	-.29*	-.28**	-.72**	.59**		
12	GAD-7 T3	-.30*	-.19	-.32**	.37**	.24*	.57*	-.29*	-.35**	-.57**	.63**	.55**	-

Note: **p<0.01, *p<0.05, all tests were one-tailed, except age (two-tailed); T1 n=65, T2 n=59, T3 n=57; CD-RISC= Connor-Davidson Resilience Scale, SMBM= Shirom-Melamed Burnout Measure, WEMWBS= Warwick-Edinburgh Mental Wellbeing Scale, PHQ-9= Patient Health Questionnaire, GAD-7= Generalised Anxiety Disorder Questionnaire

Acceptability

The mean total TARS score was 26.23 (*SD* = 3.37) out of 30. The percentage of participants who selected each rating and the mean and standard deviation for each item is displayed in Table 4. At T2, participants most frequently selected 'quite a lot' or 'a great deal' to items (apart from the reversed item regarding harm), indicating a high level of acceptability.

At follow-up, the mean TARS score was 4.02 (out of 9). Regarding using resilience skills at home, the majority of participants reported they had used the skills a little (49.23%) with only 13.85% reporting a great deal of use. A similar pattern was present for use at work. Nearly one fifth (18.46%) reported not using the skills and over half (58.46%) reported a little use in the previous week.

Table 4

Training Acceptability Rating Scale (TARS; Davis et al., 1989) rating selection and mean scores per item (n=64)

	Selected ratings (%)				TARS scores	
Post-intervention (T2)	Not at all	A little	Quite a lot	A great deal	Mean	SD
Overall satisfaction	0.00	3.13	37.50	59.38	2.56	0.56
Topic coverage	0.00	1.56	12.50	85.94	2.84	0.41
Facilitators: relate	0.00	4.69	15.63	79.69	2.75	0.53
Facilitators: motivating	0.00	0.00	20.31	79.69	2.80	0.41
Understanding	0.00	6.25	35.94	57.81	2.52	0.62
Skills at home	1.56	7.81	42.19	48.44	2.38	0.70
Skills at work	0.00	9.38	46.88	43.75	2.34	0.65
Confidence in using skills	0.00	17.19	45.31	37.50	2.20	0.72
Facilitators: competence	0.00	0.00	7.81	92.19	2.92	0.27
Harm (reverse scored)	95.31	3.13	0.00	1.56	2.92	0.41
				Total	26.23	3.37
Follow-up (T3)						
Skills at home	7.69	49.23	29.23	13.85	1.49	0.83
Skills at work	9.23	44.62	35.38	10.77	1.48	0.81
How often used in last week	18.46	58.46	23.08	0.00	1.05	0.65
				Total	4.02	0.76

Qualitative feedback. Responses were separated into comments (n = 292) and coded into sub-themes and themes. Overall, 169 comments were coded as helpful and 27 as improvements (Figure 3). Ninety-five comments from follow-up were categorised under most useful skills and reasons why skills were not implemented (Figure 4). Appendix N lists the full comments under the sub-themes and themes.

Helpful aspects of training.

Grounding knowledge. Fourteen comments were on how the workshop increased knowledge and understanding or consolidated pre-existing knowledge of resilience or skills.

Engaging materials and methods. The "motivating" style of the facilitators and the provision of materials such as the workbook "to reflect on and use as a resource" were highlighted as engaging. The "creative" use of activities and interactive tools, including the videos and Prezi presentation, helped maintain attention.

Positive psychology skills. Forty-five comments referred to resilience skills that had been helpful to learn around (i) gratitude, positive thinking and recognition of positive emotions, and (ii) stress management, such as mindfulness, self-care and balance and recovery.

Self-reflection. Sixteen comments referred to the benefits of time to be self-reflective, to increase self-awareness and to practise applying skills to themselves and learning by experience.

Would not change anything. When asked about changes, twenty-five participants stated that they would not change anything, commenting 'not applicable' or 'none' to the question.

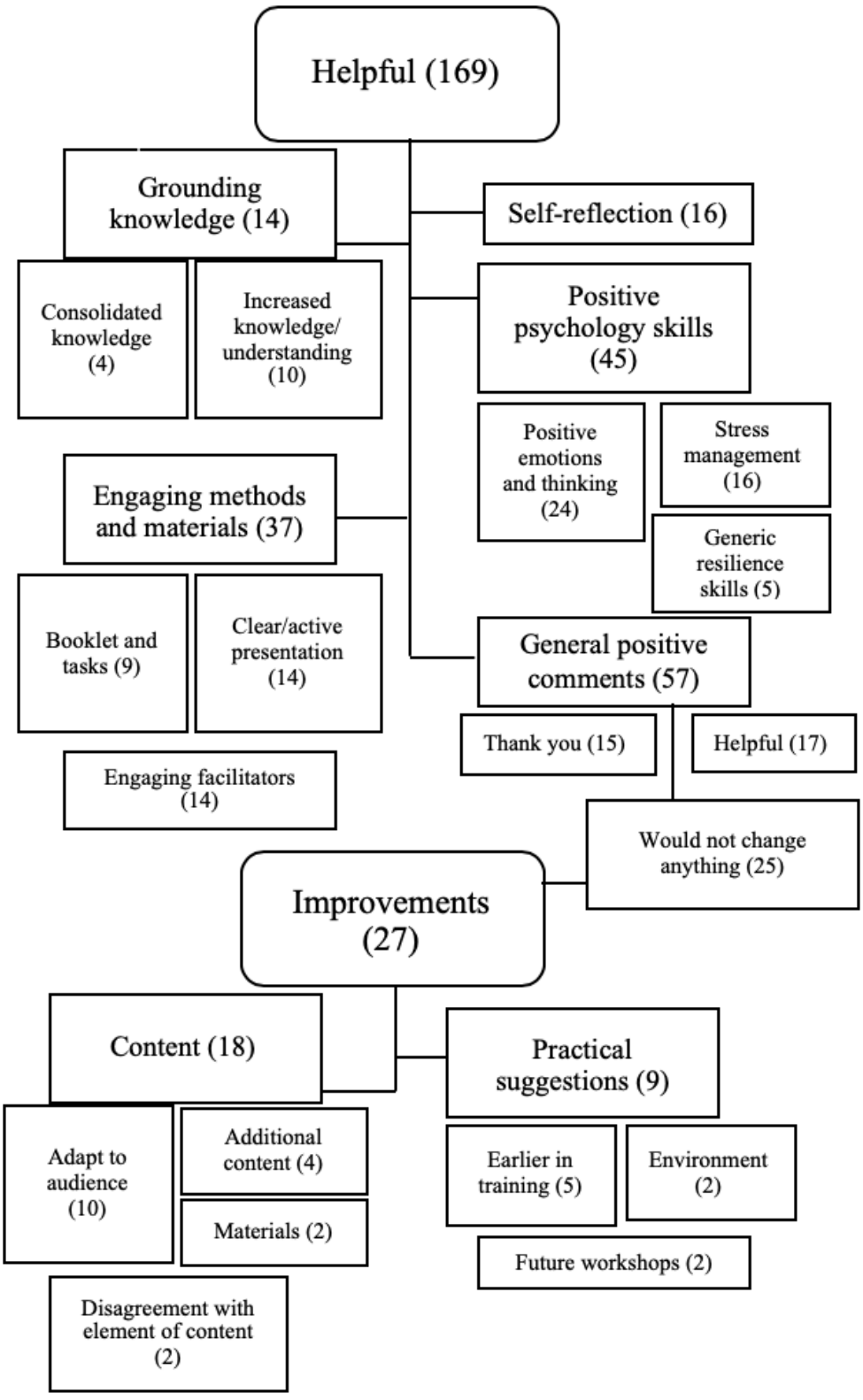


Figure 3. Thematic Map to represent feedback from TARS post-intervention (T2)

Improvements.

Content. Participants commented on adaptations that could be made for their specific audience as PWP trainees. A number commented that they felt they had prior knowledge of content such as the five areas model or cognitive restructuring, which they use in their work and would prefer more focus on skill application. One participant commented that they found an exercise demoralising and one that the course felt too general. Suggestions included an interest in more evidence, in conflict management, and in acknowledgement of resistance to change.

Practical suggestions. Five recommended that the training came earlier in the course and two suggested a smaller group or two half-days. Two reported interest in future workshops.

Feedback at follow-up.

Most useful. Seventy-six comments referred to the course as helpful (e.g. "one of the best teaching days we've had" and one had recommended the session to their employer). Twenty-five commented positivity-focused skills which they had used, including writing down positive things. Fifteen commented on relaxation skills such as mindfulness and twenty-five on self-care skills, such as the self-care wheel and taking time off.

Did not implement. Four sub-themes were identified. Seven commented that they felt the content was familiar, whilst five stated that they felt they were already resilient, so the training had not changed their behaviour. A number noted that they intended to use the skills but had not due to time, "priority" or unknown reasons.

Possible confounders. One participant indicated that an increase in confidence may have lowered their scores, whilst another reported higher stress due to increased responsibility, which they felt increased their scores.

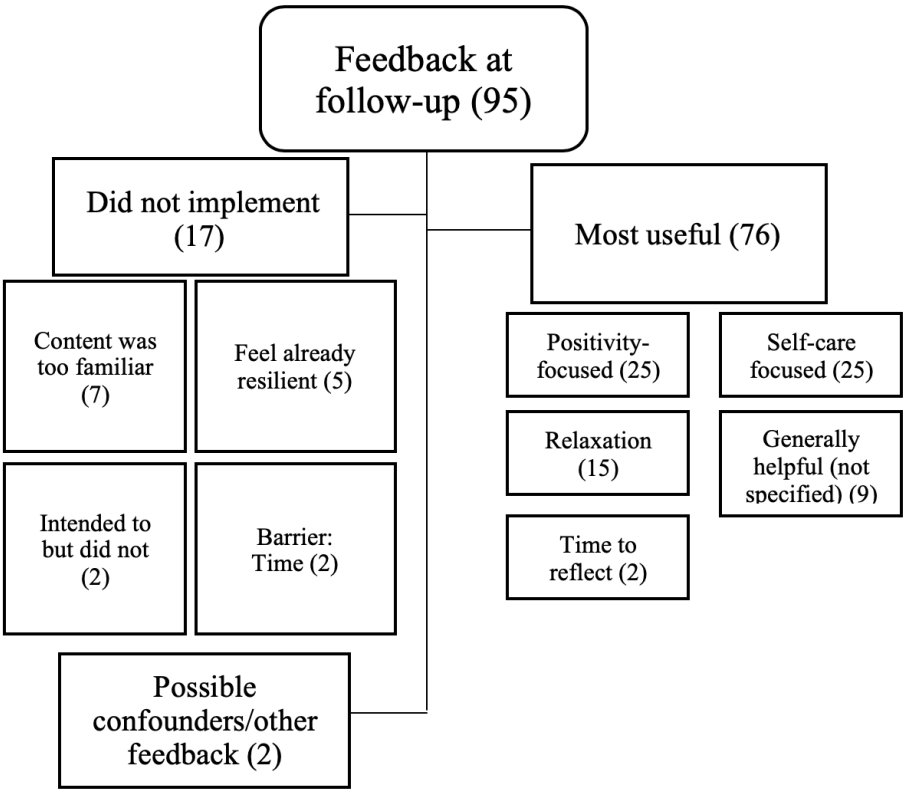


Figure 4. Thematic Map to represent feedback from follow-up (T3)

Usefulness of intervention

Primary Outcome – Resilience. A repeated measures ANOVA was conducted using the CD-RISC data for which there were three matched time-points (n = 56). Mauchley's test indicated that the assumption of sphericity had not been violated, X^2 (2) = 0.326, p = 0.849 (> 0.5). Overall, resilience scores differed significantly across time points, F(2, 110) = 7.666, p = .001 (Table 5). Post-hoc tests using the Bonferroni correction for multiple comparisons showed a marginal non-significant reduction in resilience pre- (M = 26.16, SD = 6.31) to post-intervention (M = 25.98, SD = 6.28). However, resilience scores at T3 increased to 27.88 (SD = 6.02) which was significantly higher than both T1 (p = .009) and T2 (p = .002) CD-RISC scores. Uncontrolled effect sizes were small for pre-score to follow-up, d = 0.28 CI [0.10 – 0.46], and post-score to follow-up, d = 0.31 CI [0.14 – 0.48].

Table 5

ANOVA Comparisons for CD-RISC (resilience) scores over three time points, for matched data (n=56)

			Bonferroni corrected post-hoc comparisons	
Time-point	Mean	SD	T1 (*p*-value, *d*)	T2 (*p*-value, *d*)
T1	26.16	6.31		
T2	25.98	6.28	1.000	
T3	27.88	6.02	.009*, 0.28	.002*, 0.31

Note. *The mean difference is significant at the .05 level, T1= Time 1, T2= Time 2, T3= Time 3, SD = standard deviation; *d*= Cohen's *d* effect size.

Secondary outcomes. At T3, on the PHQ-9, six cases in this data-set remained above 10 with one participant in the moderate-to-severe range. On the GAD-7, sixteen participants continued to score eight or above.

Paired differences were normally distributed and paired samples t-tests were used except for the WEMWBS which was non-normally distributed. A Wilcoxon signed ranks test was used. Table 6 shows the paired t-tests. There was a small but non-significant reduction in burnout scores pre- (M = 44.39; SD = 13.12) to post-intervention (M = 43.81, SD = 12.97); t(56)=.358, p = .722. A negligible effect size was found (d = -0.04, CI [-0.31 – 0.22]. PHQ-9 scores did not significantly reduce between pre-intervention (M = 4.84, SD = 3.96) and follow-up (M = 4.72, SD = 3.60), t(56)= .268, p = .789 with a minimal effect size for depression, d = -0.03, CI [-0.29 – 0.23]. There were no significant reductions in anxiety (GAD-7) scores between pre-intervention (M = 5.39, SD = 4.22) and follow-up (M = 5.12, SD = 4.10), t(56)=.552, p = .583, d = -0.06, CI [-0.31 – 0.23]. The increase in wellbeing was non-significant (Z= -1.875, p = .061) with a small effect size of d = 0.24, CI [-0.04 – 0.51]. An increase from T1 (M = 46.68, SD = 8.72) to T3 (M = 48.93, SD = 7.38) indicated the possible trend, but the median WEMWBS score was 49.00 at pre and follow-up.

Table 6

Paired t-tests for secondary outcome data (n=57)

	Time 1		Time 3		*t*-value	*p*-value	df	*d*
	Mean	SD	Mean	SD				
SMBM	44.39	13.12	43.81	12.97	.358	0.72	56	-0.04
WEMWBS*	46.68	8.72	48.93	7.38	-	0.06	-	0.24
PHQ-9	4.84	3.96	4.72	3.60	.268	0.79	56	-0.03
GAD-7	5.39	4.22	5.12	4.10	.552	0.58	56	-0.06

Note: * Wilcoxon signed rank test was used for WEMWBS and a z-score was calculated (z = -1.88); SMBM= Shirom-Melamed Burnout Measure, WEMWBS= Warwick-Edinburgh Mental Wellbeing Scale, PHQ-9= Patient Health Questionnaire, GAD-7= Generalised Anxiety Disorder Questionnaire; *d*= Cohen's *d* effect size.

Exploratory change analysis

Four hierarchical regression analyses were conducted with Time 3 SMBM, WEMBWS, PHQ-9 and GAD-7 scores as the DVs and change score in resilience as the IV in each model. For each DV, the respective T1 was entered in step 1 to control for the baseline score. Age, gender and experience were entered for each DV but did not have a significant effect and were excluded. Table 7 displays the final models for burnout, wellbeing and depression.

