Staff self-relating as a predictor of compassion fatigue and compassion satisfaction, and the predictive influence of compassion fatigue and compassion satisfaction on ward climate in a secure hospital.

Emily Jane Dukes

Thesis submitted in partial fulfilment of the requirements of University of Staffordshire for the degree of

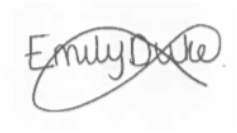
Doctorate in Clinical Psychology

April 2025

Total word count: 13,662 (excluding references and appendices)

CANDIDATE DECLARATION

Candidate name:	Emily Jane Dukes
Daytime telephone number:	07512245813
Email address:	d042142m@student.staffs.ac.uk
Title of degree programme:	Professional Doctorate in Clinical Psychology
Initial date of registration:	September 2022

Declaration and signature of candidate
I confirm that the thesis submitted is the outcome of work that I have undertaken during my programme of study, and except where explicitly stated, it is all my own work. I confirm that the decision to submit this thesis is my own. I confirm that except where explicitly stated, the work has not been submitted for another academic award. I confirm that the work has been conducted ethically and that I have maintained the anonymity of research participants at all times within the thesis. Signed:  Date: 15/04/2025

Acknowledgements

Firstly, I would like to thank my research supervisors Dr Michelle Rydon-Grange and Dr Gary Lee for their support and guidance throughout this whole process. I would also like to thank Dr Vic Wilkes for her expertise as my field supervisor— this research wouldn't have been possible without her continued input.

Secondly, I would like to thank the staff at the participating hospital sites. Your dedication to caring for and supporting the men in your services— especially in such a challenging environment— is truly incredible.

To my Easy Peeler pals— what a three years we've had! Hayley, thank you for laughing with me through the various (sometimes unrelenting) calamities of our lives— you're the coolest psychologist I know. Muz, you've been the most amazing support in a million different ways, and I am so grateful that we got to do this together. Guess I'll see you up on that stage after all!

Finally, to my mum and dad— thank you for filling up my cup when it was empty (emotionally and literally!) and for always being my biggest supporters, no matter what.

Contents

Thesis Abstract

The first paper is a scoping review that explored burnout in peer workers who work in mental health settings. Ten relevant articles were identified following a systematic search of the literature. The review found overall burnout symptoms in peer workers to be low to moderate, which is the same as comparable mental health clinicians, and in some studies burnout, symptoms were lower in peer workers. The review summarised individual and organisational factors that influenced burnout in peer workers. There is a need to further understand the factors influencing burnout symptoms in this growing workforce, so that appropriate support structures can be put in place. The potential usefulness of systemic interventions for burnout symptoms was also discussed.

The second paper is a cross-sectional, quantitative study that examined whether self-relating constructs—self-criticism and self-reassurance—predicted compassion fatigue and compassion satisfaction in forensic mental health professionals (FMHPs). The second aim of the study was to investigate whether compassion fatigue and compassion satisfaction predicted therapeutic ward climate. 51 FMHPs from a low and medium secure unit in the UK were recruited for the study and completed a demographic questionnaire and three measures to assess the study variables. Five multiple regressions were conducted. The study found “moderate” self-criticism and self-reassurance, “moderate” compassion fatigue, and “high” compassion satisfaction amongst the participants. Self-criticism was the only significant predictor of compassion fatigue, with “high” self-criticism predicting “high” compassion fatigue. Moreover, “high” compassion fatigue significantly predicted “low” perceived ward safety. The findings indicate the need for further research to understand the individual and organisational factors that influence wellbeing of FMHPs to inform effective interventions that are adapted to the unique needs of the setting.

The third paper is an executive summary of the empirical study that was written for FMHPs at the participating sites. A group of FMHPs were consulted to ensure the document

was accessible and useful for the intended audience. Their contributions were extremely valuable, and changes were made based on their feedback.

Paper 1: Literature Review

Burnout in peer workers working in mental health services: A scoping review of the literature.

Word count: 6,366 (excluding tables, references, and appendices)

The literature review has been published in ‘Advances in Mental Health: Promotion, Prevention and Early Intervention’.

Abstract

Objective: The aim of this scoping review is to explore burnout in peer workers who work in mental health settings.

Method: A systematic search strategy was used to search multiple databases on EBSCO Host which included: MEDLINE, CINAHL Plus with Full Text, SPORTDiscus with Full Text, eBook Collection, APA PsycInfo, APA PsycArticles, and APA PsycBooks. Google Scholar was also used to search grey literature and hand searching was used to identify relevant papers from reference lists. The search terms used were 'burnout' and 'peer support worker' (and other relevant synonyms).

Results: 146 articles were initially identified. The final number of articles included in the review was 10, after screening using the inclusion and exclusion criteria. Overall, level of burnout symptoms in peer workers was found to be low to moderate, which was found to be the same as comparable MH clinicians and, in some studies, lower in peer workers. A number of individual and organisational factors were identified as affecting burnout in peer workers.

Discussion: Future research is needed to further understand burnout in the emerging peer worker workforce so appropriate support structures to effectively sustain this developing role can be identified and implemented accordingly. It is essential that research is shaped by experts by experience. The findings of this review highlight the importance of organisational factors in burnout; therefore, the usefulness of systemic interventions should be considered.

Keywords: peer support, burnout, organisational factors, staff wellbeing

Introduction

Peer support

Broadly, peer support is defined as a process of "shared understanding, respect, and mutual empowerment between people in similar situations" (Mead et al., 2001). Whilst the context in which peer support occurs can differ, the core features of this recovery-orientated approach (which are shared responsibility, hope, self-determination, and the use of lived experience) remain the same (Slade et al., 2014; Repper & Carter, 2011).

Peer support as an approach is not new and is rooted in the 'psychiatric survivor' movement, which took a critical perspective to mental health services and raised important issues such as advocacy and the importance of a recovery-focused, community model of mental health rather than an illness model (Stratford et al., 2019).

Davidson et al. (1999) described three types of peer support: informal peer support, peers in peer-run programmes, and peers employed in traditional services. In recent years, the focus on peer support in traditional mental health services has grown. The NHS Long Term Workforce Plan (NHS England, 2023) has indicated 4,730 peer support workers in post at the end of 2023/24 with the proposed growth of these roles to over 6,500 by 2036/37. Additionally, the World Health Organisation (WHO) has advocated for peer support (WHO, 2021). They stated that the effects of the COVID-19 pandemic highlighted inadequacies with community mental health services, particularly lack of cohesive social networks, isolation, and damaging effects of institutions.

A recent meta-analysis that examined the effectiveness of peer support for individuals with mental illness (Smit et al., 2023) provided evidence that peer support interventions may be effective in reducing mental illness symptoms, improving personal recovery, and increasing hope for people- especially those with 'Serious Mental Illness' (SMI). Additionally, Walker and Bryant's (2013) meta-synthesis evidenced that peer support workers can reduce stigma, act as role models, build rapport with service users, and teach

other professionals about recovery. Additional evidence also demonstrated that peer support workers can improve various service user outcomes such as: empowerment, hope, and reduction in the need for crisis support (Chinman et al., 2014; Pitt et al., 2013).

In the literature, some barriers to establishing peer support worker roles in services are lack of role clarity and lack of support (Gillard et al., 2013), and prejudice from non-peer staff and the wider organisations (Mutschler et al., 2022). For example, the assumption that peer support workers would have higher levels of sickness and require more boundaries in their work to protect their wellbeing, when compared with non-peer staff (Walker & Bryant, 2013; Mirbahaeddin & Chreim, 2022).

Burnout

Maslach and Jackson's (1981) definition of burnout is widely accepted in the literature. They conceptualised burnout as a 'syndrome' characterised by: emotional exhaustion (lack of emotional energy to cope with work tasks), depersonalisation (detachment and indifference towards work), and reduced personal achievement (doubts about ability to be effective at work).

Burnout is known to negatively impact various domains and has physical consequences (e.g. cardiovascular and musculoskeletal problems; fatigue; and chronic pain), psychological consequences (e.g. insomnia, depression, and sleep disturbance), and occupational consequences (e.g. increased sick leave and job dissatisfaction) (Salvagioni et al., 2017).

For decades, burnout has been associated with people-orientated professions, and it is understood that people who work in mental health are especially more vulnerable to developing burnout (Maslach & Leiter, 2016). This is thought to be due to a number of factors including: stigma of the profession, the demands of therapeutic relationships, and service user suicide (Rossler, 2012; Jovanovic et al., 2016). A meta-analysis that examined

62 studies from 33 different countries found that the average mental health professional (MHP) had a ‘high’ level of emotional exhaustion, ‘moderate’ level of depersonalisation, but maintained a ‘high’ level of personal accomplishment, suggesting high levels of burnout symptoms in MHP’s (O’Connor et al., 2018).

Rationale for current review

At the time of the review, no other reviews of the literature have looked at burnout in peer support workers in mental health settings.

As noted above, there are negative assumptions made about peer support workers working in traditional mental health services. This is specifically related to their ability to cope with the work and the impact it may have on their wellbeing (Walker & Bryant, 2013; Mirbahaeddin & Chreim, 2022). With the peer support workforce growing in the UK and projected to continue to increase over the next decade, it is important to explore the current evidence looking at burnout in this population, which may challenge negative assumptions about peer support workers and support safe, supportive implementation of this growing workforce.

The aim of this current review is to explore burnout in peer workers who work in mental health services. A scoping review was chosen as this allowed for the exploration of a key concept (burnout) in an emerging field (peer support work in mental health services). Scoping reviews also allow for the exploration and mapping of the literature (Munn et al., 2018). The review question was: What is known about burnout in peer workers who work in mental health services?

Method

Search strategy

A systematic search strategy was conducted in March 2024. EBSCO Host was used to search Psychology, Health Sciences, and Life Sciences databases which included: MEDLINE, CINAHL Plus with Full Text, SPORTDiscus with Full Text, eBook Collection, APA PsycInfo, APA PsycArticles, and APA PsycBooks. Google Scholar was also used to search grey literature and hand searching was used to identify relevant papers from reference lists.

The search used the following search terms: (burnout or burn-out or occupation* stress) AND (peer support worker OR peer support specialist OR peer provider OR consumer provider OR peer specialist). The only limiter applied to the search was 'peer-reviewed only'. There was no date limiter. Both quantitative and qualitative studies were searched for.

Inclusion and exclusion criteria

In order for studies to be included in the review, they had to:

- Be published in a peer-reviewed journal.
- Be written in English.
- Specifically look at the concept of 'burnout'. Quantitative studies needed to use a well-validated measure of burnout e.g., Maslach Burnout Inventory (MBI; Maslach et al., 1996), Professional Quality of Life Scale (ProQOL) (Stamm, 2005). Qualitative studies needed to include an interest in exploring burnout in either the aims, hypotheses, or interview schedule.
- Look at the experiences of people employed (on permanent or voluntary contracts) in peer support roles, which is defined as individuals with lived experience providing services to others with mental health conditions.
- Specifically focus on peer support roles in the context of mental health.

Studies that met the following criteria were excluded:

- Studies of peer support roles that are solely in substance use services and do not provide mental health support as part of their role.
- Studies that focused on informal peer support, where there was no involvement of an employed peer support worker (e.g. colleagues setting up peer support groups)
- Studies that only explored other similar concepts such as compassion fatigue or secondary traumatic stress.

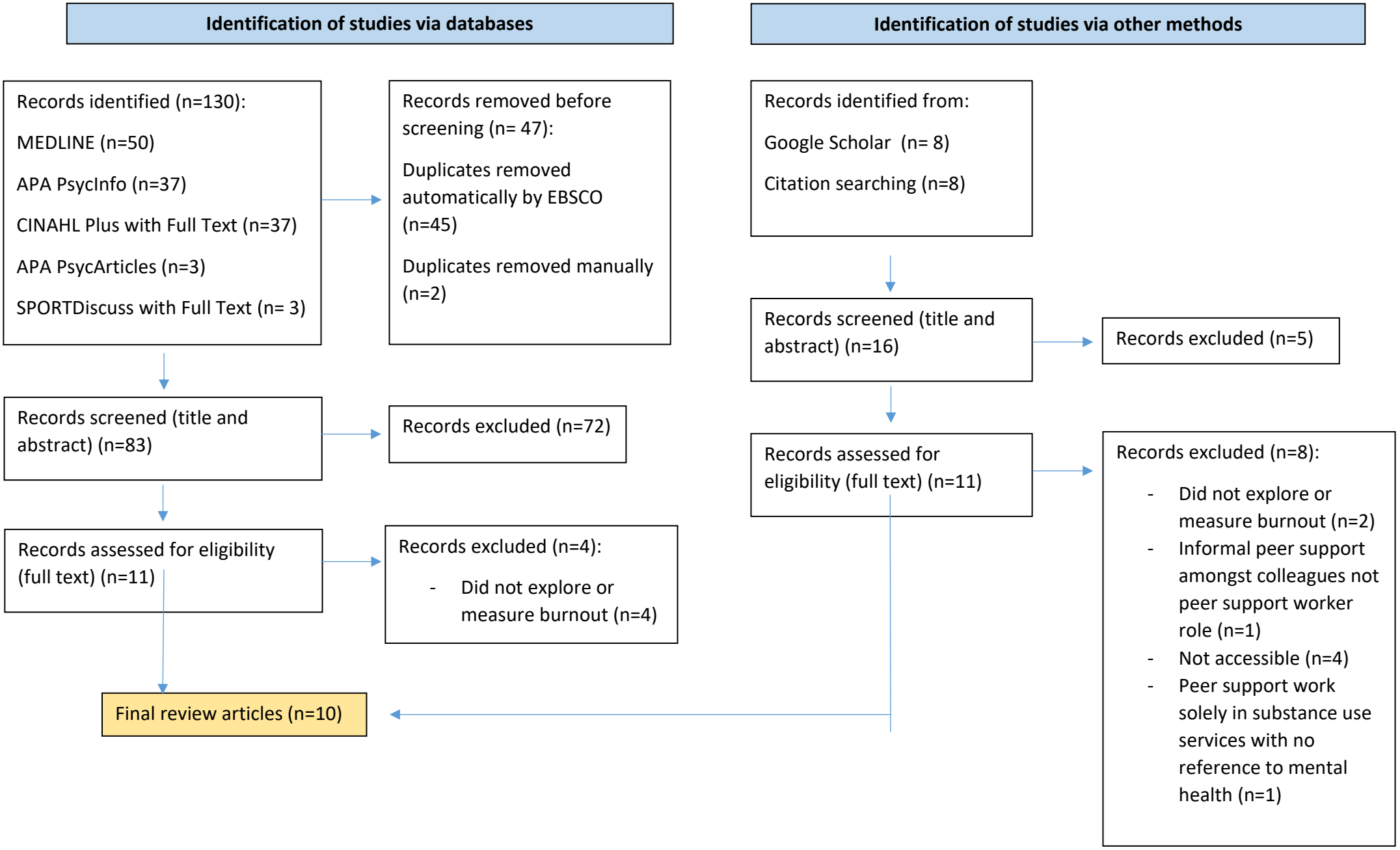
Author positionality statement

The lead author is a trainee clinical psychologist, and the co-author is a qualified clinical psychologist. Both authors have experience working alongside peer workers across various mental health settings. However, we acknowledge that neither author has lived experience of working as a peer worker. This may have shaped the lens through which the literature has been appraised and interpreted. Additionally, peer workers were not directly consulted during the development of this scoping review. We recognise the value of lived experience and the importance of including peer perspectives in future work.

Selection process

Below is the paper selection process in diagrammatic form (Figure 1).

Figure 1. Flowchart showing selection process



Search of grey literature

Grey literature (unpublished papers) was searched for using Google Scholar. Four doctoral theses were found with titles that appeared relevant to the literature search, however, none of these papers were available electronically. Therefore, they were excluded from the search.

Quality appraisal

The studies included in the review were a mix of cohort studies, cross-sectional studies, and mixed method studies. Therefore, three different quality appraisal tools were used, all recommended in the National Institute for Health and Care Excellence guidance (NICE, 2014). The quality appraisal of each study can be found in Appendix A and a summary of the quality of the studies is provided in the results.

The Critical Appraisal Skills Programme (CASP) checklists for cohort studies and qualitative studies were used (CASP, 2018). Both checklists cover the domains of validity, results, and clinical relevance. The guidance provided alongside the checklists does not advocate for a scoring system, instead each item is assigned either ‘Yes’, ‘No’, or ‘Can’t tell’ response.

The AXIS tool (Downes et al., 2016) was used to assess the quality of the cross-sectional studies. Again, with this tool, each item is assigned either ‘Yes’, ‘No’, or ‘Can’t tell’ response.

For studies with a mixed methods design, the CASP qualitative tool was used in combination with the appropriate quantitative tool.

Results

Overview of included studies

The ten included studies (see Table 1) were conducted in different countries including United States (*n* = 6), Canada (*n* = 2), England (*n* = 1), and Australia (*n* = 1). 'Peer worker' was the most common job title (*n* = 4) followed by 'peer support specialist' (*n* = 3), 'peer specialist' (*n* = 2) and 'peer provider' (*n* = 1). Due to the different countries that the studies were conducted in, there was a variety of mental health settings described by the papers including: generic mental health services (*n* = 5), veteran mental health services (*n* = 2), mental health and addiction services (*n* = 2), and the NHS (*n* = 1).

There was a mix of quantitative studies (*n* = 8) and mixed methods studies (*n* = 2), so there were some qualitative findings included in the review. The majority of studies used a cross-sectional design (*n* = 8) with remaining studies utilising a cohort design (*n* = 2).

Burnout was measured differently across the ten included studies. Whilst the Maslach Burnout Inventory (MBI) (Maslach et al., 1996) was most commonly used (*n* = 6) which measures burnout in three domains- 'emotional exhaustion' (EE), 'depersonalisation' (D), and 'personal accomplishment' (PA).

However, there were variations between studies as two used only the 'emotional exhaustion' subscale (Abraham et al., 2022; Hayes & Skeem, 2022), and one other study used a variation of the MBI. Ostrow et al (2022) used the MBI-General Survey which is a later development of the MBI that is used across more general occupations, rather than health settings specifically, and consists of three

subscales- ‘exhaustion’, ‘cynicism’, and ‘professional efficacy’ which measure theoretically similar constructs.

The Professional Quality of Life Scale (ProQOL) (Stamm, 2005) has a burnout subscale and was used by two studies. Finally, one study used the Oldenburg Burnout Inventory (Demerouti & Nachreiner, 1998) which measures burnout using two domains- ‘exhaustion’ which encapsulates affective, cognitive, and physical fatigue, and ‘disengagement’ which is defined as an umbrella term that captures distancing oneself from work, and argues that depersonalisation is only one form of disengagement (Halbesleben & Demerouti, 2005).

In the two mixed methods studies, one study used interviews to collect qualitative data, and the interview schedule included questions that asked about the impact of the peer work on their wellbeing (Gillard et al. 2022). The other study utilised focus groups and asked questions about the stressors and challenges peer workers faced in their roles (Mamdani et al. 2021).

Table 1. Table of characteristics for all 10 included studies.

Authors, year and country	Study aim	Design	Participants	Measures	Key Findings
Abraham et al. (2022) United States	To explore whether higher levels supervisory mentoring predict higher levels of role clarity and empowerment, which would predict lower levels of burnout and higher levels of job satisfaction.	Cross-sectional study	117 peer support specialists, working in mental health services	9-item emotional exhaustion (EE) subscale of the Maslach Burnout Inventory (MBI; Maslach et al., 1996)	Model predicting EE accounted for 28.7% of the variance. Higher levels of role clarity significantly predicted lower levels of EE.
Eisen et al. (2015) United States	To compare peer specialists and other mental health clinicians' work satisfaction, quality of life, and mental health.	Cross-sectional study	159 peer specialists providing mental health support to veterans	Maslach Burnout Inventory (MBI; Maslach et al., 1996)	Levels of burnout symptoms for peer specialists shown in mean scores for each domain- EE (*M* = 2.43), depersonalisation (D) (*M* = 1.5), personal accomplishment (PA) (*M* = 6.4). No significant difference between peer specialists and MH clinicians. Both peer specialists and comparable MH clinicians reported high job satisfaction with no difference between groups.
Gillard et al. (2022) England	To investigate the impact of working as a peer worker on employment-related outcomes and wellbeing, and whether this changes over time. To also investigate how peer workers experience the impact of their work on their wellbeing, and whether this changes over time.	Mixed methods, cohort study (measured at 3 time points)	32 peer workers working in NHS mental health services	Maslach Burnout Inventory (MBI; Maslach et al., 1996) Questions in qualitative interview schedule focused on impact of peer work on their wellbeing	Burnout increases over first few months of role but stabilise as peers workers adjust and are supported into role. EE at baseline (*M* = 8.6, SD= 9.27), lower mean scores than norms. D at baseline (*M* = 3.0, SD= 3.61), lower mean scores than norms, more than 1 SD lower than non-peer clinicians. PA at baseline (*M* = 39.3, SD= 7.34), slightly higher mean scores than norms. Themes of feeling valued and empowered but sometimes worries about over-connection and this contributed to burnout in some cases.

Hayes & Skeem (2022) United States	To compare peer specialists' burnout levels to non-peer clinicians. To investigate the role of symptom severity and work demands on peer specialists' stress levels.	Cross-sectional study	738 peer support specialists providing mental health support	9-item EE subscale of the Maslach Burnout Inventory (MBI; Maslach et al., 1996)	Overall EE score in peer specialists (18.69, *SD* = 11.90). 51.2% of peer specialists reporting moderate to high levels of EE. Peer specialists significantly higher levels of EE than non-peer staff but with a very small effect size (*d* = .13). Peer specialists with clinically significant symptoms (*n* = 137) had significantly higher EE (*d* = 1.12).
Mamdani et al. (2021) Canada	To investigate stressors faced by peer workers both within their work environments and their daily lives.	Mixed methods, cross-sectional study	31 peer workers in focus groups. Worked across two organisations that provide MH and addiction support. 50 peer workers quantitative survey responses.	Professional Quality of Life Scale (ProQOL) (Stamm, 2005).	Focus group findings- peer workers reported exposure to trauma stressful and described burnout, related to being able to relate to the stories. Intertwined as they are "part of the community they serve". Survey findings- 68% at least sometimes affected by the traumatic stress of those they help. 47% worn out because of their work. 47% have difficulty separating personal and professional lives. However, 94% happy thoughts about those they help and sense of pride in their work.
Mamdani et al. (2023) Canada	To assess burnout among peer workers.	Cross-sectional study	47 peer workers who do crisis response work in three organisations that provide MH and addiction support.	Professional Quality of Life Scale (ProQOL) (Stamm, 2005).	Mean burnout score was 20 (*SD* = 5.50) which falls in the "low" range. At an individual level, 63.8% scored low and 36.2% scored medium. Burnout seemed to be associated with lack of recognition and appreciation in the workplace, perception of inequitable pay, high workload, as well as a non-supportive work environment, characterized by bickering and fighting in the workplace. There were statistically significant differences in the burnout score by location.

					There were no significant differences in the burnout scores between the different genders, age groups or by self-reported indigeneity.
Ostrow et al. (2022) United States	To investigate the prevalence of burnout in peer specialists and compare this to other MH clinicians. To investigate what the predictors are to burnout. To investigate whether burnout is associated with job turnover.	Cross sectional study	325 peer specialists in mental health services	Maslach Burnout Inventory— General Survey (MBI-GS). Three domains of exhaustion (EX), cynicism (CY), and professional efficacy (PE).	Average burnout scores, EX and CY was lower for peer workers than other clinicians (when adjusting for all other predictors). High CY and low PE significantly less common in peer specialists than other clinicians. High EX- did not differ by job type but those in the job for over a year had higher scores. Lower EX- had a greater worklife community and older age. High CY- in job for over a year had higher scores. Lower CY- had greater worklife reward, community, and fairness, as well as older age, and Black ethnicity Higher PE- older age, had greater worklife values, self-efficacy, and less negative work experiences. High EE and low PE are most likely to be looking for a job elsewhere.
Park et al. (2016) United States	To examine burnout in peer specialists at baseline, six months, and 12 months, and to investigate whether job and provider characteristics predict burnout at six and 12 months, when controlling for baseline levels.	Cohort study (measured at 3 time points)	152 peer support specialists providing MH support in Veterans Health Administration	Maslach Burnout Inventory (MBI; Maslach et al., 1996)	In peer specialists EE (*M* = 12.9, *SD* = 11.0), D (*M* = 2.5, SD = 4.0), and PA (*M* = 43.2, *SD* = 5.1) scores were comparable to a group of non-peer MH clinicians. Significant change in EE score (increase from baseline to 6 months); change in D score (increase from baseline to 6 months); no change in PA scores over time points. *At baseline* White PS's reported higher EE and D. PS's with more hours of direct services reported lower D and higher PA. PS's with higher psychiatric symptom severity reported higher levels of EE and D, and lower levels of PA.

					PS's with higher self-efficacy reported lower EE and D, and higher PA. *Predictors at 6 months (controlled for baseline levels)* No significant predictors for EE. White race significant predictor of higher D. Lower psychiatric symptom severity, lower self-efficacy significant predictors of higher PA. *Predictors at 12 months (controlled for baseline levels)* Higher self-efficacy at baseline significant predictor of higher EE. Higher psychiatric symptom severity significant predictor of lower D. No significant predictors of PA.
Scanlan et al. (2020) Australia	To investigate prevalence of job satisfaction and burnout in peer workers and to compare this with other MH clinicians. To investigate the relationship between organisational factors and burnout and job satisfaction.	Cross-sectional study	67 peer workers providing mental health support	Oldenburg Burnout Inventory (OLBI; Demerouti & Nachreiner, 1998). The OLBI measures two dimensions of burnout: disengagement and exhaustion.	No significant differences between peer workers and other MH clinicians in disengagement and exhaustion. Exhaustion in peer workers (M = 2.44, SD = 0.50) and disengagement (M = 2.17, SD = 0.50). Both potential score range is 1 - 4. Job demands most strongly associated with exhaustion. Job demands and physical environment associated with higher disengagement.
Weikel & Fisher (2022) United States	To investigate prevalence of burnout in peer providers and non-consumer providers. To explore predictor variables for burnout in peer providers.	Cross-sectional study	38 peer providers in mental health services	Maslach Burnout Inventory- Human Services Survey (MBI-HSS).	Level of burnout symptoms for peer providers shown in mean scores for each domain- EE (M = 18.58, SD = 11.64), D (M = 3, SD = 3.16), PA (M = 39.64, SD = 7.42). EE and workload satisfaction most strongly correlated. EE moderately correlated with workplace community and workplace control.

					Peer workers employed in a peer-led program significantly lower D scores vs. peer workers employed in non-peer programs. No significant differences between peer providers and non-consumer providers in terms of burnout.

Summary of the key findings

Overall, level of burnout symptoms in peer workers across the studies was reported as either “low” (Eisen et al., 2015; Gillard et al., 2022; Mamdani et al., 2023; Park et al., 2016) or was on the cusp of “moderate” (Hayes & Skeem, 2022; Weikel & Fisher, 2022) according to the categories of the burnout measure used. The remaining studies did not report levels of burnout symptoms.

Six studies compared their results in peer workers to a sample of comparable mental health (MH) clinicians working in non-peer roles (Eisen et al., 2015; Hayes & Skeem, 2022; Ostrow et al., 2022; Park et al., 2016; Scanlan et al., 2020; Weikel & Fisher, 2022) and another study compared the results with norms from a previous study (Gillard et al., 2022). Four studies reported no significant differences in burnout between peer workers and other MH clinicians (Eisen et al., 2015; Park et al., 2016; Scanlan et al., 2020; Weikel & Fisher, 2022). Two studies reported lower scores in burnout domains EE and D, and higher scores on PA for peer workers (Gillard et al., 2022; Ostrow et al., 2022) but another study reported higher EE in peer workers but with a very small effect size (d = .13) which showed that the strength of the finding is weak (Hayes & Skeem, 2022).

There were several factors, on both an individual and organisational level- such as age, self-efficacy, and negative workplace experiences- highlighted across the studies that were associated with burnout in peer workers, which will be explored further in the synthesis section of this review.

Summary of quality of papers

Overall, there was a limited number of papers available to review and they were all within the last ten years. The evidence base for peer workers practicing in mental health services is emerging and this is reflected in the number of studies eligible for this review.

Half of the papers had a large sample size ranging from 117 to 738 (Abraham et al., 2022; Eisen et al., 2015; Hayes & Skeem, 2022; Ostrow et al., 2022; Park et al., 2016) which was achieved by sampling across a variety of geographical locations. Whilst there are benefits of the large sample size, there were potential confounding variables, namely differences in peer worker job responsibilities and experiences across different teams and locations i.e. rural vs. city. Whilst some studies collected and clearly reported differences in peer worker job roles and responsibilities (Abraham et al. 2022; Hayes & Skeem, 2022; Scanlan et al., 2020), only one study explored and then controlled for the effect of differences in geographical location on job role (Weikel & Fisher, 2022).

Two studies had a broad inclusion and exclusion criteria (Mamdani et al., 2021; 2023) and others did not report inclusion and exclusion criteria at all (Eisen et al., 2015; Gillard et al., 2022; Park et al., 2016; Weikel & Fisher, 2022). This appeared to be related to a general issue of there being no standardised roles and responsibilities for peer workers, so establishing an inclusion and exclusion criteria was difficult.

There were issues with representativeness of the samples, even in the studies with larger numbers of participants. In several studies, the sample was majority White females (Abraham et al., 2022; Hayes & Skeem, 2022; Scanlan et al., 2020; Weikel & Fisher, 2022). In another study, Black ethnicity was significantly underrepresented in the sample (Ostrow et al., 2022). There were also problems with attrition in the two cohort studies, with drop-out rates being greater than 20% for both 6 month and 12 month follow up time-points in one study (Gillard et al., 2022) and at the 12 month follow up time-point only for the other study (Park et al., 2016). This raises concerns as peer workers experiencing higher levels of burnout may have dropped out of the study for this reason or left their jobs- this is then not captured in the findings of these papers. One paper highlighted that participants that dropped out of their study were more likely to be of non-White ethnicity, which raises issues with generalisability and would warrant further exploration (Hayes & Skeem, 2022).

Another weakness of many of the papers is that they were not consistently reporting effect sizes and confidence intervals (Abraham et al., 2022; Eisen et al., 2015; Mamdani et al., 2023; Ostrow et al., 2022; Park et al., 2016; Weikel & Fisher, 2022). This makes it difficult to establish the strength of the significant findings reported.

A key strength of a number of studies was the involvement of experts by experience in the planning and piloting of the study, data collection and analysis (Gillard et al., 2022; Hayes & Skeem, 2022; Mamdani et al., 2021; Mamdani et al., 2023; Ostrow et al., 2022; Scanlan et al., 2020). However, two studies used measures that had weak psychometric properties in the peer worker population (Eisen et al., 2015; Weikel & Fisher, 2022). Hayes & Skeem (2022) demonstrated an awareness of the issue of measures not being validated for this population by only using the EE subscale of the MBI, as it is the only subscale that demonstrated good internal consistency.

Synthesis method

Narrative synthesis was chosen as there is heterogeneity in the included studies methods, participants, and outcome measures. The synthesis was completed by the lead author. The studies were summarised in a table and included the key characteristics e.g. design, burnout measure and levels, sample). From this, the author performed a content analysis identifying any themes in the individual studies. Themes from each study were recorded and then compared across all the studies. From this, overarching themes were identified.

Firstly, the synthesis results describe the level of burnout symptoms as a whole. Then, findings are organised by each subscale (emotional exhaustion, depersonalisation, and personal achievement) of Maslach's Burnout Inventory (Maslach et al., 1996) where levels of these concepts across the studies are summarised. Then, individual and organisational factors are considered for each of the subscales.

Synthesis results

Burnout

As summarised above, burnout was reported as “low” to “moderate” in peer workers, which did not appear to significantly differ from other MH clinicians, who also scored as either “low” or “moderate”. Mamdani et al. (2023) reported on burnout as a whole concept, rather than breaking the results down into emotional exhaustion, depersonalisation, and personal achievement, like the majority of studies. They reported an association between higher burnout scores and various organisational factors: lack of recognition and appreciation in their role, perception of inequitable pay, high workload, and a non-supportive work environment. Gillard et al. (2022) also commented on burnout as a whole when looking at changes over time and they reported an increase over the first few months after peer workers were employed but noted stabilisation as they were supported into their role.

Emotional exhaustion

Data relating to emotional exhaustion was collected across eight studies (Abraham et al., 2022; Eisen et al., 2015; Gillard et al., 2022; Hayes & Skeem, 2022; Ostrow et al., 2022; Park et al., 2016; Scanlan et al., 2020; Weikel & Fisher, 2022). Scanlan et al. (2020) used the Oldenburg Burnout Inventory (OLBI) (Demerouti & Nachreiner, 1998) which described a broader concept of exhaustion including cognitive and physical fatigue, as well as emotional exhaustion. Emotional exhaustion ranged from low to moderate in the above studies. Two studies reported a moderate level of EE in peer workers. Hayes and Skeem (2022) reported a mean score of 18.69 (SD= 11.90) in their sample of 738 peer support specialists, and Weikel and Fisher (2022) reported a mean score of 18.58 (SD=11.64) in their sample of 38 peer providers. Both of these findings demonstrate a score on the cusp of the low to moderate range of emotional exhaustion, as a score of above 17 is categorised as ‘moderate’. It is important to highlight that despite the different sample sizes in these two

studies, they both report a large standard deviation. Therefore, it is difficult to estimate the true value of emotional exhaustion in the samples. The included studies would likely suggest an overall low rate of emotional exhaustion in peer workers. Park et al. (2016) was the only study to examine how EE scores change over time and reported an increase in scores from baseline to the 6-month time point but no significant difference at the 12-month time point.

Individual factors

Four studies looked at the relationship between individual factors (e.g. age, self-efficacy, psychiatric symptom severity and ethnicity) and EE (Hayes & Skeem, 2022; Mamdani et al., 2021; Park et al., 2016; Ostrow et al., 2022). Park et al. (2016) reported that at baseline, self-efficacy, psychiatric symptom severity, and ethnicity were associated with burnout. At baseline, they found that EE was higher amongst White peer workers, and higher amongst peer workers reporting greater psychiatric symptom severity. Hayes and Skeem (2022) also reported that peer workers with clinically significant psychiatric symptoms had significantly higher EE scores. Self-efficacy had a more complex relationship with EE(Park et al., 2016). At baseline, peer workers with higher self-efficacy reported lower EE but at the12-month point, greater baseline self-efficacy was then associated with higher EE. This could suggest that self-efficacy is initially protective in terms of experiencing EE but over time this reduces.

Furthermore, Ostrow et al. (2022) reported that age was associated with burnout. Specifically, that older age was associated with lower EE.

Organisational factors

Four studies looked at the relationship between organisational factors and EE (Abraham et al., 2022; Ostrow et al., 2022; Scanlan et al., 2020; Weikel & Fisher, 2022). Higher levels of role clarity (employee understands what it expected of them in their job role) was found to significantly predict lower levels of EE (Abraham et al., 2022). Ostrow et al. (2022) and Weikel & Fisher (2022) used the Areas of Worklife Survey (AWS) (Leiter &

Maslach, 1999) in their studies to investigate the impact of organisational factors on burnout. Their findings showed that greater workplace community (quality of social support at work) was associated with lower levels of EE. Lower workload satisfaction and higher job demands were also shown to be strongly associated with exhaustion (Scanlan et al., 2020; Weikel & Fisher, 2022). Lower workplace control (an employee's perception that they can exercise autonomy at work and have the resources to do their job effectively) was also moderately correlated with higher levels of EE (Weikel & Fisher, 2022). Ostrow et al. (2022) also reported that peer workers who were in their job role for over a year reported higher levels of EE.

Depersonalisation

Data relating to depersonalisation was collected across five studies (Eisen et al., 2015; Gillard et al., 2022; Ostrow et al., 2022; Park et al., 2016; Weikel & Fisher 2022). As previously mentioned, Scanlan et al. (2020) used another measure of burnout (OLBI) that only has two domains- exhaustion and disengagement. Disengagement is said to combine theoretical ideas of both Maslach's (1981) concepts of depersonalisation and personal achievement (Demerouti & Nachreiner, 1998), so will also be discussed in this section. The concept of depersonalisation was measured in fewer studies than EE. This appeared to be because of concerns around the validity and reliability of the depersonalisation and personal achievement subscales of the MBI measure (Maslach et al., 1996) for the peer worker population, so either only the EE subscale was used or a different measure was used entirely. Across these studies, prevalence of depersonalisation was reported as low for peer workers. Park et al. (2016) was the only study to examine how depersonalisation scores change over time and reported an increase in scores from baseline to the 6-month time point but no significant difference at the 12-month time point.

Individual factors

Individual factors that influenced depersonalisation were examined in two studies (Ostrow et al., 2022; Park et al., 2016). Both studies found that there was an association between ethnicity and depersonalisation scores. Ostrow et al. (2022) found that lower depersonalisation scores were associated with Black ethnicity. This finding was significant despite Black ethnicity being underrepresented in the study's sample. Park et al. (2016) found that depersonalisation scores were higher at baseline for White peer workers. Another individual factor that was explored in Ostrow et al.'s (2022) study was age. They reported a significant relationship between lower depersonalisation scores and older age.

There were a further two individual factors that Park et al. (2016) investigated, which were self-efficacy and psychiatric symptom severity. At baseline, peer workers with higher self-efficacy reported lower levels of depersonalisation. Also, peer workers who reported greater psychiatric symptom severity at baseline scored higher for depersonalisation. Interestingly, at the 12-month point greater psychiatric symptom severity predicted lower depersonalisation scores.

Organisational factors

Organisational factors that are associated with depersonalisation were explored in four studies (Weikel & Fisher, 2022; Scanlan et al., 2020; Park et al., 2016; Ostrow et al., 2022). As mentioned previously, Ostrow et al. (2022) used the AWS to examine organisational factors of burnout. They reported that greater workplace rewards (monetary, social, and intrinsic), greater workplace community (quality of mutual support and social interaction), and greater fairness (workers feel respected and that decisions are fair) were associated with lower depersonalisation scores. Moreover, they found an association between peer workers that had been in their role for over a year and higher depersonalisation scores. Park et al., (2016) reported that at baseline, peer workers with more hours providing direct services had lower depersonalisation scores. Interestingly, in Weikel and Fisher's (2022) study participants were employed by two different organisations, one organisation was peer-led whereas the other was not. They found that peer workers

employed in the peer-led organisation had significantly lower depersonalisation scores than those employed in the non-peer-led organisation. Finally, Scanlan et al. (2020) reported that increased job demands, and poor physical environment were associated with higher disengagement.

Personal achievement

Data related to personal achievement (PA) was collected in six studies (Eisen et al., 2015; Gillard et al., 2022; Ostrow et al., 2022; Park et al., 2016; Scanlan et al., 2020; Weikel & Fisher, 2022). Mamdani et al. (2021) reported that 94% of peer workers they surveyed had happy thoughts about those they help and a sense of pride in their work. Overall, prevalence ranged from moderate to high levels of PA, indicating low burnout. Park et al. (2016) was the only study to examine how PA scores change over time and reported no significant differences in scores across the 6 month and 12-month time points.

Individual factors

Similar to both EE and depersonalisation, older age was associated with higher PA scores (Ostrow et al., 2022). Self-efficacy and psychiatric symptom severity were also examined by Park et al. (2016) and peer workers with higher symptom severity at baseline scored lower on personal achievement. Peer workers that scored high for self-efficacy at baseline reported higher scores on personal achievement. At the 6-month point, lower psychiatric symptom severity significantly predicted higher personal achievement, but higher self-efficacy significantly predicted lower personal achievement.

Organisational factors

Three studies looked at organisational factors associated with PA (Gillard et al., 2022; Ostrow et al., 2022; Park et al., 2016). The qualitative findings of Gillard et al.'s (2022) study demonstrated that peer workers felt valued and empowered in their roles, which contributed to high PA scores. Park et al. (2016) noted that peer workers with more hours of direct services at baseline reported higher levels of personal achievement. This would

suggest that this is a part of their role that they find important and value. Ostrow et al. (2022) reported that there was an association between higher PA scores and less negative work experiences, and greater worklife values (motivations that attracted them to the work in the first instance) (Leiter & Maslach, 1999).

Discussion

This scoping review examined 10 papers that explored burnout in peer workers in mental health settings. Overall, level of burnout symptoms was reported to range from low to moderate and there were no significant differences overall between burnout in peer workers and comparable mental health clinicians. There were differences across the different domains of burnout: emotional exhaustion, depersonalisation, and personal achievement. There were also individual and organisational factors associated with the different burnout domains. The findings of the review present mixed evidence in terms of the variables contributing towards or protecting against burnout. The findings also show how burnout presented over time and begins to explore the impact of burnout in the included studies.

Firstly, there is notable variation across the studies with how burnout is conceptualised and measured. Whilst Maslach et al.'s (1996) MBI measure is widely used in burnout research and has been shown to be a useful tool across different countries and occupations (Hwang et al., 2003), it has been criticised for having a major weakness. Demerouti and Bakker (2008) have noted that the MBI only has negatively worded items for EE and depersonalisation, meaning that low levels of EE and depersonalisation cannot be seen to represent the opposite (high energy and connection, respectively). This has implications for the studies included in the review that used the MBI, as it does not necessarily give an accurate picture of burnout experiences in peer workers. Additionally, there is a lack of research focusing on the validity of the MBI for peer workers.

Secondly, age and ethnicity were discussed as individual variables associated with burnout. Peer workers of White ethnicity were shown to have higher EE and depersonalisation scores, and peer workers of Black ethnicity were shown to have lower depersonalisation scores. Older age was associated with lower scores across EE and depersonalisation domains, and higher scores for PA. Whilst it is important to note that these

findings came from two studies in the review (Ostrow et al., 2022; Park et al., 2016) and another study found no differences in burnout across age, gender, and ethnicity (Mamdani et al., 2023), it is helpful to situate these findings in the literature. Research in healthcare workers looking at the relationship between ethnicity and burnout has found either no difference or lower rates of EE and depersonalisation in global majority ethnicities, when compared to those of White ethnicity (Lawrence et al., 2022; Douglas et al., 2021; Salvers & Bond, 2001). Lawrence et al.'s (2022) literature review highlighted a mixed picture and attributed this to inconsistency in how burnout is operationalised and queried the sensitivity of burnout measures for global majority populations. Dyrbye et al. (2007) highlighted how racial inequalities and discrimination contribute to adverse health outcomes in people of Black ethnicity, therefore if burnout measures are not sensitive at detecting these issues, this could mean burnout is being underreported in these populations. A methodological weakness of several papers in the review was that they featured majority White samples and that there were concerns around attrition and non-completers for peer workers who are from global majority ethnicities, which further suggests a lack of representation in burnout research for non-White ethnic groups.

In relation to age, a meta-analysis conducted by Gomez-Urguiza et al. (2017) found a significant negative association between age and burnout domains EE and depersonalisation. The current review only has two papers that looked at age as a variable (Mamdani et al. 2023; Ostrow et al., 2022) which present a mixed picture of the impact of age on burnout.

Another variable that was discussed in the findings was self-efficacy. In Park et al.'s (2016) study, higher self-efficacy at baseline appeared to be protective in terms of burnout. However, at 12-month time point higher self-efficacy was predictive of higher burnout. It is important to note that the effect size was small therefore the interpretation of this relationship is tentative. It may suggest that overtime peer workers who initially have confidence in their abilities, then are more likely to become more burnout when they are not able to meet their

own expectations at work and face barriers (Park et al., 2016). Existing research supports the existence of a relationship between self-efficacy and burnout (Llorens-Gumbau & Salanova-Soria, 2014) and that the relationship is reciprocal (Llorens et al., 2007). Self-efficacy has been shown to play a key role in coping with stress and enhancing psychological wellbeing (Schaufeli et al., 2002), even reducing the likelihood of burnout (Schwarzer & Hallum, 2008). This complex relationship warrants further investigation.

Alongside the individual factors, it is equally important to examine the organisational factors that contribute towards burnout. Historically, burnout has been seen as a problem situated within an individual (Maslach & Leiter, 1997) but now there is a greater focus on organisational culture (Lasalvia et al., 2009). The results of this review highlighted a range of organisational factors that influence burnout in peer workers including: workload, role clarity, recognition and appreciation, fairness, pay, social support at work, worklife values, physical environment, control, and reward (Weikel & Fisher, 2022; Scanlan et al., 2020; Park et al., 2016; Ostrow et al., 2022; Mamdani et al., 2023; Abraham et al., 2022). The importance of organisational factors is present despite the different types of organisations included in the review, e.g. NHS setting, US healthcare setting, giving weight to the idea that this is something key to consider.

Implications

The most pertinent implication from the current review is the need for more focused research for the developing peer worker workforce in traditional mental health settings. Future research with this population should be adapted to ensure that it captures a true picture of peer workers' experiences. Several papers utilised the expertise of experts by experience to help shape the research (Gillard et al., 2022; Hayes & Skeem, 2022; Mamdani et al., 2021; Mamdani et al., 2023; Ostrow et al., 2022; Scanlan et al., 2020) and this should be considered gold standard for not only peer worker research but other research in the field of clinical psychology.

Issues with current burnout measures lacking validity for peer workers has been highlighted in this review. Whilst researchers have suggested addressing this by adding or deleting items based on the cultural and occupational context of their samples (Hwang et al, 2003), it is important that future research looks at adapting existing burnout scales appropriately for peer workers or seeking alternative measures of burnout. For example, physiological indicators of burnout and occupational stress has featured in the literature in the last decade (Jarczok et al., 2013; Grossi et al., 2015). It is known that chronic stress can have harmful effects on the body (Kamath et al., 2016) and measures of heart rate and skin conductance have been suggested as valid indicators of stress (Khanade & Sasangohar, 2017). This could be considered as a potentially useful outcome measure for future peer worker research.

The findings of this review highlight the importance of organisational factors in burnout. There is limited literature examining the impact of organisational interventions to address burnout but the studies that have done so evidenced promising outcomes and highlighted the usefulness of a systemic approach alongside individual interventions in improving health and wellbeing in the mental health workforce (Morse et al., 2012).

Finally, there is mixed evidence when comparing burnout between peer workers and comparable MH workers. Whilst the findings suggest that there are either no differences, or lower levels of burnout in peer workers, further research is needed to support this claim. Importantly, there is no evidence to suggest that peer workers are more vulnerable to burnout, with one of Park et al.'s (2016) findings even suggesting that more patient facing hours could be associated with lower levels of burnout symptoms for peer workers. Overall, findings dispute the prejudices mentioned previously that predicted higher levels of sickness and less resilience in peer workers (Walker & Bryant, 2013; Mirbahaeddin & Chreim, 2022).

Limitations

As noted in the methods, despite working alongside peer workers in mental health settings, neither of the authors had actual lived experience of working as a peer worker. Unfortunately, peer workers were not consulted as part of the development of the scoping review. The absence of lived experience input represents a significant limitation, particularly given the values of collaboration and co-production that underpin much of the peer support literature. Future research would benefit from involving peer workers throughout the review process, from design to interpretation, to ensure that their voices and expertise are meaningfully integrated.

A major limitation of the review is the heterogeneity of the papers. There is currently a lack of research focusing specifically on peer workers in traditional mental health services and even fewer studies looking at burnout. Because of this, the aim of the current review and the inclusion and exclusion criteria was broad. Whilst this has been helpful in terms of capturing a sufficient number of papers, the heterogeneity in terms of aims, outcome measures, methodology and population of the papers has unfortunately meant the themes explored in this review are thin. For example, variables like age, ethnicity, and self-efficacy were examined in only a few papers. Furthermore, in some studies attrition rates were highlighted as a limitation. As a result, the themes presented can be seen as a summary of the available evidence at this time but reflect that more research is needed before meaningful conclusions can be drawn that are representative of the target population of peer workers.

The current review is also limited by the concept of burnout itself. As discussed in the paper, there is debate in the literature about how burnout is conceptualised and measured (Demerouti & Bakker, 2008). For example, other models of burnout discuss the concept of engagement and disengagement with work as a measure of burnout (Demerouti &

Nachreiner, 1998) and it may be if ‘engagement’ and ‘disengagement’ were included as search terms in the review then other relevant papers may have been able to be included. Additionally, more eligible studies may have been identified if the individual domains of burnout e.g. ‘emotional exhaustion’ were included as additional search terms.

References

Abraham, K. M., Erickson, P. S., Sata, M. J., & Lewis, S. B. (2022). Job satisfaction and burnout among peer support specialists: the contributions of supervisory mentorship, recovery-oriented workplaces, and role clarity. *Advances in Mental Health*, *20*(1), 38–50. https://doi.org/10.1080/18387357.2021.1977667

Barrenger, S. L., Hamovitch, E. K., & Rothman, M. R. (2019). Enacting Lived Experiences: Peer Specialists With Criminal Justice Histories. *Psychiatric Rehabilitation Journal*, *42*(1), 9–16. https://doi.org/10.1037/prj0000327

Belzak, L., & Halverson, J. (2018). Evidence synthesis - The opioid crisis in Canada: a national perspective. *Health Promotion and Chronic Disease Prevention in Canada*, *38*(6), 224–233. https://doi.org/10.24095/hpcdp.38.6.02

Blankertz, L., & Robinson, S. (1996). Who is the Psychosocial Rehabilitation Worker? *Psychiatric Rehabilitation Journal*, *19*(4), 3–13. https://doi.org/10.1037/h00954277.

Chinman, M., George, P., Dougherty, R. H., Daniels, A. S., Ghose, S. S., Swift, A., & Delphin-Rittmon, M. E. (2014). Peer Support Services for Individuals With Serious Mental Illnesses: Assessing the Evidence. *Psychiatric Services*, *65*(4), 429–441. https://doi.org/10.1176/appi.ps.201300244

Critical Appraisal Skills Programme. (2023). *CASP Qualitative Checklist.* https://casp-uk.net/checklists/casp-qualitative-studies-checklist-fillable.pdf

Critical Appraisal Skills Programme. (2023). *CASP Cohort Study Checklist.* https://casp-uk.net/checklists/casp-cohort-studies-checklist-fillable.pdf

Cook, T. D., & Leviton, L. C. (1980). Reviewing the literature: A comparison of traditional methods with meta-analysis. *Journal of Personality*, *48*(4), 449–472. https://doi.org/10.1111/j.1467-6494.1980.tb02379.x

Davidson, L., Chinman, M., Kloos, B., Weingarten, R., Stayner, D., & Tebes, J. K. (1999). Peer Support Among Individuals With Severe Mental Illness: A Review of the Evidence. *Clinical Psychology*, *6*(2), 165–187. https://doi.org/10.1093/clipsy.6.2.165

Demerouti, E., & Bakker, A. B. (2008). The Oldenburg Burnout Inventory: A good alternative to measure burnout and engagement. In J. R. B. Halbesleben, *Handbook of Stress and Burnout in Health Care* (pp. 1-25). Nova Science Publishers Incorporated.

Demerouti, E., & Nachreiner, F. (1998). The specificity of burnout in human services: fact or artefact? *Z. Arbeitswiss, 52,* 82-89.

Douglas, M., Coman, E., Eden, A. R., Abiola, S., & Grumbach, K. (2021). Lower Likelihood of Burnout Among Family Physicians From Underrepresented Racial-Ethnic Groups. *Annals of Family Medicine*, *19*(4), 342–350. https://doi.org/10.1370/afm.2696.

Downes, M. J., Brennan, M. L., Williams, H. C., & Dean, R. S. (2016). Development of a critical appraisal tool to assess the quality of cross-sectional studies (AXIS). *BMJ Open*, *6*(12), e011458–e011458. https://doi.org/10.1136/bmjopen-2016-011458.

Dyrbye, L. N., Thomas, M. R., Eacker, A., Harper, W., Massie, F. S., Power, D. V., Huschka, M., Novotny, P. J., Sloan, J. A., & Shanafelt, T. D. (2007). Race, Ethnicity, and Medical Student Well-being in the United States. *Archives of Internal Medicine (1960)*, *167*(19), 2103–2109. https://doi.org/10.1001/archinte.167.19.2103

Eisen, S. V., Mueller, L. N., Chang, B. H., Resnick, S. G., Schultz, M. R., & Clark, J. A. (2015). Mental Health and Quality of Life Among Veterans Employed as Peer and Vocational Rehabilitation Specialists. *Psychiatric Services (Washington, D.C.)*, *66*(4), 381–388. https://doi.org/10.1176/appi.ps.201400105

Francis, G. (2012). Publication bias and the failure of replication in experimental psychology. *Psychonomic Bulletin & Review*, *19*(6), 975–991. https://doi.org/10.3758/s13423-012-0322-y

Gagne, C. A., Finch, W. L., Myrick, K. J., & Davis, L. M. (2018). Peer Workers in the Behavioral and Integrated Health Workforce: Opportunities and Future Directions. *American Journal of Preventive Medicine*, *54*(6), S258–S266. https://doi.org/10.1016/j.amepre.2018.03.010

Gillard, S., Foster, R., White, S., Barlow, S., Bhattacharya, R., Binfield, P., Eborall, R., Faulkner, A., Gibson, S., Goldsmith, L. P., Simpson, A., Lucock, M., Marks, J., Morshead, R., Patel, S., Priebe, S., Repper, J., Rinaldi, M., Ussher, M., & Worner, J. (2022). The impact of working as a peer worker in mental health services: a longitudinal mixed methods study. *BMC Psychiatry*, *22*(1).

Gómez-Urquiza, J. L., Vargas, C., De la Fuente, E. I., Fernández-Castillo, R., & Cañadas-De la Fuente, G. A. (2017). Age as a Risk Factor for Burnout Syndrome in Nursing Professionals: A Meta-Analytic Study. *Research in Nursing & Health*, *40*(2), 99–110. https://doi.org/10.1002/nur.21774.

Grossi, G., Perski, A., Osika, W., & Savic, I. (2015). Stress-related exhaustion disorder - clinical manifestation of burnout? A review of assessment methods, sleep impairments, cognitive disturbances, and neuro-biological and physiological changes in clinical burnout. *Scandinavian Journal of Psychology*, *56*(6), 626–636. https://doi.org/10.1111/sjop.12251

Halbesleben, J. R. B., & Demerouti, E. (2005). The construct validity of an alternative measure of burnout: Investigating the English translation of the Oldenburg Burnout Inventory. *Work & Stress*, *19*(3), 208–220. https://doi.org/10.1080/02678370500340728.

Hayes, S. L., Skeem, J. L., DeLeon, P. H., & Kearney, L. K. (2022). Testing Assumptions About Peer Support Specialists' Susceptibility to Stress. *Psychological Services*, *19*(4), 783–795. https://doi.org/10.1037/ser0000589

Hwang, C.-E., Scherer, R. F., & M Fall Ainina. (2003). Utilizing the Maslach burnout inventory in cross-cultural research. *International Journal of Management*, *20*(1), 3.

Jarczok, M. N., Jarczok, M., Mauss, D., Koenig, J., Li, J., Herr, R. M., & Thayer, J. F. (2013). Autonomic nervous system activity and workplace stressors—A systematic review. *Neuroscience & Biobehavioral Reviews*, *37*(8), 1810–1823. https://doi.org/10.1016/j.neubiorev.2013.07.004

Jovanović, N., Podlesek, A., Volpe, U., Barrett, E., Ferrari, S., Rojnic Kuzman, M., Wuyts, P., Papp, S., Nawka, A., Vaida, A., Moscoso, A., Andlauer, O., Tateno, M., Lydall, G., Wong, V., Rujevic, J., Platz Clausen, N., Psaras, R., Delic, A., Beezhold, J. (2016). Burnout syndrome among psychiatric trainees in 22 countries: Risk increased by long working hours, lack of supervision, and psychiatry not being first career choice. *European Psychiatry*, *32*, 34–41. https://doi.org/10.1016/j.eurpsy.2015.10.007

Khanade, K., & Sasangohar, F. (2017). Stress and Fatigue in ICU Nursing. *Proceedings of the International Symposium of Human Factors and Ergonomics in Healthcare*, *6*(1), 209–210. https://doi.org/10.1177/2327857917061045

Lasalvia, A., Bonetto, C., Bertani, M., Bissoli, S., Cristofalo, D., Marrella, G., Ceccato, E., Cremonese, C., De Rossi, M., Lazzarotto, L., Marangon, V., Morandin, I., Zucchetto, M., & Tansella, M. (2009). Influence of perceived organisational factors on job burnout: survey of community mental health staff. *British Journal of Psychiatry*, *195*(6), 537–544. https://doi.org/10.1192/bjp.bp.108.060871

Lawrence, J. A., Davis, B. A., Corbette, T., Hill, E. V., Williams, D. R., & Reede, J. Y. (2022). Racial/Ethnic Differences in Burnout: a Systematic Review. *Journal of Racial and Ethnic Health Disparities*, *9*(1), 257–269. https://doi.org/10.1007/s40615-020-00950-0.

Leiter, M. P., & Maslach, C. (1999). Six areas of worklife: A model of the organizational context of burnout. *Journal of Health and Human Services Administration*, *21*(4), 472–489.

Llorens, S., Schaufeli, W., Bakker, A., & Salanova, M. (2007). Does a positive gain spiral of resources, efficacy beliefs and engagement exist? *Computers in Human Behavior*, *23*(1), 825–841. https://doi.org/10.1016/j.chb.2004.11.012

Llorens-Gumbau, S., & Salanova-Soria, M. (2014). Loss and gain cycles? A longitudinal study about burnout, engagement and self-efficacy. *Burnout Research*, *1*(1), 3–11. https://doi.org/10.1016/j.burn.2014.02.001

Mamdani, Z., McKenzie, S., Ackermann, E., Voyer, R., Cameron, F., Scott, T., Pauly, B., & Buxton, J. A. (2023). The Cost of Caring: Compassion Fatigue among Peer Overdose Response Workers in British Columbia. *Substance Use & Misuse*, *58*(1), 85–93. https://doi.org/10.1080/10826084.2022.2148481

Mamdani, Z., McKenzie, S., Pauly, B., Cameron, F., Conway-Brown, J., Edwards, D., Howell, A., Scott, T., Seguin, R., Woodrow, P., & Buxton, J. A. (2021). "Running myself ragged": stressors faced by peer workers in overdose response settings. *Harm Reduction Journal*, *18*(1), 18–18. https://doi.org/10.1186/s12954-020-00449-1

Maslach, C., & Jackson, S.E. (1986). *Maslach Burnout Inventory: manual research edition.* Consulting Psychologists Press.

Maslach, C., & Leiter, M. P. (2016). Understanding the burnout experience: recent research and its implications for psychiatry. *World Psychiatry*, *15*(2), 103–111. https://doi.org/10.1002/wps.20311

Maslach, C., & Leiter, M. P. (1997). *The truth about burnout : how organizations cause personal stress and what to do about it* (1st ed). Jossey-Bass.

Mead, S., Hilton, D., & Curtis, L. (2001). Peer Support: A Theoretical Perspective. *Psychiatric Rehabilitation Journal*, *25*(2), 134–141. https://doi.org/10.1037/h0095032

Mirbahaeddin, E., & Chreim, S. (2022). A Narrative Review of Factors Influencing Peer Support Role Implementation in Mental Health Systems: Implications for Research, Policy and

Practice. *Administration and Policy in Mental Health and Mental Health Services Research*, *49*(4), 596–612. https://doi.org/10.1007/s10488-021-01186-8

Morse, G., Salyers, M. P., Rollins, A. L., Monroe-DeVita, M., & Pfahler, C. (2012). Burnout in Mental Health Services: A Review of the Problem and Its Remediation. *Administration and Policy in Mental Health and Mental Health Services Research*, *39*(5), 341–352. https://doi.org/10.1007/s10488-011-0352-1

Munn, Z., Peters, M. D. J., Stern, C., Tufanaru, C., McArthur, A., & Aromataris, E. (2018). Systematic review or scoping review? Guidance for authors when choosing between a systematic or scoping review approach. *BMC Medical Research Methodology*, *18*(1), 143–143. https://doi.org/10.1186/s12874-018-0611-x

Mutschler, C., Bellamy, C., Davidson, L., Lichtenstein, S., & Kidd, S. (2022). Implementation of Peer Support in Mental Health Services: A Systematic Review of the Literature. *Psychological Services*, *19*(2), 360–374. https://doi.org/10.1037/ser0000531

National Institute of Health and Care Excellence. (2014). *Developing NICE guidelines: the manual* [PMG20]. https://www.nice.org.uk/process/pmg20/resources/developing-nice-guidelines-the-manual-pdf-72286708700869

National Health Service, England. (2023). *NHS Long Term Workforce Plan.* *https://www.england.nhs.uk/wp-content/uploads/2023/06/nhs-long-term-workforce-plan-v1.2.pdf*

O'Connor, K., Muller Neff, D., & Pitman, S. (2018). Burnout in mental health professionals: A systematic review and meta-analysis of prevalence and determinants. *European Psychiatry*, *53*, 74–99. https://doi.org/10.1016/j.eurpsy.2018.06.003

Ostrow, L., Cook, J., Salzer, M., Pelot, M., Burke-Miller, J., Kilmer, R. P., & Coker, K. L. (2022). Predictors of Worklife Burnout Among Mental Health Certified Peer Specialists. *American Journal of Orthopsychiatry*, *92*(6), 673–680. https://doi.org/10.1037/ort0000645

Park, S. G., Chang, B.-H., Mueller, L., Resnick, S. G., & Eisen, S. V. (2016). Predictors of Employment Burnout Among VHA Peer Support Specialists. *Psychiatric Services (Washington, D.C.)*, *67*(10), 1109–1115. https://doi.org/10.1176/appi.ps.201500239

Pitt, V., Lowe, D., Hill, S., Prictor, M., Hetrick, S. E., Ryan, R., Berends, L., & Lowe, D. (2013). Consumer-providers of care for adult clients of statutory mental health services. *Cochrane Database of Systematic Reviews*, *2013*(3), CD004807–CD004807. https://doi.org/10.1002/14651858.CD004807.pub2

Repper, J., & Carter, T. (2011). A review of the literature on peer support in mental health services. *Journal of Mental Health*, *20*(4), 392–411. https://doi.org/10.3109/09638237.2011.583947

Rössler, W. (2012). *Stress, burnout, and job dissatisfaction in mental health workers*. https://doi.org/10.5167/uzh-64878

Salvagioni, D. A. J., Melanda, F. N., Mesas, A. E., González, A. D., Gabani, F. L., & Andrade, S. M. de. (2017). Physical, psychological and occupational consequences of job burnout: A systematic review of prospective studies. *PloS One*, *12*(10), e0185781–e0185781. https://doi.org/10.1371/journal.pone.0185781

Salyers, M. P., & Bond, G. R. (2001). An exploratory analysis of racial factors in staff burnout among assertive community treatment workers. *Community Mental Health Journal*, *37*, 393-404. https://doi.org/10.1023/A:10175759122888.

Scanlan, J. N., Still, M., Radican, J., Henkel, D., Heffernan, T., Farrugia, P., Isbester, J., & English, J. (2020). Workplace experiences of mental health consumer peer workers in New South Wales, Australia: A survey study exploring job satisfaction, burnout and turnover intention. *BMC Psychiatry*, *20*(1), 270–270. https://doi.org/10.1186/s12888-020-02688-9

Schaufeli, W. B., Martínez, I. M., Pinto, A. M., Salanova, M., & Bakker, A. B. (2002). Burnout and Engagement in University Students: A Cross-National Study. *Journal of Cross-Cultural Psychology*, *33*(5), 464–481. https://doi.org/10.1177/0022022102033005003

Schwarzer, R., & Hallum, S. (2008). Perceived Teacher Self-Efficacy as a Predictor of Job Stress and Burnout: Mediation Analyses: Health and well-being. *Applied Psychology*, *57*, 152–171. https://doi-org.ezproxy.staffs.ac.uk/10.1111/j.1464-0597.2008.00359.x

Slade, M., Amering, M., Farkas, M., Hamilton, B., O'Hagan, M., Panther, G., Perkins, R., Shepherd, G., Tse, S., & Whitley, R. (2014). Uses and abuses of recovery: implementing recovery-oriented practices in mental health systems. *World Psychiatry*, *13*(1), 12–20. https://doi.org/10.1002/wps.20084

Stamm, B. H. (2005). *The ProQoL manual. The professional quality of life scale: Compassion satisfaction, burnout, and compassion fatigue/secondary trauma scales.* Sidran Press.