Preliminary analyses indicated that the models met the assumption of multi-collinearity for the Durbin-Watson statistic (close to 2) and the variance inflation factor (VIF) (close to 1 and under 5). Visual plots and P-Plots of the residuals were inspected and normally distributed.

.

Table 7

Exploratory Analysis of change in resilience: Regression coefficients, standard errors, and 95% confidence intervals of regression models predicting burnout, wellbeing and depression at T3.

	SMBM T3 (DV)					WEMWBS T3 (DV)					PHQ-9 T3 (DV)				
IV	*B*	SE *B*	p	95% CI *B*		*B*	SE *B*	p	95% CI *B*		*B*	SE *B*	p	95% CI *B*	
				Lower	Upper				Lower	Upper				Lower	Upper
Model 1															
SMBM T1	.555	.110	.000	.334	.777	---	---	---	---	---	---	---	---	---	---
WEMWBS T1	---	---	---	---	---	.453	.096	.000	.261	.646	---	---	---	---	---
PHQ-9 T1	---	---	---	---	---	---	---	---	---	---	.533	.099	.000	.334	.731
GAD-7 T1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
R^2	.315					.288					.344				
p	.000					.000					.000				
Model 2															
SMBM T1	.598	.106	.000	.385	.810	---	---	---	---	---	---	---	---	---	---
WEMWBS T1	---	---	---	---	---	.462	.086	.000	.289	.635	---	---	---	---	---
PHQ-9 T1	---	---	---	---	---	---	---	---	---	---	.543	.092	.000	.356	.728
GAD-7 T1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Change in resilience	-.892	.339	.011	-1.572	-.213	.696	.184	.000	.328	1.064	-.284	.089	.002	-.462	-.106
R^2	.393					.437					.448				
ΔR^2	0.78					.150					.105				
ΔR^2 *p*	.011					.000					.002				

Note: B = regression coefficients, SE *B* =standard error, 95% CI *B* = confidence intervals, IV = independent variable, DV = dependent variable, T1= Time 1, T3= Time 3, CD-RISC= Connor-Davidson Resilience Scale, SMBM= Shirom-Melamed Burnout Measure, WEMWBS= Warwick-Edinburgh Mental Wellbeing Scale, PHQ-9= Patient Health Questionnaire, GAD-7= Generalised Anxiety Disorder Questionnaire, R^2= R square, ΔR^2 = R square change

Burnout. T1 GAD-7, PHQ-9 and WEMWBS were entered into the model but were excluded as no significant effect was found. The final model explained 39.3% of the variance, $R^2 = 0.39$, $F(2,54) = 17.505$, $p < .000$. SMBM-T1 accounted for 31.5% at step 1, $t(54) = 5.636$, $p < .000$, and change in resilience accounted for 7.8% additional variance, $t(54) = -2.633$, $p = .011$. Regression coefficients suggest that, controlling for SMBM-T1, each increased unit change on the CD-RISC contributed to a decrease in SMBM-T3 of –.89.

Wellbeing. T1 GAD-7, PHQ-9 and SMBM were excluded. The final model was significant, $F(2,54) = 21.0$, $p < .000$, accounting for 43.7% of the variance in WEMWBS-T3 scores. At step 1, WEMWBS-T1 explained 28.8% of the variance and change in resilience accounted for 14.9% at the step 2. WEMWBS-T1 was a significant predictor of WEMWBS-T3, $t(54) = 5.35$, $p < .000$, as was change in resilience $t(54) = 3.79$, $p < .000$. Controlling for WEMWBS-T1, for each increased unit change on the CD-RISC, an increase in WEMWBS-T3 of .70 was expected.

Depression. T1 GAD-7, WEMWBS and SMBM were entered but excluded due to no significant effect. The model was significant $F(2,54) = 21.95$, $p < .000$ and accounted for 44.8% of the variance in PHQ-9 T3 scores. PHQ-9 T1 (step 1) accounted for 34.4% of the variance and change in resilience additionally explained 10.4% of the variance at step 2. Pre-intervention PHQ-9 score, $t(54) = 5.92$, $p < .000$, and change in resilience score $t(54) = -3.199$, $p = .002$, were significant predictors. PHQ-9 T3 was expected to decrease by -.28 for each increased unit change in resilience, when PHQ-9 T1 was controlled for.

Anxiety. Table 8 displays the final model for anxiety. T1 WEMWBS and SMBM were excluded as they had no significant effect. The final model accounted for 48% of the GAD-7 T3 scores, $F(3,53) = 16.306$, $p < .000$. GAD-7 T1 (at step 1) accounted for 39.2% of the variance, $p < .000$, and PHQ-9 T1 added 4.9% at Step 2,

p = .033. For each increase in PHQ-9, there was a decrease (-.33) in GAD-7 T3 scores. At step 3, change in resilience accounted for 3.9% and the R^2 change score was close to significant, p = .053. Each unit change in resilience accounted for a -.20 reduction in the GAD-7 T3 score.

Table 8

Regression co-efficient, standard errors, and 95% confidence intervals of regression models predicting GAD-7 at T3.

IV	B	SE *B*	p	95% CI *B*	
				Lower	Upper
DV: Anxiety (GAD-7 T3)					
Model 1					
GAD-7 T1	.609	.102	.000	.404	.814
R^2	.392				
p	.000				
Model 2					
GAD-7 T1	.813	.136	.000	.540	1.086
PHQ-9 T1	-.317	.145	.033	-.607	-.026
R^2	.441				
ΔR^2	.049				
ΔR^2 *p*	.033				
Model 3					
GAD-7 T1	.835	.133	.000	.568	1.140
PHQ-9 T1	-.325	.141	.025	-.608	-.042
Change in resilience	-.197	.099	.053	-.396	.002
R^2	.480				
ΔR^2	.039				
ΔR^2 *p*	.053				

Note: B = regression coefficients, SE *B* =standard error, 95% CI *B* = confidence intervals, SMBM, IV = independent variable, DV = dependent variable, T1= Time 1, T3= Time 3, CD-RISC= Connor-Davidson Resilience Scale, SMBM= Shirom-Melamed Burnout Measure, WEMWBS= Warwick-Edinburgh Mental Wellbeing Scale, PHQ-9= Patient Health Questionnaire, GAD-7= Generalised Anxiety Disorder Questionnaire.

Supervisory Relationship (SR)

Table 9 summarises the total scores, corrected means and standard deviations for the sub-scales and overall total. Participants reported positive SRs with total SRM scores ranging from 274-342 (M = 313.06, SD =18.51) (maximum 351). The

corrected means were similar to previous studies, with a total SRM corrected mean of 6.14 in this study compared to 6.08 in Pearce et al. (2013).

The CD-RISC (T1) score for the sub-sample of PWPs who had supervisor respondents (n = 18, M = 27.22, SD = 4.70) was not significantly different from the main pool (n = 65, M= 25.91, SD = 6.13), p=.404.

Table 9

Corrected mean scores and standard deviations for Supervisory Relationship Measure (SRM) sub-scales and total score (N=18)

SRM	Total	Number of items	Corrected mean	SD
Total SRM	313.06	51	6.14	0.36
Safe base	94.61	15	6.14	0.57
Supervisor commitment	55.00	9	6.11	0.43
Trainee contribution	82.06	13	6.31	0.38
External influences	45.17	8	5.65	0.83
Supervisor investment	36.22	6	6.04	0.34
CD-RISC scores for trainee sub-sample			Mean	SD
T1			27.22	4.70
T2			26.33	4.03
T3			28.88	4.93

Note: SRM= Supervisory Relationship Measure, CD-RISC= Connor-Davidson Resilience Scale, CD-RISC T1 N=18, T2 N=18, T3 N=17; SD= standard deviation. Corrected mean; the total mean for each sub-scale divided by the number of items in the sub-scale (Pearce et al., 2013).

There was a weak non-significant negative relationship between SRM score and trainee CD-RISC score at T1 (r = -.216, p = .195). This non-significant drift was not in the hypothesised direction. The relationship was not significant for CD-RISC T3 (r = -.043, p = .435). A Spearman's rho showed SRM was not correlated with secondary outcomes at T1. A moderator analysis was conducted to see if the SRM moderated the relationship between resilience at T1 and T3. The interaction was not significant, t(13)=.386, p = .705 and was not investigated further.

Discussion

This within-subject study aimed to investigate the feasibility and acceptability of a resilience intervention for TPWPs, the relationship between trainee resilience and wellbeing, and whether a resilience intervention impacts on resilience and other secondary outcomes. It was also of interest whether there was a relationship between trainee resilience and the quality of the supervisory relationship.

Feasibility and acceptability of training

Overall results showed feasibility of resilience training with good rates of attendance and recruitment, and high rates of participant retention. A sub-set of participants did not participate at T1. Further losses were due to practical errors, such as unmatched PINs, rather than study attrition. An area of weakness was in supervisor recruitment with a 30% recruitment rate as under 50% of trainees consented to supervisor contact, possibly being reluctant due to perceived additional scrutiny of performance.

Intervention acceptability was supported by a high acceptability score and positive feedback, which highlighted subjective benefits to resilience knowledge and positive psychology skills. Other literature has similarly supported the acceptability of resilience interventions to staff (Mealer et al., 2014) and perceived value of self-care interventions to trainees (Hopkins & Proeve, 2013; Robins, Roberts & Sarris, 2019). Constructive criticism arose as participants highlighted familiarity with course content, suggesting more skill practise may be beneficial. Although acceptability scores decreased at follow-up, over 80% of the participants reported use of the skills, and qualitative feedback reiterated it was useful to learn positive psychology, self-care and relaxation skills.

There were also barriers to why trainees did not implement skills, predominantly when TPWPs felt familiar with the content. Adaptations to the audience may therefore be needed. Further, during training may be a challenging time to prioritise integrating new self-care skills, despite the recommendations (Pakenham & Stafford-Brown, 2012).

Resilience and wellbeing

The results highlighted marginally lower resilience and wellbeing and higher burnout scores than normative data for other healthy populations, possibly due to training context and perceived stress for novice therapists under academic pressure (Pica, 1998). Overall, the scores were in the healthy range for anxiety and depression. Supporting H1, resilience was positively correlated with wellbeing and negatively correlated with burnout, depression and anxiety. The findings supported that trainees who have higher baseline resilience may have higher levels of wellbeing, and lower levels of burnout, depression and anxiety than trainees with lower levels of resilience. These findings suggest associations between these outcomes but cannot demonstrate cause-and-effect that resilience directly influences the other variables. The results are consistent with research suggesting the benefits of resilience to wellbeing (Burns & Anstey, 2010), positive and negative affect (Burns et al., 2011) and anxiety and depression (Smith et al., 2008).

Impact of the resilience intervention

Resilience showed evidence of an increase by follow-up with small effect sizes. The absence of change between T1 and T2 may be anticipated, as T2 was on the workshop day and strategies will take time to be put into practise. Other studies have also found small to moderate benefits of training on resilience in health-care professionals (Sood et al., 2014) and in the workplace (Joyce et al., 2018). Resilience

may be strengthened through emotional regulation, positive emotions and flexible thinking, due to attentional control, cognitive re-appraisal and up-regulation of positive affect (Kay, 2016). The qualitative feedback supports subjective benefits of positive psychology, relaxation and self-care skills. Small but signification changes from one workshop shows promise that brief interventions may contribute to resilience change.

The secondary outcomes of wellbeing, burnout, depression and anxiety did not significantly improve, although scores showed minimal change in the expected direction. These findings are inconsistent with some other studies (Sood et al., 2014; Mealer et al., 2014). Possibly, although resilience improved, the small effect might not benefit broader wellbeing in a short time-frame and may require more longitudinal study. Moreover, prevention of decline in wellbeing during training may be encouraging, as it has been found that students can experience decline, despite stress management (Dyrbye et al., 2017). Further, in this study the depression and anxiety scores had a possible floor effect and little improvement was feasible.

The impact of change in resilience on the secondary measures was investigated. Changes in resilience accounted for small but significant proportions of the variance in three of the four outcome measures at T3 when the baseline measure for each outcome was controlled for, with the exception of anxiety, which was close to significant. The unit change in each outcome was small with between 0.3 and 0.9 change, equating to minor improvements in wellbeing. This may tentatively suggest that individuals with substantial change in resilience may experience change in wellbeing. This finding may have potential, as even a one-point change in burnout can reduce other adverse outcomes (West, Dyrbye, Erwin, & Shanafelt, 2016), particularly in a healthy but stressed population, where change may be harder to achieve because of the context. The results for anxiety may have been less because

the relationship between resilience and anxiety is weaker than with depression-related symptoms (Humphreys, 2003), possibly because anxiety is more reactive to current perceived stress than internal resilience.

Supervisory Relationship (SR)

The hypothesis (H2) that trainees who have higher resilience will also have higher quality SR was not supported, as no relationship between the SRM and resilience were found. This hypothesis was based on findings that a high quality relationship may protect against job demands (Bakker et al., 2005; Jackson et al., 2007) and contribute to resilience through external support. A moderator effect between T1 and T3 resilience may have highlighted if a stronger SR would increase the likelihood of resilience change, through such external support. This was not supported; however, this may have been due to the lack of power (n = 18). Further, overall SRs were positive with a possible ceiling effect. This could be due to reliance on trainee consent to contact a supervisor, as trainees with good SRs may be more inclined to provide consent. Further, supportive supervisors may be more likely to participate in the study.

Critique

This is the first study to provide evidence for resilience as a training package for trainee therapists. This study focuses on resilience as the primary outcome with wellbeing as secondary outcomes (the absence of which has been a criticism; Joyce et al., 2018). The results must be interpreted within the context of the limitations. As a within-subject and uncontrolled study, the internal validity may be biased by confounding factors which altered resilience or wellbeing (e.g. increased stress). Without a control group, it is unknown whether the training may have protected

against deterioration. Further, the results may be affected by "regression to the mean", which occurs when extreme values are found, due to the limited possibility for improvement for participants and the impact of outliers on the mean.

The findings are also impacted by limitations of the measures. The use of the 10-item rather than 25-item CD-RISC possibly limited sensitivity to change. Further, as the PHQ-9 and GAD-7 are measures of clinical depression and anxiety, relevance to a healthy population might be limited, as indicated by floor effects. This may be compounded by the PWPs use of these measures at work resulting in practice effects. Additionally, the SRM measure had only previously been validated in clinical psychology trainees (Pearce et al., 2013). However, the sub-scales were scored comparably, supporting the argument that the relationship may have similar attributes across professions. Other constructs such as current stress might be more responsive to changes in resilience (i.e. Perceived Stress Scale; Cohen, Kamarck, & Mermelstein, 1983), whilst measures such as the Mental Health Professional Stress Scale (Cushway, Tyler & Nolan, 1996) might capture study stress more sensitively than a burnout measure. Related concepts of self-compassion and mindfulness may offer broader perspectives.

Conclusion, future research and clinical implications

This study supports the feasibility, acceptability and impact of a brief one-day resilience intervention during PWP training, indicating satisfaction with training, through quantitative and qualitative methods, and small but significant benefits to resilience. Evidence for the impact on secondary outcomes was lesser, although change in resilience may have small but significant effects.

This study tested trial processes and data collection to assess feasibility of future studies. PWP recruitment and data collection was satisfactory, with limited attrition. Participant loss to PIN errors suggests some simplification of methods to

match data. Future research might consider improved methods of recruiting supervisors (e.g. direct recruitment) or consider alternative measures of trainee functioning (e.g. therapist outcomes; Green et al., 2014). Future interventions should consider adaptations to the audience to improve engagement, such as more in-depth material, self-application, and increased practise (e.g. follow-up groups).

A study aim was to identify suitable variables for future research and relationships with wellbeing, burnout, depression and anxiety have been highlighted. However, the alternative measures above would broaden the perspective. Effect sizes have been calculated to inform sample size estimations. Larger studies might consider comparison to treatment-as-usual or look at between-group differences to see if trainees with high versus low anxiety, depression or burnout respond differently. This study conducted initial exploration of resilience in analyses to assess its explanatory contribution to change in other outcomes with small but significant effects. Future studies might consider resilience as a mediator to see if changes mediate effects on wellbeing.

Finally, it is important to consider the challenge of creating meaningful change in resilience when factors such as workload, sense of control, and feeling valued in the workplace may conflict. Beyond personal resilience, organisational resilience refers to an organisation's ability to create an environment that promotes resilience and thriving (Nishikawa, 2006). Workplaces and government policy have a responsibility to foster practices that build resilience and safeguard staff, to encourage resilient leadership (Ledesma, 2014) and recognise the impact of external pressures, poor training or funding. Attention to both individual resource and external support must be provided to facilitate meaningful change in workforce resilience.

References

Ahern, N. R., Ark, P., & Byers, J. (2008). Resilience and coping strategies in adolescents. *Paediatric Care*, *20*, 32–36. https://doi.org/10.7748/paed2008.12.20.10.32.c6903

Armon, G., & Shirom, A. (2008). Burnout and Vigor scales (SMBM & SMVM). Retrieved from http://www.shirom.org/arie/index.html

Bakker, A. B., Demerouti, E., & Euwema, M. C. (2005). Job resources buffer the impact of job demands on burnout. *Journal of Occupational Health Psychology*, *10*, 170–180. https://doi.org/10.1037/1076-8998.10.2.170

Beutel, M. E., Glaesmer, H., Wiltink, J., Marian, H., & Brähler, E. (2010). Life satisfaction, anxiety, depression and resilience across the life span of men. *Aging Male*, *13*, 32–39. https://doi.org/10.3109/13685530903296698

Bowden, G. E., Smith, J. C. E., Parker, P. A., & Boxall, M. J. C. (2015). Working on the edge: Stresses and rewards of work in a front-line mental health service. *Clinical Psychology & Psychotherapy*, *22*, 488–501. https://doi.org/10.1002/cpp.1912

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, *3*, 77–101. https://doi.org/10.1191/1478088706qp063oa

Burns, R.A., & Anstey, K. J. (2010). The Connor–Davidson Resilience Scale (CD-RISC): Testing the invariance of a uni-dimensional resilience measure that is independent of positive and negative affect. *Personality and Individual Differences*, *48*, 527–531. https://doi.org/10.1016/j.paid.2009.11.026

Burns, Richard A., Anstey, K. J., & Windsor, T. D. (2011). Subjective well-being mediates the effects of resilience and mastery on depression and anxiety in a large community sample of young and middle-aged adults. *Australian & New*

Zealand Journal of Psychiatry, *45*, 240–248. https://doi.org/10.3109/00048674.2010.529604

Campbell-Sills, L., Forde, D. R., & Stein, M. B. (2009). Demographic and childhood environmental predictors of resilience in a community sample. *Journal of Psychiatric Research*, *43*, 1007–1012. https://doi.org/10.1016/j.jpsychires.2009.01.013

Campbell-Sills, L., & Stein, M. B. (2007). Psychometric analysis and refinement of the Connor–Davidson Resilience Scale (CD-RISC): Validation of a 10-item measure of resilience. *Journal of Traumatic Stress*, *20*, 1019–1028. https://doi.org/10.1002/jts.20271

Clark, D. M. (2011). Implementing NICE guidelines for the psychological treatment of depression and anxiety disorders: The IAPT experience. *International Review of Psychiatry*, *23*, 318–327. https://doi.org/10.3109/09540261.2011.606803

Coaston, S. C. (2019). Cultivating self-compassion within the supervision relationship. *The Clinical Supervisor*, *38*, 79–96. https://doi.org/10.1080/07325223.2018.1525596

Cohen, J. (1988). *Statistical Power Analysis for the Behavioral Sciences* (2nd ed.). New York, NY: Lawrence Erlbaum Associates Publishers.

Cohen, J. (1992). A power primer. *Psychological Bulletin*, *112*, 155–159. https://doi.org/10.1037/0033-2909.112.1.155

Cohen, S., Kamarck, T., & Mermelstein, R. (1983). A global measure of perceived stress. *Journal of Health and Social Behavior*, *24*, 385–396. https://doi.org/10.2307/2136404

Connor, K. M., & Davidson, J. R. T. (2003). Development of a new resilience scale: The Connor–Davidson Resilience Scale (CD-RISC). *Depression and Anxiety*,

18, 76–82. https://doi.org/10.1002/da.10113

Cushway, D. (1992). Stress in clinical psychology trainees. *British Journal of Clinical Psychology*. https://doi.org/10.1111/j.2044-8260.1992.tb00981.x

Cushway, D., Tyler, P. A., & Nolan, P. (1996). Development of a stress scale for mental health professionals. *British Journal of Clinical Psychology*, *35*, 279–295. https://doi.org/10.1111/j.2044-8260.1996.tb01182.x

Davis, J. R., Rawana, E. P., & Capponi, D. R. (1989). Acceptability of behavioral staff management techniques. *Behavioral Interventions*, *4*, 23–44. https://doi.org/10.1002/bin.2360040104

Delany, C., Miller, K. J., El-Ansary, D., Remedios, L., Hosseini, A., & McLeod, S. (2015). Replacing stressful challenges with positive coping strategies: A resilience program for clinical placement learning. *Advances in Health Sciences Education*, *20*, 1303–1324. https://doi.org/10.1007/s10459-015-9603-3

Dyrbye, L. N., Shanafelt, T. D., Werner, L., Sood, A., Satele, D., & Wolanskyj, A. P. (2017). The impact of a required longitudinal stress management and resilience training course for first-year medical students. *Journal of General Internal Medicine*, *32*, 1309–1314. https://doi.org/10.1007/s11606-017-4171-2

Ekers, D. M., Dawson, M. S., & Bailey, E. (2013). Dissemination of behavioural activation for depression to mental health nurses: Training evaluation and benchmarked clinical outcomes. *Journal of Psychiatric and Mental Health Nursing*, *20*, 186–192. https://doi.org/10.1111/j.1365-2850.2012.01906.x

Eldridge, S. M., Lancaster, G. A., Campbell, M. J., Thabane, L., Hopewell, S., Coleman, C. L., & Bond, C. M. (2016). Defining feasibility and pilot studies in preparation for randomised controlled trials: Development of a conceptual framework. *PLOS ONE*, *11*, e0150205. https://doi.org/10.1371/journal.pone.0150205

Eley, D. S., Cloninger, C. R., Walters, L., Laurence, C., Synnott, R., & Wilkinson, D. (2013). The relationship between resilience and personality traits in doctors: Implications for enhancing well being. *PeerJ*, *1*, e216. https://doi.org/10.7717/peerj.216

Field, A. (2005). *Discovering Statistics Using SPSS* (2nd ed.). Los Angeles, CA: SAGE Publications Inc.

Frajo-Apor, B., Pardeller, S., Kemmler, G., & Hofer, A. (2016). Emotional intelligence and resilience in mental health professionals caring for patients with serious mental illness. *Psychology, Health & Medicine*, *21*, 755–761. https://doi.org/10.1080/13548506.2015.1120325

Green, H., Barkham, M., Kellett, S., & Saxon, D. (2014). Therapist effects and IAPT psychological wellbeing practitioners (PWPs): A multilevel modelling and mixed methods analysis. *Behaviour Research and Therapy*, *63*, 43–54. https://doi.org/10.1016/j.brat.2014.08.009

Hartley, M. T. (2012). Assessing and promoting resilience: An additional tool to address the increasing number of college students with psychological problems. *Journal of College Counseling*, *15*, 37–51. https://doi.org/10.1002/j.2161-1882.2012.00004.x

Hopkins, A., & Proeve, M. (2013). Teaching mindfulness-based cognitive therapy to trainee psychologists: Qualitative and quantitative effects. *Counselling Psychology Quarterly*, *26*, 115–130. https://doi.org/10.1080/09515070.2013.792998

Horsfall, S. (2014). Doctors who commit suicide while under GMC fitness to practise investigation. Retrieved from http://www.gmc-uk.org/Internal_review_into_suicide_in_FTP_processes.pdf_59088696.pdf

Humphreys, J. (2003). Resilience in sheltered battered women. *Issues in Mental*

Health Nursing, *24*, 137–152. https://doi.org/10.1080/01612840305293

Jackson, D., Firtko, A., & Edenborough, M. (2007). Personal resilience as a strategy for surviving and thriving in the face of workplace adversity: A literature review. *Journal of Advanced Nursing*, *60*, 1–9. https://doi.org/10.1111/j.1365-2648.2007.04412.x

Joyce, S., Shand, F., Tighe, J., Laurent, S. J., Bryant, R. A., & Harvey, S. B. (2018). Road to resilience: A systematic review and meta-analysis of resilience training programmes and interventions. *BMJ Open*, *8*, e017858. https://doi.org/10.1136/bmjopen-2017-017858

Kay, S. A. (2016). Emotion regulation and resilience: Overlooked connections. *Industrial and Organizational Psychology*, *9*, 411–415. https://doi.org/10.1017/iop.2016.31

Keeton, K., Fenner, D. E., Johnson, T. R. B., & Hayward, R. A. (2007). Predictors of physician career satisfaction, work–life balance, and burnout. *Obstetrics & Gynecology*, *109*, 949–955. https://doi.org/10.1097/01.AOG.0000258299.45979.37

Kolar, C., von Treuer, K., & Koh, C. (2017). Resilience in early-career psychologists: Investigating challenges, strategies, facilitators, and the training pathway. *Australian Psychologist*, *52*, 198–208. https://doi.org/10.1111/ap.12197

Kroenke, K., Spitzer, R. L., & Williams, J. B. W. (2001). The PHQ-9: Validity of a brief depression severity measure. *Journal of General Internal Medicine*, *16*, 606–613. https://doi.org/10.1046/j.1525-1497.2001.016009606.x

Lamb, D., & Cogan, N. (2016). Coping with work-related stressors and building resilience in mental health workers: A comparative focus group study using interpretative phenomenological analysis. *Journal of Occupational and*

Organizational Psychology, *89*, 474–492. https://doi.org/10.1111/joop.12136

Ledesma, J. (2014). Conceptual frameworks and research models on resilience in leadership. *SAGE Open*, *4*, 1–8. https://doi.org/10.1177/2158244014545464

Lee, K. J., Forbes, M. L., Lukasiewicz, G. J., Williams, T., Sheets, A., Fischer, K., & Niedner, M. F. (2015). Promoting staff resilience in the pediatric intensive care unit. *American Journal of Critical Care*, *24*, 422–430. https://doi.org/10.4037/ajcc2015720

London, M. (1983). Toward a theory of career motivation. *Academy of Management Review*, *8*, 620–630. https://doi.org/10.5465/amr.1983.4284664

Löwe, B., Decker, O., Müller, S., Brähler, E., Schellberg, D., Herzog, W., & Herzberg, P. Y. (2008). Validation and standardization of the generalized anxiety disorder screener (GAD-7) in the general population. *Medical Care*, *46*, 266–274. https://doi.org/10.1097/MLR.0b013e318160d093

Manea, L., Gilbody, S., & McMillan, D. (2012). Optimal cut-off score for diagnosing depression with the patient health questionnaire (PHQ-9): a meta-analysis. *Canadian Medical Association Journal*, *184*, E191–E196. https://doi.org/10.1503/cmaj.110829

Maslach, C., Schaufeli, W. B., & Leiter, M. P. (2001). Job burnout. *Annual Review of Psychology*, *52*, 397–422. https://doi.org/10.1146/annurev.psych.52.1.397

Mealer, M., Conrad, D., Evans, J., Jooste, K., Solyntjes, J., Rothbaum, B., & Moss, M. (2014). Feasibility and acceptability of a resilience training program for intensive care unit nurses. *American Journal of Critical Care*, *23*, 97–105. https://doi.org/10.4037/ajcc2014747

Mealer, M., Jones, J., Newman, J., McFann, K. K., Rothbaum, B., & Moss, M. (2012). The presence of resilience is associated with a healthier psychological profile in intensive care unit (ICU) nurses: Results of a national survey.

International Journal of Nursing Studies, *49*, 292–299. https://doi.org/10.1016/j.ijnurstu.2011.09.015

Milne, D. (2009). Can we enhance the training of clinical supervisors? A national pilot study of an evidence-based approach. *Clinical Psychology & Psychotherapy*, *17*, 321–328. https://doi.org/10.1002/cpp.657

Milne, D. L., Keegan, D., Westerman, C., & Dudley, M. (2000). Systematic process and outcome evaluation of brief staff training in psychosocial interventions for severe mental illness. *Journal of Behavior Therapy and Experimental Psychiatry*, *31*, 87–101. https://doi.org/10.1016/S0005-7916(00)00013-6

Myles, P. J., & Milne, D. L. (2004). Outcome evaluation of a brief shared learning programme in cognitive behavioural therapy. *Behavioural and Cognitive Psychotherapy*, *32*, 177–188. https://doi.org/10.1017/S1352465804001183

Nishikawa, Y. (2006). *Thriving in the face of adversity: Perceptions of elementary-school principals.* La Verne, CA: University of La Verne.

O'Leary, V. E. (1998). Strength in the face of adversity: Individual and social thriving. *Journal of Social Issues*, *54*, 425–446. https://doi.org/10.1111/0022-4537.751998075

Pakenham, K. I., & Stafford-Brown, J. (2012). Stress in clinical psychology trainees: Current research status and future directions. *Australian Psychologist*, *47*, 147–155. https://doi.org/10.1111/j.1742-9544.2012.00070.x

Palomo, M., Beinart, H., & Cooper, M. J. (2010). Development and validation of the Supervisory Relationship Questionnaire (SRQ) in UK trainee clinical psychologists. *British Journal of Clinical Psychology*, *49*, 131–149. https://doi.org/10.1348/014466509X441033

Pearce, N., Beinart, H., Clohessy, S., & Cooper, M. (2013). Development and validation of the Supervisory Relationship Measure: A self-report questionnaire

for use with supervisors. *British Journal of Clinical Psychology*, *52*, 249–268. https://doi.org/10.1111/bjc.12012

Pereira, J.-A., Barkham, M., Kellett, S., & Saxon, D. (2017). The role of practitioner resilience and mindfulness in effective practice: A practice-based feasibility study. *Administration and Policy in Mental Health and Mental Health Services Research*, *44*, 691–704. https://doi.org/10.1007/s10488-016-0747-0

Pica, M. (1998). The ambiguous nature of clinical training and its impact on the development of student clinicians. *Psychotherapy: Theory, Research, Practice, Training*, *35*, 361–365. https://doi.org/10.1037/h0087840

Rees, C. S., Breen, L. J., Cusack, L., & Hegney, D. (2015). Understanding individual resilience in the workplace: The international collaboration of workforce resilience model. *Frontiers in Psychology*, *6*, 1–7. https://doi.org/10.3389/fpsyg.2015.00073

Richardson, G. E. (2002). The metatheory of resilience and resiliency. *Journal of Clinical Psychology*, *58*, 307–321. https://doi.org/10.1002/jclp.10020

Robertson, H. D., Elliott, A. M., Burton, C., Iversen, L., Murchie, P., Porteous, T., & Matheson, C. (2016). Resilience of primary healthcare professionals: A systematic review. *British Journal of General Practice*, *66*, 423–433. https://doi.org/10.3399/bjgp16X685261

Robertson, I. T., Cooper, C. L., Sarkar, M., & Curran, T. (2015). Resilience training in the workplace from 2003 to 2014: A systematic review. *Journal of Occupational and Organizational Psychology*, *88*, 533–562. https://doi.org/10.1111/joop.12120

Robins, T. G., Roberts, R. M., & Sarris, A. (2019). The effectiveness, feasibility, and acceptability of a Dialectical Behaviour Therapy skills training group in reducing burnout and psychological distress in psychology trainees: A pilot

study. *Australian Psychologist*, 1–10. https://doi.org/10.1111/ap.12389

Rogers, D. (2016). Which educational interventions improve healthcare professionals' resilience? *Medical Teacher*, *38*, 1236–1241. https://doi.org/10.1080/0142159X.2016.1210111

Rutter, M. (1993). Resilience: Some conceptual considerations. *Journal of Adolescent Health*, *14*, 626–631. https://doi.org/10.1016/1054-139X(93)90196-V

Rutter, M. (2013). Annual research review: Resilience - clinical implications. *Journal of Child Psychology and Psychiatry*, *54*, 474–487. https://doi.org/10.1111/j.1469-7610.2012.02615.x

Saakvitne, K. W., Tennen, H., & Affleck, G. (1998). Exploring thriving in the context of clinical trauma theory: Constructivist self development theory. *Journal of Social Issues*, *54*, 279–299. https://doi.org/10.1111/0022-4537.661998066

Shirom, A. (1989). Burnout in work organizations. In C. L. Cooper & I. T. Robertson (Eds.), *International Review of Industrial and Organizational Psychology* (pp. 25–48). Oxford, England: John Wiley & Sons.