Stratford, A. C., Halpin, M., Phillips, K., Skerritt, F., Beales, A., Cheng, V., Hammond, M., O'Hagan, M., Loreto, C., Tiengtom, K., Kobe, B., Harrington, S., Fisher, D., & Davidson, L. (2019). The growth of peer support: an international charter. *Journal of Mental Health*, *28*(6), 627–632. https://doi.org/10.1080/09638237.2017.1340593

Walker, G., & Bryant, W. (2013). Peer Support in Adult Mental Health Services: A Metasynthesis of Qualitative Findings. *Psychiatric Rehabilitation Journal*, *36*(1), 28–34. https://doi.org/10.1037/h0094744

Weikel, K., & Fisher, T. (2022). Burnout and Turnover Intention Among Peer Providers and Other Providers of Mental Health Services in a Rural Two-County Area. *Journal of Psychosocial Rehabilitation and Mental Health*, *9*(1), 33–43. https://doi.org/10.1007/s40737-021-00232-w

Wilson, L., Vannice, S., Hacksel, C., & Leonard, L. (2018). Peer worker or client?: conflicting identities among peer workers engaged in harm reduction service delivery. *Addiction Research & Theory*, *26*(5), 361–368. https://doi.org/10.1080/16066359.2017.1410704

World Health Organization. (2021). *Peer support mental health services: Promoting person-centred and rights-based approaches.* https://www.who.int/publications/i/item/9789240025783

Appendices

Appendix A: Quality appraisal tables

CASP cohort study checklist	Gillard et al. (2022)	Park et al. (2016)
Q1. Did the study address a clearly focused issue?	Y	Y
Q2. Was the cohort recruited in an acceptable way?	Can't tell	Can't tell
Q3. Was the exposure accurately measured to minimise bias?	N/A	N/A
Q4. Was the outcome accurately measured to minimise bias?	N	Y
Q5a. Have the authors identified all important confounding factors?	Y	Y
Q5b. Have they taken account of the confounding factors in the design and/or analysis?	Y	N
Q6a. Was the follow up of subjects complete enough?	N	N
Q6b. Was the follow up of subjects long enough?	Y	Y
Q7. What are the results of this study?	Burnout increases over first few months of role but stabilise as peers workers adjust and are supported into role. Overall, lower levels of emotional exhaustion and depersonalization, and slightly higher levels of personal achievement than norms.	PSs in the study sample reported similar levels of burnout to other VHA-employed mental health staff. Burnout was also relatively stable across time. Although there were statistically significant changes in emotional exhaustion and depersonalization from baseline to six months, these were small effects, and there was no change in emotional exhaustion or depersonalization at 12 months and no change in personal accomplishment over time.
Q8. How precise are the results?	Not very precise, wide CI's	Can't tell
Q9. Do you believe the results?	Y	Y
Q10. Can the results be applied to the local population?	Can't tell	Can't tell
Q11. Do the results of this study fit with other available evidence?	Y	Y
Q12. What are the implications of this study for practice?	Y	Y

AXIS tool for cross-sectional studies	Abraham et al. (2022)	Eisen et al. (2015)	Hayes & Skeem (2022)	Mamdani et al. (2021)	Mamdani et al. (2023)	Ostrow et al. (2022)	Scanlan et al. (2020)	Weikel & Fisher (2022)
Q1. Were the aims/objectives of the study clear?	Y	Y	Y	Y	Y	Y	Y	Y
Q2. Was the study design appropriate for the stated aims?	Y	Y	Y	Y	Y	Y	Y	Y
Q3. Was the sample size justified?	N	Y	Y	N	Y	N	Y	N
Q4. Was the target/reference population clearly defined?	Y	Y	Y	Y	Y	Y	Y	N
Q5. Was the sample frame taken from an appropriate population base?	Y	Y	Y	Y	Y	Y	Y	Y
Q6. Was the selection process likely to select participants that were representative of the target population?	Y	Can't tell	Y	Can't tell	Y	Y	Y	Can't tell

Q7. Were measures undertaken to address and categorise non-responders?	N	N	Y	N	N	N	N	N
Q8. Were the risk factor and outcome variables measured appropriate to the aims of the study?	Y	Y	Y	Y	Y	Y	Y	Y
Q9. Were the risk factor and outcome variables measured correctly using instruments that had been trialled previously?	Y	Y	Y	N	Y	Y	Y	Y
Q10. Is it clear what was used to determine statistical significance and/or precision estimates?	Y	Y	Y	Y	Y	Y	Y	Y
Q11. Were the methods (including	Y	Y	Y	Y	Y	Y	Y	N

statistical) sufficiently described to enable them to be repeated?								
Q12. Were the basic data adequately described?	N	Y	Y	Y	Y	Y	Y	Y
Q13. Does the response rate raise concerns about non-responders?	N	Y	Y	Can't tell	Can't tell	Can't tell	Can't tell	Can't tell
Q14. If appropriate, was information about non-responders described?	N	N	Y	N	N	N	N	N
Q15. Were the results internally consistent?	Y	Y	Y	Y	Y	Y	Y	Y
Q16. Were the results presented for all the analyses described in the methods?	Y	Y	Y	Y	Y	Y	Y	Y
Q17. Were the authors' discussions and conclusions	Y	Y	Y	Y	Y	Y	Y	Y

justified by the results?								
Q18. Were the limitations of the study discussed?	Y	Y	Y	Y	Y	Y	Y	Y
Q19. Were there any funding sources or conflicts of interest?	N	N	Can't tell	N	N	N	N	N
Q20. Was ethical approval or consent of participants attained?	Y	Can't tell	Y	Y	Y	Y	Y	Y

CASP qualitative study checklist	**Gillard et al. (2022)**	**Mamdani et al. (2021)**
Q1. Was there a clear statement of the aims of the research?	Y	Y
Q2. Is a qualitative methodology appropriate?	Y	Y
Q3. Was the research design appropriate to address the aims of the research?	Y	Y
Q4. Was the recruitment strategy appropriate to the aims of the research?	Can't tell	Y
Q5. Was the data collected in a way that addressed the research issue?	Y	Y
Q6. Has the relationship between researcher and participants been adequately considered?	Can't tell	Can't tell
Q7. Have ethical issues been taken into consideration?	Y	Y
Q8. Was the data analysis sufficiently rigorous?	Y	Y
Q9. Is there a clear statement of findings?	Y	Y
Q10. How valuable is the research?	Y	Y

Paper 2: Empirical Paper

Staff self-relating as a predictor of compassion fatigue and compassion satisfaction, and the predictive influence of compassion fatigue and compassion satisfaction on ward climate in a secure hospital.

Word count: 7082 (excluding references and appendices)

Abstract

Background: Forensic inpatient mental health services care for individuals detained under mental health law. Staff face unique stressors, such as aggression and trauma exposure, affecting their well-being and job retention. Compassion fatigue and compassion satisfaction can significantly influence staff performance and service user outcomes. Understanding the relationships between self-criticism, self-reassurance, compassion fatigue, compassion satisfaction, and therapeutic ward climate is crucial for developing effective support strategies and enhancing staff wellbeing.

Aim: To examine whether self-criticism and self-reassurance predict compassion fatigue and compassion satisfaction. Also, to examine whether compassion fatigue and compassion satisfaction predict therapeutic ward climate.

Method: 51 forensic mental health professionals from a low and a medium secure unit in the UK completed measures assessing the study variables and a demographic questionnaire. Five multiple linear regressions were performed to analyse the data.

Results: Findings indicated “moderate” self-criticism and self-reassurance, “moderate” compassion fatigue, and “high” compassion satisfaction. High self-criticism predicted high compassion fatigue, and high compassion fatigue predicted lower levels of perceived ward safety.

Implications: Embedding compassionate interventions at individual and organisational levels may help reduce self-criticism and compassion fatigue, while improving perceived ward safety in forensic mental health settings. Further research is required to develop valid psychometrics for this population and evaluate effectiveness of interventions.

Introduction

Workplace-related stress has been the subject of extensive research over several decades, particularly within people-oriented professions, where its impact on job performance has been a key concern (Maslach & Leiter, 2016; Motowidlo et al., 1986). Attention to stress-related illness is also driven by significant political and economic factors (Clegg, 2001), especially within the National Health Service (NHS). Notably, mental ill health remains the most consistently reported reason for staff sickness absence in the NHS, with employees being two to three times more likely to take mental health-related leave compared to the UK workforce average (Blaaza et al., 2024).

Research has shown high occupational stress in forensic healthcare settings (Elliot & Daley, 2013; Kriakous et al., 2019). Forensic inpatient mental health services provide care to individuals that are detained under mental health law due to the risk that they pose to the public (Oates et al., 2021). In England, these services are categorised as either “low”, “medium”, or “high” secure hospitals. These services have a unique dynamic, as they must meet two often contrasting priorities—care and security (Webb et al., 2024).

Forensic mental health professionals (FMHPs) are likely to be exposed to aggressive behaviour (Pirelli et al., 2020), self-harming behaviours (Fazel et al., 2016), and the trauma histories of the people that they are supporting (Newman et al., 2019). They are highly restrictive workplace environments that are often lacking in resources and characterised by complex legal and ethical tensions (Bipeta, 2019; Oates et al., 2021). Unsurprisingly, these workplace experiences are associated with poorer physical and psychological outcomes for staff (Kelly et al., 2016), and poorer staff retention (Oates et al., 2021) both of which can impact negatively on service-user care, safety, and outcomes (Johnson et al., 2018).

Compassion fatigue

Compassion is defined as “a sensitivity to suffering in self and others with a commitment to try to alleviate and prevent it” (Gilbert, 2017). Compassion fatigue has been

described as “the cost of caring” (Beck, 2011; Figley, 1995) and can be thought of as a decrease in the ability to display compassion over time (Sorenson et al., 2016). Figley’s (1995) model of compassion fatigue is based on the assumption that emotional energy and empathy are essential to working effectively in care-giving professions. The model argues that compassion fatigue emerges as a result of sustained empathic engagement with client’s distress over time, without sufficient recovery, coping, or support mechanisms (Figley, 2002).

Figley (2002) described how compassion fatigue can negatively affect seven different areas; cognitive (e.g. poor concentration), emotional (e.g. anxiety, numbness), behavioural (e.g. irritability, withdrawal), spiritual (e.g. lack of purpose and self-belief), relationships (e.g. isolation, conflict), somatic (e.g. dizziness), and work performance (e.g. reduced motivation). Importantly, research has also indicated that compassion fatigue specifically impacts on a clinician’s ability to process emotional distress related to their work as caregivers, the ability to make appropriate clinical decisions, and the ability to establish and maintain therapeutic relationships with service users (Sinclair et al. 2017; Sorenson et al., 2017). A review of the literature showed that compassion fatigue is present across a diverse range of mental health professionals working across a variety of settings, but rates are variable (Cavanagh et al., 2020). Two recent studies (Chapman et al., 2024; Dolley-Lesciks et al., 2024) in UK medium secure hospitals found high rates of compassion fatigue and high rates of secondary traumatic stress amongst FMHPs.

Compassion satisfaction

In contrast to compassion fatigue, compassion satisfaction is defined as the “ability to receive gratification from caregiving” (Simon et al., 2005) and is conceptualised by Stamm’s (2005) Compassion Fatigue and Satisfaction Test as having the following identifying features: deriving pleasure from helping, liking colleagues, feeling good about ability to help, and actively contributing at work. Many people working in caring professions find multiple rewards in their work such as easing suffering in others, building relationships, and being inspired by others’ strength and resilience (Rohan & Bausch, 2009). Compassion

satisfaction is therefore understood as a motivator to enable people in caring roles to continue to commit to their profession, as well as mitigating more negative aspects of their work (Sacco & Copel, 2018; Van Hook & Rothenburg, 2009). However, there is a lack of research that has examined the prevalence of compassion satisfaction in mental health professionals. A meta-analysis that investigated compassion satisfaction in physical health services, mostly nurses, found moderate levels (Cavanagh et al., 2020). Studies of mental health workers have found low to moderate levels of compassion satisfaction in some professional groups (Dasan et al., 2015; Rossi et al., 2012).

Self-criticism

Gilbert's (2009) work on emotion regulation systems sets important context when looking at the role of self-criticism. According to Gilbert's (2009) 'Three Systems of Emotion Regulation' model, the three affect regulation systems (threat, drive, and soothe) interact to form different responses to situations. Importantly, the threat system is activated when individuals face potential threatening situations and emotions like anxiety and anger are generated, which serve a protective purpose against the potential threat— "fight, flight, freeze" responses (Gilbert, 2009).

Self-criticism is one defensive strategy that exists in response to an individual's threat system being activated (Gilbert et al., 2004). Self-criticism has been conceptualised and measured in different ways, but Gilbert (2005, 2010) defined it as judgement and attack directed towards the self. Early experiences of attachment figures being critical and hostile can lead to the overstimulation of the threat system, meaning that individuals can become over-sensitive to interpreting situations as threatening, and therefore more vulnerable to developing a self-critical thinking style (Cree, 2015). Gilbert et al. (2004) also argued that self-criticism has two functions: 1) feeling self is inadequate, so the function is to self-correct, and 2) feeling disgust and hatred towards self, so the function is to punish self.

Self-criticism is a vulnerability factor to a range of mental health difficulties and is associated with poorer quality of life and interpersonal functioning (Loew et al., 2020; Werner et al., 2019). In the literature, high self-criticism has been linked to burnout and psychological distress (Duarte & Pinto-Gouveia, 2017) and unhelpful coping strategies i.e. perfectionism and avoidance (Zaccari et al., 2024).

Ondrejkova and Halamova (2022) found that self-criticism was a strong predictor of compassion fatigue, with higher self-criticism predicting higher compassion fatigue. Further research demonstrated that people who believe that self-criticism is functional are more self-critical, more exhausted at work, and more fearful of self-compassion (Souza et al., 2024), suggesting a link between self-criticism and burnout.

Self-reassurance

In contrast to self-criticism, self-reassurance is “the ability to be soothing, encouraging, and supportive of oneself in the face of setbacks” (Gilbert et al., 2004). Relating to oneself in this way has been shown to predict increased resilience and psychological wellbeing when faced with vulnerability and threat (Irons et al., 2006; Trompetter et al., 2017), as well as being negatively correlated with depression in both clinical and non-clinical populations (Castilho et al., 2015; Kupeli et al., 2013). Growing evidence suggests that self-criticism and self-reassurance are not opposite ends of a single dimension and instead are distinct processes that interact with each other (Petrocchi et al., 2019).

There is a lack of existing research examining the relationship between self-reassurance, compassion fatigue, and compassion satisfaction. However, the definition of self-reassurance has substantial overlap with the definition of self-compassion (Hermanto & Zuroff, 2016). Research has shown that self-compassion is a predictor of compassion satisfaction, with higher levels of self-compassion predicting higher levels of compassion satisfaction (Galiana et al., 2022; Kishimoto & Asano, 2024).

Therapeutic ward climate

Ward climate has been the focus of research for decades and is understood as the complex interaction between material, social, and emotional factors that form any given ward environment (Moos, 1989; Tonkin, 2016). Schalast et al. (2008) conceptualised a therapeutic ward climate as one that has supports therapy and rehabilitation ('therapeutic hold'), has physical and psychological safety ('perceived ward safety'), and mutual support ('patient cohesion'). Research has found that a positive ward climate can positively influence therapeutic outcomes (Moos et al., 1973), patient satisfaction (Bressington et al., 2011), treatment engagement (Long et al., 2011), and staff wellbeing, occupational stress, performance, morale, and job satisfaction (Bressington et al., 2011; Kirby & Pollock, 1995; Moos & Schafer, 1987).

How staff perceive ward climate is likely to be impacted by a range of individual and systemic factors. Research has shown that aspects of the ward environment (such as high workload, poor perceived managerial support, and inadequate resources) were related to higher compassion fatigue in nurses (Montgomery et al., 2022). Additionally, Dolley-Lesciks et al. (2024) found a significant positive association between compassion satisfaction and ward climate in a medium secure hospital setting in England. Nevertheless, there is a paucity of research examining the impact of compassion satisfaction and compassion fatigue on therapeutic ward climate in forensic mental health settings.

The current study

To the author's knowledge, this is the first study to explore the links between self-criticism, self-reassurance, compassion fatigue, compassion satisfaction, and perceptions of the therapeutic ward climate. It draws on theoretical models from Compassion Focused Therapy (Gilbert, 2009) and Figley's (1995) model of compassion stress (represented in Figure 2).

Gilbert (2014) proposed that humans are driven by multiple motivational systems, one of which is a care-giving motivation, that drives us to provide care, protection, and reassurance to vulnerable others. When this motivation is blocked, threat-based emotions (e.g. shame, fear) may be activated (Gilbert, 2014). The concept of 'moral distress' captures this process—arising when caring professionals are unable to act in accordance with their values, leading to psychological distress (Webb et al., 2024).

Within Gilbert's (2009) framework, self-criticism is associated with activation of the threat system, leading to increased shame, self-judgement, and emotional dysregulation. In contrast, self-reassurance engages the soothing system and reflects the ability to respond to personal setbacks with understanding and care. In the context of forensic mental health services, where staff are routinely exposed to high levels of emotional demand, interpersonal risk, and traumatic material (Fazel et al., 2016; Newman et al., 2019; Pirelli et al., 2020) such self-relating styles may significantly influence how individuals process and recover from their work. As previously highlighted, there are likely predisposing factors (e.g. early attachment experiences) that determine whether an individual is more likely to be self-critical or self-reassuring in response to perceived failure (Cree, 2015).

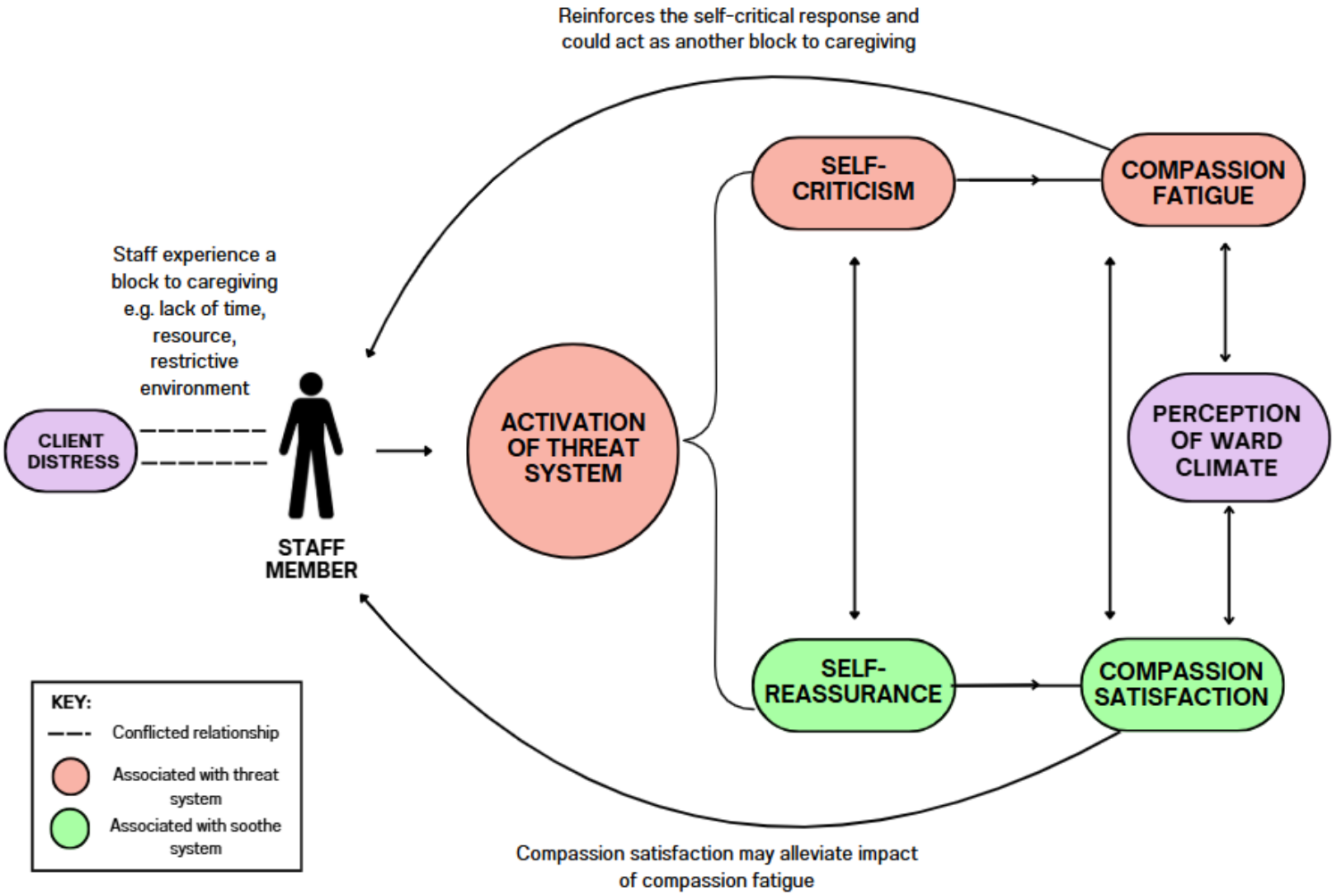
The current study proposes that higher levels of self-criticism may increase vulnerability to compassion fatigue, while greater self-reassurance may support the experience of compassion satisfaction. These outcomes are not only relevant at an individual level but may also shape the broader social and emotional climate of the ward. Perceptions of ward climate is shaped, in part, by staff wellbeing (van der Helm et al., 2012). Staff experiencing compassion fatigue may perceive the environment as more threatening or emotionally toxic, while those with higher compassion satisfaction may contribute to or perceive a more supportive and collaborative atmosphere.

This study therefore offers a novel perspective by exploring how self-criticism and self-reassurance may relate to compassion fatigue and compassion satisfaction and, in turn,

to perceived ward climate. In doing so, it sheds light on the intrapersonal factors that may underpin staff wellbeing and therapeutic safety in forensic mental health settings.

Figure 2.

Proposed theoretical concept map.



Research question

[1] Does staff self-criticism and self-reassurance predict compassion fatigue and compassion satisfaction?

[2] Does compassion fatigue and compassion satisfaction predict therapeutic ward climate?

Hypotheses

H1: Higher levels of staff self-criticism and lower levels of self-reassurance will predict higher levels of compassion fatigue.

H2: Higher levels of staff self-criticism and lower levels of self-reassurance will predict lower levels of compassion satisfaction.

H3: Higher levels of compassion fatigue and lower levels of compassion satisfaction will predict lower levels of patient cohesion.

H4: Higher levels of compassion fatigue and lower levels of compassion satisfaction will predict lower levels of perceived ward safety.

H5: Higher levels of compassion fatigue and lower levels of compassion satisfaction will predict lower levels of therapeutic hold.

Methods

Procedure

Staffordshire University Independent Ethics Committee (Registration Number: SU_23_058) and the Health Research Authority (Project ID: 334575) granted ethical approval (Appendix B and C). The study used opportunistic sampling and a cross-sectional design. Recruitment occurred between 13th June 2024 and 14th February 2025. Once ethical approval was granted, the study was advertised via an email that was circulated to all staff, which contained the participant information form and a link to the online survey (Qualtrics). Research posters were also displayed on-site (Appendix D). Participants had the option of completing the questionnaires online or by returning paper copies to the lead researcher when they were present on-site to support recruitment. 23 participants completed the online survey and 28 completed paper questionnaires.

Participants

A total of 51 FMHPs from a male low-secure unit and a male medium-secure unit in the United Kingdom participated in the study. To be eligible, FMHPs needed to have worked at one of the participating sites on a full-time basis (37.5 hours p/w) for a minimum of 6 months or on a part-time basis (minimum 18 hours p/w) for a minimum of 12 months. They also had to be in a direct clinical role (e.g. healthcare assistants, nurses, occupational therapists) and able to read and understand English. Staff that were employed on a temporary basis (e.g. student nurses) or in an indirect clinical role (e.g. admin, domestic and estates staff) were not eligible.

The average age of the sample was 37.36 years old (SD= 12.02, range= 20-65). There were a variety of professional groups represented within the sample. The most common profession was nurses. White British was the most reported ethnicity. See Table 1 for participant characteristics.

Table 1

Sample characteristics (N = 51).

Demographic Characteristic	N	M (SD) Range
Age (years)		37.36 (12.02) 20-65
Gender		
Female	35	
Male	15	
Occupation		
Nurse	10	
HCA	10	
Assistant Psychologist	5	
OT Assistant	5	
Psychologist	5	
OT	5	
Other	10	
Ethnicity		
White British	35	
Asian/Asian British Indian	10	
Asian/Asian British Pakistani	5	
Black/Black British African	5	

Measures

Demographic questionnaire

The demographic questionnaire was comprised of questions that asked participants' gender, age, job role, and ethnicity (Appendix G).

Self-criticism and self-reassurance

The Forms of Self-Criticising/Attacking & Self-Reassuring Scale (FSCRS; Gilbert et al., 2004) is a 22-item scale that measures self-criticism and the ability to self-reassure (Appendix H). The measure examines the different ways people think and feel about themselves when faced with setbacks. The measure captures two forms of self-criticism, namely 'inadequate self' (self-criticising) which describes a sense of personal inadequacy (e.g. "There is a part of me that feels I am not good enough"), and 'hated self' (self-attacking) which describes wanting to persecute the self (e.g. "I call myself names"). The measure also captures self-reassurance 'reassured self' (e.g. "I am gentle and supportive with myself"). Each of these constructs form a subscale, so the questionnaire has three subscale scores: (1) self-criticism (max. score of 45); (2) self-attacking (max. score of 25); and (3) self-reassurance (max. score of 40). Higher scores indicate higher levels of the construct, and lower scores indicate lower levels i.e. higher scores on the 'inadequate self' subscale suggest the presence of high levels of self-criticism.

Responses are given on a 5-point Likert scale (ranging from 0= "not at all like me", to 4= "extremely like me"). In the original study (Gilbert et al., 2004), Cronbach's alpha was .90 for 'inadequate self' and .86 for 'hated self' and 'reassured self', respectively, indicating good internal consistency. In a later study examining the psychometric properties and normative data of the scale in both clinical and non-clinical populations, the scale was shown to be a robust and reliable measure of self-criticism and self-reassurance (Baião et al., 2015).

Compassion fatigue and compassion satisfaction

Compassion fatigue and compassion satisfaction were measured using the ProQOL-21 which is a revised version of the Professional Quality of Life Scale Version 5 and includes questions such as: "I feel bogged down by the system" and "I am happy that I chose to do this work" (ProQOL-5; Stamm, 2010). This 21-item measure has demonstrated good validity and reliability (Appendix H). Heritage et al. (2018) examined the reliability of the scale and

found good internal consistency with Cronbach's alpha of .90 for 'compassion satisfaction', .84 for 'secondary traumatic stress', and .80 for 'burnout'. In the revised version, the 'secondary traumatic stress' and 'burnout' subscales were combined to form a robust measurement of compassion fatigue. The questionnaire has two subscale scores, one for compassion fatigue (max. score of 55) and one for compassion satisfaction (max. score of 50), with high scores indicating higher levels of the construct. Responses are given on a 5-point Likert scale (ranging from 1= "never", to 5= "very often").

Heritage et al. (2018) provided normative data for the ProQO-21 scale. For compassion fatigue a score of 16 or less falls in the "low" category (25th percentile), a score between 17-24 falls in the "moderate" category (50th percentile), and a score of 25 or more falls in the "high category" (75th percentile). For compassion satisfaction, a score of 21 or less falls in the "low" category (25th percentile), a score between 22-29 falls in the "moderate" category (50th percentile), and a score of 30 or more falls in the "high category" (75th percentile).

Therapeutic ward environment

The Essen Climate Evaluation Schema (EssenCES; Schalast et al., 2008) is a 15-item scale that was developed as a screening tool to measure ward climate on forensic psychiatric wards (Appendix H). The scale measures three components: 'therapeutic hold' (e.g. "On this ward, patients can talk openly to staff about all their problems"), 'patient cohesion' (e.g. "The patients care for each other") and 'perceived safety' (e.g. "Really threatening situations can occur here"), each comprising of five items measured on a 5-point Likert Scale (ranging from 0= "not at all", to 4= "very much "). Each of these constructs form a subscale, so the questionnaire has three subscale scores— (1) therapeutic hold; (2) patient cohesion and social support; and (3) experienced safety (each with a maximum score of 20). These subscales can be combined to give a total score that reflects the overall ward climate. Higher scores indicate a more positive ward climate (with a maximum score of 60).

In the original study (Schlast et al., 2008) Cronbach's alpha in the total sample of staff and patients was .86 for 'therapeutic hold', .79 for 'perceived safety', and .78 for 'patient cohesion'. This would suggest good internal consistency of the scale. More recent research in UK secure forensic hospitals has demonstrated strong reliability and validity of the measure (Howells et al., 2009; Tonkin et al., 2012).

Power analysis

A power calculation was used to determine the sample size for a multiple regression analysis using G*Power (Faul et al., 2009). This was based on two predictor variables and one criterion variable, a medium effect size (0.15), and statistical power at the conventional level of 0.8. As a result, 67 participants were required.

Data analysis

IBM SPSS Statistics (Version 29) was used to conduct the statistical analysis. The online responses were transferred across from Qualtrics to SPSS, and the paper responses were entered manually.

Data screening

When data was transferred to SPSS, the data was screened to check for anything that may impact the validity of the analysis. For the online responses, Qualtrics recorded the time taken to complete the questionnaire. Therefore, this variable was examined to check for any unreasonably fast responses. Time taken to complete the questionnaire were all within the expected time frame. Secondly, Qualtrics recorded IP addresses. Any duplicate IP addresses were checked to ensure that they were not duplicate responses.

Of the 51 participants, seven (13.73%) had missing data. Overall, data was missing from 30 individual data points (0.98% of the total dataset). One participant had not completed the ProQOL-21, meaning that 35% of their total data was missing. The remaining missing data was across six participants, missing one or two data points. The missing data

was present across all three measures. To investigate patterns in the missing data, Little's MCAR test (Little, 1988) was used (Appendix I). The results of this test were non-significant (Chi-Square = 330.33, *DF* = 390, *p* = 9.87) which indicated that the data was Missing Completely at Random (MCAR). Multiple imputation is considered the gold-standard method for missing data, however, as the missing data in this study was minimal (0.98%) and is Missing Completely at Random, single mean imputation was considered appropriate (Papageorgiou et al., 2018). For comparison, the analysis was conducted on the dataset excluding participants with missing data (*n* = 44). The analysis results were similar for both methods of handling missing data (Appendix K).

Statistical assumptions

Data checks were conducted to check if the data significantly violated the assumptions for a multiple regression—absence of outliers, normality, linearity, homoscedasticity and absence of multicollinearity, and independence of residuals (Field, 2017) (Appendix I). Due to the small sample size, the Shapiro-Wilk test was used to statistically check for normal distribution of the data (Ghasemi & Zahediasl, 2012). The data met the assumptions, suggesting that the data was normally distributed. The kurtosis value for the predictor 'compassion satisfaction' was > 1 (1.02), which could suggest that the data was not normally distributed. However, absolute z scores were calculated (which are sensitive to sample size) and were not significant for a sample size of 51 (*z* = 1.56) therefore suggesting that the data was normally distributed (Kim, 2013).

Method of analysis

Correlations between the study variables were assessed as part of the regression. Five multiple linear regressions were carried out to test each of the hypotheses, each with two predictors and one criterion variable.

Results

In the sample, compassion fatigue (*M* = 24.41, *SD* = 6.42, 11-37) was “moderate” and compassion satisfaction (*M* = 38.41, *SD* = 6.03, 19-49) was “high”.

Based on normative data for non-clinical populations (Baião et al., 2015), self-criticism fell within the 25-50 percentile (*M* = 15.94, *SD* = 6.78, 0-29) and self-reassurance fell within the 50-75 percentile (*M* = 20.12, *SD* = 5.45, 8-29). The self-attacking subscale is not included as a predictor in the regression analysis but fell within the 50-75 percentile (*M* = 2.80, *SD* = 3.09, 0-13).

The overall scores for ward climate (*M* = 31.80, *SD* = 6.75, 16-49), patient cohesion (*M* = 9.20, *SD* = 2.71, 3-14), perceived safety (*M* = 9.94, *SD* = 3.83, 1-19), and therapeutic hold (*M* = 12.67, *SD* = 3.24, 3-20) were similar to normative data from staff working in UK high secure hospitals (Howells et al., 2009) (Appendix L).

Self-criticism, self-reassurance, and compassion fatigue

The first regression analysis explored the relationship between self-criticism and self-reassurance, and compassion fatigue and tested hypothesis one.

Correlations

The correlations between the study variables are presented in Table 2.

A significant moderate positive correlation was found between self-criticism and compassion fatigue, with higher self-criticism associated with higher levels of compassion fatigue ($r = .47$, $p < .001$). A significant moderate negative correlation was found between self-criticism and self-reassurance, with higher self-criticism associated with lower self-reassurance ($r = -.36$, $p = .005$). As previously noted, checks for multicollinearity were carried out (including examining VIF scores), self-criticism and self-reassurance were correlated but not highly enough to compromise the validity of the regression model. There

was a weak negative correlation between self-reassurance and compassion fatigue (r = -.016, p = .455) (Appendix L).

Table 2

Pearson's r correlations for the model variables (N = 51)

Variable	1	2	3
1. Compassion fatigue	-		
2. Self-criticism	.468***	-	
3. Self-reassurance	-.016	-.362**	-

Note. *p < .05; **p < .01; ***p < .001.

Multiple regression analysis

A multiple regression analysis was conducted with self-criticism and self-reassurance as predictor variables, and compassion fatigue as the criterion variable. Both predictors were entered into the model at the same time.