Shirom, A., & Melamed, S. (2006). A comparison of the construct validity of two burnout measures in two groups of professionals. *International Journal of Stress Management*, *13*, 176–200. https://doi.org/10.1037/1072-5245.13.2.176

Smith, B. W., Dalen, J., Wiggins, K., Tooley, E., Christopher, P., & Bernard, J. (2008). The Brief Resilience Scale: Assessing the ability to bounce back. *International Journal of Behavioral Medicine*, *15*, 194–200. https://doi.org/10.1080/10705500802222972

Sood, A., Prasad, K., Schroeder, D., & Varkey, P. (2011). Stress management and resilience training among department of medicine faculty: A pilot randomized

clinical trial. *Journal of General Internal Medicine*, *26*, 858–861. https://doi.org/10.1007/s11606-011-1640-x

Sood, A., Sharma, V., Schroeder, D. R., & Gorman, B. (2014). Stress management and resiliency training (SMART) program among department of radiology faculty: a pilot randomized clinical trial. *EXPLORE*, *10*, 358–363. https://doi.org/10.1016/j.explore.2014.08.002

Spitzer, R. L., Kroenke, K., Williams, J. B. W., & Löwe, B. (2006). A brief measure for assessing Generalized Anxiety Disorder. *Archives of Internal Medicine*, *166*, 1092–1097. https://doi.org/10.1001/archinte.166.10.1092

Stewart-Brown, S., & Janmohamed, K. (2008). Warwick-Edinburgh Mental Well-Being Scale (WEMWBS) user guide. *Warwick Medical School, University of Warwick*. Retrieved from http://www.mentalhealthpromotion.net/resources/user-guide.pdf

Suurmond, R., van Rhee, H., & Hak, T. (2017). Introduction, comparison, and validation of Meta-Essentials: A free and simple tool for meta-analysis. *Research Synthesis Methods*, *8*, 537–553. https://doi.org/10.1002/jrsm.1260

Tennant, R., Hiller, L., Fishwick, R., Platt, S., Joseph, S., Weich, S., … Stewart-Brown, S. (2007). The Warwick-Edinburgh Mental Well-Being Scale (WEMWBS): Development and UK validation. *Health and Quality of Life Outcomes*, *5*, 63. https://doi.org/10.1186/1477-7525-5-63

Tusaie, K., & Dyer, J. (2004). Resilience. *Holistic Nursing Practice*, *18*, 3–10. https://doi.org/10.1097/00004650-200401000-00002

Ungar, M. (2004). A constructionist discourse on resilience. *Youth & Society*, *35*, 341–365. https://doi.org/10.1177/0044118X03257030

Volpe, U., Luciano, M., Palumbo, C., Sampogna, G., Del Vecchio, V., & Fiorillo, A. (2014). Risk of burnout among early career mental health professionals.

Journal of Psychiatric and Mental Health Nursing, *21*, 774–781. https://doi.org/10.1111/jpm.12137

Werner, E. E., & Smith, R. S. (2001). *Journeys from childhood to midlife: Risk, resilience, and recovery.* Ithaca, NY: Cornell University Press.

West, C. P., Dyrbye, L. N., Erwin, P. J., & Shanafelt, T. D. (2016). Interventions to prevent and reduce physician burnout: A systematic review and meta-analysis. *The Lancet*, *388*, 2272–2281. https://doi.org/10.1016/S0140-6736(16)31279-X

Appendix

Appendix A

Recruitment Email to PWPs

1. Initial Invitation Email to PWPs

Dear PWPs Trainees,

I am a trainee clinical psychologist currently training at the University of Sheffield. This email is to introduce to you a research study that is running alongside your teaching on resilience on ….. 2018. This is for a thesis project that I am carrying out as part of my training. I would like to invite you to be a participant in this study.

Why is this study taking place?

We know that managing the competing demands of academic work, a clinical caseload and your own personal life during training can be stressful and this research is looking at the role of resilience in training and is interested in how you feel both personally and in your role at work. Additionally, we are interested in how you find the resilience training and how helpful it is at this point in your studies. With your permission, we would also be interested in contacting supervisors of current trainees to find out more about their views on resilience and supervision during training.

We hope this study will contribute to further research into the wellbeing of trainees and health-care professionals.

What happens next?

I am planning to come and explain more about the study to you in an introductory session on ……. at 12.00-12.30. I will explain what the study is about, why we are carrying it out, and what we will ask you to do if you choose to participate. It will involve completing a set of questionnaires before the training, which will be available to complete on the day of the introductory session. The study will additionally include a feedback form and one questionnaire after the training, and a set of questionnaires a number of weeks after the training.

I would be grateful if you are able to participate. If you choose not to, this will not impact on your attendance at this training and you will still attend the resilience training as part of your normal curriculum.

If you have any questions at this time, please get in touch via this email address.

Many thanks for your time and participation.

2. Invitation reminder to PWPs (who missed introductory session)

Dear PWP Trainees,

Following on from previous email(s), this email is a reminder that we are running a research study alongside your teaching on resilience this week, on …… 2018 (9.30-4.30pm). Thank you to those of you who have participated to date.

If any of you have not participated, but would still be interested, the link in the email below will take you to an online version of the survey which you can complete in your own time. The participant information sheet is also attached in my original email. If you would prefer, you can also to participate on the day. I will be available on Thursday from 8.45AM in …. , with some packs if anyone would like to complete them there. Please note, these will need to be completed before the start of the training (at 9.30) in order to be used in the research.

If you have participated but have not provided consent for us to contact your supervisor, there will be the opportunity to provide consent at the end of the day when we will ask you to complete two questionnaires for the study. I would be very grateful if you have the chance to speak to your supervisor and consent for us to contact to complete one questionnaire.

Many thanks for your time and participation.

3. Reminder for follow-up session

Dear PWP Trainees,

This is quick reminder that the follow-up session to the resilience training workshop is this ……... We have a 15-minute slot from 1.30-1.45 after your lunch break, in which to have a short discussion and collect the follow-up data from those of you who participated in the study.

It would be really helpful if we were all ready to start at 1.30 to help us to use the short time as well as possible.

Many thanks for your time and participation.

Appendix B

Participant Information Sheet: PWPs

Department Of Psychology.
Clinical Psychology Unit.
Doctor of Clinical Psychology (DClin Psy) Programme
Clinical supervision training and NHS research training & consultancy.

Rosalyn Nelson
Trainee Clinical Psychologist
Clinical Psychology Unit
Department of Psychology
University of Sheffield
Floor F, Cathedral Court
1 Vicar Lane
Sheffield
S1 2LT

Telephone: 0114 2226576
Fax: (+44) (0)114 2226610
Email:
rnelson1@sheffield.ac.uk

PARTICIPANT INFORMATION SHEET

Resilience training for Psychological Wellbeing Practitioner (PWP) trainees and the role of resilience in trainee wellbeing

You are being invited to take part in a research project. Before you decide whether to take part, it is important to understand why the research is being done and what it will involve. Please read the following information carefully, and you can contact the researcher via email with any questions you have.

What is the purpose of the study?

Many health-care professionals work in stressful environments, which is recognised to be a particular challenge when balancing academic and clinical work during training. Some studies have found that resilience may play an important role for how individuals feel in their personal and professional wellbeing. This project is investigating the role of resilience in trainees and how resilience, personal wellbeing and professional wellbeing may be associated, and to assess how helpful resilience training might be during an early stage of training.

You will also have the option to provide us with consent to contact your supervisor to understand the role of resilience at work, which is explained more below.

Why have I been invited?

You have been invited to take part because you are a Psychological Wellbeing Practitioner trainee due to receive a resilience training workshop as part of your university curriculum. We are inviting PWP trainees from two cohorts who are receiving this training to take part in our study and we are aiming to recruit around 100 participants.

Do I have to take part?

It is up to you. If you read this and decide to take part, you will be asked to sign a consent form and complete some measures. If you give consent for us to contact your supervisor, then we will contact them too. If you do chose to participate, you will be able to withdraw at any time without giving a reason.

If you decide not to take part in the study this will not impact on your studies and you will still attend the resilience workshop as normal, but you will not complete the measures for the research.

What will happen if I take part?

If you sign the consent form, you will be asked to complete a set of questionnaires that are expected to take you about twenty to twenty-five minutes. These can then be returned to the researcher immediately or in the envelope provided. Alternatively, if you would prefer to complete the measures online then a survey link will be sent to you. Once these forms are completed, you will attend the resilience training as normal as part of your university course. At the end of the workshop you will be asked to complete an evaluation feedback form and one further questionnaire. After a ten-week period, you will be asked to complete a set of follow-up questionnaires.

Additionally, we will ask for optional consent to contact your clinical supervisor in the NHS so that we can invite them to complete one questionnaire too. With your consent, we will email your supervisor to give them some information

about the study, gain their consent and send one online questionnaire for them to complete.

What are the benefits of taking part?

By gathering information about resilience in health-care professional trainees, how it impacts on personal and professional wellbeing at home and in the workplace, and how it might be improved, it is hoped that this study will help to inform a better understanding of resilience and its role in the wellbeing of trainees. This can help to inform future training and support.

What if there is a problem?

If the content of the questionnaires or workshop raise any concerns for you about your wellbeing, please contact your GP for further advice and support.

In the unlikely event of something going wrong, you can raise any concerns with the researcher, whose contact details are above. If you wish to take any concerns further, please contact Gillian Hardy (project supervisor).

Will all the information be kept confidential?

If you chose to take part, all information and data will be treated confidentially, and will only be used for the purposes of the research. You will not be identifiable in any reports or publications. Your email will be required so that follow-up emails and questionnaires can be sent at the correct time and your individual data can be collated. You will have your own personalised PIN so that identifying information (e.g. email addresses) can be removed from the dataset once responses across the time points have been matched. All information and data provided will be kept secure within a password-protected database.

You and your supervisor's input will be kept confidential and it will not under any circumstance be shared with a third-party or the university course team and it will have no impact on your course. Only the research team will have access to your data or the data provided by your supervisor.

Will I receive any reimbursement of expenses for taking part in this research?

Unfortunately, we are not able to provide any reimbursement for taking part of the research.

What will happen to the results of the study?

The results will be submitted as part of the researcher's doctoral thesis in May 2019. You can obtain a copy of the results after this date by contacting the researcher. If the study is published, then the results will be submitted for publication after summer 2019. The University of Sheffield is organising and funding this research. This project has been ethically approved by the Department of Psychology Ethics Committee (https://www.sheffield.ac.uk/psychology/research/ethics).

What if I wish to complain about the way the study has been carried out?

If you wish to make a complaint, please contact Gillian Hardy (supervisor). If you feel that your complaint has not been handled to your satisfaction following this, you can contact Glenn Waller (the Head of the Department of Psychology).

Can I withdraw at any time?

You can withdraw from this study at any time by contacting the researcher.

Contact Information

This research is being conducted by Rosalyn Nelson, Trainee Clinical Psychologist. This research will be used to write a thesis which fulfils part of clinical psychology doctoral training. If you have any questions about the research, you can contact Rosalyn via email or leave a telephone message with the Research Support Officer on 0114 222 6650 who will ask Rosalyn to contact you.

Appendix C

Consent Form: PWPs with Participant Identification Number instructions and Optional Consent to Contact Supervisor

Department Of Psychology.
Clinical Psychology Unit.
Doctor of Clinical Psychology (DClin Psy) Programme
Clinical supervision training and NHS research training & consultancy.

Rosalyn Nelson
Trainee Clinical Psychologist
Clinical Psychology Unit
Department of Psychology
University of Sheffield
Floor F, Cathedral Court
1 Vicar Lane
Sheffield
S1 2LT

Telephone: 0114 2226576
Fax: (+44) (0)114 2226610
Email:
rnelson1@sheffield.ac.uk

Psychological Wellbeing Practitioners – Resilience Study

Consent Form

I confirm that I have read and understood the information sheet for the above study. I have had the opportunity to consider the information and, where necessary, I have been able to ask questions and have had these answered satisfactorily.	
I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason, without my training being affected.	
I understand that my email address is required so that follow-up emails and questionnaires can be sent and collated. Identifying information (e.g. email addresses) will be kept within a password-protected database and will be removed from the dataset once responses at the different time points have been matched. Please enter your university email address below. …….	

I agree to take part in the above study.	

Please enter the following details to form your participant identification number (PIN) for use throughout your involvement in this project. This allows us to remove all identifying information from your data, such as email addresses, once data collection has been completed.

First two letters of your mother's maiden name: *e.g. if your mother's maiden name was Jones, put "JO"*	
The date of the month you were born *e.g. if you were born on the 14th April, put "14"*	
The second and third letters of your father's given/first name *e.g. if your father's name is Tony, put "ON"*	
These three parts together create your personalised PIN: *e.g. JO14ON*	

Optional:

I agree that the researcher (RN) can contact my clinical supervisor as part of the study. I understand that any information received from my supervisor as part of the study is confidential and will be kept separate from my training. The contact details provided will only be used to contact the supervisor and will be destroyed after use. Clinical Supervisor: …… Contact email: …….	
I would like to receive a copy of the study results, once available.	

Appendix D

Confirmation of Ethical Approval

Downloaded: 02/02/2018
Approved: 31/01/2018

Rosalyn Nelson
Registration number: 160124477
Psychology
Programme: DClin Psy

Dear Rosalyn

PROJECT TITLE: Feasibility, acceptability and impact of a resilience training intervention for Psychological Wellbeing Practitioner (PWP) trainees
APPLICATION: Reference Number 017333

On behalf of the University ethics reviewers who reviewed your project, I am pleased to inform you that on 31/01/2018 the above-named project was **approved** on ethics grounds, on the basis that you will adhere to the following documentation that you submitted for ethics review:

- University research ethics application form 017333 (dated 15/12/2017).
- Participant information sheet 1038337 version 1 (15/12/2017).
- Participant consent form 1038336 version 1 (15/12/2017).

The following optional amendments were suggested:

Given the nature of the study, the recruitment materials (e.g., the information sheet) needs to specify what participants should do if taking part in the study raises concerns for them (e.g., they should be directed to contact their GP). The University does not have a Registrar and Secretary anymore, so this should be removed from the information sheet(s). If participants have concerns then they should contact the supervisor or the Head of the Department of Psychology, Professor Glenn Waller. The statement on ethical approval needs to refer to the Department of Psychology Ethics Committee (https://www.sheffield.ac.uk/psychology/research/ethics), not the â€œUniversity of Sheffield Clinical Psychology departmentâ€

If during the course of the project you need to deviate significantly from the above-approved documentation please inform me since written approval will be required.

Yours sincerely

Thomas Webb
Ethics Administrator
Psychology

Appendix E

Overview of Resilience Intervention

Module Title	Content	Exercises
Module 1: Stress and Resilience	Overview of stress • Fight or flight response • Cognitive behavioural therapy cycle • How to manage stress Overview of resilience • How to build resilience through the development of emotional resilience, resilience thinking and balance and recovery	Identifying patterns in yourself (i.e. triggers, feelings, behaviours) and in other people
Module 2: Emotional resilience	Emotional Regulation • Overview and introduction to regulation based in breathing and mindfulness Emotional strengths • Building positive emotions via noticing and recognising the positive. • Building positive relationships via knowing your network and improving relationships.	Identifying own patterns of how currently regulate emotions Building an emotional resilience action plan
Module 3: Resilient thinking	Flexible Thinking • Overview and noticing/ analysing thoughts (thinking errors, evidence etc) Optimism • Overview and ways to be more optimistic	Working out your own balanced thoughts 1. Noticing 2. Analysing 3. Finding the balanced thought Optimism Quiz Building a resilient thinking action plan

Module 4: Balance, recovery and resilience	Balance and recovery introduction • Noticing need for recovery • Brief recovery • Scheduled recovery • Balancing work and home life. Self-Care • Assessment and identifying self-care needs • Improving self-care • The processes of change	Actual versus ideal balance Gaining a better balance Self-care 1. Assessment exercise to identify needs 2. Strategies to improve self-care 3. The processes of change Ultimate resilience action plan

Appendix F

Recruitment Email: Supervisor with Trainee Participant Identification Number and Qualtrics Link

1. Email Invitation

Dear

I am a Trainee Clinical Psychologist currently training at the University of Sheffield. As part of my research thesis, I am conducting a project on resilience in health-care professional trainees, specifically PWP trainees.

I am investigating the role of resilience and how it impacts on personal and professional wellbeing in trainees. Your trainee has kindly agreed to participate in our study and, as their supervisor, you are being invited to give your perspective. We are interested in your feedback on a questionnaire about your supervisory relationship with the trainee. This is expected to take you approximately fifteen-twenty minutes.

If you are happy to participate, please read the information sheet and contact me with any questions that you have. If you wish to participate, please follow the attached link which will take you to a consent page and the questionnaire.

For the study, we need to link your personalised questionnaire to a specific trainee. The trainee who has named you has created a PIN. Their email address and PIN are below. You will need to enter this PIN on the online questionnaire in order to link your response to them. Please enter this PIN when requested.

Trainee email:

PIN:

https://sheffieldpsychology.eu.qualtrics.com/jfe/form/SV_8pHMCUxdHVjsPqt

Any feedback you provide is completely confidential and will not be fed back to your trainee or to the course team. It will only be used for the purposes of the research project.

For the study, please return the questionnaire by the **….** You may be sent a reminder email to ask you to complete these if we have not heard back from you. If you would like to not be contacted again, please let me know.

Thank you for your time and I really appreciate your participation in the project.

Best wishes,
Rosalyn Nelson
Trainee Clinical Psychologist

Clinical Psychology Unit, Department of Psychology
University of Sheffield
Floor F, Cathedral Court
1 Vicar Lane
Sheffield S1 2LT

2. Reminder Email sent to supervisors who had not yet completed the questionnaire.

Dear,

Further to my previous email, I wanted to send a reminder email to invite you to participate in the below study about **PWP resilience during training**.

This research is important to consider the wellbeing of trainees and, as a trainee supervisor, we are inviting you to participate in the study to help us to understand the role of supervisory relationships during PWP training.

For more information, please read the email below, then please follow the included link and use the trainee email and PIN number when completing the form.

In order to be included in the study, please respond by **….**

Thank you for your time and I really appreciate your participation in the project.

Best wishes,

Rosalyn Nelson
Trainee Clinical Psychologist

Clinical Psychology Unit, Department of Psychology
University of Sheffield
Floor F, Cathedral Court
1 Vicar Lane
Sheffield S1 2LT

Appendix G

Participant Information Sheet: Supervisor

The University Of Sheffield.

Department Of Psychology.
Clinical Psychology Unit.

Doctor of Clinical Psychology (DClin Psy) Programme
Clinical supervision training and NHS research training & consultancy.

Rosalyn Nelson
Trainee Clinical Psychologist
Clinical Psychology Unit
Department of Psychology
University of Sheffield
Floor F, Cathedral Court
1 Vicar Lane
Sheffield
S1 2LT

Telephone: 0114 2226576
Fax: (+44) (0)114 2226610
Email:
rnelson1@sheffield.ac.uk

SUPERVISOR PARTICIPANT INFORMATION SHEET

Resilience training for Psychological Wellbeing Practitioner (PWP) trainees and the role of resilience in wellbeing

As a supervisor of a participant in our research project, you are being invited to also take part in the study. Before you decide whether to take part, it is important to understand why the research is being done and what it will involve. Please read the following information carefully, and you can contact the researcher via email with any questions you have.

What is the purpose of the study?

Many health-care professionals work in stressful environments, which is recognised to be a particular challenge when balancing academic and clinical work during training. Some studies have found that resilience may play an important role for how individuals feel in their personal and professional wellbeing. This project is investigating the role of resilience in PWP trainees and how resilience, personal wellbeing and professional wellbeing may be associated. It will assess how helpful

resilience training might be during this stage in their training. We are interested in supervisors' relationships with their trainees, which is explained more below.

Why have I been invited?

You have been invited to take part because you are a supervisor of a Psychological Wellbeing Practitioner trainee who has received a resilience training workshop as part of their university curriculum and has agreed to take part in the study. We are inviting PWP trainees from two cohorts who are receiving this training to take part in our study and we are aiming to recruit around 100 trainee participants. As part of this, we are also contacting trainees' supervisors to invite them to complete one brief questionnaire to further inform the research.

Do I have to take part?

It is up to you. If you read this and decide to take part, you will be asked to click on the attached link and sign an online consent form. If you chose to participate, you will be able to withdraw at any time without giving a reason. If you decide not to take part in the study this will not impact on you or your trainee.

What will happen if I take part?

If you click on the link and sign the online consent form, you will be taken to questionnaire which will take you approximately fifteen-twenty minutes to complete. It will ask you for your perspective on your supervisory relationship with the trainee.

What are the benefits of taking part?

By gathering information about resilience in health-care professional trainees, how it impacts on personal and professional wellbeing and how it might be improved, it is hoped that this study will help to inform a better understanding of resilience and its role in the wellbeing of trainees. This can help to inform future training and support.

What if there is a problem?

In the unlikely event of something going wrong, you can raise any concerns with the researcher, whose contact details are above. If you wish to take any concerns further, please contact Gillian Hardy (project supervisor).

Will all the information be kept confidential?

All the information we collect will be kept strictly confidential. You will not be identifiable in any reports or publications. You and your trainee will share an anonymised identification number so the researcher can link your data to theirs across time. We will not share your responses to their questionnaire with your trainee. You and your trainee's input will be kept confidential and it will not under any circumstance be shared with a third-party or the university course team and it will have no impact on the trainees course outcomes. Only the research team will have access to your data or the data provided by your trainee.

Will I receive any reimbursement of expenses for taking part in this research?

Unfortunately, we are not able to provide any reimbursement for taking part in the research.

What will happen to the results of the study?

The results will be submitted as part of the researcher's doctoral thesis in May 2019. You can obtain a copy of the results after this date by contacting the researcher. If the study is published, then the results will be submitted for publication after summer 2019. The University of Sheffield is organising and funding this research. This project has been ethically approved by the Department of Psychology Ethics Committee (https://www.sheffield.ac.uk/psychology/research/ethics).

What if I wish to complain about the way the study has been carried out?

If you wish to make a complaint, please contact Gillian Hardy (supervisor). If you feel that your complaint has not been handled to your satisfaction following this, you can contact Glenn Waller (the Head of the Department of Psychology).

Can I withdraw at any time?

You can withdraw from this study at any time by contacting the researcher.

Contact Information

This research is being conducted by Rosalyn Nelson, Trainee Clinical Psychologist. This research will be used to write a thesis which fulfils part of their

doctoral training. If you have any questions about the research, you can contact Rosalyn via email or leave a telephone message with the Research Support Officer on: 0114 222 6650 who will ask Rosalyn to contact you.

Thank you for your time in reading this information sheet and considering participating in the research study.

Appendix H

Consent Form: Supervisor

The University Of Sheffield.

Department Of Psychology.
Clinical Psychology Unit.

Doctor of Clinical Psychology (DClin Psy) Programme
Clinical supervision training and NHS research training & consultancy.

Rosalyn Nelson
Trainee Clinical Psychologist
Clinical Psychology Unit
Department of Psychology
University of Sheffield
Floor F, Cathedral Court
1 Vicar Lane
Sheffield
S1 2LT

Telephone: 0114 2226576
Fax: (+44) (0)114 2226610
Email:
rnelson1@sheffield.ac.uk

Psychological Wellbeing Practitioners Resilience Study

Supervisor Consent Form

I confirm that I have read and understand the information sheet for the above study. I have had the opportunity to consider the information and, where necessary, I have been able to ask questions and have had these answered satisfactorily.	
I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason, with no impact on my trainee and their training course, and without my legal rights being affected.	
I understand that any information received as part of the study is confidential and will be kept confidentially for use within the research study only and not as a mechanism to measure performance for the PWP trainee course.	
I understand that my email address is required so that my data can be linked to my trainee's and any follow-up contact can be made. Identifying information (e.g. email addresses) will be kept within a	

password-protected database and will be removed from the dataset once the responses have been matched. Please enter your email address below. …….	
I agree to take part in the above study.	
I would like to receive a copy of the study results, once available.	

Appendix I

Questionnaire Battery: PWPs

Demographic Questionnaire (included only at Time 1)

1. **Age**: Please state your age _____

2. **Education**:

   Please circle your highest level of academic education prior to this training course

   No examinations completed GCSE/A-level
   BA/BSc MA/MSc
   Professional degree (nursing, OT, therapist etc)
   Doctorate degree (PhD)

3. **Gender**:
   Please state your gender _____

4. **Caseload**:

Please state approximately how many clients are currently on your caseload, on average.

_____

5. **Experience**:

Please state how many years you have previously worked in a mental health setting prior to starting PWP training (i.e. carer, support worker, nurse, etc…)

_____

Connor-Davidson Resilience Scale 10 (CD-RISC-10)

Measure removed in-line with copyright restrictions

Shirom-Melamed Burnout Measure (SMBM)

How Do You Feel at Work?

Below are a number of statements that describe different feelings that you may feel at work. Please indicate how often, in the past 30 workdays, you have felt each of the following feelings:

		How often have you felt this way at work?						
		Never or almost never	Very infrequently	Quite infrequently	Sometimes	Quite frequently	Very frequently	Always or almost always
P	1. I feel tired	1	2	3	4	5	6	7
P	2. I have no energy for going to work in the morning	1	2	3	4	5	6	7
P	3. I feel physically drained	1	2	3	4	5	6	7
P	4. I feel fed up	1	2	3	4	5	6	7
P	5. I feel like my "batteries" are "dead"	1	2	3	4	5	6	7
P	6. I feel burned out	1	2	3	4	5	6	7
C	7. My thinking process is slow	1	2	3	4	5	6	7
C	8. I have difficulty concentrating	1	2	3	4	5	6	7
C	9. I feel I'm not thinking clearly	1	2	3	4	5	6	7
C	10. I feel I'm not focused in my thinking	1	2	3	4	5	6	7
C	11. I have difficulty thinking about complex things	1	2	3	4	5	6	7
E	12. I feel I am unable to be sensitive to the needs of coworkers and customers	1	2	3	4	5	6	7
E	13. I feel I am not capable of investing emotionally in coworkers and customers	1	2	3	4	5	6	7
E	14. I feel I am not capable of being sympathetic to co-workers and customers	1	2	3	4	5	6	7

The Warwick-Edinburgh Mental Well-being Scale (WEMWBS)

Measure removed in-line with copyright restrictions

PATIENT HEALTH QUESTIONNAIRE-9 (PHQ-9)

Over the last 2 weeks, how often have you been bothered by any of the following problems? *(Use "✔" to indicate your answer)*	Not at all	Several days	More than half the days	Nearly every day
1. Little interest or pleasure in doing things	0	1	2	3
2. Feeling down, depressed, or hopeless	0	1	2	3
3. Trouble falling or staying asleep, or sleeping too much	0	1	2	3
4. Feeling tired or having little energy	0	1	2	3
5. Poor appetite or overeating	0	1	2	3
6. Feeling bad about yourself — or that you are a failure or have let yourself or your family down	0	1	2	3
7. Trouble concentrating on things, such as reading the newspaper or watching television	0	1	2	3
8. Moving or speaking so slowly that other people could have noticed? Or the opposite — being so fidgety or restless that you have been moving around a lot more than usual	0	1	2	3
9. Thoughts that you would be better off dead or of hurting yourself in some way	0	1	2	3

FOR OFFICE CODING 0 + _____ + _____ + _____

=Total Score: _____

If you checked off any problems, how difficult have these problems made it for you to do your work, take care of things at home, or get along with other people?

Not difficult at all	Somewhat difficult	Very difficult	Extremely difficult
☐	☐	☐	☐

Developed by Drs. Robert L. Spitzer, Janet B.W. Williams, Kurt Kroenke and colleagues, with an educational grant from Pfizer Inc. No permission required to reproduce, translate, display or distribute.

GAD-7

Over the last 2 weeks, how often have you been bothered by the following problems? *(Use "✔" to indicate your answer)*	Not at all	Several days	More than half the days	Nearly every day
1. Feeling nervous, anxious or on edge	0	1	2	3
2. Not being able to stop or control worrying	0	1	2	3
3. Worrying too much about different things	0	1	2	3
4. Trouble relaxing	0	1	2	3
5. Being so restless that it is hard to sit still	0	1	2	3
6. Becoming easily annoyed or irritable	0	1	2	3
7. Feeling afraid as if something awful might happen	0	1	2	3

(For office coding: Total Score T____ = ____ + ____ + ____)

Appendix J

Training Acceptability Rating Scale for Feedback Post-intervention (Time 2) and Follow-up (Time 3)

Post-Intervention (Time 2)

(Adapted from Davis, Rawana, & Carponi, 2006; Mile & Noone, 1996)

Please enter your participant PIN below.

The following questions focus on your impressions of the resilience training session. For each question, please circle the statement that best expresses your opinion.

PLEASE CIRCLE ONE ANSWER.