The regression model was significant (F (2,48) = 7.83, p < .001) and accounted for 21.5% of the variance (adjusted R^2 = .215). The hypothesis was partially met, as self-criticism was a significant predictor of compassion fatigue (β = .532, t = 3.96, p < .001), so as self-criticism scores increased, compassion fatigue scores increased. However, self-reassurance was not a significant predictor of compassion fatigue (β = .176, t = 1.31, p = .197) (Appendix L).

Table 3

Multiple regression model for self-criticism and self-reassurance as predictors of compassion fatigue (N = 51).

	B	SE B	β	Sig.	95% CI	
					Lower	Upper
Constant	12.21	4.42		.008	3.32	21.11
Self-criticism	0.50	0.13	0.53	< .001	0.25	0.76
Self-reassurance	0.21	0.16	0.18	.197	-0.11	0.53

Note. R^2 = 24.6%; Adjusted R^2 = 21.5%. Unstandardised coefficient, standard error, standardised coefficient, significance values and confidence intervals are presented.

Self-criticism, self-reassurance, and compassion satisfaction

The second regression analysis explored the relationship between self-criticism and self-reassurance, and compassion satisfaction and tested hypothesis two.

Correlations

The correlations between the study variables are presented in Table 4. A significant moderate negative correlation was found between self-criticism and compassion satisfaction, with higher self-criticism associated with lower levels of compassion satisfaction (r = -.34, p = .008). A significant moderate positive correlation was found between self-reassurance and compassion satisfaction, with higher self-reassurance associated with higher levels of compassion satisfaction (r = .34, p = .008) (Appendix L).

Table 4

Pearson's r correlations for the model variables (N = 51)

Variable	1	2	3
1. Compassion satisfaction	-		
2. Self-criticism	-.335**	-	
3. Self-reassurance	.339**	-.362**	-

Note. *p < .05; **p < .01; ***p < .001.

Multiple regression analysis

A multiple regression analysis was conducted with self-criticism and self-reassurance as predictor variables, and compassion satisfaction as the criterion variable. Both predictors were entered into the model at the same time.

The regression model was significant (F (2,48) = 4.80, p = .013) and accounted for 13.2% of the variance (adjusted R^2 = .132). Despite the model being significant, neither self-criticism (β = -.245, t = -1.73, p = .090) or self-reassurance (β = .250, t = 1.77, p = .083) were significant predictors of compassion fatigue. Therefore, the hypothesis was not met (Appendix L).

Table 5

Multiple regression model for self-criticism and self-reassurance as predictors of compassion satisfaction (N = 51).

	B	SE B	β	Sig.	95% CI	
					Lower	Upper
Constant	36.32	4.37		< .001	27.54	45.09
Self-criticism	-.22	0.13	-0.24	.090	-0.47	0.04
Self-reassurance	0.28	0.16	0.25	.083	-0.04	0.60

Note. R^2 = 16.7%; Adjusted R^2 = 13.2%. Unstandardised coefficient, standard error, standardised coefficient, significance values and confidence intervals are presented.

Compassion fatigue, compassion satisfaction, and patient cohesion

The third regression analysis explored the relationship between compassion fatigue, compassion satisfaction, and patient cohesion and tested hypothesis three.

Correlations

The correlations between the study variables are presented in Table 6. A weak negative correlation was found between compassion fatigue and patient cohesion, with higher compassion fatigue associated with lower patient cohesion (r = -.01, p = .471). A weak positive correlation was found between compassion satisfaction and patient cohesion, with higher compassion satisfaction associated with higher patient cohesion (r = .17, p = .115). A significant weak negative correlation was found between compassion fatigue and

compassion satisfaction, with higher compassion fatigue associated with lower compassion satisfaction (r = -.28, p =.022) (Appendix L).

Table 6

Pearson's r correlations for the model variables (N = 51)

Variable	1	2	3
1. Patient cohesion	-		
2. Compassion fatigue	-.010	-	
3. Compassion satisfaction	.171	-.283*	-

Note. *p < .05; **p < .01; ***p < .001.

Multiple regression analysis

A multiple regression analysis was conducted with compassion satisfaction and compassion satisfaction as predictor variables, and patient cohesion as the criterion variable. Both predictors were entered into the model at the same time.

The regression model was not significant (F (2,48) = .76, p = .47) and accounted for -1% of the variance (adjusted R^2 = -.01). Therefore, the hypothesis was not met (Appendix L).

Table 7

Multiple regression model for compassion fatigue and compassion satisfaction as predictors of patient cohesion (N = 51).

	B	SE B	β	Sig.	95% CI	
					Lower	Upper
Constant	5.61	3.36		.101	-1.14	12.36
Compassion fatigue	0.02	0.06	0.04	.782	-0.11	0.14
Compassion satisfaction	0.08	0.07	0.18	.223	0.22	0.22

Note. R^2 = 3.1%; Adjusted R^2 = -1%. Unstandardised coefficient, standard error, standardised coefficient, significance values and confidence intervals are presented.

Compassion fatigue, compassion satisfaction, and perceived safety

The fourth regression analysis explored the relationship between compassion fatigue, compassion satisfaction, and perceived safety and tested hypothesis four.

Correlations

The correlations between the study variables are presented in Table 8. A significant moderate negative correlation was found between compassion fatigue and perceived safety, with higher compassion fatigue associated with lower perceived safety (r = -.35, p = .007). A weak negative correlation was found between compassion satisfaction and perceived safety, with higher compassion satisfaction associated with lower perceived safety (r = -.06, p = .328) (Appendix L).

Table 8

Pearson's r correlations for the model variables (N = 51)

Variable	1	2	3
1. Perceived safety	-		
2. Compassion fatigue	-.345**	-	
3. Compassion satisfaction	-.064	-.283*	-

Note. *p < .05; **p < .01; ***p < .001.

Multiple regression analysis

A multiple regression analysis was conducted with compassion fatigue and compassion satisfaction as predictor variables, and perceived safety as the criterion variable. Both predictors were entered into the model at the same time.

The regression model was significant (F (2,48) = 4.15, p = .022) and accounted for 11.2% of the variance (adjusted R^2 = .112). The hypothesis was partially met, as compassion fatigue was a significant predictor of perceived safety (β = -.40, t = -2.84, p = .007), so as compassion fatigue scores increase, perceived safety scores decrease. However, compassion satisfaction was not a significant predictor of perceived safety (β = -.18, t = -1.26, p = .213) (Appendix L).

Table 9

Multiple regression model for compassion fatigue and compassion satisfaction as predictors of perceived safety (N = 51).

	B	SE B	β	Sig.	95% CI	
					Lower	Upper
Constant	19.98	4.45		< .001	11.04	28.92
Compassion fatigue	-0.24	0.08	-0.40	.007	-0.40	-0.70
Compassion satisfaction	-0.11	0.09	-0.18	.213	-0.29	0.67

Note. R^2 = 14.7%; Adjusted R^2 = 11.2%. Unstandardised coefficient, standard error, standardised coefficient, significance values and confidence intervals are presented.

Compassion fatigue, compassion satisfaction, and therapeutic hold

The fifth regression analysis explored the relationship between compassion fatigue, compassion satisfaction, and therapeutic hold and tested hypothesis five.

Correlations

The correlations between the study variables are presented in Table 10. A significant weak negative correlation was found between compassion fatigue and therapeutic hold, with higher compassion fatigue associated with lower therapeutic hold (r = -.24, p = .045). A weak positive correlation was found between compassion satisfaction and therapeutic hold, with higher compassion satisfaction associated with higher therapeutic hold (r = .13, p = .182) (Appendix L).

Table 10

Pearson's r correlations for the model variables (N = 51)

Variable	1	2	3
1. Therapeutic hold	-		
2. Compassion fatigue	-.239*	-	
3. Compassion satisfaction	.130	-.283*	-

Note. *$p < .05$; **$p < .01$; ***$p < .001$.

Multiple regression analysis

A multiple regression analysis was conducted with compassion fatigue and compassion satisfaction as predictor variables, and therapeutic hold as the criterion variable. Both predictors were entered into the model at the same time.

The regression model was not significant (F (2,48) = 1.57, p = .218) and accounted for 2.2% of the variance (adjusted R^2 = .022). Therefore, the hypothesis was not met (Appendix L).

Table 11

Multiple regression model for compassion fatigue and compassion satisfaction as predictors of therapeutic hold (N = 51).

	B	SE B	β	Sig.	95% CI	
					Lower	Upper
Constant	14.00	3.95		< .001	6.05	21.91
Compassion fatigue	-0.11	0.07	-0.22	.782	-0.26	0.04
Compassion satisfaction	0.04	0.08	0.07	.223	0.12	0.19

Note. R^2 = 6.1%; Adjusted R^2 = 2.2%. Unstandardised coefficient, standard error, standardised coefficient, significance values and confidence intervals are presented.

Discussion

Compassion fatigue and compassion satisfaction

FMHPs scored in the “moderate” range for compassion fatigue which is lower than findings from two studies in medium secure hospitals in the UK which reported high levels of compassion fatigue (Chapman et al., 2024; Dolley-Lesciks et al., 2024). This discrepancy may reflect limitations in how compassion fatigue is currently measured, rather than indicating a true difference in experience. There is substantial evidence highlighting the emotional toll of working in forensic settings (Kelly et al., 2016), suggesting that compassion fatigue may be under-detected in this context. Bride et al. (2007) cautioned that compassion fatigue measures, including the ProQoL, should be used only as broad screening measures, as they do not assess all the facets of compassion fatigue. This reflects a wider issue with the measurement of compassion fatigue and compassion satisfaction, with a significant lack of validation studies demonstrating evidence of construct and convergent validity (Hotchkiss & Wong, 2024). To the author’s knowledge, there are no existing compassion fatigue and compassion satisfaction measures that have been validated for FMHPs.

Interestingly, despite the reporting “moderate” levels of compassion fatigue, FMHPs scored in the “high” range for compassion satisfaction, indicating that they are still motivated, caring, and deriving fulfilment from their work. This raises the possibility that certain moderating factors may help buffer the negative effects of compassion fatigue. Elements such as a positive organisational culture, inclusive leadership, access to clinical supervision and reflective practice, and personal self-care strategies have been identified as protective factors in previous research (Marshman et al., 2022). Designing interventions that are strengths-based and actively explore protective factors within the FMHP workforce may help to enhance these supports, promoting staff wellbeing and fostering more therapeutic, effective care.

Self-criticism, self-reassurance, and self-attacking

FMHPs scored in the “moderate” range for self-criticism, self-reassurance, and self-attacking. A significant correlation was found between self-criticism and self-reassurance, indicating that as self-criticism increases, self-reassurance decreases. Current evidence suggests that self-criticism and self-reassurance are independent processes with complex reciprocal dynamics (Petrocchi et al., 2019). This could explain why staff scored in the “moderate” range for both self-criticism and self-reassurance, as the presence of one does not necessarily indicate the absence of the other. This finding offers important insights for the development of interventions for FMHPs. It suggests that interventions should not assume that increasing self-reassurance will indirectly reduce self-criticism. Instead, they must explicitly focus on both reducing self-criticism and enhancing self-reassurance to be effective.

Self-criticism, self-reassurance and compassion fatigue

Self-criticism emerged as the only significant predictor of compassion fatigue. This finding aligns with Ondrejkova and Halamova (2022) who also found that self-criticism was a significant predictor of compassion fatigue.

Interventions aimed at enhancing self-compassion have been shown to reduce self-criticism (Wakelin et al., 2020), potentially mitigating the effects of compassion fatigue. Self-compassion encompasses three components: being kind to oneself rather than critical, recognising one’s troubles as part of common humanity, and being mindful of one’s distress (Neff, 2003). Several theoretical models have developed effective interventions for reducing self-criticism, including Cognitive Therapy, Emotion Focused Therapy, and Compassion Focused Therapy (Pekin & Gume, 2025). There is a wealth of evidence demonstrating the effectiveness of Compassion Focused Therapy (CFT) interventions in reducing self-criticism and increasing self-compassion in non-clinical populations, including short-term and online-based interventions (Beaumont et al., 2016; Halamova et al., 2018; Ondrejkova et al., 2022).

For such interventions to succeed in forensic inpatient settings, they must be adaptable and time-efficient; otherwise, they risk poor uptake due to high workloads and low staff retention (Oates et al., 2021). Applying the principles of CFT at an organisational level through compassionate leadership could help foster a caring and supportive workplace culture, ultimately contributing to safer and more effective care (West & Chowla, 2017).

In this study, self-reassurance did not significantly predict compassion fatigue. This contrasts with findings that suggest that self-reassurance protects against the effects of self-criticism (Petrocchi et al., 2018) and is the primary mechanism in CFT in improving anxiety and wellbeing outcomes (Sommers-Spijkerman et al., 2018).

Despite this, self-reassurance has been criticised for having a narrow definition (Hermanto & Zuroff, 2016) and may explain why no significant correlation or predictive relationship was found between self-reassurance and compassion fatigue. Self-compassion may have been more useful to investigate in relation to compassion fatigue, especially given the effectiveness of self-compassion interventions on reducing self-criticism.

Self-criticism, self-reassurance and compassion satisfaction

The regression model for self-criticism and self-reassurance as predictors of compassion satisfaction was significant but neither predictor was significant individually. Interestingly, self-criticism, a significant predictor of compassion fatigue, did not predict compassion satisfaction. These differences highlight the complex interactions among these variables. This complexity suggests potential mediating relationships, making it difficult to establish causation and would benefit from future research.

Compassion fatigue, compassion satisfaction and ward environment

Total scores for ward climate, as well as for the three individual domains of ‘patient cohesion’, ‘perceived safety’, and ‘therapeutic hold’, were comparable to normative data obtained from FMHPs working in UK high secure hospitals (Howells et al., 2009).

Compassion fatigue was the only significant predictor of perceived safety, with higher levels of compassion fatigue predicting lower perceived safety. This finding aligns with established knowledge regarding the negative impacts of compassion fatigue—such as impaired sleep, reduced concentration, and decreased motivation—which can affect FMHPs confidence in their ability to perform their roles safely, while also contributing to heightened hypervigilance to potential threats (Sinclair et al., 2017; Sorenson et al., 2017). Staff hypervigilance could lead to increased use of restrictive practices (Kouzoupi, 2023). Previous research has documented the impact of burnout on nurses' perceptions of workplace safety, linking increased burnout to reduced adherence to safe practices on the ward (e.g., underreporting incidents), ultimately affecting service user safety and well-being (Halbesleben et al., 2008; Vogus et al., 2020). This suggests an actual impact on ward safety rather than just staff perceptions. Creating a safe and supportive workplace culture is challenging in forensic mental health settings but it should be a priority and considered a risk management strategy (Furness et al., 2024).

Interestingly, compassion satisfaction was not a significant predictor of perceived ward safety in this study. There is a lack of research examining the relationship between compassion satisfaction and perceived or actual ward safety. One study showed that compassion satisfaction had partial mediating effects on the relationship between patient safety activities and burnout (Ryu & Shim, 2021), but further investigation is needed to clarify any potential relationship.

Neither of the two regression models with patient cohesion and therapeutic hold as criterion variables were significant. However, a significant correlation was found with higher compassion fatigue associated with lower therapeutic hold. Under work pressure, staff may prioritise safety and security over therapeutic intervention, highlighting the ongoing challenge of balancing security and therapeutic care in forensic mental health settings (Webb et al., 2024).

It may be that there are other factors that are more influential on therapeutic ward environment in forensic mental health settings than compassion fatigue and compassion satisfaction, such as increased incidents of violence and aggression (Pirelli et al., 2020), workplace trauma (Singh et al., 2020), high workload and inadequate resources (Montgomery et al., 2022). This could explain the absence of significant regression results and explain more of the variance.

Limitations

The current study has limitations that should be considered when interpreting the findings. Importantly, it should be acknowledged that the sample size is relatively small (*N* = 51) and means that the study is underpowered. The regression models showed relatively weak results, with the strongest model accounting for 21.5% of the variance. This suggests that other variables not included in the models may better predict the criterion variable. Nevertheless, an *R*-squared value between 0.10 - 0.50 is generally accepted when the model is statistically significant (Karch, 2020). The organisational factors that influence compassion fatigue and compassion satisfaction are well-documented (Singh et al., 2020; Montgomery et al., 2022; Chen et al., 2024) and could have accounted for more variance if included in the regression models, particularly given the unique stressors present in forensic mental health settings (Oates et al., 2021). Furthermore, individual factors such as age, sex, ethnicity, and length of time in a job role may have influenced compassion fatigue and compassion satisfaction, although current research findings present mixed results (Lee et al., 2015; Oktay & Ozturk, 2022; Chapman et al., 2024). These individual variables could also account for additional variance in the regression models.

Despite efforts to make the recruitment strategy as flexible as possible to minimise potential barriers, several challenges emerged that may have impacted the external validity of the results. Firstly, staff let the researcher know that they had completed multiple staff surveys in the last few months, and they felt despondent as to whether their participation would make any real difference. This was something that the researcher did not anticipate and may partially explain the small sample size. This highlights the importance of co-production in research—had the recruitment strategy been co-created with staff, then more consideration might have been given to how the value and potential impact of the study were communicated, as well as how findings would be shared and acted upon.

Another barrier was the lack of private space for staff to access a computer to complete the survey online. As a result, many completed paper versions on the ward in the presence of the researcher. This may have influenced the quality of responses, as participants could have felt rushed or less able to answer honestly. Additionally, staff with the heaviest workloads were often unable to find time to participate and are therefore underrepresented in the sample. This reflects a broader issue—the study could only include staff who were currently at work. Those experiencing the highest levels of compassion fatigue may have been off sick or have left the organisation altogether, meaning their experiences were not captured. Future research should consider extending recruitment to include staff on leave or those who have recently left the organisation.

Finally, as previously mentioned in this paper, forensic mental health hospitals are workplaces that have unique and complex dynamics, including legal and ethical tensions (Bipeta, 2019; Oates et al., 2021; Webb et al., 2024). The EssenCES (Schalast et al., 2008) is the only measure that is validated in this specific context. There have been multiple papers using a concept analysis methodology to understand compassion fatigue and burnout in different occupational contexts (Kim & Tak, 2025; Peters, 2018). Whilst there is overlap across the occupational contexts in these papers, there are also differences which illustrates the importance of measures like the ProQOL-21 being validated in diverse occupational contexts. Therefore, it is important to acknowledge that the ProQOL-21 may lack ecological validity in forensic mental health contexts.

Key recommendations for research and practice

Below are some key recommendations based on the findings of this paper for both future research and practice that warrant further consideration in forensic mental health settings.

1. Adaptation of self-compassion interventions for FMHPs

Reducing compassion fatigue in FMHPs should be seen as a proactive risk management strategy. Interventions aimed at enhancing self-compassion and reducing self-criticism could reduce compassion fatigue and indirectly improve ward safety, particularly if they are adapted to meet the unique demands of forensic settings. When adapting these interventions, a focus on strengths and values should be embedded to identify and enhance existing protective factors amongst FMHPs.

2. Importance of organisational culture

Fostering a compassionate organisational culture is essential for supporting FMHPs and ensuring more effective, safer care. CFT principles could be embedded into leadership, supervision and reflective practice to help reduce self-criticism and buffer against compassion fatigue, while promoting a psychologically safe workplace.

3. Evaluating interventions for FMHPs

There is a notable absence of research evaluating the effectiveness of well-being interventions specifically for FMHPs. Future studies are needed to address this gap and to support the development of evidence-based practice in this area.

4. Valid psychometric tools for forensic mental health settings

To evaluate interventions effectively, there is a clear need to develop a psychometrically robust measurement tool for assessing compassion fatigue and compassion satisfaction. Future research should explore the validation of existing instruments within forensic mental

health settings. Alternatively, developing a new tool— co-produced with FMHPs— could better capture the unique challenges and nuances of this complex working environment.

5. Mediation analyses

Future research would benefit from employing mediation analyses to further understand the complex relationships between self-criticism, self-reassurance, compassion fatigue and compassion satisfaction, and perceptions of the therapeutic ward climate. Understanding these pathways could help refine interventions for FMHPs and further contribute to our theoretical understanding of these variables.

Conclusion

This study provides a unique contribution to the area by examining the relationships between self-criticism, self-reassurance, compassion fatigue, compassion satisfaction, and therapeutic ward climate. The study begins to highlight the complex and intricate dynamics that affect staff well-being in these challenging environments.

Future research should focus on furthering understanding of both the individual and organisational factors that influence compassion fatigue and compassion satisfaction in this workforce. Furthermore, the development, evaluation, and implementation of organisational interventions designed to support FMHPs are crucial. By prioritising the creation of a healthy, resilient, and compassionate workforce, we can ultimately enhance the quality of care delivered to service users, fostering a more positive and effective therapeutic environment.

References

Alkema, K., Linton, J. M., & Davies, R. (2008). A Study of the Relationship Between Self-Care, Compassion Satisfaction, Compassion Fatigue, and Burnout Among Hospice Professionals. *Journal of Social Work in End-Of-Life & Palliative Care*, *4*(2), 101–119. https://doi.org/10.1080/15524250802353934

Baião, R., Gilbert, P., McEwan, K., & Carvalho, S. (2015). Forms of Self-Criticising/Attacking & Self-Reassuring Scale: Psychometric properties and normative study. *Psychology and Psychotherapy*, *88*(4), 438–452. https://doi.org/10.1111/papt.12049

Barr, P. (2017). Compassion Fatigue and Compassion Satisfaction in Neonatal Intensive Care Unit Nurses: Relationships With Work Stress and Perceived Social Support. *Traumatology*, *23*(2), 214–222. https://doi.org/10.1037/trm0000115

Beaumont, E., Irons, C., Rayner, G., & Dagnall, N. (2016). Does Compassion-Focused Therapy Training for Health Care Educators and Providers Increase Self-Compassion and Reduce Self-Persecution and Self-Criticism? *The Journal of Continuing Education in the Health Professions*, *36*(1), 4–10. https://doi.org/10.1097/CEH.0000000000000023

Beck, C. T. (2011). Secondary Traumatic Stress in Nurses: A Systematic Review. *Archives of Psychiatric Nursing*, *25*(1), 1–10. https://doi.org/10.1016/j.apnu.2010.05.005

Bipeta, R. (2019). Legal and Ethical Aspects of Mental Health Care. *Indian Journal of Psychological Medicine*, *41*(2), 108–112. https://doi.org/10.4103/IJPSYM.IJPSYM_59_19

Blaaza, M., Shemtob, L., Asanati, K., & Majeed, A. (2024). A healing challenge: examining NHS staff sickness absence rates. *Journal of the Royal Society of Medicine*, *117*(2), 55–56. https://doi.org/10.1177/01410768231223779

Bressington, D., Stewart, B., Beer, D., & MacInnes, D. (2011). Levels of service user satisfaction in secure settings – A survey of the association between perceived social climate, perceived therapeutic relationship and satisfaction with forensic services. *International Journal of Nursing Studies*, *48*(11), 1349–1356. https://doi.org/10.1016/j.ijnurstu.2011.05.011

Castilho, P., Pinto-Gouveia, J., & Duarte, J. (2015). Evaluating the Multifactor Structure of the Long and Short Versions of the Self-Compassion Scale in a Clinical Sample: Factor Analysis of the Long and Short Self-Compassion Scale. *Journal of Clinical Psychology*, *71*(9), 856–870. https://doi.org/10.1002/jclp.22187

Chapman, K. J., Scott, H., & Rydon-Grange, M. (2024). Individual factors as predictors of secondary traumatic stress and burnout in forensic inpatient staff. *Journal of Psychiatric and Mental Health Nursing*, *31*(6), 1175–1186. https://doi.org/10.1111/jpm.13079

Chen, X., Li, J., Arber, A., Qiao, C., Wu, J., Sun, C., Han, X., Wang, D., Zhu, Z., & Zhou, H. (2024). The impact of the nursing work environment on compassion fatigue: The mediating role of general self-efficacy. *International Nursing Review*. https://doi.org/10.1111/inr.13044

Clegg, A. (2001). Occupational stress in nursing: a review of the literature. *Journal of Nursing Management*, *9*(2), 101–106. https://doi.org/10.1046/j.1365-2834.2001.00216.x

Cree M. (2015). *The compassionate mind approach to postnatal depression: Using compassion focused therapy to enhance mood confidence and bonding.* Robinson.

Cocker, F., & Joss, N. (2016). Compassion Fatigue among Healthcare, Emergency and Community Service Workers: A Systematic Review. *International Journal of Environmental Research and Public Health*, *13*(6), 618--. https://doi.org/10.3390/ijerph13060618

Dasan, S., Gohil, P., Cornelius, V., & Taylor, C. (2015). Prevalence, causes and consequences of compassion satisfaction and compassion fatigue in emergency care: a mixed-methods study of UK NHS Consultants. *Emergency Medicine Journal*, *32*(8), 588–594. https://doi.org/10.1136/emermed-2014-203671

De La Rosa, G. M., Webb-Murphy, J. A., Fesperman, S. F., & Johnston, S. L. (2018). Professional Quality of Life Normative Benchmarks. *Psychological Trauma*, *10*(2), 225–228. https://doi.org/10.1037/tra0000263

Dolley-Lesciks, O., Rose, J., Jones, C., & Long, C. (2024). Compassion Fatigue among Staff in a Medium Secure Psychiatric Setting: Individual and Environmental Factors. IntechOpen. https://doi.org/10.5772/intechopen.1003936

Duarte, J., & Pinto-Gouveia, J. (2017). The role of psychological factors in oncology nurses' burnout and compassion fatigue symptoms. *European Journal of Oncology Nursing*, *28*, 114–121. https://doi.org/10.1016/j.ejon.2017.04.002

Elliott, K. A., & Daley, D. (2013). Stress, coping, and psychological well-being among forensic health care professionals. *Legal and Criminological Psychology*, *18*(2), 187–204. https://doi.org/10.1111/j.2044-8333.2012.02045.x

Fazel, S., Hayes, A. J., Bartellas, K., Clerici, M., & Trestman, R. (2016). Mental health of prisoners: prevalence, adverse outcomes, and interventions. *The Lancet. Psychiatry*, *3*(9), 871–881. https://doi.org/10.1016/S2215-0366(16)30142-0

Faul, F., Erdfelder, E., Buchner, A., & Lang, A.-G. (2009). Statistical power analyses using GPower 3.1: Tests for correlation and regression analyses. *Behavior Research Methods*, *41*(4), 1149–1160. https://doi.org/10.3758/BRM.41.4.1149

Field, A. (2017). *Discovering statistics using IBM SPSS statistics* (5th ed.). SAGE Publications.

Figley, C. R. (1995). *Compassion fatigue: Coping with secondary traumatic stress disorder in those who treat the traumatized.* Brunner/Mazel.

Figley, C. R. (2002). *Treating Compassion Fatigue* (1st ed.). Routledge.

Furness, T., Bardoel, A., Djurkovic, N., Fullam, R., & Ogloff, J. R. P. (2024). Workplace culture for forensic mental health services: a mixed methods descriptive study. *BMC Health Services Research*, *24*(1), 1498–1499. https://doi.org/10.1186/s12913-024-11779-2

Galiana, L., Sansó, N., Muñoz-Martínez, I., Vidal-Blanco, G., Oliver, A., & Larkin, P. J. (2022). Palliative Care Professionals' Inner Life: Exploring the Mediating Role of Self-Compassion in the Prediction of Compassion Satisfaction, Compassion Fatigue, Burnout and Wellbeing. *Journal of Pain and Symptom Management*, *63*(1), 112–123. https://doi.org/10.1016/j.jpainsymman.2021.07.004

Gilbert, P. (2017). Compassion: Definitions and controversies. In *Compassion* (1st ed., pp. 3–15). Routledge.

Gilbert, P. (2014). The origins and nature of compassion focused therapy. *British Journal of Clinical Psychology*, *53*(1), 6–41. https://doi.org/10.1111/bjc.12043.

Gilbert, P. (2010). *Compassion focused therapy: distinctive features* (1st ed.). Routledge. https://doi.org/10.4324/9780203851197

Gilbert, P. (2009). *The compassionate mind: a new approach to life's challenges*. Robinson.

Gilbert, P. (2005). *Compassion: Conceptualisations, research and use in psychotherapy* (1st ed.). Routledge. https://doi.org/10.4324/9780203003459

Gilbert, P., Clarke, M., Hempel, S., Miles, J. N. V., & Irons, C. (2004). Criticizing and reassuring oneself: An exploration of forms, styles and reasons in female students. *British Journal of Clinical Psychology*, *43*(1), 31–50. https://doi.org/10.1348/014466504772812959

Halamová, J., Kanovský, M., Jurková, V., & Kupeli, N. (2018). Effect of a Short-Term Online Version of a Mindfulness-Based Intervention on Self-criticism and Self-compassion in a Nonclinical Sample. *Studia Psychologica*, *60*(4), 259–273. https://doi.org/10.21909/sp.2018.04.766

Halbesleben, J. R. B., & Rathert, C. (2008). Linking physician burnout and patient outcomes: Exploring the dyadic relationship between physicians and patients. *Health Care Management Review*, *33*(1), 29–39. https://doi.org/10.1097/01.HMR.0000304493.87898.72

Heritage, B., Rees, C. S., & Hegney, D. G. (2018). The ProQOL-21: A revised version of the Professional Quality of Life (ProQOL) scale based on Rasch analysis. *PloS One*, *13*(2), e0193478–e0193478. https://doi.org/10.1371/journal.pone.0193478

Hermanto, N., & Zuroff, D. C. (2016). The social mentality theory of self-compassion and self-reassurance: The interactive effect of care-seeking and caregiving. *The Journal of Social Psychology*, *156*(5), 523–535. https://doi.org/10.1080/00224545.2015.1135779

Hotchkiss, J. T., & Wong, M. Y. C. (2024). Factorial Structure of the ProQOL—Systematic Meta-analysis and Integration of 27 International Factor Analysis Studies. *Trends in Psychology*, *32*(3), 807–838. https://doi.org/10.1007/s43076-022-00184-5

Howells, K., Tonkin, M., Milburn, C., Lewis, J., Draycot, S., Cordwell, J., Price, M., Davies, S., & Schalast, N. (2009). The EssenCES measure of social climate: A preliminary validation and normative data in UK high secure hospital settings. *Criminal Behaviour and Mental Health*, *19*(5), 308–320. https://doi.org/10.1002/cbm.745

Irons, C., Gilbert, P., Baldwin, M.W., Baccus, J.R., & Palmer, M. (2006). Parental recall, attachment relating and self-attacking/self-reassurance: Their relationship with depression. *British Journal of Clinical Psychology*, *45*(3), 297–308. https://doi.org/10.1348/014466505x68230

Johnson, J., Hall, L. H., Berzins, K., Baker, J., Melling, K., & Thompson, C. (2018). Mental healthcare staff well-being and burnout: A narrative review of trends, causes, implications, and recommendations for future interventions. *International Journal of Mental Health Nursing*, *27*(1), 20–32. https://doi.org/10.1111/inm.12416

Karch, J. (2020). Improving on Adjusted R-Squared. *Collabra. Psychology*, *6*(1). https://doi.org/10.1525/collabra.343

Kelly, E. L., Fenwick, K., Brekke, J. S., & Novaco, R. W. (2016). Well-Being and Safety Among Inpatient Psychiatric Staff: The Impact of Conflict, Assault, and Stress Reactivity. *Administration and Policy in Mental Health and Mental Health Services Research*, *43*(5), 703–716. https://doi.org/10.1007/s10488-015-0683-4

Kelly, L., Runge, J., & Spencer, C. (2015). Predictors of Compassion Fatigue and Compassion Satisfaction in Acute Care Nurses. *Journal of Nursing Scholarship*, *47*(6), 522–528. https://doi.org/10.1111/jnu.12162

Kim, H.Y. (2013). Statistical notes for clinical researchers: Assessing normal distribution (2) using skewness and kurtosis. *Restorative Dentistry & Endodontics*, *38*(1), 52–54.