Overall, how satisfied are you with the training?
Not at all A little Quite a lot A great deal

Did the training cover the topics that it set out to cover?
Not at all A little Quite a lot A great deal

Did the trainers relate to the group effectively?
Not at all A little Quite a lot A great deal

Were the group leaders motivating? (e.g., energetic, attentive, and creative)
Not at all A little Quite a lot A great deal

Did the training improve your understanding of resilience?
Not at all A little Quite a lot A great deal

Did the training teach you the resilience skills you need to manage stress and challenge at home?
Not at all A little Quite a lot A great deal

Did the training teach you the resilience skills you need to manage stress and challenge at work?
Not at all A little Quite a lot A great deal

How confident are you that you will make use of what you have learnt in the training?
Not at all A little Quite a lot A great deal

How competent were the training facilitators?
Not at all A little Quite a lot A great deal

Will the training result in disruption or harm to you?
Not at all A little Quite a lot A great deal

What were the most helpful aspects of the training for you personally? Please name at least one.

_____
_____
_____
_____
_____

What changes, if any, would you recommend? (e.g., to the content or delivery of the course)

_____
_____
_____
_____
_____

Do you have any other comments?

_____
_____
_____
_____
_____

Follow-up (Time 3)

The following questions focus on what you have learnt from the resilience training session. For each question, please circle the statement that best expresses your opinion.

Please enter your participant PIN below.

PLEASE CIRCLE ONE ANSWER.

Did the training teach you the resilience skills you need to manage stress and challenge at home?
Not at all A little Quite a lot A great deal

Did the training teach you the resilience skills you need to manage stress and challenge at work?
Not at all A little Quite a lot A great deal

On average how often have you used resilience skills you have learned in the last week?
Not at all A little Quite a lot A great deal

Which resilience skills have you found most useful that you have been using since the training? Please name at least one.

_____
_____
_____
_____
_____

Do you have any other comments?

_____
_____
_____
_____
_____

Appendix K

Supervisory Relationship Measure (Pearce et al., 2013)

The following statements describe some of the ways you may feel about your trainee and aspects of your supervisory relationship with them.

To what extent do you agree or disagree with each of the following statements about your relationship with your trainee?

Please enter your trainees PIN (provided in the invitation email) below.

Please tick the column which matches your opinion most closely.

Strongly Disagree (1)
Moderately Disagree (2)
Slightly Disagree (3)
Neither Agree nor Disagree (4)
Slightly Agree (5)
Moderately Agree (6)
Strongly Agree (7)

Safe Base

1. My trainee is open about any difficulties they are experiencing
2. My trainee is reflective in supervision
3. There is a good emotional atmosphere in supervision with my trainee
4. My trainee is open and honest in supervision
5. My trainee is willing to learn new things
6. My trainee is enthusiastic about being on placement with me
7. I like my trainee
8. My trainee is open to new experiences on placement
9. My trainee appears able to give me honest and open feedback
10. My trainee seems to like me
11. My trainee and I have a good professional relationship
12. Supervision provides a safe space for my trainee to learn
13. My trainee is open minded and curious
14. My trainee's style and my own style interact well
15. My trainee values my experiences and skills

Supervisor Commitment

16. I try to pitch things at the right level for my trainee
17. I keep my trainee's needs in mind
18. I try to ensure my trainee has adequate space and resources
19. I prepared for my trainee prior to their placement

20. I am available and accessible to my trainee
21. I look out for clinical work and other opportunities for my trainee
22. I attempt to facilitate reflection in supervision with my trainee
23. I set up regular supervision for my trainee
24. I give clear and honest feedback to my trainee

Trainee Competence

25. My trainee is able to hold an appropriate case load
26. My trainee appears to be doing the minimum required
27. My trainee works hard on placement
28. My trainee copes well with multiple demands
29. My trainee is considerate towards others in the service (e.g. secretaries)
30. My trainee shows good organisational skills
31. My trainee shows poor professional values
32. My trainee takes appropriate responsibility for their work
33. My trainee behaves appropriately in the team
34. My trainee produces good quality work
35. My trainee integrates well with others in the team
36. I am disappointed by my trainee's level of skill
37. I value having my trainee on placement

External Influences

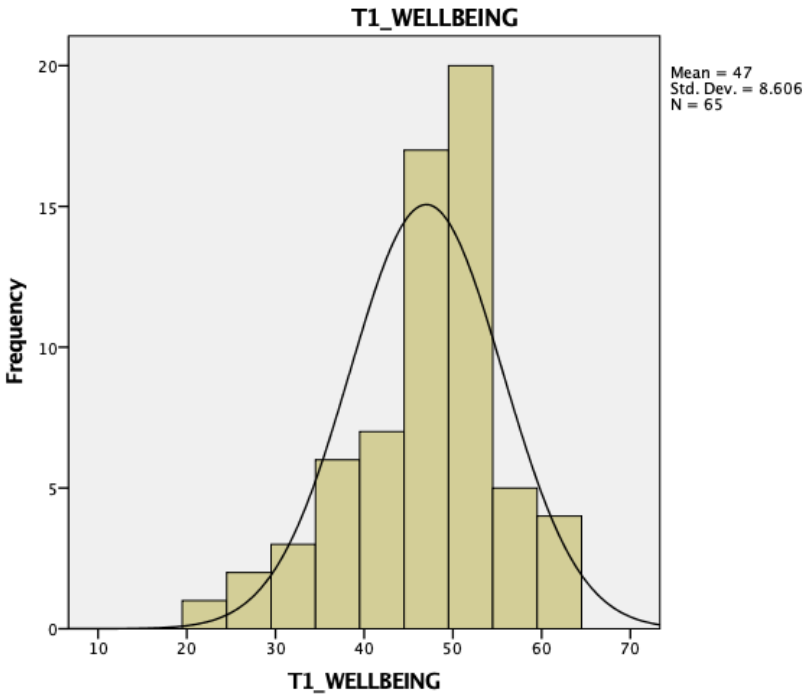
38. My trainee tries to use supervision as therapy
39. My trainee's past experiences of supervision interfere with our relationship
40. My trainee has other life stressors which distract them from their work
41. Things to do with the trainee's course interfere with placement
42. I have stressors in my life which make it difficult for me to focus on supervision
43. I sense that my trainee worries because I am evaluating them
44. Evaluation has a negative impact on our relationship
45. My trainee is too anxious to engage in supervision

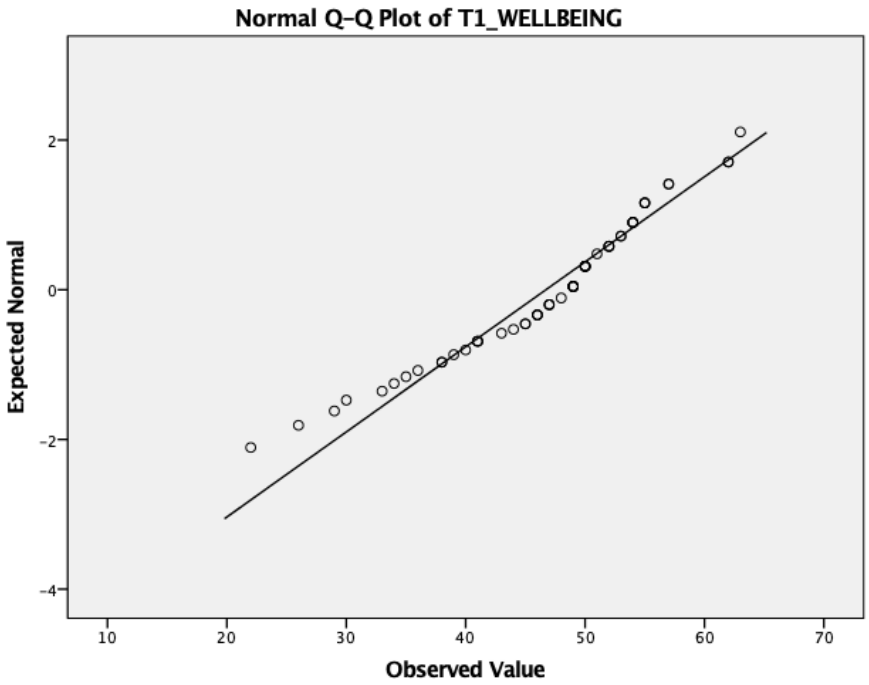
Supervisor Commitment

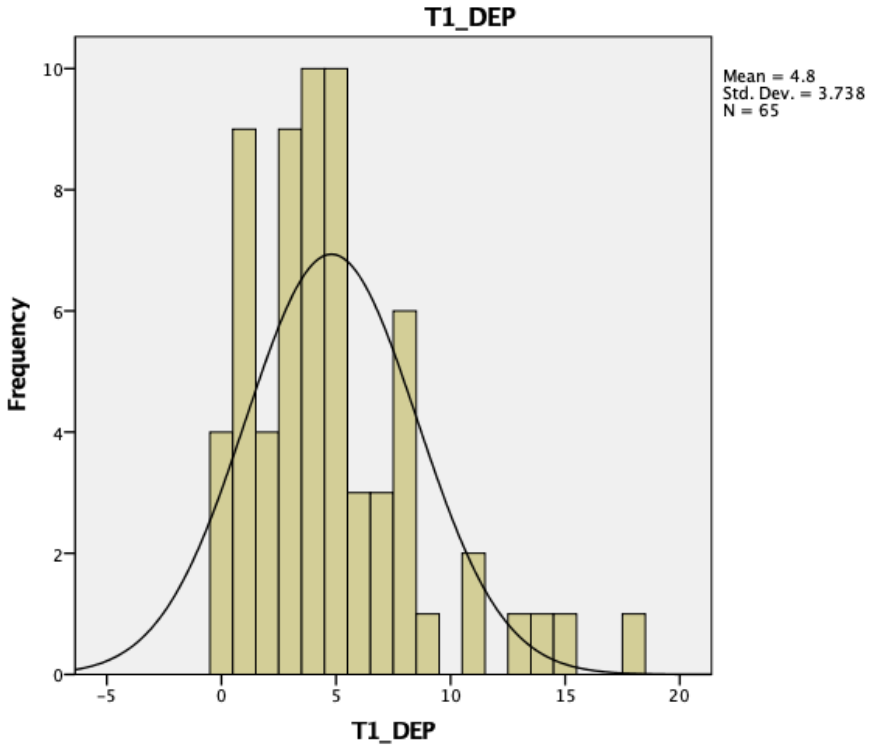
46. I am aware of what interests my trainee
47. I am open in my supervision with my trainee
48. I try to get to know my trainee
49. I am able to share my strengths and my weaknesses with my trainee
50. Supervision is a safe place for me to give negative feedback
51. I have a good idea about what my trainee wants to gain from this placement

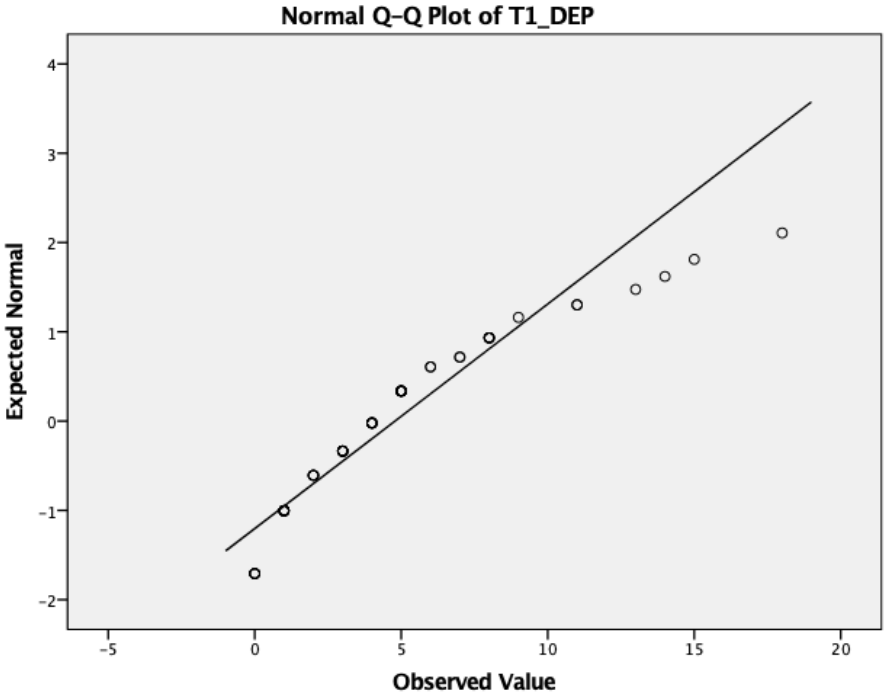
Appendix L

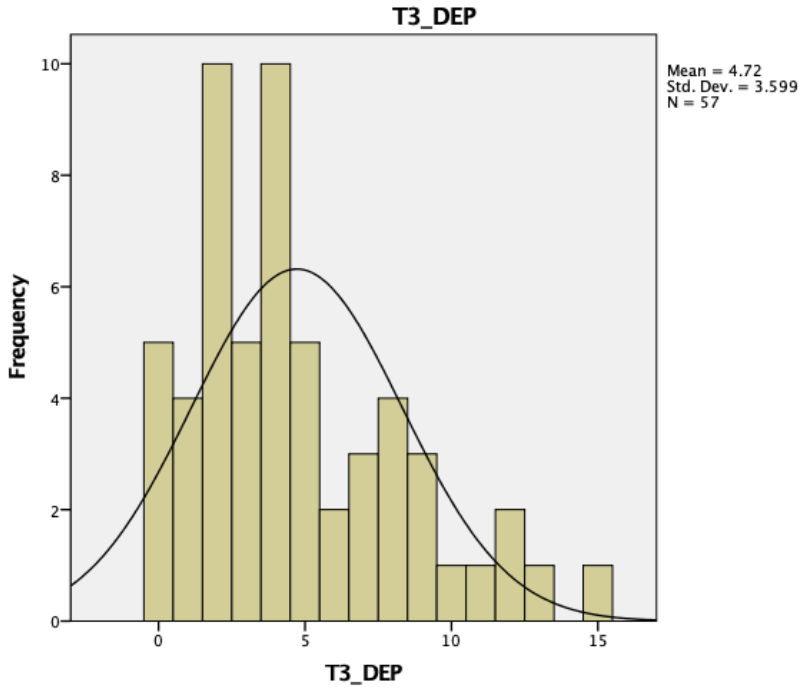
Histograms and Q-Q Plots to Show Non-normal Distribution

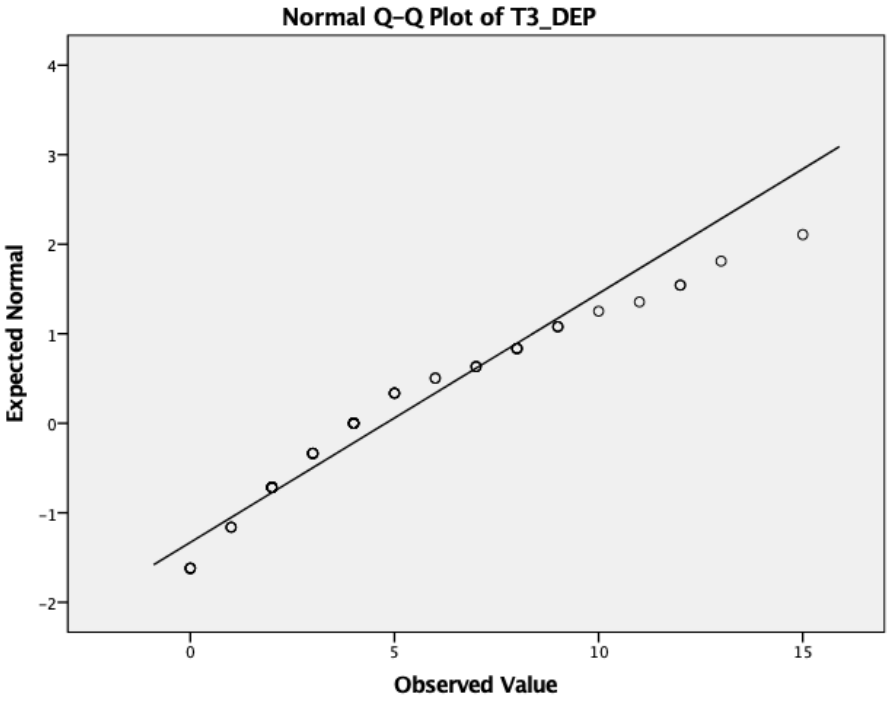


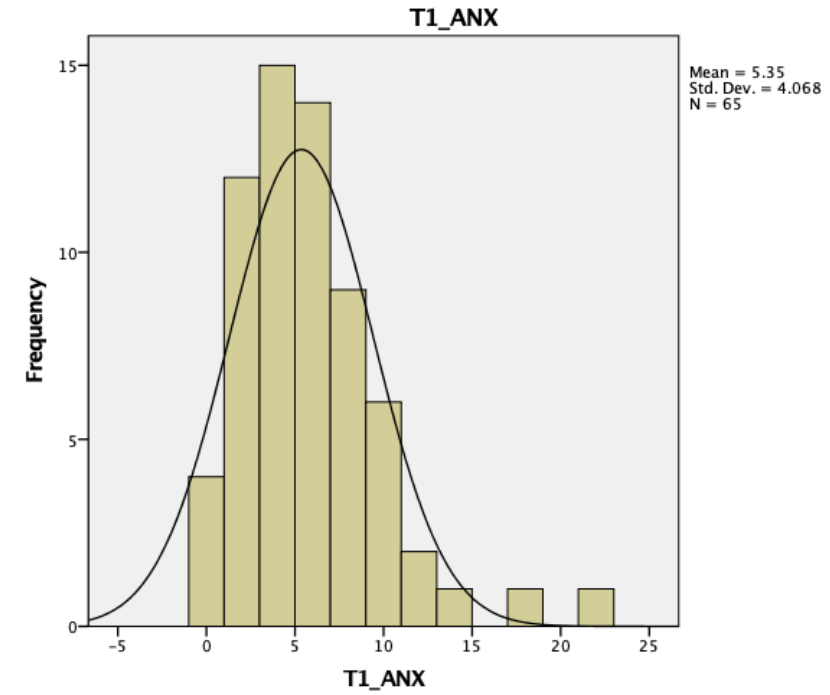


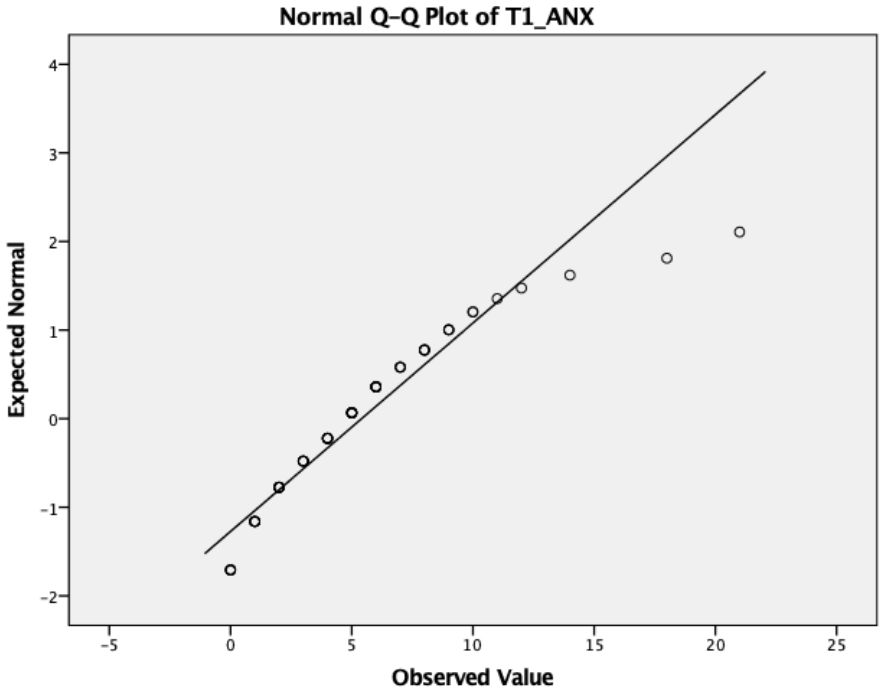

T1_DEP
Mean = 4.8
Std. Dev. = 3.738
N = 65
Frequency
T1_DEP

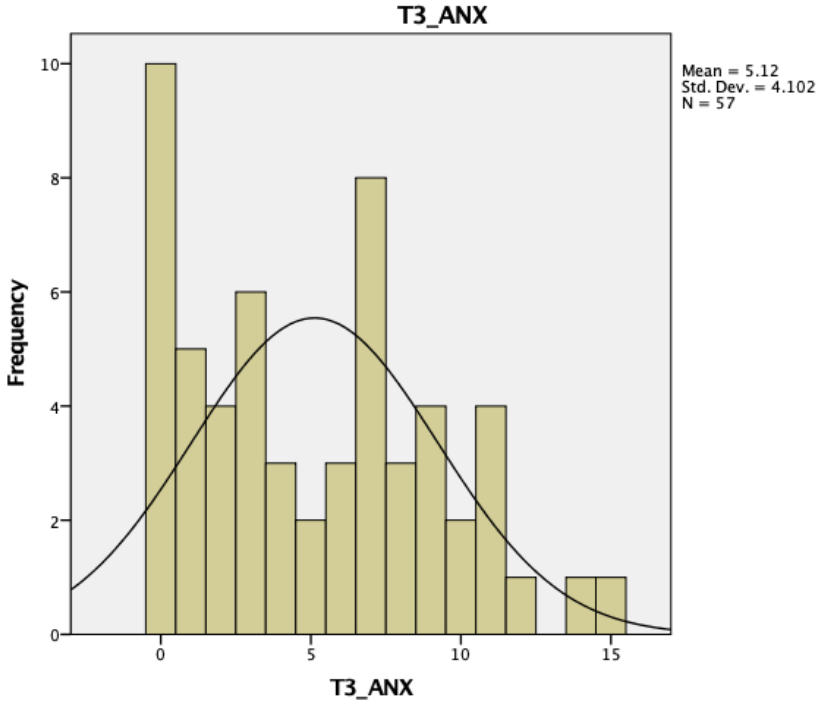

Normal Q-Q Plot of T1_DEP
Expected Normal
Observed Value

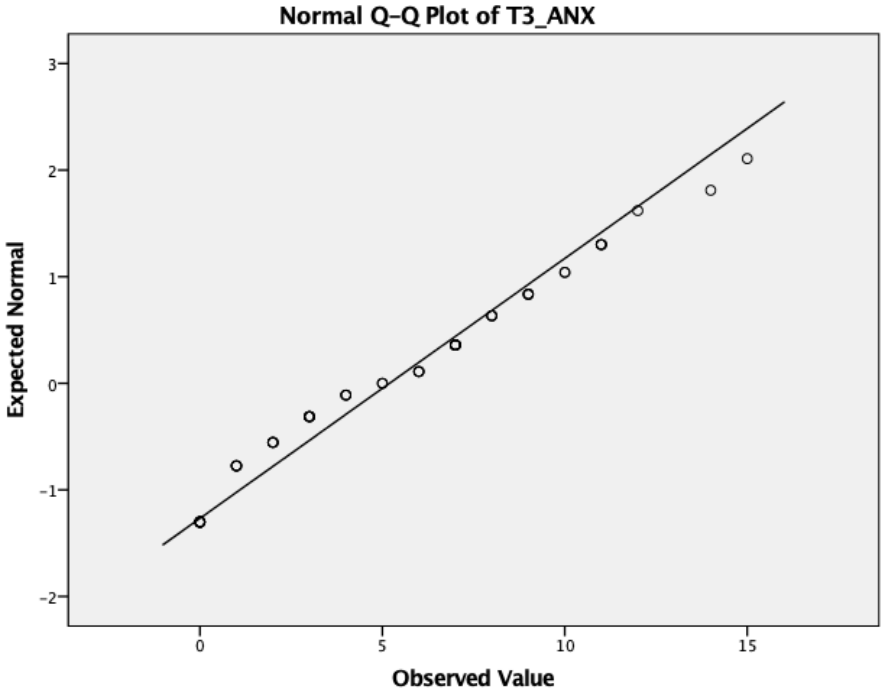

T3_DEP
Mean = 4.72
Std. Dev. = 3.599
N = 57
Frequency
T3_DEP

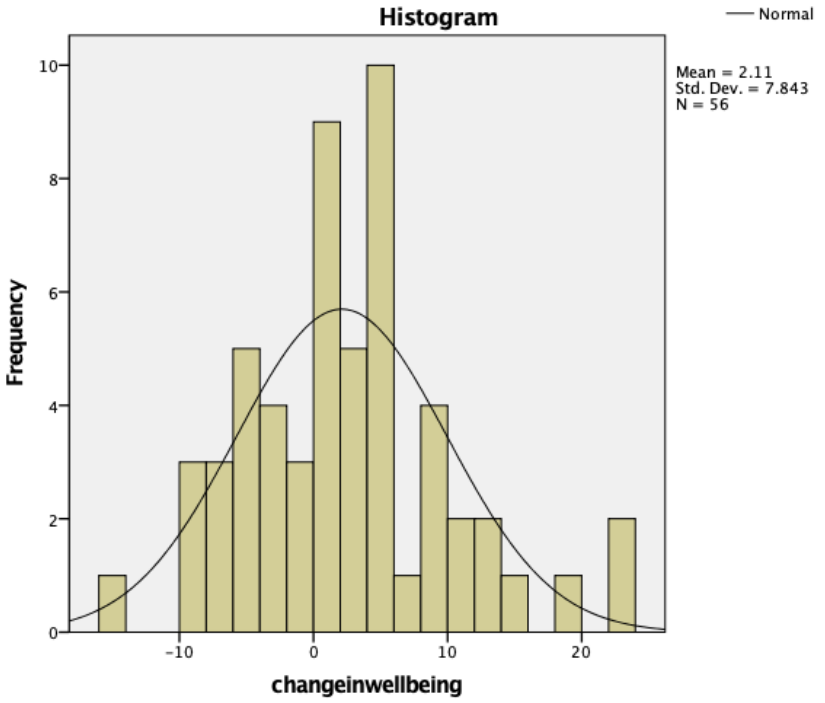

Normal Q-Q Plot of T3_DEP
Expected Normal
Observed Value

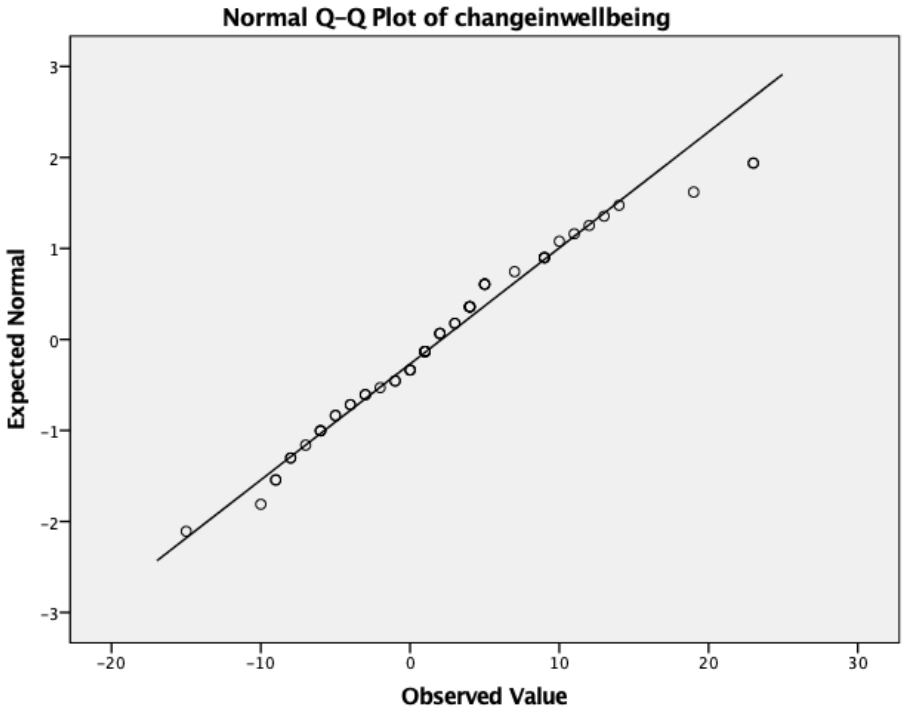

T1_ANX
Mean = 5.35
Std. Dev. = 4.068
N = 65
Frequency
T1_ANX


Normal Q–Q Plot of T1_ANX
Expected Normal
Observed Value


T3_ANX
Mean = 5.12
Std. Dev. = 4.102
N = 57
Frequency
T3_ANX


Normal Q-Q Plot of T3_ANX
Expected Normal
Observed Value


Histogram
Normal
Mean = 2.11
Std. Dev. = 7.843
N = 56
Frequency
changeinwellbeing


Normal Q-Q Plot of changeinwellbeing
Expected Normal
Observed Value

Appendix M

Study Recruitment and Retention: Table Displaying Flow of Participants Through Study

Study engagement and recruitment rates

	Cohort 1	Cohort 2	Total	Recruitment (%)
Cohort, *n*	46	44	90	
Baseline participants (T1), *n*	38	27	65	72.22
Intervention attendees, *n*	42	41	83	
Participating attendees (T2), *n*	39	25	64	77.11
Follow-up (T3), *n*	41	24	65	
Full data sets (T3), *n*	32	24	56	86.15
Incomplete data sets, *n*	14	3	17	
Included (partial), *n*	6	3	9	
Excluded (incomplete), *n*	8	0	8	
Supervisor Participants				
Consent to contact supervisors, *n*	16	16	32	49.23
Supervisors who participated, *n*	8	11	19	59.38

Note: One additional participant completed questionnaires in Cohort 1 at T2 than T1 and was excluded from the study. All data-sets which could not be matched to a T1 questionnaire and consent form were excluded.

Appendix N

Qualitative Sub-themes and Themes from Training Acceptability Rating Scale (TARS)

Helpful: 169

Theme: Grounding knowledge (14)

Sub-theme: Knowledge - consolidated knowledge (4)
Consolidated already existing knowledge.
Many aspects were already familiar to me but it has encouraged me to implement some of the things, particularly with work.
Reaffirming what I'm already doing well.
Also showed me areas I am already strong in which I can draw on when feeling stressed.

Sub-theme: Knowledge - Increased knowledge and understanding (10)
Learning what resilience was and meant to me.
Seeing the evidence-base behind different skills I use.
Factors affecting happiness and pessimism and life expectancy.
Also really liked that the information was backed up with studies and videos and it made it really memorable and interesting.
Many aspects were already familiar to me, but it has encouraged me to implement some of the things, particularly with work.
Learning about components of resilience and how we can better our own resilience.
A day out to cover resilience, explore what it is and how to develop it.
The Gilbert model helped me understand emotional resilience. The references to compassion focused therapy were particularly illuminating for me.
Gratitude and happiness studies.
Resilience is such a big and difficult concept and the way it was broken down was really helpful - I feel I can use many of the skills with me in the future.