Kim, S., & Tak, S. H. (2025). A Conceptual Analysis of Psychological Burnout Among Nurses Providing Terminal Care. *Journal of Advanced Nursing*. https://doi.org/10.1111/jan.17056

Kirby, S. D., & Pollock, P. H. (1995). The relationship between a medium secure environment and occupational stress in forensic psychiatric nurses. *Journal of Advanced Nursing*, *22*(5), 862–867. https://doi.org/10.1111/j.1365-2648.1995.tb02636.x

Kishimoto, K., & Asano, K. (2024). The relationships among factors affecting compassion fatigue, compassion satisfaction, and burnout in Japanese nurses: A cross-sectional study. *Japan Journal of Nursing Science*, *21*(4), e12617. https://doi.org/10.1111/jjns.12617

Kouzoupi, N. K. (2023). *How does trauma influence the use of restrictive practice in acute adult inpatient settings?* [Doctoral dissertation, Royal Holloway, University of London]. https://pure.royalholloway.ac.uk/ws/portalfiles/portal/56407524/final_THESIS_Natalia_Kouzoupi_How_does_trauma_influence_the_use_of_restrictive_practice_in_acute_adult_inpatient_settings.pdf

Kriakous, S. A., Elliott, K. A., & Owen, R. (2019). Coping, Mindfulness, Stress, and Burnout among Forensic Health Care Professionals. *Journal of Forensic Psychology Research and Practice*, *19*(2), 128–146. https://doi.org/10.1080/24732850.2018.1556545

Kupeli, N., Chilcot, J., Schmidt, U. H., Campbell, I. C., & Troop, N. A. (2013). A confirmatory factor analysis and validation of the forms of self-criticism/reassurance scale. *British Journal of Clinical Psychology*, *52*(1), 12–25. https://doi.org/10.1111/j.2044-8260.2012.02042.x

Lee, W., Veach, P. M., MacFarlane, I. M., & LeRoy, B. S. (2015). Who is at Risk for Compassion Fatigue? An Investigation of Genetic Counselor Demographics, Anxiety, Compassion Satisfaction, and Burnout. *Journal of Genetic Counseling*, *24*(2), 358–370. https://doi.org/10.1007/s10897-014-9716-5

Little, R. J. A. (1988). A Test of Missing Completely at Random for Multivariate Data with Missing Values. *Journal of the American Statistical Association*, *83*(404), 1198–1202. https://doi.org/10.1080/01621459.1988.10478722

Long, C. G., Anagnostakis, K., Fox, E., Silaule, P., Somers, J., West, R., & Webster, A. (2011). Social climate along the pathway of care in women's secure mental health service: Variation with level of security, patient motivation, therapeutic alliance and level of disturbance. *Criminal Behaviour and Mental Health*, *21*(3), 202–214. https://doi.org/10.1002/cbm.791

Longe, O., Maratos, F. A., Gilbert, P., Evans, G., Volker, F., Rockliff, H., & Rippon, G. (2010). Having a word with yourself: Neural correlates of self-criticism and self-reassurance. *NeuroImage*, *49*(2), 1849–1856. https://doi.org/10.1016/j.neuroimage.2009.09.019

Löw, C. A., Schauenburg, H., & Dinger, U. (2020). Self-criticism and psychotherapy outcome: A systematic review and meta-analysis. *Clinical Psychology Review*, *75*, 101808–101808. https://doi.org/10.1016/j.cpr.2019.101808

Marshman, C., Hansen, A., & Munro, I. (2022). Compassion fatigue in mental health nurses: A systematic review. *Journal of Psychiatric and Mental Health Nursing*, *29*(4), 529–543. https://doi.org/10.1111/jpm.12812

Maslach, C., & Leiter, M. P. (2016). Understanding the burnout experience: recent research and its implications for psychiatry. *World Psychiatry*, *15*(2), 103–111. https://doi.org/10.1002/wps.20311

Montgomery, A. P., Patrician, P. A., & Azuero, A. (2022). Nurse Burnout Syndrome and Work Environment Impact Patient Safety Grade. *Journal of Nursing Care Quality*, *37*(1), 87–93. https://doi.org/10.1097/NCQ.0000000000000574

Moos, R. H. (1989). *Ward Atmosphere Scale manual* (2nd ed.). Consulting Psychologists Press.

Moos, R. H., & Schaefer, J. A. (1987). Evaluating health care work settings: A holistic conceptual framework. *Psychology & Health*, *1*(2), 97–122. https://doi.org/10.1080/08870448708400318

Moos, R., Shelton, R., & Petty, C. (1973). Perceived ward climate and treatment outcome. *Journal of Abnormal Psychology*, *82*(2), 291–298. https://doi.org/10.1037/h0035184

Motowidlo, S. J., Packard, J. S., & Manning, M. R. (1986). Occupational Stress: Its Causes and Consequences for Job Performance. *Journal of Applied Psychology*, *71*(4), 618–629. https://doi.org/10.1037/0021-9010.71.4.618

Neff, K. D. (2003). The Development and Validation of a Scale to Measure Self-Compassion. *Self and Identity*, *2*(3), 223–250. https://doi.org/10.1080/15298860309027

Newell, J. M., & MacNeil, G. A. (2010). Professional Burnout, Vicarious Trauma, Secondary Traumatic Stress, and Compassion Fatigue. *Best Practices in Mental Health*, *6*(2), 57–68. https://doi.org/10.70256/607490pbruec

Newman, C., Roche, M., & Elliott, D. (2021). Exposure to workplace trauma for forensic mental health nurses: A scoping review. *International Journal of Nursing Studies*, *117*, 103897–103897. https://doi.org/10.1016/j.ijnurstu.2021.103897

Oates, J., Topping, A., Ezhova, I., Wadey, E., & Rafferty, A. M. (2021). Factors affecting high secure forensic mental health nursing workforce sustainability: Perspectives from frontline nurses and stakeholders. *Journal of Psychiatric and Mental Health Nursing*, *28*(6), 1041–1051. https://doi.org/10.1111/jpm.12740

Oktay, D., & Ozturk, C. (2022). Compassion fatigue in nurses and influencing factors. *Perspectives in Psychiatric Care*, *58*(4), 1691–1700. https://doi.org/10.1111/ppc.12977

Ondrejková, N., & Halamová, J. (2022). Prevalence of compassion fatigue among helping professions and relationship to compassion for others, self-compassion and self-criticism. *Health & Social Care in the Community*, *30*(5), 1680–1694. https://doi.org/10.1111/hsc.13741

Ondrejková, N., Halamová, J., & Strnádelová, B. (2022). Effect of the intervention mindfulness based compassionate living on the - level of self - criticism and self – compassion. *Current Psychology*, *41*(5), 2747–2754. https://doi.org/10.1007/s12144-020-00799-w

Papazoglou, K., Koskelainen, M., & Stuewe, N. (2019). Examining the Relationship Between Personality Traits, Compassion Satisfaction, and Compassion Fatigue Among Police Officers. *SAGE Open*, *9*(1). https://doi.org/10.1177/2158244018825190

Pekin, Z., & Gume, S. (2025). Self-Criticism: Conceptualization, Assessment, and Interventions. *Psikiyatride güncel yaklaşimlar*, *17*(1), 107-118. https://doi.org/10.18863/pgy.1455185

Peters, E. (2018). Compassion fatigue in nursing: A concept analysis. *Nursing Forum*, *53*(4), 466–480. https://doi.org/10.1111/nuf.12274

Petrocchi, N., Dentale, F., & Gilbert, P. (2019). Self-reassurance, not self-esteem, serves as a buffer between self-criticism and depressive symptoms. *Psychology and Psychotherapy: Theory, Research and Practice*, *92*(3), 394-406.

Pirelli, G., Formon, D. L., & Maloney, K. (2020). Preventing Vicarious Trauma (VT), Compassion Fatigue (CF), and Burnout (BO) in Forensic Mental Health: Forensic Psychology as Exemplar. *Professional Psychology, Research and Practice*, *51*(5), 454–466. https://doi.org/10.1037/pro0000293

Rohan, E., & Bausch, J. (2009). Climbing Everest: Oncology Work as an Expedition in Caring. *Journal of Psychosocial Oncology*, *27*(1), 84–118. https://doi.org/10.1080/07347330802616043

Rossi, A., Cetrano, G., Pertile, R., Rabbi, L., Donisi, V., Grigoletti, L., Curtolo, C., Tansella, M., Thornicroft, G., & Amaddeo, F. (2012). Burnout, compassion fatigue, and compassion satisfaction among staff in community-based mental health services. *Psychiatry Research*, *200*(2), 933–938. https://doi.org/10.1016/j.psychres.2012.07.029

Ryu, I. S., & Shim, J. L. (2022). The Relationship between Compassion Satisfaction and Fatigue with Shift Nurses' Patient Safety-Related Activities. *Iranian Journal of Public Health*, *51*(12), 2724–2732. https://doi.org/10.18502/ijph.v51i12.11463

Ryu, I. S., & Shim, J. (2021). The Influence of Burnout on Patient Safety Management Activities of Shift Nurses: The Mediating Effect of Compassion Satisfaction. *International Journal of Environmental Research and Public Health*, *18*(22), 12210-. https://doi.org/10.3390/ijerph182212210

Sacco, T. L., & Copel, L. C. (2018). Compassion satisfaction: A concept analysis in nursing. *Nursing Forum*, *53*(1), 76–83. https://doi.org/10.1111/nuf.12213

Schalast, N., Redies, M., Collins, M., Stacey, J., & Howells, K. (2008). EssenCES, a short questionnaire for assessing the social climate of forensic psychiatric wards. *Criminal Behaviour and Mental Health*, *18*(1), 49–58. https://doi.org/10.1002/cbm.677

Shoji, K., Lesnierowska, M., Smoktunowicz, E., Bock, J., Luszczynska, A., Benight, C. C., & Cieslak, R. (2015). What Comes First, Job Burnout or Secondary Traumatic Stress? Findings from

Two Longitudinal Studies from the U.S. and Poland. *PloS One*, *10*(8), e0136730-. https://doi.org/10.1371/journal.pone.0136730

Simon, C. E., Pryce, J. G., Roff, L. L., & Klemmack, D. (2005). Secondary Traumatic Stress and Oncology Social Work: Protecting Compassion from Fatigue and Compromising the Worker's Worldview. *Journal of Psychosocial Oncology*, *23*(4), 1–14. https://doi.org/10.1300/J077v23n04_01

Sinclair, S., Beamer, K., Hack, T. F., McClement, S., Raffin Bouchal, S., Chochinov, H. M., & Hagen, N. A. (2017). Sympathy, empathy, and compassion: A grounded theory study of palliative care patients' understandings, experiences, and preferences. *Palliative Medicine*, *31*(5), 437–447. https://doi.org/10.1177/0269216316663499

Singh, J., Karanika-Murray, M., Baguley, T., & Hudson, J. (2020). A Systematic Review of Job Demands and Resources Associated with Compassion Fatigue in Mental Health Professionals. *International Journal of Environmental Research and Public Health*, *17*(19), 6987-. https://doi.org/10.3390/ijerph17196987

Sommers-Spijkerman, M., Trompetter, H., Schreurs, K., & Bohlmeijer, E. (2018). Pathways to Improving Mental Health in Compassion-Focused Therapy: Self-Reassurance, Self-Criticism and Affect as Mediators of Change. *Frontiers in Psychology*, *9*, 2442–2442. https://doi.org/10.3389/fpsyg.2018.02442

Sorenson, C., Bolick, B., Wright, K., & Hamilton, R. (2016). Understanding Compassion Fatigue in Healthcare Providers: A Review of Current Literature. *Journal of Nursing Scholarship*, *48*(5), 456–465. https://doi.org/10.1111/jnu.12229

Souza, F. L. X., de Sousa Rodrigues, W., & Teodoro, M. L. M. (2024). Self-criticism and fear of self-compassion: associations with work engagement and burnout. *Current Psychology*, *43*(47), 36001–36013. https://doi.org/10.1007/s12144-024-07078-y

Stamm, B. H. (2005). *The ProQoL manual. The professional quality of life scale: Compassion satisfaction, burnout, and compassion fatigue/secondary trauma scales*. Sidran Press.

Trompetter, H. R., de Kleine, E., & Bohlmeijer, E. T. (2017). Why Does Positive Mental Health Buffer Against Psychopathology? An Exploratory Study on Self-Compassion as a Resilience Mechanism and Adaptive Emotion Regulation Strategy. *Cognitive Therapy and Research*, *41*(3), 459–468. https://doi.org/10.1007/s10608-016-9774-0

Tonkin, M. (2016). A Review of Questionnaire Measures for Assessing the Social Climate in Prisons and Forensic Psychiatric Hospitals. *International Journal of Offender Therapy and Comparative Criminology*, *60*(12), 1376–1405. https://doi.org/10.1177/0306624X15578834

Tonkin, M., & Howells, K. (2011). Evaluation of regimes and environments. In *Research in Practice for Forensic Professionals* (1st ed., pp. 249–270). Routledge. https://doi.org/10.4324/9780203805329-17

van der Helm, P., Boekee, I., Jan Stams, G., & van der Laan, P. (2011). Fear is the key: keeping the balance between flexibility and control in a Dutch youth prison. *Journal of Children's Services*, *6*(4), 248–263. https://doi.org/10.1108/17466661111190947

Van Hook, M. P., & Rothenberg, M. (2009). Quality of Life and Compassion Satisfaction/Fatigue and Burnout in Child Welfare Workers: A Study of the Child Welfare Workers in Community Based Care Organizations in Central Florida. *Social Work and Christianity*, *36*(1), 36–54.

Vogus, T. J., Ramanujam, R., Novikov, Z., Venkataramani, V., & Tangirala, S. (2020). Adverse Events and Burnout: The Moderating Effects of Workgroup Identification and Safety Climate. *Medical Care*, *58*(7), 594–600. https://doi.org/10.1097/MLR.0000000000001341

Wakelin, K. E., Perman, G., & Simonds, L. M. (2022). Effectiveness of self-compassion-related interventions for reducing self-criticism: A systematic review and meta-analysis. *Clinical Psychology & Psychotherapy*, *29*(1), 1-25.

Webb, E. L., Ireland, J. L., Lewis, M., & Morris, D. (2024). Potential Sources of Moral Injury for Healthcare Workers in Forensic and Psychiatric Settings: A Systematic Review and Meta-ethnography. *Trauma, Violence, & Abuse*, *25*(2), 918–934. https://doi.org/10.1177/15248380231167390

Werner, A. M., Tibubos, A. N., Rohrmann, S., & Reiss, N. (2019). The clinical trait self-criticism and its relation to psychopathology: A systematic review – Update. *Journal of Affective Disorders*, *246*, 530–547. https://doi.org/10.1016/j.jad.2018.12.069

West, M. A., Chowla, R., & Gilbert, P. (2017). Compassionate leadership for compassionate health care. In P. Gilbert (Ed.), *Compassion* (pp. 237–257). Routledge. https://doi.org/10.4324/9781315564296-14

Zaccari, V., Fazi, M., Scarci, F., Correr, V., Trani, L., Filomena, M. G., Piccione, V., Cattan, S. J., Ginni, M. G., D'olimpio, F., & Mancini, F. (2024). Understanding self-criticism: A systematic review of qualitative approaches. *Clinical Neuropsychiatry*, *21*(6), 455–476. https://doi.org/10.36131/cnfioritieditore20240602

Appendices

Appendix A: Journal Guidelines

Journal of Forensic Nursing

Aims and scope: *Journal of Forensic Nursing* (*JFN*), the official journal of the International Association of Forensic Nurses (IAFN), is the premier publication advancing forensic nursing science, practice, and policy with our multidisciplinary colleagues in support of those who experience and perpetrate violence. We disseminate discoveries and communications that cover the breadth of experiences at the intersection of violence, health care, and legal systems issues, and feature nursing's (and colleagues') response to violence and trauma.

The journal features original research studies, review and theoretical articles, methodological and concept papers, and case reports that advance excellence in nursing science and practice for those who have experienced and perpetrated violence, trauma, and abuse. The journal's objective is to disseminate scholarship that advances forensic nursing and broader forensic science worldwide. Topics representing the diversity of the specialty are of interest and include, but are not limited to, interpersonal violence (e.g., sexual assault, abuse, intimate partner violence, sexual exploitation); forensic mental health; issues unique to corrections, and emergency and trauma nursing, death investigation; legal and ethical issues. Submissions from nursing and related disciplines are encouraged.

Please refer to the journal webpage for further information about submission guidelines- Editorial Manager - Journal of Forensic Nursing

Appendix B: Ethical Approval from University of Staffordshire

STAFFORDSHIRE UNIVERSITY

INDEPENDENT PEER REVIEW APPROVAL FEEDBACK

Researcher Name	Emily Dukes
Title of Study	Exploring the relationship between self-criticism and self-reassurance on compassion fatigue and compassion satisfaction, and the relationship between compassion fatigue and compassion satisfaction on ward climate in mental healthcare staff working in a forensic mental health hospital.
Status of approval:	**Approved**

Appendix C: Ethical Approval from NHS HRA

Miss Emily Dukes
Trainee Clinical Psychologist
Midlands Partnership NHS Trust
Trust Headquarters, St Georges Hospital
Corporation Street, Stafford
ST16 3SR

Email: HCRW.approvals@wales.nhs.uk

15 March 2024

Dear Miss Dukes

(including this letter) have been sent to the coordinating centre of each participating nation. Th

Ple
Ire

List of Documents

The final document set assessed and approved by HRA and HCRW Approval is listed below.

Ho
HR
you

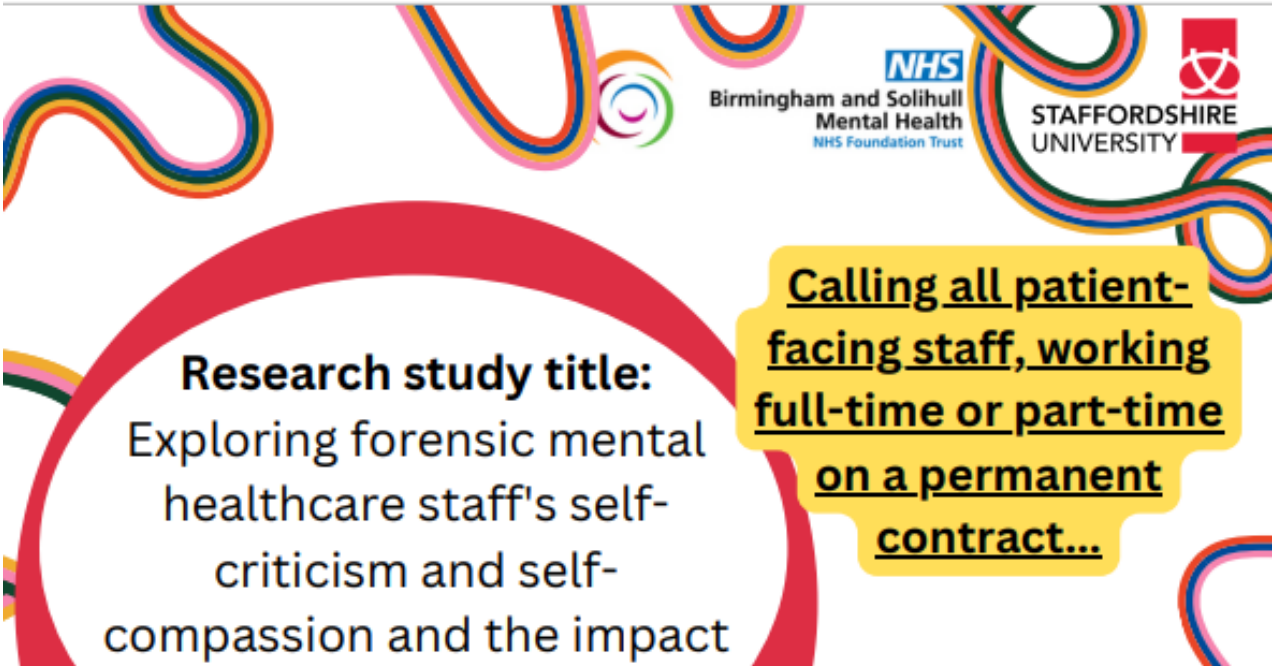
Wh

Th
we
Ap

Th

Document	*Version*	*Date*
Copies of materials calling attention of potential participants to the research [Research advert]		
Evidence of Sponsor insurance or indemnity (non NHS Sponsors only) [Professional indemnity certificate]		01 August 2023
IRAS Application Form [IRAS_Form_09022024]		09 February 2024
Non-validated questionnaire [Demographic questionnaire]		
Organisation Information Document		
Other [Risk assessment]		
Other [Email from clinical supervisor confirming NHS site approval]		19 January 2024
Other [Public liability certificate]		
Participant consent form	1	12 February 2024
Participant information sheet (PIS)	1	12 February 2024
Research protocol or project proposal	1	25 January 2024
Schedule of Events or SoECAT		

Appendix D: Research Advert



Appendix E: Participant information sheet

Participant Information Sheet

Study title: Exploring the relationship between self-criticism and self-reassurance on compassion fatigue and compassion satisfaction, and the relationship between compassion fatigue and compassion satisfaction on ward climate in mental healthcare staff working in a forensic mental health hospital.

Invitation and brief summary:

My name is Emily Dukes and I am training to become a clinical psychologist. I would like to invite you to take part in my research study which forms part of my Doctorate research looking at forensic mental healthcare staff's experiences of compassion fatigue and compassion satisfaction and the impact this may have on the ward climate. Before you decide whether you want to take part, it is important for you to understand why the research is being done and what your participation will involve. Please take time to read the following information carefully and discuss it with others if you wish. Please contact me via email on d042142m@student.staffs.ac.uk if there is anything that is not clear or if you would like more information.

Joining the study is entirely your choice. You should only take part if you want to and choosing not to take part will not disadvantage you in anyway. Once you have read the information sheet, please contact me using the contact details at the end of this sheet if you have any questions that will help you make a decision about taking part. If you do decide to take part, I will ask you to sign a consent form and you will be given a copy of this consent form to keep.

What's involved?

Purpose and background to the research:

The wellbeing of NHS healthcare staff is a national priority and there are many strategies focusing on workplace culture and staff wellbeing. There are also unique stressors for forensic mental healthcare staff i.e. exposure to trauma/violence/moral stress/high turnover of staff/limited resources.

Compassion fatigue (CF) is the "cost of caring" and can have significant negative consequences on staff wellbeing i.e. emotional difficulties, unhelpful coping strategies, low distress tolerance etc. CF also impacts on staff's ability to deliver safe, therapeutic care, which is why the research also focuses on the impact on ward climate.

It is hoped that exploring self-criticism and self-reassurance and its relationship to CF will help inform interventions to improve staff wellbeing and help prevent onset of significant difficulties.

Who can take part?

Staff currently employed at either Reaside or Hillis Lodge who are in patient facing roles (i.e. HCAs, nurses, OT's, Psychology, Medics) and have worked full time (37.5 hours p/w) for a minimum of 6 months, or part time (minimum 18 hours p/w) for a minimum of 12 months.

Unfortunately, staff on bank or agency contracts, students/trainees, or staff in non-patient facing roles (i.e. admin, estates) will not be able to take part.

What would you be asked to do?

You can participate in the study either online or in-person. There will be both the option to complete the study online via a survey link, which will be circulated via email, and there will also be the option to participate by completing a paper assessment pack. These packs will be distributed in accessible spaces i.e. staffroom, communal offices, and there will be a locked space to put these once completed. There will be three brief questionnaires to complete,

alongside a demographic information form and consent form. In total, completing the questionnaires should take approximately 30 minutes. The questionnaires will ask you to rate how much you agree with a statement i.e. ““I am gentle and supportive with myself”.

What will happen with the results?

The results will be analysed and written up and could be submitted for publishing. A written summary of the results will be available upon request by contacting the researcher via the email provided below. Service users will be consulted to see how they would like the results shared with them in a way that is helpful to them. Results may be used to support future research and may be shared anonymously with other researchers.

What are the potential benefits of taking part?

I would really value your support in this important piece of research to help ensure that staff wellbeing continues to be a priority. It is hoped that meaningful recommendations can be made to the service because of the study with the intention of continuing to work towards improving staff's experience of working within forensic settings and positively influence the quality of care delivered to our service users.

What are the potential disadvantages of taking part?

Whilst it is not expected that there will be any significant harm as a result of participating in the study, this cannot be guaranteed. Some items on the questionnaire ask you to think about things that may cause some people mild psychological distress. Please see the section below for information about how to access support if participating in the study causes distress for you or highlights any concerns you have about yours or someone else’s wellbeing.

Further supporting information

How will we use information about you?

We will need to use information from you for this research project. This information will include your gender, age, ethnicity, and job role. People will use this information to do the research.

People who do not need to know who you are will not be able to see your information. Your data will have a code number instead. We will keep all information about you safe and secure. Once we have finished the study, we will keep some of the data so we can check the results. We will write our reports in a way that no-one can work out that you took part in the study.

What are your choices about how your information is used?

You can stop being part of the study at any time, without giving a reason, but we will keep information about you that we already have.

If this happens and you want to withdraw your data from the research at a later stage, you will not be negatively impacted in any way. If you withdraw your data before the results have been

analysed (January 2025) then your information will be destroyed in accordance with GDPR legislation. However, once the data has been combined for analysis, then the researcher will be unable to identify which data is yours. If you wish to withdraw your data, contact the researcher by email on d042142m@student.staffs.ac.uk and provide your participant number (the one you created on the consent form).

Where can you find out more about how your information is used?

You can find out more about how we use your information:

- By contacting the researcher
- At https://www.hra.nhs.uk/information-about-patients/
- Our leaflet available from http://www.hra.nhs.uk/patientdataandresearch
- Questions, comments and requests about your personal data can be sent to the University of Staffordshire Data Protection Officer. If you wish to lodge a complaint with the Information Commissioner's Office, please visit www.ico.org.uk.

Where do I seek support?

In the first instance, follow your usual process at work of seeking support from your supervisor or line manager if you are distressed as a result of the study or have concerns about your general wellbeing.

You can also access free confidential support from the Employee Assistance Programme (EAP) who provide access to telephone, online, and face to face counselling. Please see below for contact details.

Who has reviewed this study?

All research in the NHS is looked at by an independent group of people to protect your interests. This study has been reviewed and given favourable opinion by University of Staffordshire Research Ethics Committee and NHS Health Research Authority (HRA).

What if something goes wrong?

However, if you have a concern about any aspect of this study, you should ask to speak to the researcher who will do their best to answer your questions (contact details below).You can also contact the University Ethics Committee (by emailing Co-chair of the University of Staffordshire Ethics Committee (Professor Sarahjane Jones)- sarahjane.jones@staffs.ac.uk)

If you remain unhappy and wish to complain formally, you can do this by contacting Patient Advice and Liaison Service (PALS) and you can find the contact details below.

Contact details

- **Researcher**- contact Emily via email on d042142m@student.staffs.ac.uk
- **PALS**- call 0800 953 0045, Monday to Friday 8am - 4pm or email on bsmhft.customerrelations@nhs.net
- **EAP**- call them on 0121 227 7117, 24/7 365 days a year.

Thank you for reading this information sheet and for considering taking part in this research.

Appendix F: Consent form

CONSENT FORM

Title of Project: Exploring the relationship between self-criticism and self-reassurance on compassion fatigue and compassion satisfaction, and the relationship between compassion fatigue and compassion satisfaction on ward climate in mental healthcare staff working in a forensic mental health hospital.

Name of Researcher: Emily Dukes

Please create a unique participant information number (i.e. ED96) _____

	Please initial box
1. I confirm that I have read the information sheet (PIS Version 1, 12.02.2024) for the above study.	☐
2. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily.	☐
3. I understand that my participation is voluntary and that I am free to withdraw my data any time before January 2025, without giving a reason and without being negatively affected.	☐
4. I understand that the information collected about me will be used to support other research in the future, and may be shared anonymously with other researchers.	☐
5. I agree to take part in the above study.	☐

_____	_____	_____
Name of Participant	Date	Signature
_____	_____	_____
Name of Person	Date	Signature

Appendix G: Demographic questionnaire

Demographic questionnaire

Do you identify as…

Male Female Other

How old are you?

_____

What is your job role? (e.g. nurse, HCA, occupational therapist)

_____

What is your ethnicity?

Please select which of the options that best describes how you would identify your ethnicity.

White

1. English/Welsh/Scottish/Northern Irish/British
2. Irish
3. Gypsy or Irish Traveller
4. Any other White background, please describe

Mixed/ Multiple ethnic groups

5. White and Black Caribbean
6. White and Black African
7. White and Asian
8. Any other Mixed/Multiple ethnic background, please describe

Asian/ Asian British

9. Indian
10. Pakistani
11. Bangladeshi
12. Chinese
13. Any other Asian background, please describe

Black/ African/ Caribbean /Black British

14. African
15. Caribbean
16. Any other Black/ African/ Caribbean background, please describe

Other ethnic groups

17. Arab
18. Any other ethnic group, please describe

Appendix H: Measures

THE FORMS OF SELF-CRITICISING/ATTACKING & SELF-REASSURING SCALE (FSCRS)

When things go wrong in our lives or don't work out as we hoped, and we feel we could have done better, we sometimes have *negative and self-critical thoughts and feelings*. These may take the form of feeling worthless, useless or inferior etc. However, people can also try to be supportive of them selves. Below are a series of thoughts and feelings that people sometimes have. Read each statement carefully and circle the number that best describes how much each statement is true for you.

Please use the scale below.

Not at all like me	A little bit like me	Moderately like me	Quite a bit like me	Extremely like me
0	1	2	3	4

When things go wrong for me:

1.	I am easily disappointed with myself.	0	1	2	3	4
2.	There is a part of me that puts me down.	0	1	2	3	4
3.	I am able to remind myself of positive things about myself.	0	1	2	3	4
4.	I find it difficult to control my anger and frustration at myself.	0	1	2	3	4
5.	I find it easy to forgive myself.	0	1	2	3	4
6.	There is a part of me that feels I am not good enough.	0	1	2	3	4
7.	I feel beaten down by my own self-critical thoughts.	0	1	2	3	4
8.	I still like being me.	0	1	2	3	4
9.	I have become so angry with myself that I want to hurt or injure myself.	0	1	2	3	4
10.	I have a sense of disgust with myself.	0	1	2	3	4
11.	I can still feel lovable and acceptable.	0	1	2	3	4
12.	I stop caring about myself.	0	1	2	3	4
13.	I find it easy to like myself.	0	1	2	3	4
14.	I remember and dwell on my failings.	0	1	2	3	4
15.	I call myself names.	0	1	2	3	4
16.	I am gentle and supportive with myself.	0	1	2	3	4
17.	I can’t accept failures and setbacks without feeling inadequate.	0	1	2	3	4
18.	I think I deserve my self-criticism.	0	1	2	3	4
19.	I am able to care and look after myself.	0	1	2	3	4
20.	There is a part of me that wants to get rid of the bits I don’t like.	0	1	2	3	4
21.	I encourage myself for the future.	0	1	2	3	4
22.	I do not like being me.	0	1	2	3	4

UNIVERSITÄT DUISBURG ESSEN

Essen CES©

Essen Climate Evaluation Schema (rev. 2010)

LVR Qualität für Menschen

I agree

		not at all	little	somewhat	quite a lot	very much
1	This ward has a homely atmosphere	☐	☐	☐	☐	☐
2	The patients care for each other	☐	☐	☐	☐	☐
3	Really threatening situations can occur here	☐	☐	☐	☐	☐
4	On this ward, patients can openly talk to staff about all their problems	☐	☐	☐	☐	☐
5	Even the weakest patient finds support from his fellow patients	☐	☐	☐	☐	☐
6	There are some really aggressive patients on this ward	☐	☐	☐	☐	☐
7	Staff take a personal interest in the progress of patients	☐	☐	☐	☐	☐
8	Patients care about their fellow patients' problems	☐	☐	☐	☐	☐
9	Some patients are afraid of other patients	☐	☐	☐	☐	☐
10	Staff members take a lot of time to deal with patients	☐	☐	☐	☐	☐
11	When a patient has a genuine concern, he finds support from his fellow patients	☐	☐	☐	☐	☐
12	At times, members of staff are afraid of some of the patients	☐	☐	☐	☐	☐
13	Often, staff seem not to care if patients succeed or fail in treatment	☐	☐	☐	☐	☐
14	There is good peer support among patients	☐	☐	☐	☐	☐
15	Some patients are so excitable that one deals very cautiously with them	☐	☐	☐	☐	☐
16	Staff know patients and their personal histories very well	☐	☐	☐	☐	☐
17	Both patients and staff are comfortable on this ward	☐	☐	☐	☐	☐

Correspondence: Norbert Schalast | Institute of Forensic Psychiatry
University Duisburg-Essen | P.O. Box 10 30 43 | 45030 Essen | Germany

Pro-QOL-21

When you help people, you have direct contact with their lives. As you may have found, your compassion for those you help can affect you in positive and negative ways. Below are some questions about your experiences, both positive and negative, as a mental healthcare worker.