Theme: Engaging methods and materials (37)

Sub-theme: Engaging methods and materials - Engaging facilitators (14)
The trainers were clearly very passionate and interested in having an honest discussion with the group.
Trainers were engaging and personable.
The teachers were very engaging and got us to reflect, which was a great learning opportunity.
The training was very good, well presented
It was very well put together, informative and engaging.
Facilitators were very motivating, and I felt like they really believed and felt passionate about the subject. Thanks.
Both facilitators were really engaging and energetic with a lot of knowledge. It made me stay engaged with the workshop and feel more positive about using resilience skills.
Enthusiastic trainers.
Amazing facilitators - good knowledge, good explanations, understanding facilitators.
The facilitators were so engaging and explained each concept so thoughtfully.
The lecturers were very good and knowledgeable. Very interesting course, delivered in an understandable and stimulating way.
Great trainers and good course.
Excellent facilitators.
Fantastic facilitators!

Sub-theme: Engaging methods and materials - Booklet and tasks (9)
Having worksheets and practice time.
Completing the tasks as we went along in the work book.
Really good booklet/presentation - clear and easy to follow/apply to myself.
Having the workbook is great to refer back to and that there are interactive activities/the action plans that are tailored to us.
The workbook was really helpful - helped keep me engaged, helped me reflect on myself, and own thinking styles.

Liked the tasks. Felt creative and interesting opposed to generic lecture.
The workbook to reflect upon and use as a resource.
The workbook exercises.
Videos and interaction sections were good to keep attention.

Sub-theme: Engaging methods and materials – Clear/active presentation (14)
Good materials.
It was clear, well presented.
Liked the way everything was set out and explained.
Content and delivery was good. Really good use of different methods and materials.
It was very well put together, informative and engaging.
Good resources given.
The Prezzi presentation made it more interesting to follow. The ratio of videos to talking was good.
Really good booklet/presentation - clear and easy to follow/apply to myself.
it was clear, well presented. Slides were varied with interesting videos/research/ideas.
Enjoyed the video illustrations.
loved the videos and the activities - it breaks it up from just sitting listening.
great presentation, very engaging, great resources and references.
The videos were really good and the layout of the course
I really enjoyed the use of videos in the training - found them really interesting and fitted well with the content :)

Theme: Positive psychology skills (45)

Sub-theme: Positive psychology skills - Generic resilience skills (5)
Making a plan to actually do the resilient actions/goals.
Skills and strategies to increase my resilience.
Learning about components of resilience and how we can better our own resilience.
Normalised that not everyone is resilience all the time.
Resilience skills.

Sub-theme: Positive psychology skills - Positive emotions and thinking (24)
How important being 'grateful' is.
Positive thinking and mindfulness.
Identifying and noticing positive emotions, gratitude.
I found the training very useful and really found the positive psychology examples helpful.
Learning it is necessary to recognise positive thoughts in times of stress.
Noticing positive emotions to strengthen resilience.
Thinking about how important optimism is
Learning about noticing positive emotions.
I found the optimism and positive emotions the most helpful.
Learning about the impact of positive emotions on resilience and that even with the presence of negative emotions can have a positive effect.
The self reflective sessions were very useful! Specifically self care and positive emotions.
Learning new skills for self-care and how to identifiy positive emotions.
Positive emotions list.
Remembering to focus on the positive things in my life. I really liked the idea of keeping a diary of three positive things a day.
identifying positive emotions - changing your thinking processes when looking at making changes
Looking at optimism.
Reaffirming what I'm already doing well. Education/ideas around noticing positive emotions more.
Resilient thinking
To realise I have a lot of negative thinking styles, even though I thought I was positive and optimistic. I thought that learning about optimism and positive thinking was really useful.
Realising that I very rarely take time to reflect on positive things and doing so many improve my resilience.
Discussion of positive emotions. Flexible thinking.
Positive emotions. Optimism.
Recognising positive emotions and flexible thinking.
Emphasising positive emotions and seeing the positive in things.

Sub-theme: Positive psychology skills - Stress management (16)
Positive thinking and mindfulness.
Self-care model.
I found the training very useful and really found the positive psychology examples helpful. I'm hoping to make changes to my self-care.
Mindfulness breathing to reduce the physical symptoms and bring my mind back to the present to make balanced decisions.
Looking at self care and mindfulness.
Understanding about what activities and things build my relationship.
Some of the techniques like rhythmic breathing and mindfulness.
Self care section
Mindfulness exercises.
The self reflective sessions were very useful! Specifically self care and positive emotions.
Learning new skills for self-care and how to identify positive emotions.
balance, recovery and resilience
Seeing my own ways of dealing with stress, and how I can change these. What I can do to not take too much on.
Teaching us self-care/stress management techniques was so useful and I'll be practising.
Learning more about what I can do to build up my resilience and hopefully cope better with future difficulties.
Reminded me of the benefits of things like mindfulness and remotivated me.

Theme: Self-reflection (16)
I like the workbook and using the techniques on myself.
How useful it is to use in life and not just work.
Allowing us time to be reflective.
Interesting learning and exercises that were self-reflective.
Learning skills by experience.
Considering what I currently do to relieve stress and what I do that is unhelpful.
Self-reflection and practice of what I do with patients.
interactive activities/the action plans that are tailored to us
Filling in the workbook as we went along to be able to relate topics to my personal situation
The self reflective sessions were very useful!
helped me reflect on myself, and own thinking styles.
Becoming more self-aware.
Seeing my own ways of dealing with stress, and how I can change these. What I can do to not take too much on.
The teachers were very engaging and got us to reflect, which was a great learning opportunity.
This covered a lot of what I already knew but it was good for self-practice
This is just what I needed to help me personalise the theory I was already aware of, it has helped me identify what I need to act on and how to put these into practice.

Theme: General positive comments (57)

Sub-theme: General positive comments - Helpful (17)
I found it easy to engage throughout the session. Didn't know what to expect but I'm glad we were given the opportunity to be a part of it. Thought the trainers were fab, very informative!
Very helpful training.
Very useful. Very well delivered. Interesting and engaging. Good level of interactivity.
Very good training! Learnt a lot.
Thank you for today, I have found it really helpful and will be trying to put these into practice.
It was very well presented and kept my interest.
Thankyou for an informative and relaxed training day
I enjoyed the day.
Very good and useful day. Thank you.
I enjoyed the workshop! :)
Very useful training, interactive.
Very good! Very useful!
I found the session so thought provoking and interesting.
Very interesting course, delivered in an understandable and stimulating way.
Really valued the workshop.
Interesting and informative.

Really enjoyable day!

Sub-theme: General positive comments - Thank you (15)
NA - Thank you!
Thank you for today
Thank you!
Thankyou
Thank you!
Thank you!
Thank you!
Thank you!
Thank you for facilitating my attendance at the course - great trainers and good course.
Thank you. I really enjoyed it and will use it.
it has been excellent!! Thankyou!!
Thank you! It's been brilliant!
Really enjoyed the session - thank you!
Thanks!
Good - keep up the hard work :)

Sub-theme: General positive comments - Would not change anything (25)
I wouldn't change anything more, was really useful and learnt a lot.
The course was great.
NA
NA
NA
None
None
Nothing - loved the videos and the activities - it breaks it up from just sitting listening.
None - great presentation, very engaging, great resources and references.
NA
None - it was great!
None
None
None
None
None - done very well.
No changes - all relevant.
None
None!
All good.
None - was great!
None that I can think of - it was very well put together, informative and engaging.
NA
None.
None.

Improvements (27)

Theme: Content (18)

Sub-theme: Content - Adapt to audience (10)
I think this would be great for people who don't have a psychology background. I felt I knew all the material being spoken about.
I think a lot of the five areas is what we use in practise and don't feel the training recognises this! - NOT OVERLY NEGATIVE :)
Adapt to audience as we knew a lot of material already in our training.
Maybe adapt to audience. Our roles involve teaching five areas, fight-flight, negative though styles, cognitive restructuring, cycle of change and SMART goals so could've made these more about the application rather than teaching the content.
As a cohort we are fairly aware of five areas models/NATs so this was a little repetitive.
More of a focus on the actual skills rather than stress definitions and research to make it faster (as we learn these things from the course)

More interesting things to cover. The training was very good, well presented, but I have not learnt anything new.
The training was great overall, but specifically from a trainee PWP prespective the aspects of negative thinking we have already covered in great depth. This was considered though.
The videos were really good and the layout of the course, but like I said, I knew already about all the material presented.

Sub-theme: Content - Additional content (4)
It would be good to hear a bit more about the evidence as I find it interesting.
Research studies from opposite side.
How to manage stress when we experience conflict or poor relationships at work.
Looking at the eventualities of real tangible problems and mentioning problem solving or acceptance might be helpful. Also acknowledging resistance to change is sometimes a result of the pre-conceived ideas, such as people believing healthy eating equates to boring etc.

Sub-theme: Content - Materials (2)
Handouts with suggested exercises/techniques - mindfulness etc.
Some of the exercises seemed like time fillers.

Sub-theme: Content – Disagreement with element of content (2)
I personally look at problems realistically and found the exercises suggesting it's only having a negative mindset that results in stress can be slightly demoralising so found this exercise less helpful.
Not all pessimists are unhappy and not all optismists are happy. It came across as general without considering how some people are different.

Theme: Practical suggestions (9)

Sub-theme: Practical suggestions – Earlier in training (5)
Sooner on course.
Would have been beneficial earlier in the course
It may have been useful earlier in the course but it is definitely useful now.
Earlier on in the PWP training!
Do earlier in the PWP course.

Sub-theme: Practical suggestions – Environment (2)
Small group, follow-up group.
To be delivered over 2 days – a lot of information for 1 day.

Sub-theme: Practical suggestions - Interested in future workshops (2)
Would be interested in participating in any follow-up workshops.
To have another session again.

Feedback at follow-up (95)

Theme: Did not implement (17)

Sub-theme: Did not implement - Content was too familiar (7)
I feel the training was on managing stress and anxiety and not really resilience. It would have been more helpful to teach us how to engage in […] and helpful coping skills. Not how to engage in the techniques we teach patients.
None as I already knew the content of the training beforehand, as I've been using those techniques for a long-time anyway.
I feel the course would be a lot more beneficial for a group who are not psychologically minded. I felt the day was teaching me techniques I use every day with patients. I hoped it would be how to cope if we were stressed, not a psychoeducational session on anxiety.
We already use a lot of the interventions but that I didn't know was helpful :)
The information wasn't new to me, I've found I haven't changed what I would normally do to stay resilient.
A lot of the skills I knew already from age and area of interest.
Much of the resilience training involved methods I use to treat patients so was all very familiar i.e. CBT, 5 areas etc.

Sub-theme: Did not implement - Feel already resilient (5)
The information wasn't new to me, I've found I haven't changed what I would normally do to stay resilient.
I think I'm quite resilient in general and feel like I instinctively put the skills in my head in an automatic way. I'm quite a positive person in general - I think gratitude is important - I'm very grateful for my position in life, so makes it easier to be positive.
I was already doing most of the skills!
I feel I am naturally a resilient person and was already using a lot of the skills that were covered. If I had been less resilient I would have found it useful.
A lot of the skill I felt I already practised, so it felt more like a reminder than a new learning experience.
I have a lot of situational stressors in my life generally and feel I cope very well in perspective.

Sub-theme: Did not implement – Intended to but did not (3)
I haven't used them but I don't know why because I know they would be helpful if I did.
The resilience day was really helpful and I left with the best of intentions of applying strategies to help with stress but never did it except for the breathing.

Sub-theme: Did not implement – Barrier: Time (2)
I haven't revisited the material due to time but plan to. I think it'll be far more useful if I can make a start.
Unfortunately as interesting as the training was, putting it into practice was not a priority.

Theme: Most useful (76)

Sub-theme: Most useful - Generally helpful – not specified (9)
It was one of the best teaching days we've had.
I imagine it was be super helpful for many. We already use a lot of the interventions but that I didn't know was helpful :)
The training was very good. I enjoyed it, took me a while to start practising it, but it was really helpful.
Helped me in my personal life as well as work life.
The training was very good! :)
Really good course, engaging, useful.
Really useful training.
Very good training! Thank you.
The workshop was really good and interesting, thoroughly enjoyed it. Have recommended it to colleagues and my employer.
I have found the skills and knowledge really useful.

Sub-theme: Most useful - Positivity focused (25)
Listing the positive things we've gone through in the day. Positive emotion.
The wheel (shading thing). Positive psychology work.
Thought challenging.
Gratitude.
I now keep a gratitude journal and note down positive things that have happened in the day and positive emotions.
I used the three positive things with my family during some personal stressors. We check in with each other.
Being aware of when experiencing positive feelings as a 'buffer' against stress - so acknowledging and remembering this.
Being grateful.
I gave the 'write 3 good things at night' option to a friend.
Being more aware of positive things (even if I didn't get a chance to write these down formally very often)
Managing thoughts and managing emotions. Being grateful.
Positive thinking - trying to approach situations more optimistically rather than being negative.
Writing three things at the end of each day which I'm happy for.
thinking more positively.
Positive thinking exercises.
Taking time to think about positive emotions experienced.
optimism
Thinking of a positive each day.
Noting three positive things each day.
Positive thinking.

Thinking of writing positive points in a day.
Remembering it's not about falling down, it's more about bouncing back. Very encouraging.
Showing gratitude and appreciation for the good things and support of others.
5 areas.
gratitude lists.

Sub-theme: Most useful - Relaxation focused (15)
Breathing. Thought challenging. Relaxation.
Mindfulness. Breathing exercises.
Controlled breathing.
Being mindful, the mindfulness stretch and breathing exercises.
Mindfulness at work when feeling overwhelmed - bringing my attention to the present moment.
Mindfulness.
Mindfulness.
Mindfulness/relaxation - I've been doing this at least three times a week using the Headspace app. Honestly have found this so useful to managing my stress. I'm also using this a lot more with patients.
Breathing exercises.
Relaxation/mindfulness.
mindfulness
Relaxation breathing.
Mindfulness.
Breathing
Breathing exercises

Sub-theme: Most useful - Self-care focused (25)
Self-care.
The wheel (shading thing).
The wheel where you could colour in different areas of life i.e. relationships/work.
I now go for a walk twice a week and pencil in 'me time'.
Allowing for work-life balance during the training year, setting aside time for learning.
Self-care wheel!
Reviewing my social network. Setting myself a SMART goal to improve my resilience.
Making time for self-care for my own maintenance of stress.
Speaking with family.
Taking time to engage in meaningful activities at home e.g. hobbies and exercise.
Balancing chart, meaningful activity.
Allowing time for pleasurable activity/relaxation
Being aware of the support around me (i.e. family and friends) and utilising them.
Make time to rest.
Exercising, relaxing, socialising.
Taking breaks in work, finishing on time. Accepting work demands and not thinking about it outside of hours. Taking time for self.
The wellbeing pie and identifying areas that are lacking
Noticing when I am not feeling resilient - things to look out for in myself.
Self-care - if feeling stressed, doing something for myself i.e. going for a walk
Taking time off.
How to manage stress. Self-care.
Breaking up the day at work. Self-care.
Connecting with others.
Trying to be more active, more mindful of applying the interventions I teach to patients to myself, i.e. behavioural activation - if I don't feel like doing something do it anyway.
Allowing time to spend with family and close friends. Ensuring I do more of the things that make me happy.

Sub-theme: Most useful - Time to reflect (2)
I already felt I had the skills however reflection helped me to realise what I do already.
Provided space to reflect on how to apply to myself.

Theme: Possible confounders/other feedback (3)

I feel my scores may have been affected by feeling more confident in my role at a later stage of training.

I think my stress is higher at this point in the course because of higher caseloads and more responsibility, and not necessarily to do with if we are practising resilience skills or not.

The emails would have been good as stand alone items, i.e. not referring back to the workbook, as I might not always have had my workbook with me.