Consider each of the following questions about you and your current work situation. Circle the response that honestly reflects how frequently you experienced these things **in the last 30 days.**

1. **I feel "bogged down" by the system**

Never Almost Never Sometimes Often Very often

2. **I feel overwhelmed because my caseload seems endless**

Never Almost Never Sometimes Often Very often

3. **I feel worn out because of my work as a mental healthcare worker**

Never Almost Never Sometimes Often Very often

4. **I avoid certain activities or situations because they remind me of frightening experiences of the people I help**

Never Almost Never Sometimes Often Very often

5. **I feel trapped by my job as a mental healthcare worker**

Never Almost Never Sometimes Often Very often

6. **Because of my helping, I have felt "on edge" about various things**

Never Almost Never Sometimes Often Very often

7. **I think that I might have been affected by the traumatic stress of those I help**

Never Almost Never Sometimes Often Very often

8. **I am not as productive at work because I am losing sleep over traumatic experiences of a person I help**

Never Almost Never Sometimes Often Very often

9. **I feel as though I am experiencing the trauma of someone I have helped**

Never Almost Never Sometimes Often Very often

10. **As a result of helping, I have intrusive, frightening thoughts**

Never Almost Never Sometimes Often Very often

11. **I feel depressed because of the traumatic experiences of the people I help**

Never Almost Never Sometimes Often Very often

12. **I am happy that I chose to do this work**

Never Almost Never Sometimes Often Very often

13. I get satisfaction from being able to help people

Never Almost Never Sometimes Often Very often

14. I believe I can make a difference through my work

Never Almost Never Sometimes Often Very often

15. I am pleased with how I am able to keep up with helping techniques and protocols

Never Almost Never Sometimes Often Very often

16. I have happy thoughts and feelings about those I help and how I could help them

Never Almost Never Sometimes Often Very often

17. I am proud of what I can do to help

Never Almost Never Sometimes Often Very often

18. My work makes me feel satisfied

Never Almost Never Sometimes Often Very often

19. I feel invigorated after working with those I help

Never Almost Never Sometimes Often Very often

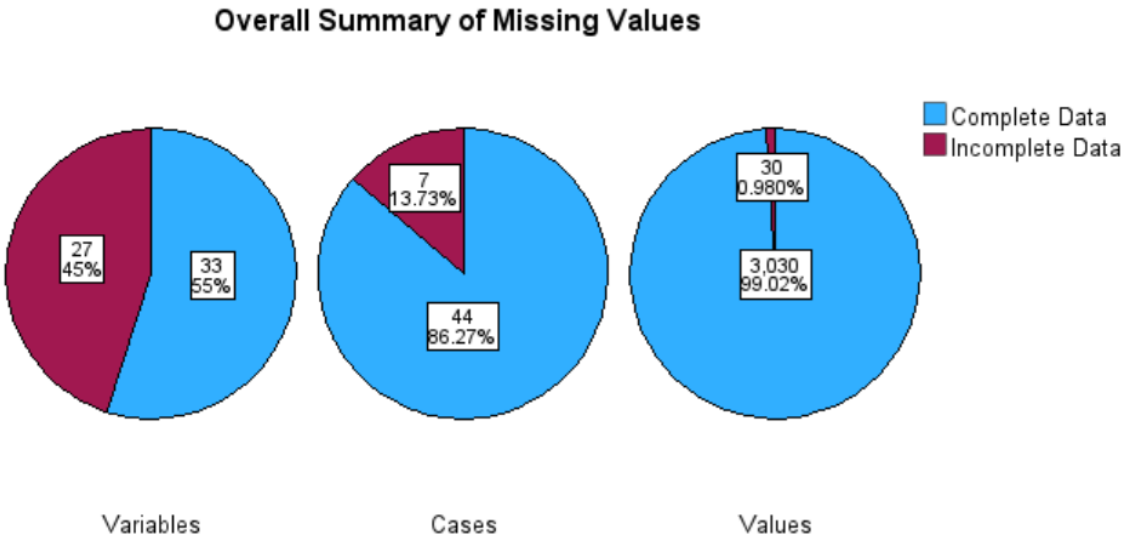
20. I like my work as mental healthcare worker

Never Almost Never Sometimes Often Very often

21. I have thoughts that I am a "success" as a mental healthcare worker

Never Almost Never Sometimes Often Very often

Appendix I: Missing data analysis



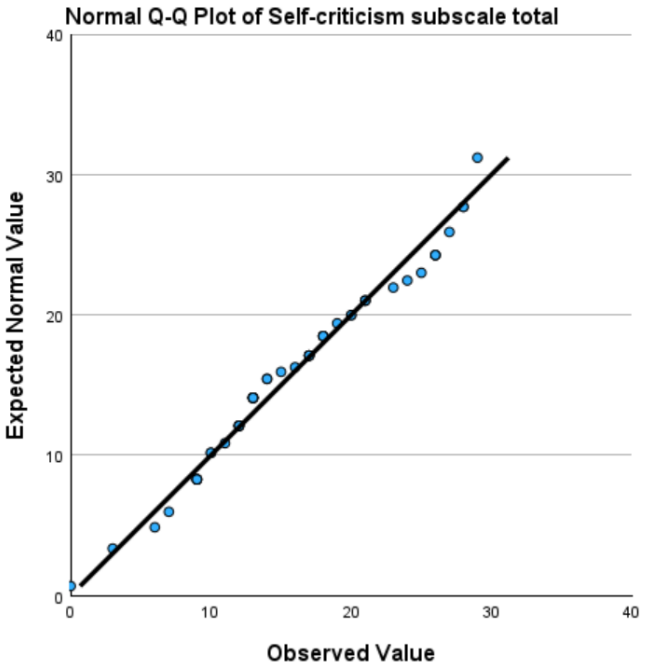
EM Means[a,b]

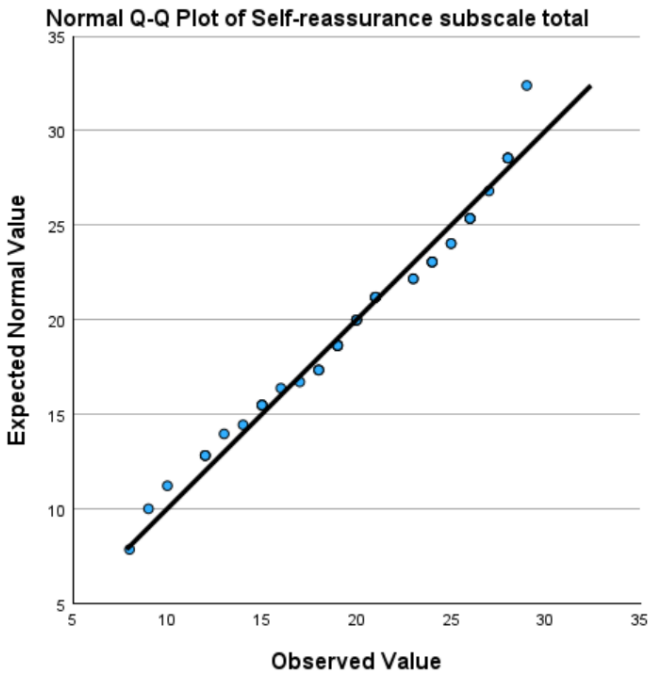
SC1	SC2	SC3	SC4	SC5	SC6	SC7	SC8
1.9003	1.9588	2.5686	1.3725	2.3333	1.8431	1.2941	3.1961

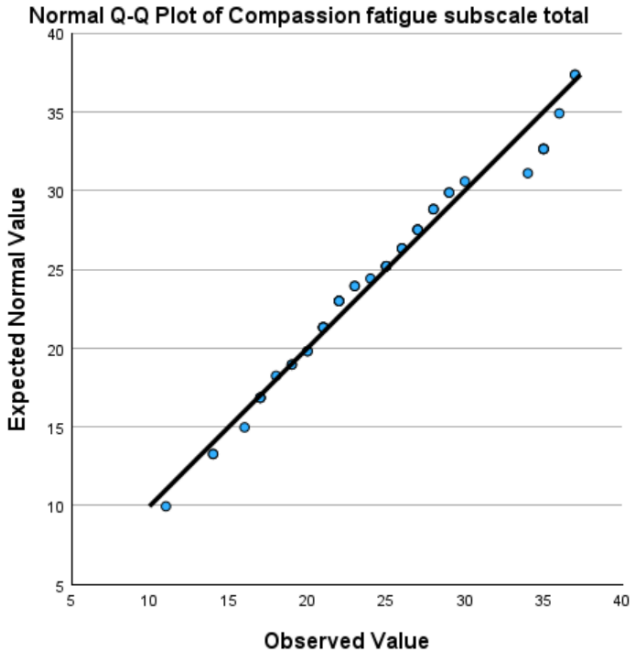
a. Little's MCAR test: Chi-Square = 330.331, DF = 390, Sig. = .987

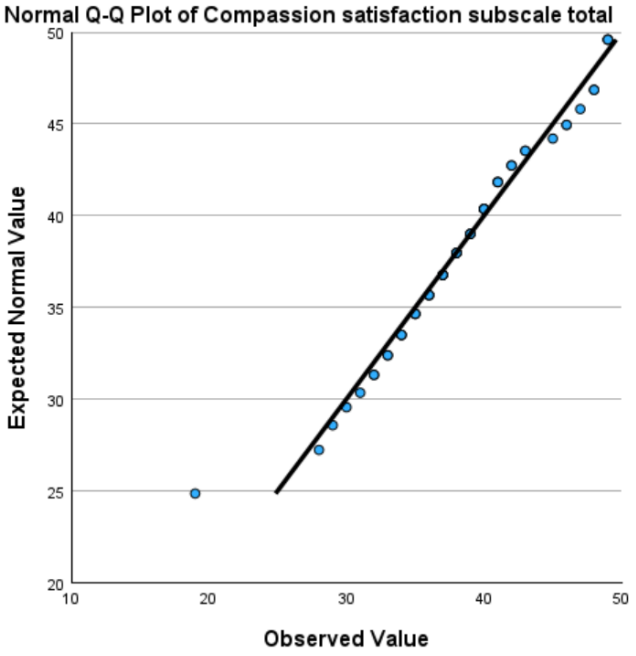
b. The EM algorithm failed to converge in 25 iterations.

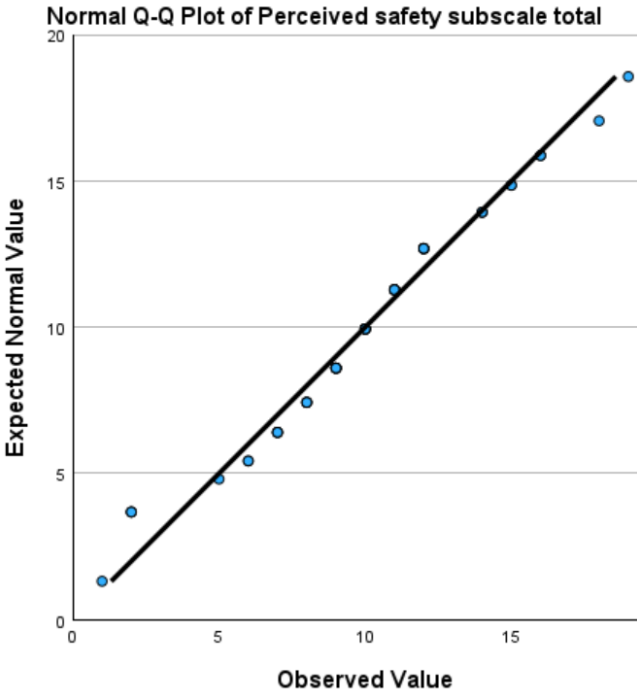
Appendix J: SPSS Analysis Output- Normality tests

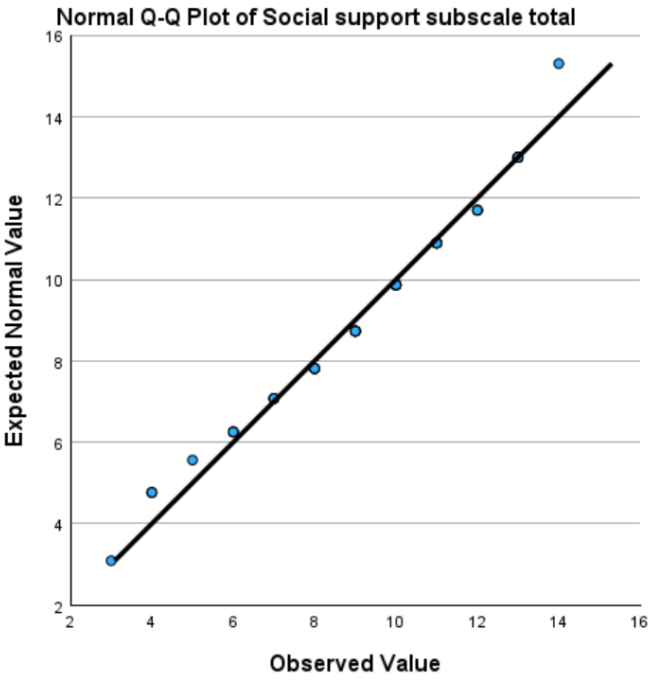


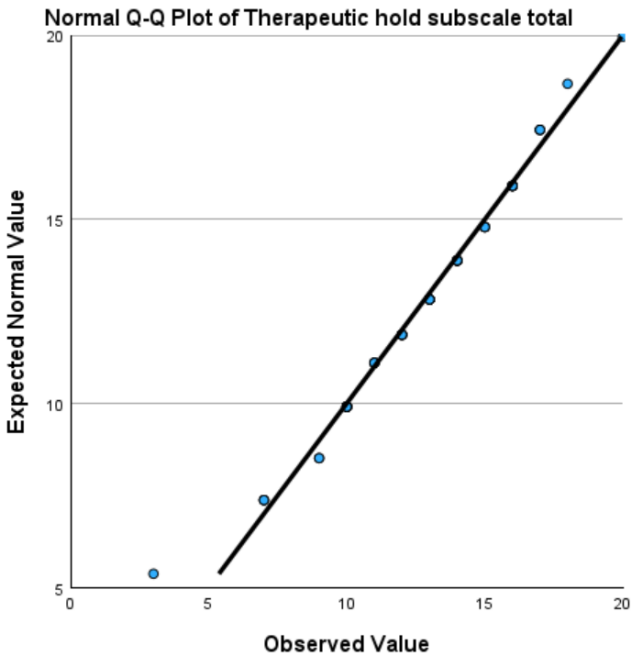












Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Self-criticism subscale total	.119	51	.070	.973	51	.293
Self-reassurance subscale total	.095	51	.200*	.964	51	.125
Compassion fatigue subscale total	.097	51	.200*	.965	51	.136
Compassion satisfaction subscale total	.082	51	.200*	.967	51	.161
Social support subscale total	.118	51	.072	.963	51	.112
Perceived safety subscale total	.119	51	.068	.968	51	.185
Therapeutic hold subscale total	.090	51	.200*	.976	51	.392

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Appendix K: SPSS Analysis Output- Complete case approach (n= 44)

Regression 1

Correlations

		Compassion fatigue subscale total	Self-criticism subscale total	Self-reassurance subscale total
Pearson Correlation	Compassion fatigue subscale total	1.000	.433	-.114
	Self-criticism subscale total	.433	1.000	-.423
	Self-reassurance subscale total	-.114	-.423	1.000
Sig. (1-tailed)	Compassion fatigue subscale total	.	.002	.231
	Self-criticism subscale total	.002	.	.002
	Self-reassurance subscale total	.231	.002	.

Model Summary[b]

					Change Statistics					Selection Criteria					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change	Akaike Information Criterion	Amemiya Prediction Criterion	Mallows' Prediction Criterion	Schwarz Bayesian Criterion	PRESS	Durbin-Watson
1	.439[a]	.193	.154	5.54534	.193	4.902	2	41	.012	153.633	.925	3.000	158.986	1448.099	1.965

a. Predictors: (Constant), Self-reassurance subscale total, Self-criticism subscale total

b. Dependent Variable: Compassion fatigue subscale total

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	301.466	2	150.733	4.902	.012[b]
	Residual	1260.784	41	30.751		
	Total	1562.250	43			

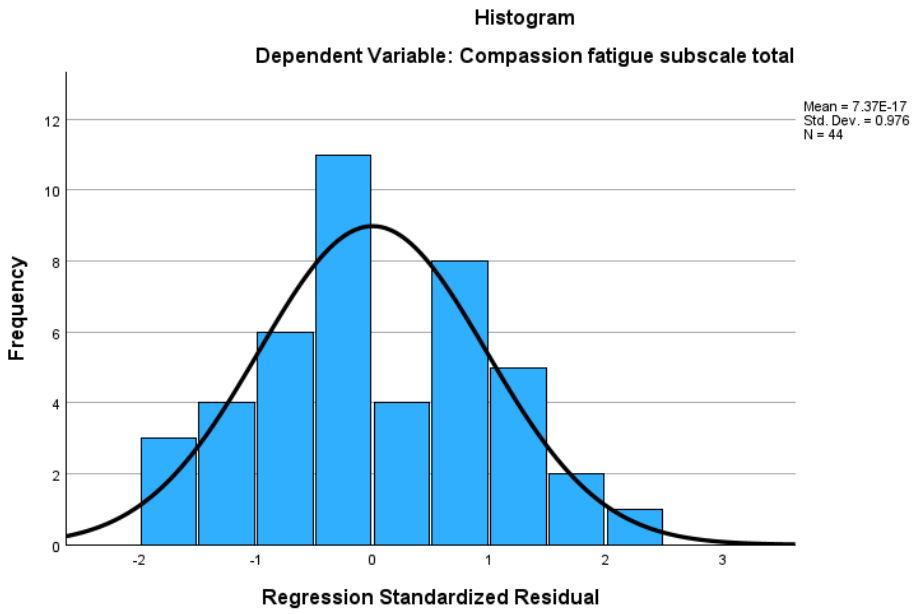
a. Dependent Variable: Compassion fatigue subscale total

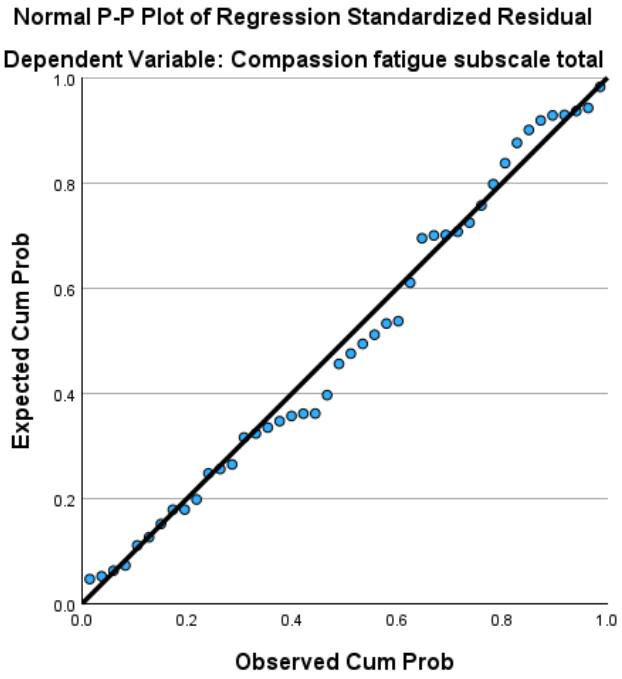
b. Predictors: (Constant), Self-reassurance subscale total, Self-criticism subscale total

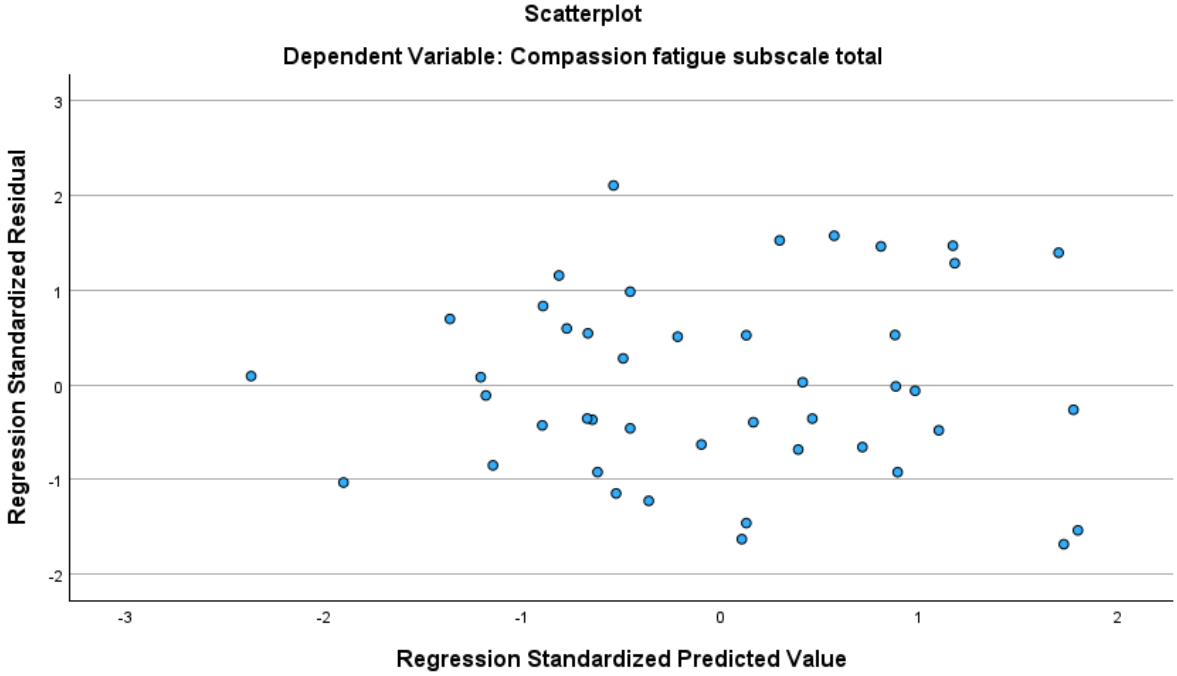
Coefficients[a]

		Unstandardized Coefficients		Standardized Coefficients			95.0% Confidence Interval for B		Correlations			Collinearity Statistics	
Model		B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	16.229	4.867		3.335	.002	6.401	26.058					
	Self-criticism subscale total	.411	.136	.468	3.024	.004	.136	.685	.433	.427	.424	.821	1.218
	Self-reassurance subscale total	.094	.173	.084	.544	.590	-.255	.443	-.114	.085	.076	.821	1.218

a. Dependent Variable: Compassion fatigue subscale total


Histogram
Dependent Variable: Compassion fatigue subscale total
Mean = 7.37E-17
Std. Dev. = 0.976
N = 44
Frequency
Regression Standardized Residual


Normal P-P Plot of Regression Standardized Residual
Dependent Variable: Compassion fatigue subscale total
Expected Cum Prob
Observed Cum Prob


Scatterplot
Dependent Variable: Compassion fatigue subscale total
Regression Standardized Residual
Regression Standardized Predicted Value

Regression 2

Correlations

		Compassion satisfaction subscale total	Self-criticism subscale total	Self-reassurance subscale total
Pearson Correlation	Compassion satisfaction subscale total	1.000	-.304	.394
	Self-criticism subscale total	-.304	1.000	-.423
	Self-reassurance subscale total	.394	-.423	1.000
Sig. (1-tailed)	Compassion satisfaction subscale total	.	.023	.004
	Self-criticism subscale total	.023	.	.002
	Self-reassurance subscale total	.004	.002	.

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Selection Criteria				PRESS	Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	Akaike Information Criterion	Amemiya Prediction Criterion	Mallows' Prediction Criterion	Schwarz Bayesian Criterion		
1	.422[a]	.178	.138	5.72046	.178	4.434	2	41	.018	156.369	.942	3.000	161.722	1592.355	2.074

a. Predictors: (Constant), Self-reassurance subscale total, Self-criticism subscale total

b. Dependent Variable: Compassion satisfaction subscale total

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	290.214	2	145.107	4.434	.018[b]
	Residual	1341.672	41	32.724		
	Total	1631.886	43			

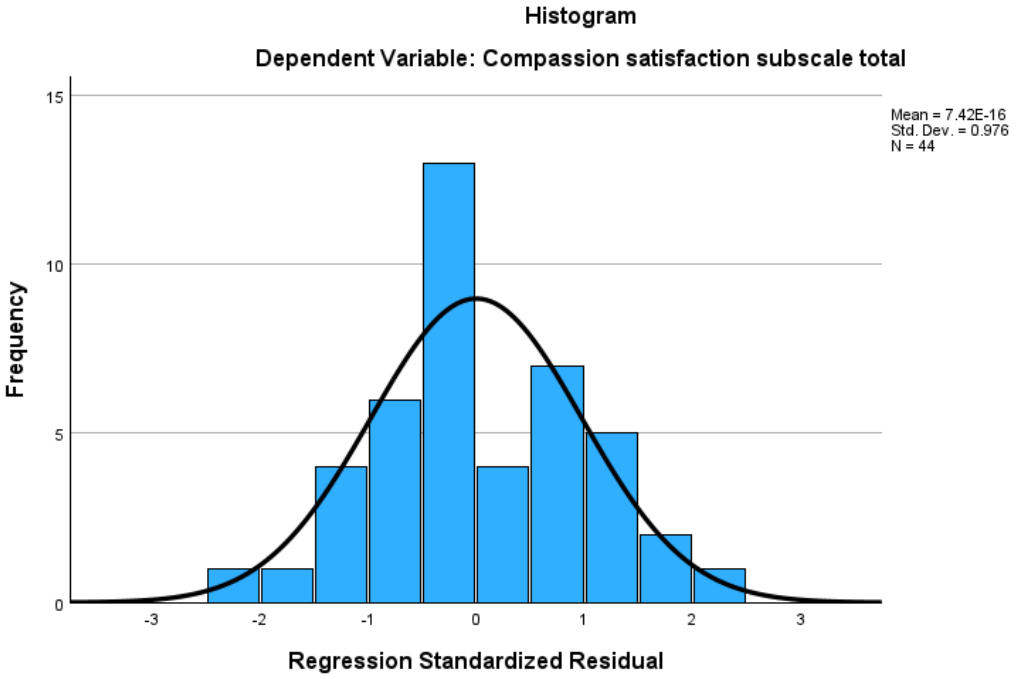
a. Dependent Variable: Compassion satisfaction subscale total

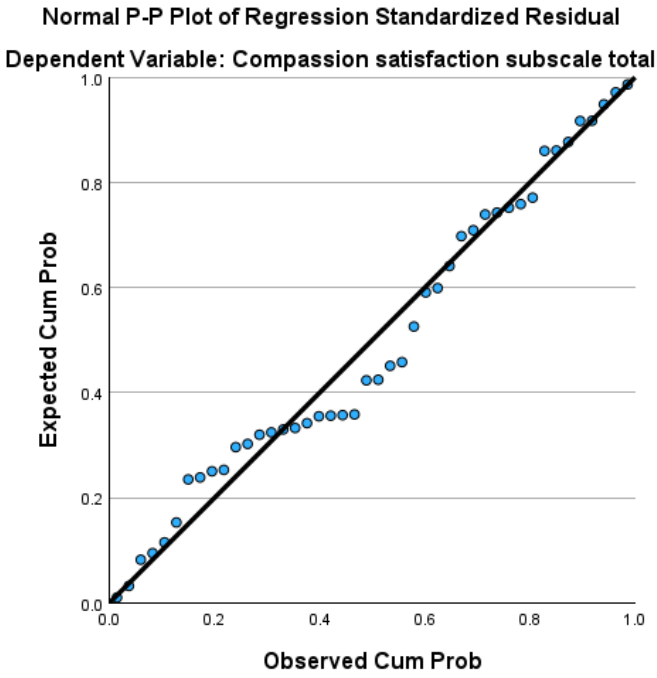
b. Predictors: (Constant), Self-reassurance subscale total, Self-criticism subscale total

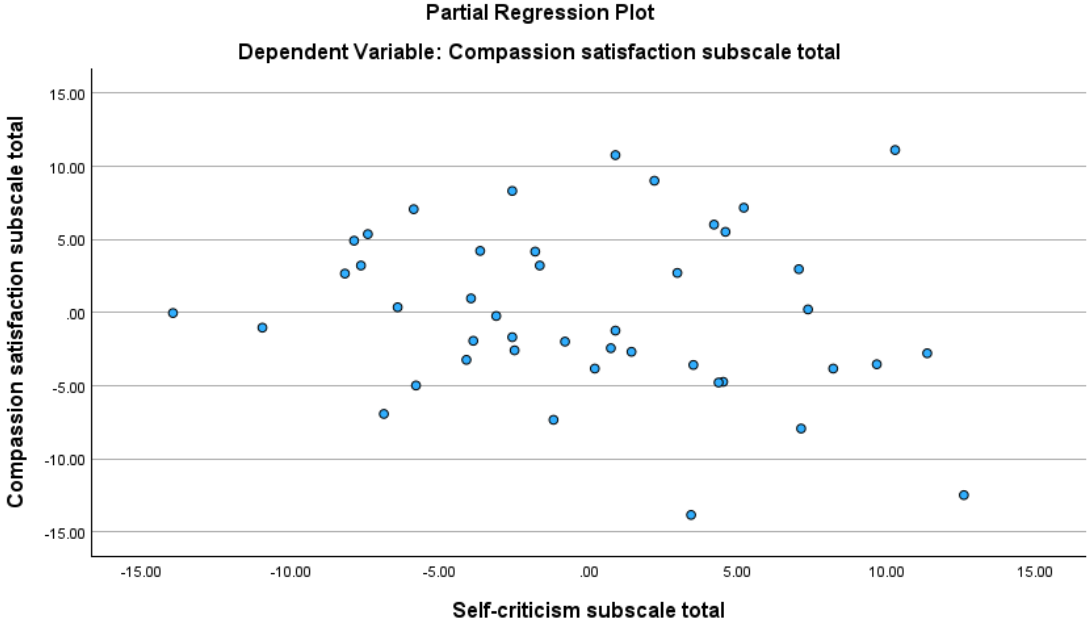
Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	33.275	5.020		6.628	<.001	23.136	43.414					
	Self-criticism subscale total	-.150	.140	-.167	-1.069	.291	-.433	.133	-.304	-.165	-.151	.821	1.218
	Self-reassurance subscale total	.369	.178	.323	2.067	.045	.008	.729	.394	.307	.293	.821	1.218

a. Dependent Variable: Compassion satisfaction subscale total


Histogram
Dependent Variable: Compassion satisfaction subscale total
Mean = 7.42E-16
Std. Dev. = 0.976
N = 44
Frequency
Regression Standardized Residual


Normal P-P Plot of Regression Standardized Residual
Dependent Variable: Compassion satisfaction subscale total
Expected Cum Prob
Observed Cum Prob


Partial Regression Plot
Dependent Variable: Compassion satisfaction subscale total
Compassion satisfaction subscale total
Self-criticism subscale total

Regression 3

Correlations

		Social support subscale total	Compassion fatigue subscale total	Compassion satisfaction subscale total
Pearson Correlation	Social support subscale total	1.000	-.060	.209
	Compassion fatigue subscale total	-.060	1.000	-.202
	Compassion satisfaction subscale total	.209	-.202	1.000
Sig. (1-tailed)	Social support subscale total	.	.350	.087
	Compassion fatigue subscale total	.350	.	.094
	Compassion satisfaction subscale total	.087	.094	.

Model Summary[b]

					Change Statistics					Selection Criteria					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change	Akaike Information Criterion	Amemiya Prediction Criterion	Mallows' Prediction Criterion	Schwarz Bayesian Criterion	PRESS	Durbin-Watson
1	.210[a]	.044	-.003	2.71450	.044	.943	2	41	.398	90.770	1.096	3.000	96.123	343.833	1.629

a. Predictors: (Constant), Compassion satisfaction subscale total, Compassion fatigue subscale total

b. Dependent Variable: Social support subscale total

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	13.890	2	6.945	.943	.398[b]
	Residual	302.110	41	7.369		
	Total	316.000	43			

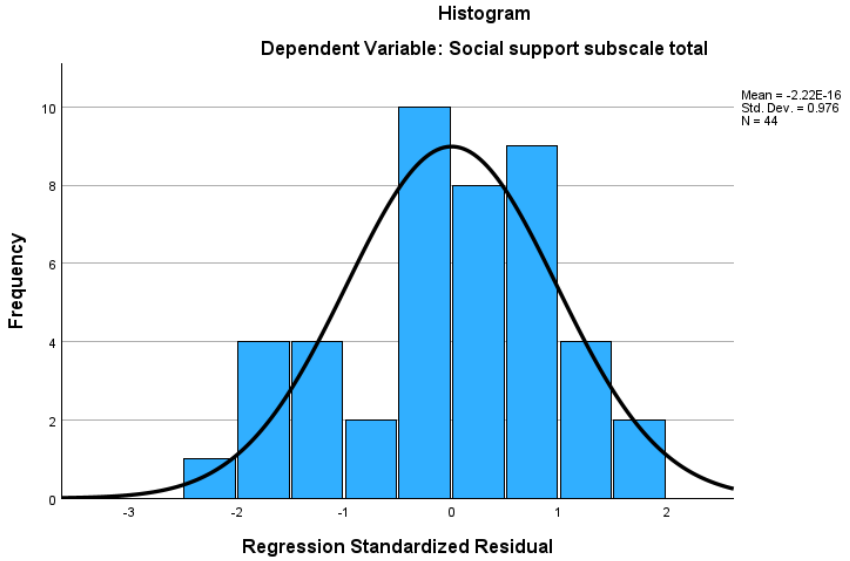
a. Dependent Variable: Social support subscale total

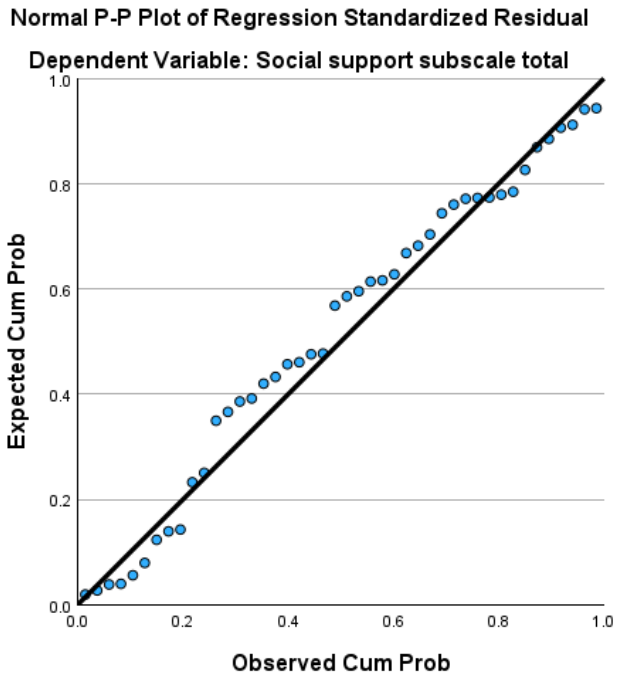
b. Predictors: (Constant), Compassion satisfaction subscale total, Compassion fatigue subscale total

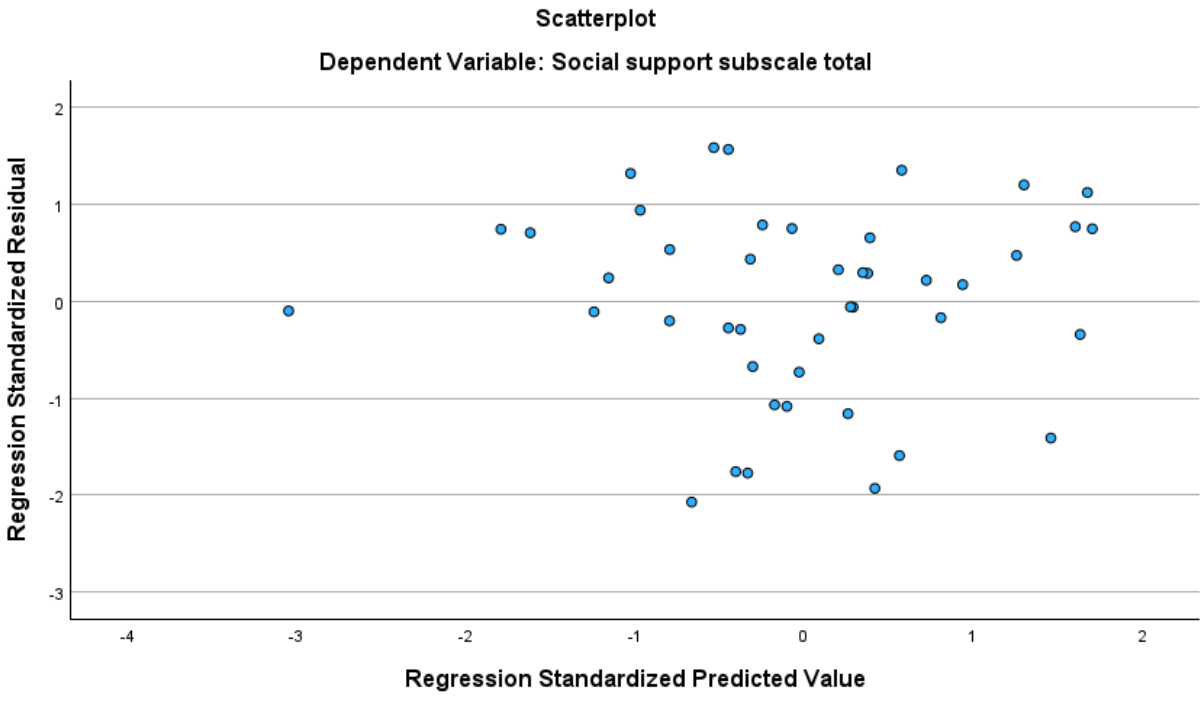
Coefficients[a]

		Unstandardized Coefficients		Standardized Coefficients			95.0% Confidence Interval for B		Correlations			Collinearity Statistics	
Model		B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	5.759	3.445		1.672	.102	-1.198	12.716					
	Compassion fatigue subscale total	-.008	.070	-.018	-.118	.907	-.150	.133	-.060	-.018	-.018	.959	1.042
	Compassion satisfaction subscale total	.090	.069	.205	1.316	.195	-.048	.229	.209	.201	.201	.959	1.042

a. Dependent Variable: Social support subscale total


Histogram
Dependent Variable: Social support subscale total
Mean = -2.22E-16
Std. Dev. = 0.976
N = 44
Frequency
Regression Standardized Residual


Normal P-P Plot of Regression Standardized Residual
Dependent Variable: Social support subscale total
Expected Cum Prob
Observed Cum Prob


Scatterplot
Dependent Variable: Social support subscale total
Regression Standardized Residual
Regression Standardized Predicted Value

Regression 4

Correlations

		Perceived safety subscale total	Compassion fatigue subscale total	Compassion satisfaction subscale total
Pearson Correlation	Perceived safety subscale total	1.000	-.400	-.057
	Compassion fatigue subscale total	-.400	1.000	-.202
	Compassion satisfaction subscale total	-.057	-.202	1.000
Sig. (1-tailed)	Perceived safety subscale total	.	.004	.356
	Compassion fatigue subscale total	.004	.	.094
	Compassion satisfaction subscale total	.356	.094	.

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Selection Criteria					
					R Square Change	F Change	df1	df2	Sig. F Change	Akaike Information Criterion	Amemiya Prediction Criterion	Mallows' Prediction Criterion	Schwarz Bayesian Criterion	PRESS	Durbin-Watson
1	.424[a]	.180	.140	3.72260	.180	4.494	2	41	.017	118.562	.940	3.000	123.915	683.014	1.954

a. Predictors: (Constant), Compassion satisfaction subscale total, Compassion fatigue subscale total

b. Dependent Variable: Perceived safety subscale total

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	124.559	2	62.279	4.494	.017[b]
	Residual	568.168	41	13.858		
	Total	692.727	43			

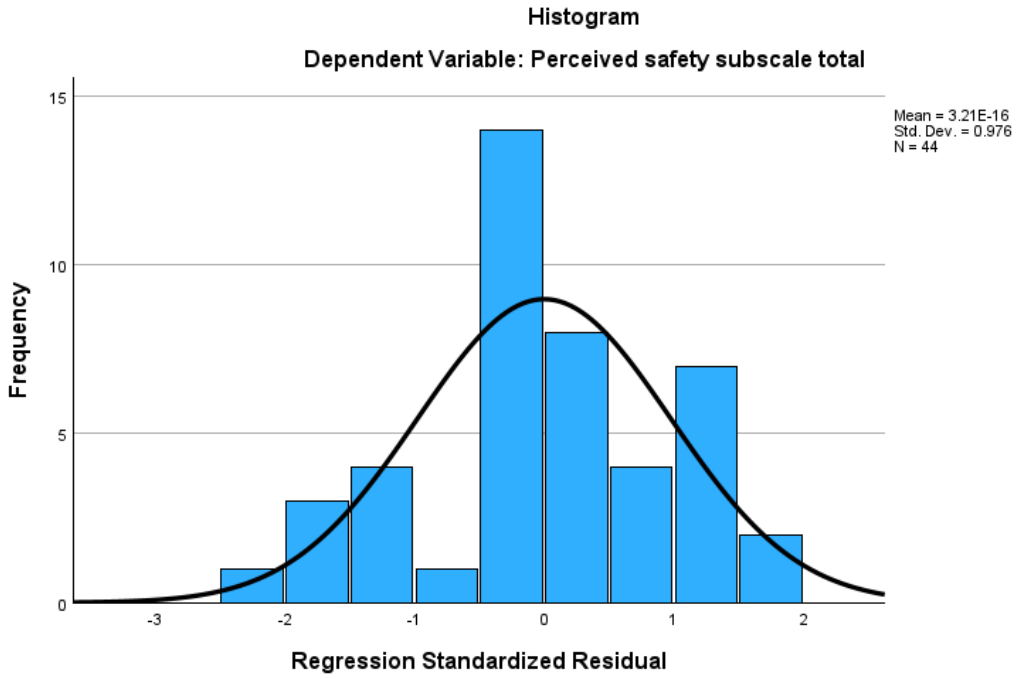
a. Dependent Variable: Perceived safety subscale total

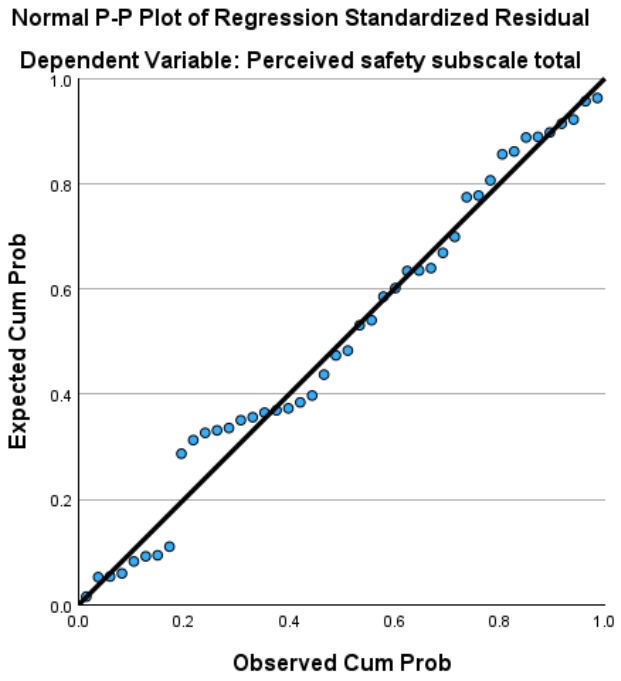
b. Predictors: (Constant), Compassion satisfaction subscale total, Compassion fatigue subscale total

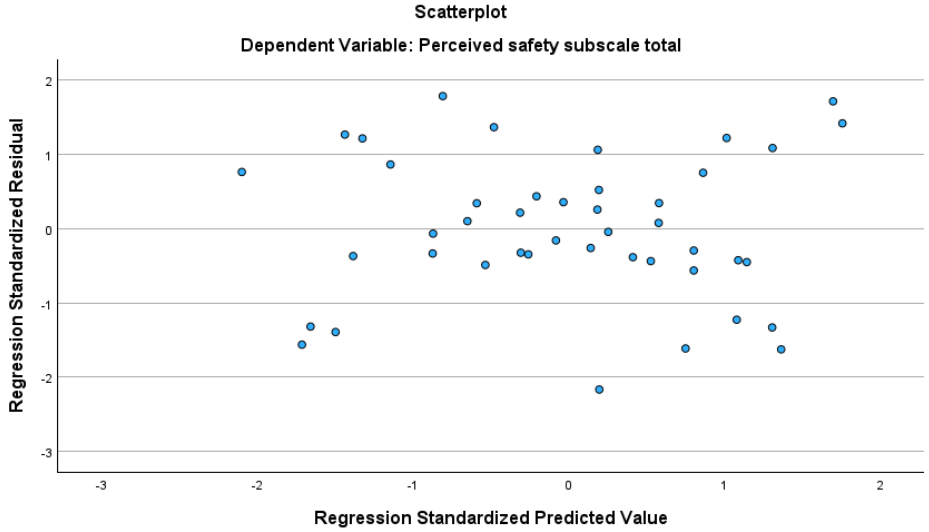
Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	20.378	4.724		4.313	<.001	10.837	29.919					
	Compassion fatigue subscale total	-.286	.096	-.429	-2.970	.005	-.480	-.091	-.400	-.421	-.420	.959	1.042
	Compassion satisfaction subscale total	-.094	.094	-.144	-.997	.324	-.284	.096	-.057	-.154	-.141	.959	1.042

a. Dependent Variable: Perceived safety subscale total


Histogram
Dependent Variable: Perceived safety subscale total
Mean = 3.21E-16
Std. Dev. = 0.976
N = 44
Frequency
Regression Standardized Residual


Normal P-P Plot of Regression Standardized Residual
Dependent Variable: Perceived safety subscale total
Expected Cum Prob
Observed Cum Prob


Scatterplot
Dependent Variable: Perceived safety subscale total
Regression Standardized Residual
Regression Standardized Predicted Value

Regression 5

Correlations

		Therapeutic hold subscale total	Compassion fatigue subscale total	Compassion satisfaction subscale total
Pearson Correlation	Therapeutic hold subscale total	1.000	-.303	.196
	Compassion fatigue subscale total	-.303	1.000	-.202
	Compassion satisfaction subscale total	.196	-.202	1.000
Sig. (1-tailed)	Therapeutic hold subscale total	.	.023	.101
	Compassion fatigue subscale total	.023	.	.094
	Compassion satisfaction subscale total	.101	.094	.

Model Summary[b]

					Change Statistics					Selection Criteria					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change	Akaike Information Criterion	Amemiya Prediction Criterion	Mallows' Prediction Criterion	Schwarz Bayesian Criterion	PRESS	Durbin-Watson
1	.333[a]	.111	.068	3.15036	.111	2.560	2	41	.090	103.874	1.019	3.000	109.227	482.370	1.787

a. Predictors: (Constant), Compassion satisfaction subscale total, Compassion fatigue subscale total

b. Dependent Variable: Therapeutic hold subscale total

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	50.811	2	25.405	2.560	.090[b]
	Residual	406.916	41	9.925		
	Total	457.727	43			

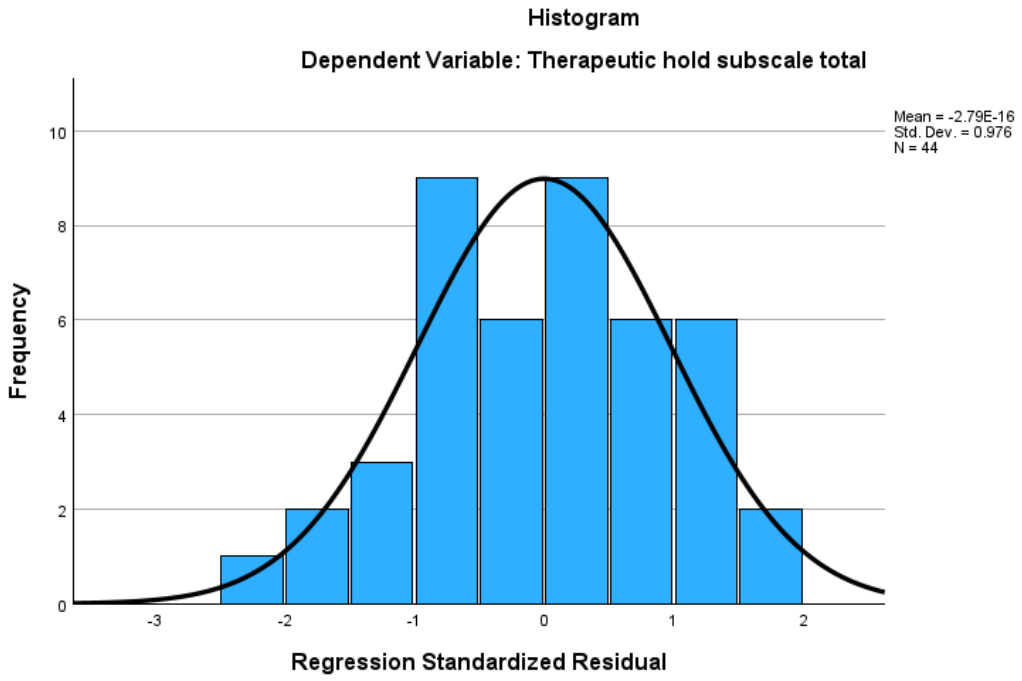
a. Dependent Variable: Therapeutic hold subscale total

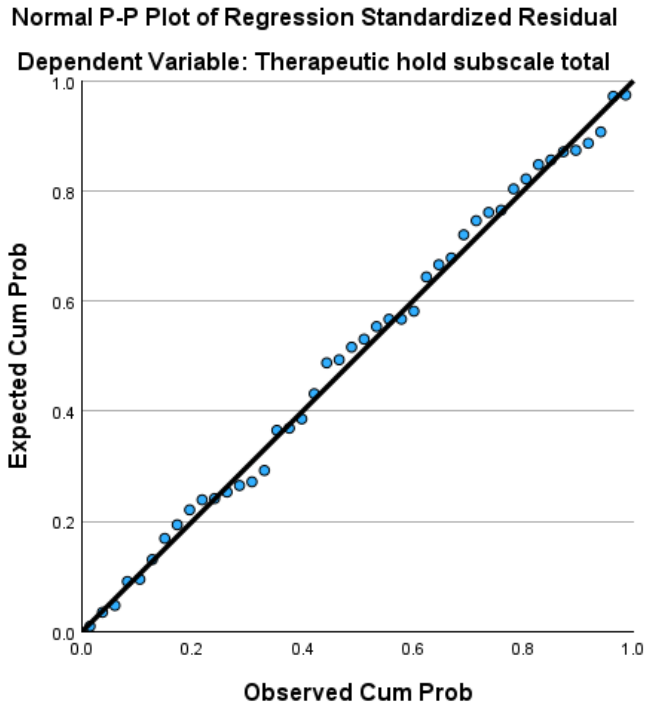
b. Predictors: (Constant), Compassion satisfaction subscale total, Compassion fatigue subscale total

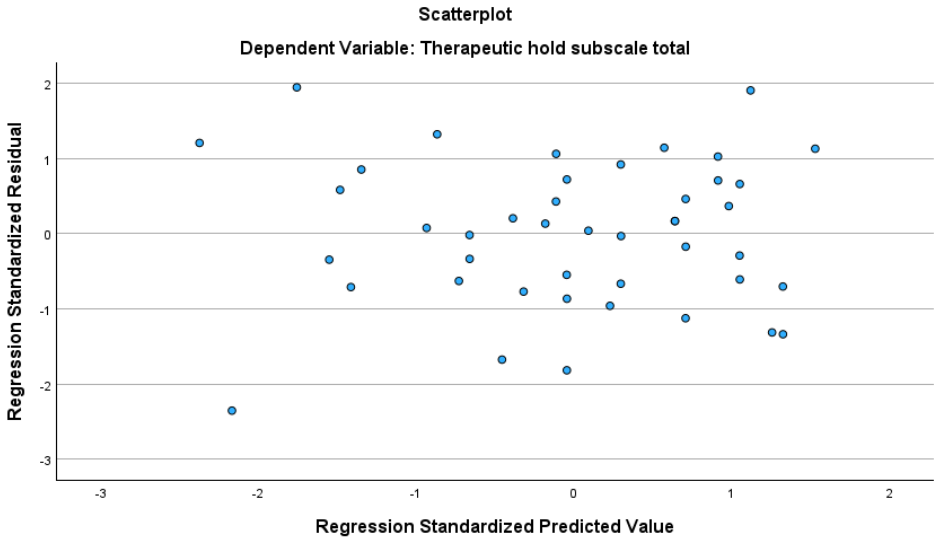
Coefficients[a]

		Unstandardized Coefficients		Standardized Coefficients			95.0% Confidence Interval for B		Correlations			Collinearity Statistics	
Model		B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	13.612	3.998		3.405	.001	5.537	21.686					
	Compassion fatigue subscale total	-.149	.081	-.275	-1.829	.075	-.313	.016	-.303	-.275	-.269	.959	1.042
	Compassion satisfaction subscale total	.075	.080	.141	.936	.355	-.086	.235	.196	.145	.138	.959	1.042

a. Dependent Variable: Therapeutic hold subscale total


Histogram
Dependent Variable: Therapeutic hold subscale total
Mean = -2.79E-16
Std. Dev. = 0.976
N = 44
Frequency
Regression Standardized Residual


Normal P-P Plot of Regression Standardized Residual
Dependent Variable: Therapeutic hold subscale total
Expected Cum Prob
Observed Cum Prob


Scatterplot
Dependent Variable: Therapeutic hold subscale total
Regression Standardized Residual
Regression Standardized Predicted Value

Appendix L: SPSS Analysis Output- Mean imputed dataset (n=51)
Regression 1

Descriptive Statistics

	N	Range	Minimum	Maximum	Mean		Std. Deviation	Variance	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
Self-reassurance subscale total	51	21.00	8.00	29.00	20.1176	.76371	5.45398	29.746	-.325	.333	-.651	.656
Self-attacking subscale total	51	13.00	.00	13.00	2.8039	.43207	3.08558	9.521	1.314	.333	1.373	.656
Self-criticism subscale total	51	29.00	.00	29.00	15.9412	.94947	6.78060	45.976	.117	.333	-.433	.656
Compassion fatigue subscale total	51	26.00	11.00	37.00	24.4118	.89931	6.42239	41.247	.300	.333	-.437	.656
Compassion satisfaction subscale total	51	30.00	19.00	49.00	38.4118	.84398	6.02719	36.327	-.387	.333	1.021	.656
Perceived safety subscale total	51	18.00	1.00	19.00	9.9412	.53681	3.83360	14.696	-.135	.333	.533	.656
Therapeutic hold subscale total	51	17.00	3.00	20.00	12.6667	.45389	3.24140	10.507	-.392	.333	.542	.656
Social support subscale total	51	11.00	3.00	14.00	9.1961	.37991	2.71308	7.361	-.366	.333	-.448	.656
Valid N (listwise)	51											

Correlations

		Compassion fatigue subscale total	Self-criticism subscale total	Self-reassurance subscale total
Pearson Correlation	Compassion fatigue subscale total	1.000	.468	-.016
	Self-criticism subscale total	.468	1.000	-.362
	Self-reassurance subscale total	-.016	-.362	1.000
Sig. (1-tailed)	Compassion fatigue subscale total	.	<.001	.455
	Self-criticism subscale total	.000	.	.005
	Self-reassurance subscale total	.455	.005	.

Model Summary[b]

					Change Statistics					Selection Criteria					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change	Akaike Information Criterion	Amemiya Prediction Criterion	Mallows' Prediction Criterion	Schwarz Bayesian Criterion	PRESS	Durbin-Watson
1	.496[a]	.246	.215	5.69155	.246	7.833	2	48	.001	180.284	.848	3.000	186.080	1748.569	1.896

a. Predictors: (Constant), Self-reassurance subscale total, Self-criticism subscale total

b. Dependent Variable: Compassion fatigue subscale total

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	507.453	2	253.727	7.833	.001[b]
	Residual	1554.900	48	32.394		
	Total	2062.353	50			

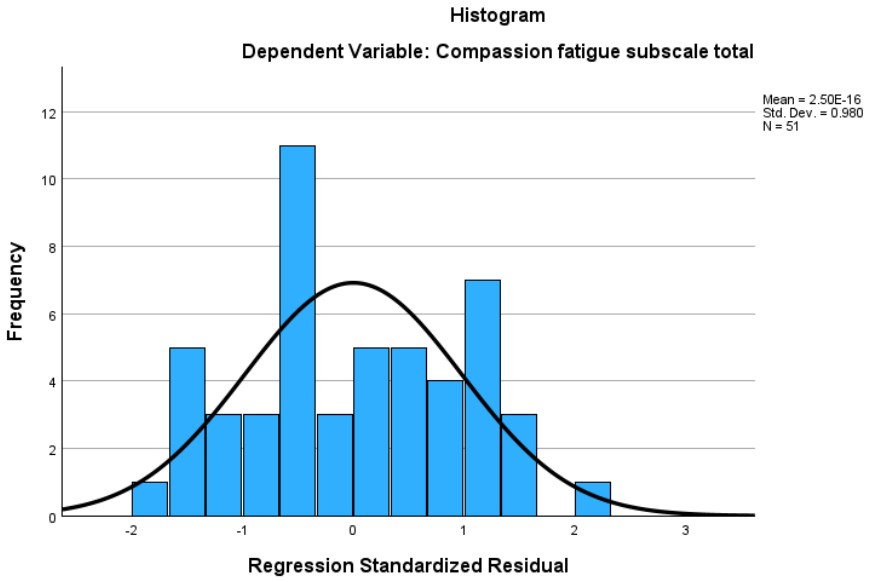
a. Dependent Variable: Compassion fatigue subscale total

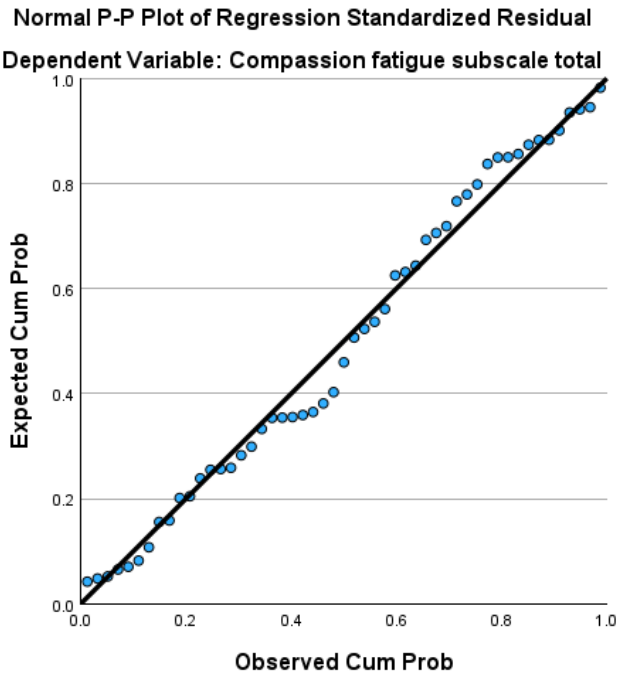
b. Predictors: (Constant), Self-reassurance subscale total, Self-criticism subscale total

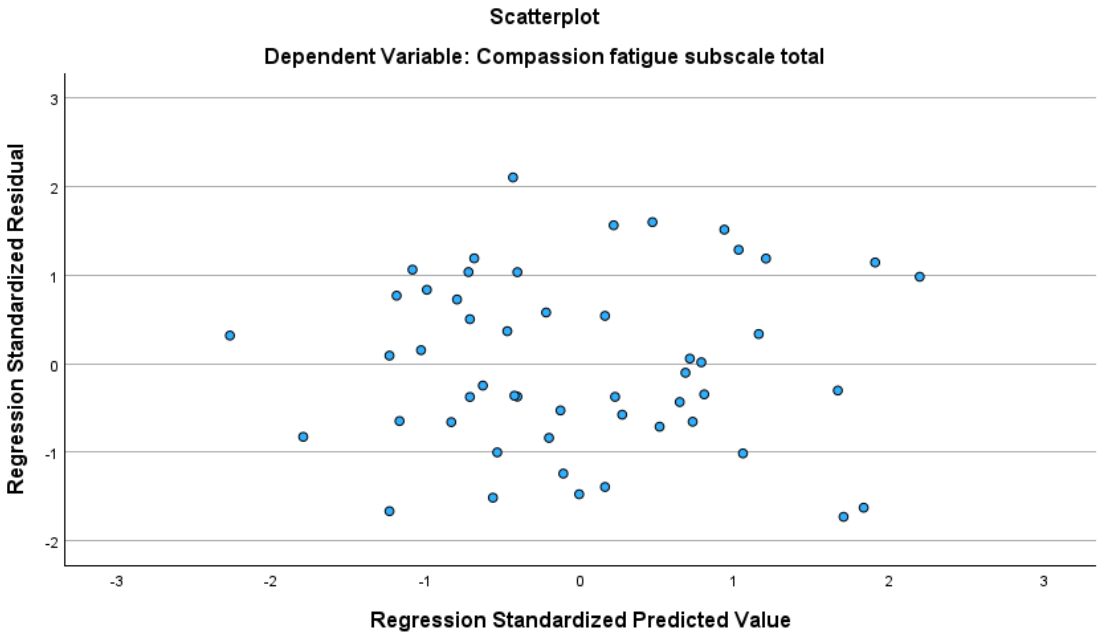
Coefficients[a]

		Unstandardized Coefficients		Standardized Coefficients			95.0% Confidence Interval for B		Correlations			Collinearity Statistics	
Model		B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	12.212	4.424		2.761	.008	3.318	21.107					
	Self-criticism subscale total	.504	.127	.532	3.956	<.001	.248	.760	.468	.496	.496	.869	1.150
	Self-reassurance subscale total	.207	.158	.176	1.310	.197	-.111	.526	-.016	.186	.164	.869	1.150

a. Dependent Variable: Compassion fatigue subscale total


Histogram
Dependent Variable: Compassion fatigue subscale total
Mean = 2.50E-16
Std. Dev. = 0.980
N = 51
Frequency
Regression Standardized Residual


Normal P-P Plot of Regression Standardized Residual
Dependent Variable: Compassion fatigue subscale total
Expected Cum Prob
Observed Cum Prob


Scatterplot
Dependent Variable: Compassion fatigue subscale total
Regression Standardized Residual
Regression Standardized Predicted Value

Re

Correlations

		Compassion satisfaction subscale total	Self-criticism subscale total	Self-reassurance subscale total
Pearson Correlation	Compassion satisfaction subscale total	1.000	-.335	.339
	Self-criticism subscale total	-.335	1.000	-.362
	Self-reassurance subscale total	.339	-.362	1.000
Sig. (1-tailed)	Compassion satisfaction subscale total	.	.008	.008
	Self-criticism subscale total	.008	.	.005
	Self-reassurance subscale total	.008	.005	.

Model Summary[b]

					Change Statistics					Selection Criteria					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change	Akaike Information Criterion	Amemiya Prediction Criterion	Mallows' Prediction Criterion	Schwarz Bayesian Criterion	PRESS	Durbin-Watson
1	.408[a]	.167	.132	5.61545	.167	4.801	2	48	.013	178.911	.937	3.000	184.707	1749.235	2.110

a. Predictors: (Constant), Self-reassurance subscale total, Self-criticism subscale total

b. Dependent Variable: Compassion satisfaction subscale total

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	302.755	2	151.377	4.801	.013[b]
	Residual	1513.598	48	31.533		
	Total	1816.353	50			

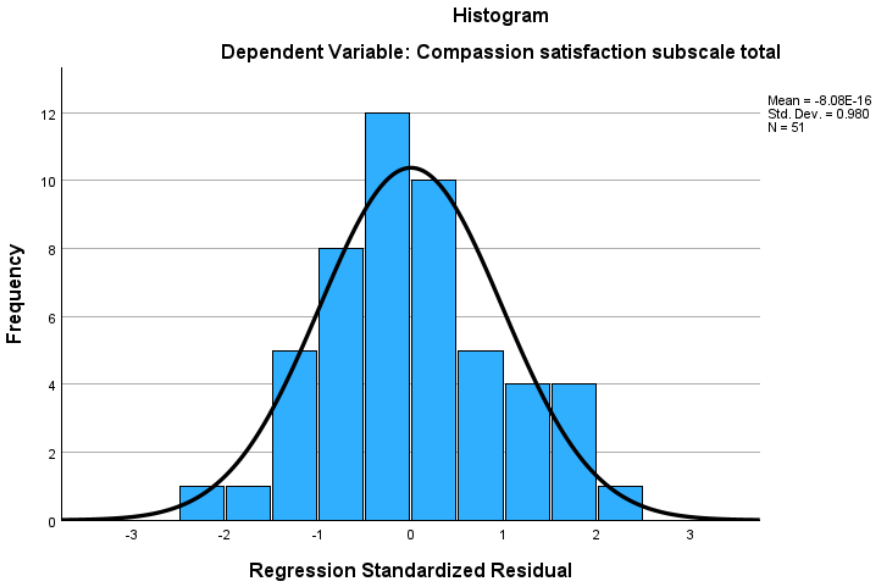
a. Dependent Variable: Compassion satisfaction subscale total

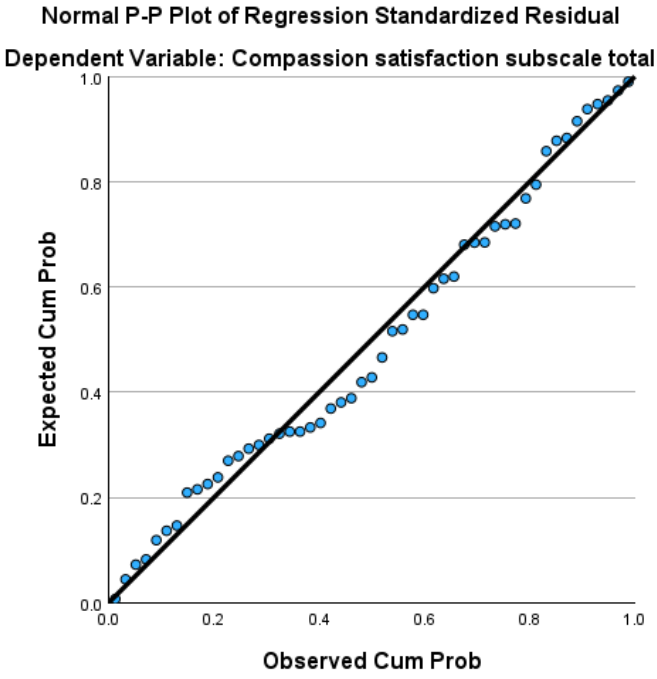
b. Predictors: (Constant), Self-reassurance subscale total, Self-criticism subscale total

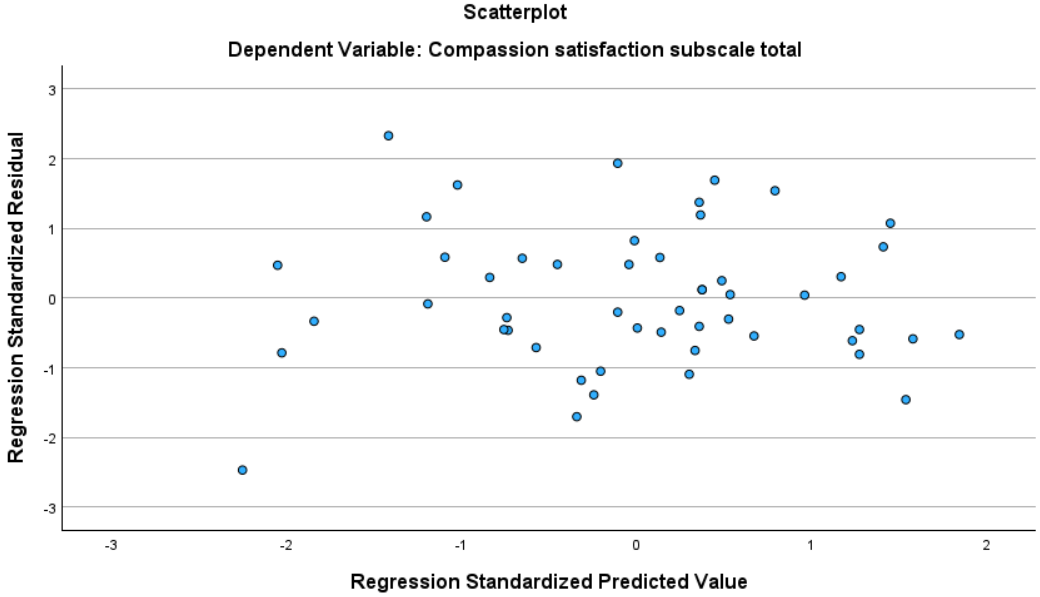
Coefficients[a]

		Unstandardized Coefficients		Standardized Coefficients			95.0% Confidence Interval for B		Correlations			Collinearity Statistics	
Model		B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	36.318	4.365		8.321	<.001	27.542	45.094					
	Self-criticism subscale total	-.217	.126	-.245	-1.731	.090	-.470	.035	-.335	-.242	-.228	.869	1.150
	Self-reassurance subscale total	.276	.156	.250	1.770	.083	-.038	.590	.339	.248	.233	.869	1.150

a. Dependent Variable: Compassion satisfaction subscale total


Histogram
Dependent Variable: Compassion satisfaction subscale total
Mean = -8.08E-16
Std. Dev. = 0.980
N = 51
Frequency
Regression Standardized Residual


Normal P-P Plot of Regression Standardized Residual
Dependent Variable: Compassion satisfaction subscale total
Expected Cum Prob
Observed Cum Prob


Scatterplot
Dependent Variable: Compassion satisfaction subscale total
Regression Standardized Residual
Regression Standardized Predicted Value

Regression 3

Correlations

		Social support subscale total	Compassion fatigue subscale total	Compassion satisfaction subscale total
Pearson Correlation	Social support subscale total	1.000	-.010	.171
	Compassion fatigue subscale total	-.010	1.000	-.283
	Compassion satisfaction subscale total	.171	-.283	1.000
Sig. (1-tailed)	Social support subscale total	.	.471	.115
	Compassion fatigue subscale total	.471	.	.022
	Compassion satisfaction subscale total	.115	.022	.

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Selection Criteria					
					R Square Change	F Change	df1	df2	Sig. F Change	Akaike Information Criterion	Amemiya Prediction Criterion	Mallows' Prediction Criterion	Schwarz Bayesian Criterion	PRESS	Durbin-Watson
1	.176[a]	.031	-.010	2.72600	.031	.764	2	48	.472	105.197	1.090	3.000	110.993	397.460	1.686

a. Predictors: (Constant), Compassion satisfaction subscale total, Compassion fatigue subscale total

b. Dependent Variable: Social support subscale total

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	11.349	2	5.674	.764	.472[b]
	Residual	356.690	48	7.431		
	Total	368.039	50			

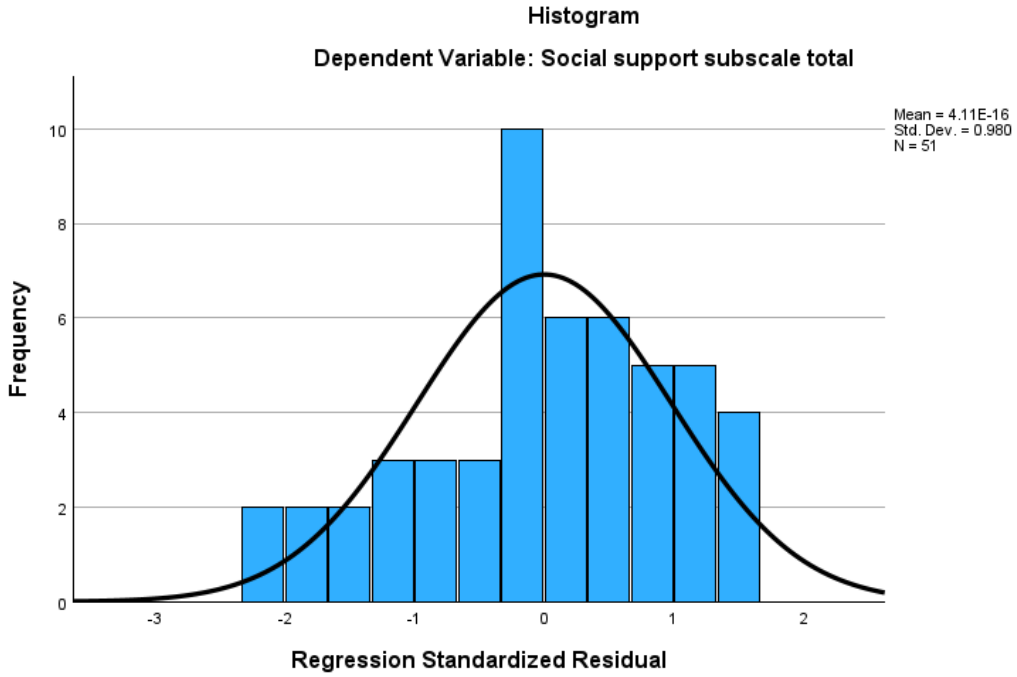
a. Dependent Variable: Social support subscale total

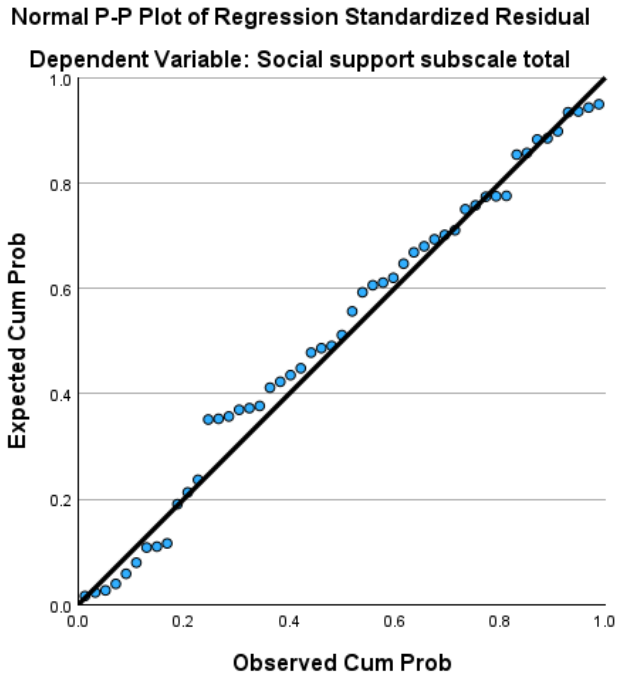
b. Predictors: (Constant), Compassion satisfaction subscale total, Compassion fatigue subscale total

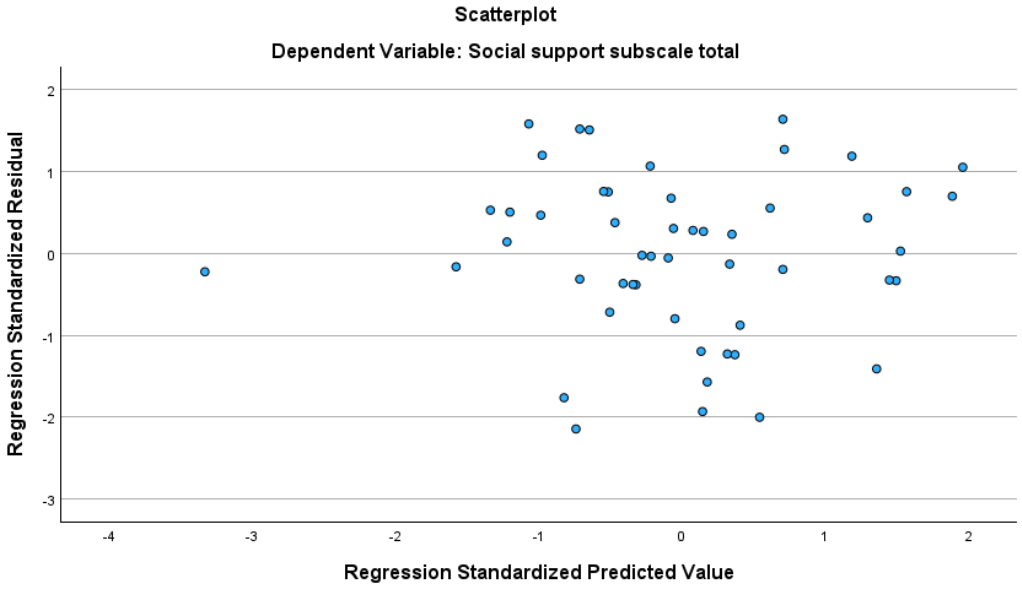
Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	5.611	3.355		1.672	.101	-1.135	12.357					
	Compassion fatigue subscale total	.017	.063	.041	.278	.782	-.108	.143	-.010	.040	.040	.920	1.087
	Compassion satisfaction subscale total	.082	.067	.183	1.234	.223	-.052	.216	.171	.175	.175	.920	1.087

a. Dependent Variable: Social support subscale total


Histogram
Dependent Variable: Social support subscale total
Mean = 4.11E-16
Std. Dev. = 0.980
N = 51
Frequency
Regression Standardized Residual


Normal P-P Plot of Regression Standardized Residual
Dependent Variable: Social support subscale total
Expected Cum Prob
Observed Cum Prob


Scatterplot
Dependent Variable: Social support subscale total
Regression Standardized Residual
Regression Standardized Predicted Value

Regression 4

Correlations

		Perceived safety subscale total	Compassion fatigue subscale total	Compassion satisfaction subscale total
Pearson Correlation	Perceived safety subscale total	1.000	-.345	-.064
	Compassion fatigue subscale total	-.345	1.000	-.283
	Compassion satisfaction subscale total	-.064	-.283	1.000
Sig. (1-tailed)	Perceived safety subscale total	.	.007	.328
	Compassion fatigue subscale total	.007	.	.022
	Compassion satisfaction subscale total	.328	.022	.

Model Summary[b]

					Change Statistics					Selection Criteria					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change	Akaike Information Criterion	Amemiya Prediction Criterion	Mallows' Prediction Criterion	Schwarz Bayesian Criterion	PRESS	Durbin-Watson
1	.384[a]	.147	.112	3.61279	.147	4.149	2	48	.022	133.925	.959	3.000	139.721	728.218	2.465

a. Predictors: (Constant), Compassion satisfaction subscale total, Compassion fatigue subscale total

b. Dependent Variable: Perceived safety subscale total

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	108.314	2	54.157	4.149	.022[b]
	Residual	626.509	48	13.052		
	Total	734.824	50			

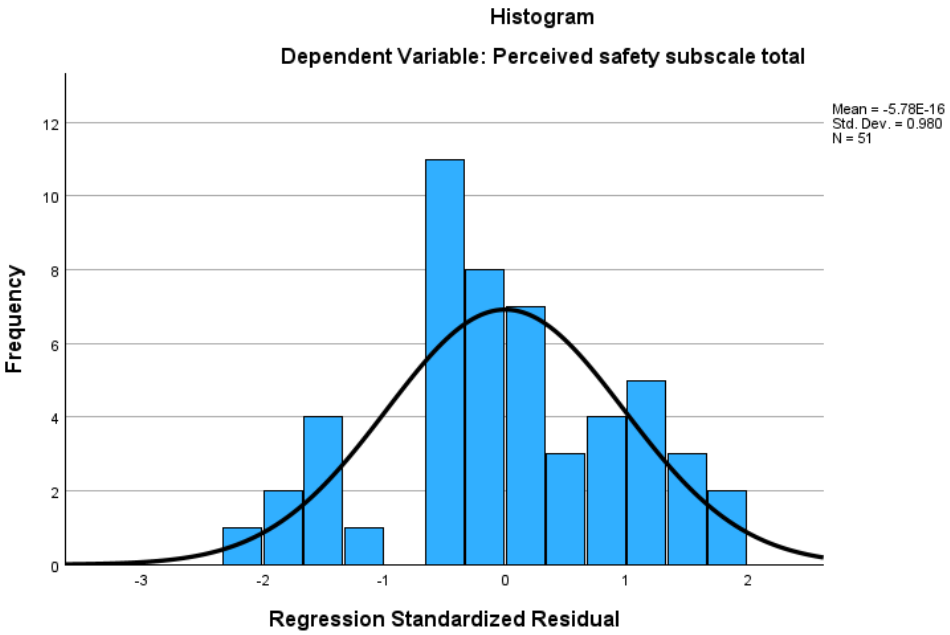
a. Dependent Variable: Perceived safety subscale total

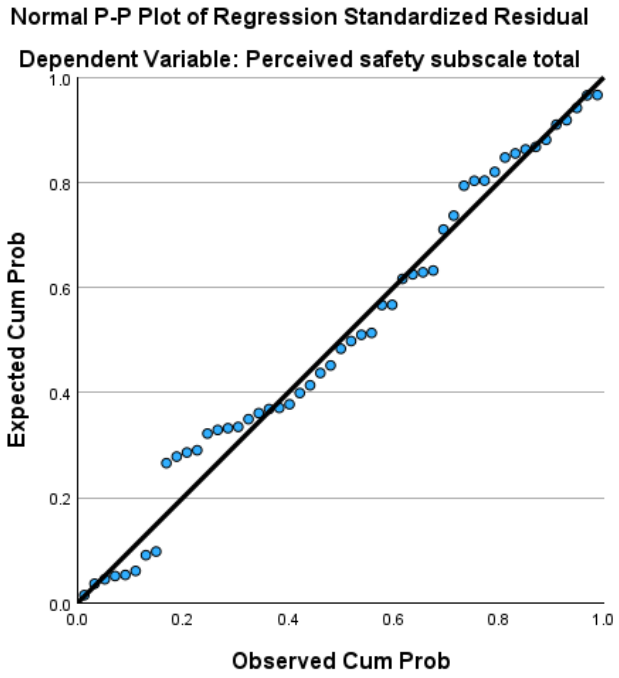
b. Predictors: (Constant), Compassion satisfaction subscale total, Compassion fatigue subscale total

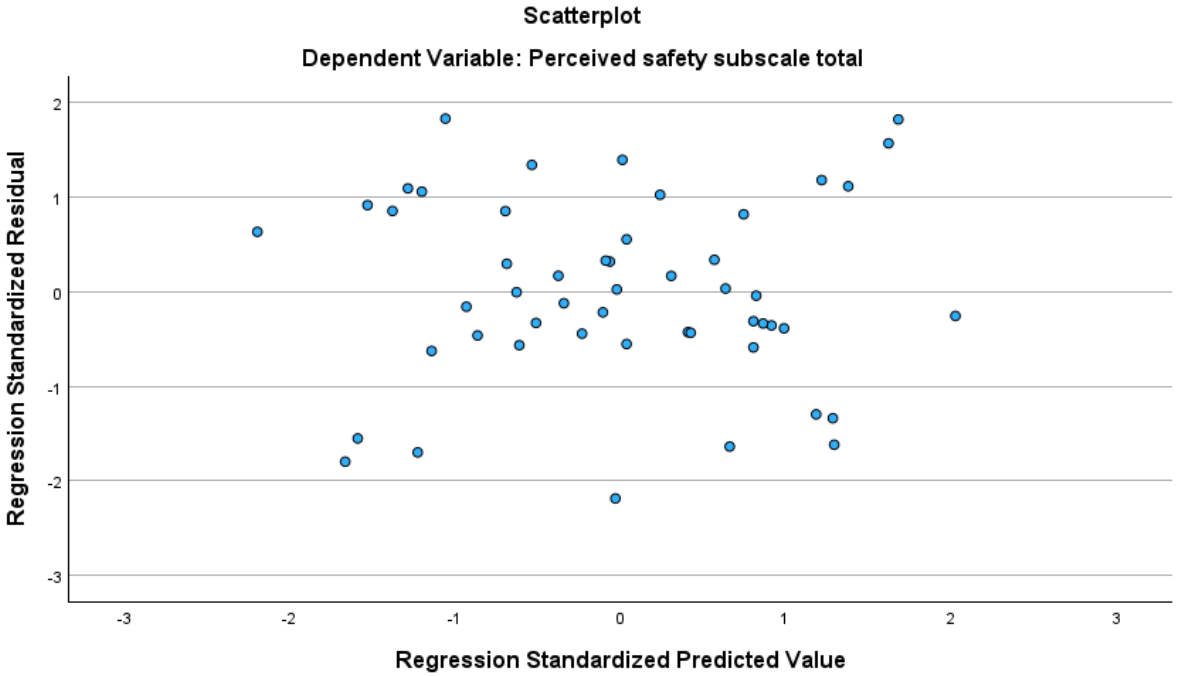
Coefficients[a]

		Unstandardized Coefficients		Standardized Coefficients			95.0% Confidence Interval for B		Correlations			Collinearity Statistics	
Model		B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	19.981	4.446		4.494	<.001	11.041	28.922					
	Compassion fatigue subscale total	-.236	.083	-.395	-2.841	.007	-.402	-.069	-.345	-.379	-.379	.920	1.087
	Compassion satisfaction subscale total	-.112	.088	-.176	-1.263	.213	-.289	.066	-.064	-.179	-.168	.920	1.087

a. Dependent Variable: Perceived safety subscale total


Histogram
Dependent Variable: Perceived safety subscale total
Mean = -5.78E-16
Std. Dev. = 0.980
N = 51
Frequency
Regression Standardized Residual


Normal P-P Plot of Regression Standardized Residual
Dependent Variable: Perceived safety subscale total
Expected Cum Prob
Observed Cum Prob


Scatterplot
Dependent Variable: Perceived safety subscale total
Regression Standardized Residual
Regression Standardized Predicted Value

Regression 5

Correlations

		Therapeutic hold subscale total	Compassion fatigue subscale total	Compassion satisfaction subscale total
Pearson Correlation	Therapeutic hold subscale total	1.000	-.239	.130
	Compassion fatigue subscale total	-.239	1.000	-.283
	Compassion satisfaction subscale total	.130	-.283	1.000
Sig. (1-tailed)	Therapeutic hold subscale total	.	.045	.182
	Compassion fatigue subscale total	.045	.	.022
	Compassion satisfaction subscale total	.182	.022	.

Model Summary[b]

					Change Statistics					Selection Criteria					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change	Akaike Information Criterion	Amemiya Prediction Criterion	Mallows' Prediction Criterion	Schwarz Bayesian Criterion	PRESS	Durbin-Watson
1	.248[a]	.061	.022	3.20498	.061	1.571	2	48	.218	121.708	1.056	3.000	127.504	562.770	1.710

a. Predictors: (Constant), Compassion satisfaction subscale total, Compassion fatigue subscale total

b. Dependent Variable: Therapeutic hold subscale total

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	32.281	2	16.141	1.571	.218[b]
	Residual	493.052	48	10.272		
	Total	525.333	50			

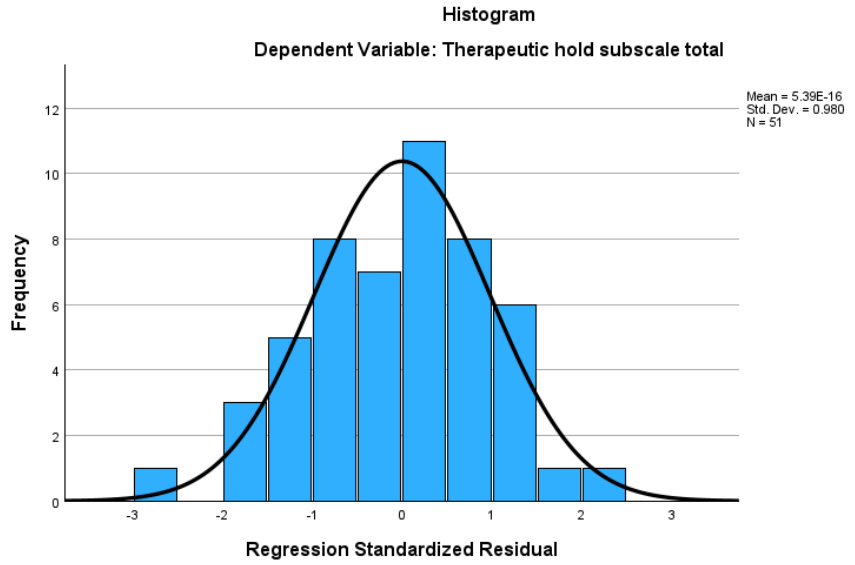
a. Dependent Variable: Therapeutic hold subscale total

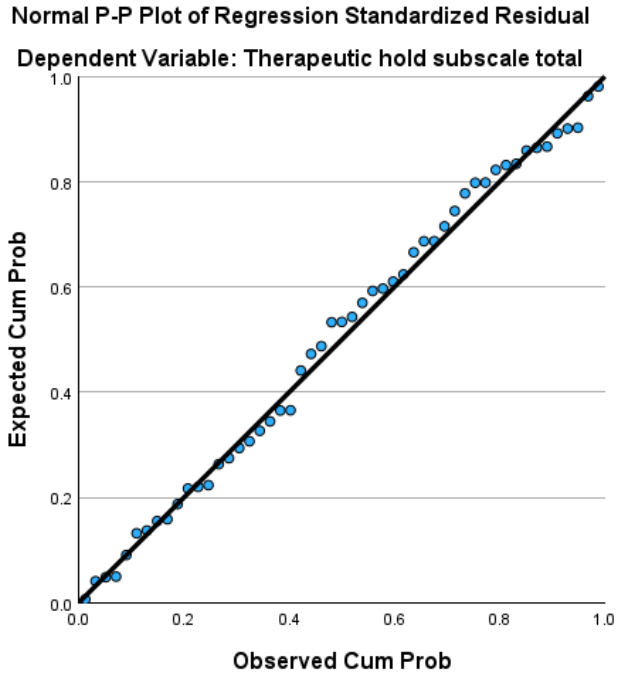
b. Predictors: (Constant), Compassion satisfaction subscale total, Compassion fatigue subscale total

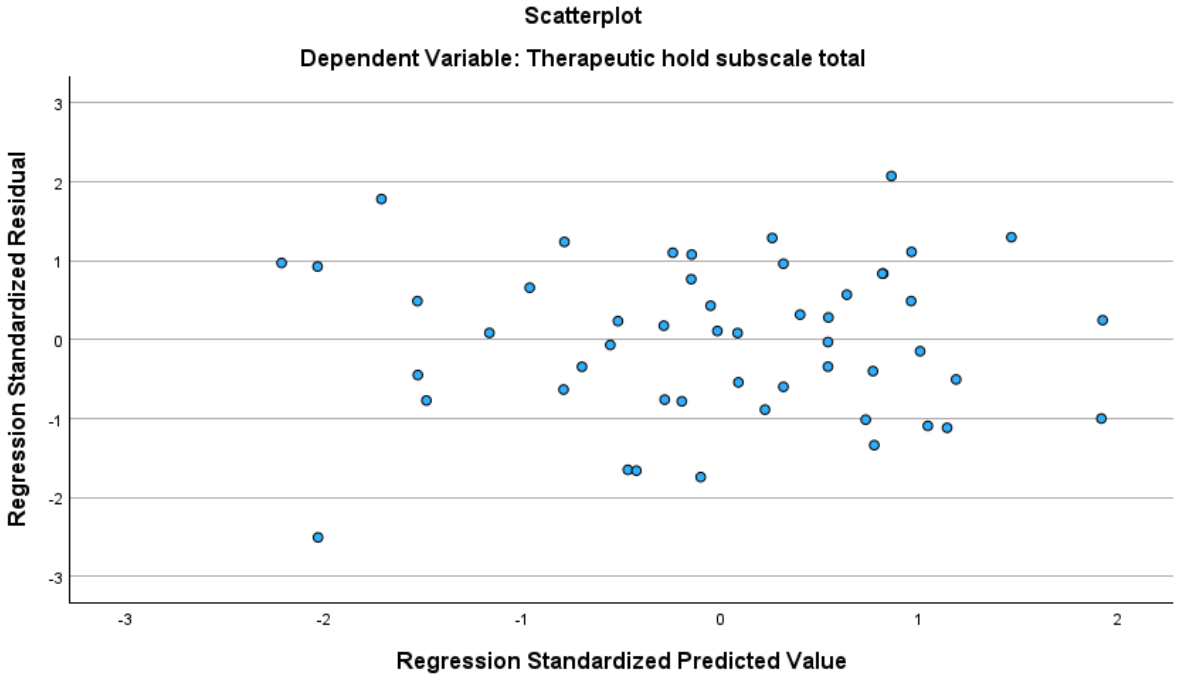
Coefficients[a]

		Unstandardized Coefficients		Standardized Coefficients			95.0% Confidence Interval for B		Correlations			Collinearity Statistics	
Model		B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	13.978	3.945		3.544	<.001	6.047	21.909					
	Compassion fatigue subscale total	-.111	.074	-.220	-1.509	.138	-.259	.037	-.239	-.213	-.211	.920	1.087
	Compassion satisfaction subscale total	.036	.078	.068	.465	.644	-.121	.194	.130	.067	.065	.920	1.087

a. Dependent Variable: Therapeutic hold subscale total


Histogram
Dependent Variable: Therapeutic hold subscale total
Mean = 5.39E-16
Std. Dev. = 0.980
N = 51
Frequency
Regression Standardized Residual


Normal P-P Plot of Regression Standardized Residual
Dependent Variable: Therapeutic hold subscale total
Expected Cum Prob
Observed Cum Prob


Scatterplot
Dependent Variable: Therapeutic hold subscale total
Regression Standardized Residual
Regression Standardized Predicted Value

Paper 3: Executive Summary

Executive Summary

(an overview of the full report)

Staff self-relating as a predictor of compassion fatigue and compassion satisfaction, and the predictive influence of compassion fatigue and compassion satisfaction on ward climate in a secure hospital.

Key terms

Self-relating 	The way you treat yourself in your own mind — whether you're your own worst critic or your own best supporter.
Self-criticism 	When things go wrong, one way we can relate to ourselves is by being unkind to ourself e.g. "I am no good at this".
Self-reassurance 	When things go wrong, another way we can relate to ourselves is by being kind to ourself e.g. "It's okay, everyone makes mistakes".
Compassion fatigue or "CF" 	Caring for others can take a toll, sometimes leading to what's known as *compassion fatigue*. This can affect people in many ways—physically, emotionally, and at work. Common signs include poor sleep, anxiety, difficulty concentrating, and trouble coping at work.

Compassion satisfaction or "CS" 	When people get pleasure from caring for others. Some ways people experience compassion satisfaction are liking colleagues, feeling good about helping, and being active at work.
Therapeutic ward climate 	When the ward feels positive and therapeutic. It is made up of patient cohesion, perceived safety, and therapeutic hold.
Patient cohesion 	How well service users support each other on the ward.
Perceived safety 	How safe the ward feels to staff working on them.
Therapeutic hold 	How much a ward is able to focus on therapeutic change and good outcomes for service users.

Summary of the study

The study looked at forensic mental health professionals (FMHPs). The researchers wanted to understand some of the factors that might impact staff wellbeing and find out if staff wellbeing has an effect on the ward environment. They found high self-criticism predicts high CF, and high CF predicts low ward safety. More research is needed to understand these factors more and organisations need to look at ways to support staff better.

Background (why are we looking at this?)

Working in forensic mental health hospitals is challenging for lots of reasons...

Balancing caring for service users and managing risk
Exposure to aggression, violence and self-harm
Not enough staff, not enough resources, high workloads

We know that this has a negative impact on FMHPs physical and mental health. So, it is important we understand the factors involved in staff wellbeing in this setting so that we can better inform interventions to prevent and reduce the negative impact of this work.

Aims

1. To find out if self-criticism and self-reassurance predict CF and CS.
2. To find out if CF and CS predict therapeutic ward climate.

Method (what did we do?)

The study was advertised via an email that was sent out to staff and via posters that were put up. Staff were asked to complete the questionnaires online or by returning paper copies to the lead researcher.

The data was analysed using multiple linear regressions, to test whether one thing (i.e. self-criticism) predicts another (i.e. CF).

Participants (who took part?)

51 FMHPs took part in the study. Average age was 37 years old. The most common profession was nurses and the most common ethnicity was White British.

Results (what did we find out?)

The study found...

1) High levels of CF
2) Moderate levels of CS
3) Moderate levels of self-criticism and self-reassurance

The study also found correlations between some of the variables. A correlation is when two things are linked but we don't know how they are linked.

1) CF and CS are negatively correlated meaning when CF goes up, CS goes down
2) Self-criticism and self-reassurance are negatively correlated meaning when self-criticism goes up, self-reassurance goes down
3) CF and therapeutic hold are negatively correlated meaning when CF goes up, therapeutic hold goes down

The study also found predictive relationships between two of the variables. A predictive relationship means if you know something about one thing, then you can make a good guess about another.

1) Self criticism positively predicted CF. So when self-criticism was high, then CF was also high.
2) CF negatively predicted perceived ward safety. So when CF was high, then perceived ward safety was low.

Discussion (what does this mean?)

- CF is a problem affecting FMHPs so organisations need to do something to protect staff and ensure safe practice.
- FMHPs are still able to get some enjoyment from their work despite high CF. This means something else must be protecting staff from the effects of CF.
- Research suggests that support from colleagues and positive workplace culture helps reduce the effects of CF.

- Reducing self-criticism and increasing self-compassion (e.g., via compassion-focused therapy) may help reduce CF.
- Self-reassurance didn't predict outcomes; self-compassion might have been more useful to include in the study.
- CF negatively affects sleep, concentration, and motivation, likely impacting FMHPs' ability to work safely.
- Other unmeasured factors (e.g., high workload, lack of resources, no. of incidents) may have an impact.

Implications (what could we do with these findings?)

1) Self-compassion interventions
FMHPs might benefit from self-compassion interventions but they would need to be adapted (e.g. short-term, could be delivered online).

2) Evaluate interventions for FMHPs
Future research needs to evaluate interventions to see if they are working for FMHPs and why.

3) Organisations need to make changes
To prioritise wellbeing of FMHPs and make the workplace safe and therapeutic, organisations need to make changes (e.g. compassionate leadership, supervision, reflective spaces)

4) More research
Future research could use something called a mediation analysis (which means finding out **how** one thing affects another) to understand the study variables better.

Limitations (what could be better about the study)

It was hard to recruit FMHPs to take part in the study. It was hard for staff to find time to complete the questionnaires and they couldn't complete it in a private space. This might have meant they felt rushed or that they couldn't be honest.

The study only looked at some individual factors and did not include other things that might impact the study variables (e.g. length of time in job, staff shortages)

Dissemination (how are we going to share the findings?)

This summary will be shared with FMHPs at the participating sites via email. The findings can also be presented at a Quality Improvement meeting if the service would find this useful.

Any questions?

Contact Emily Dukes (lead researcher) by email
d042142m@student.staffs.ac.uk