

Burnout within healthcare workers: The role of self-compassion, job demands and empathy

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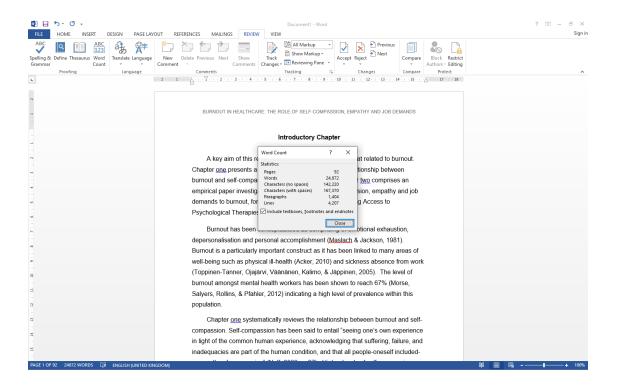
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Introductory Chapter

A key aim of this research was to investigate factors that related to burnout. Chapter one presents a systematic review exploring the relationship between burnout and self-compassion in healthcare workers. Chapter two comprises an empirical paper investigating the relationship of self-compassion, empathy and job demands to burnout, for practitioners working in an Improving Access to Psychological Therapies Service (IAPT).

Burnout has been conceptualised as comprising of emotional exhaustion, depersonalisation and personal accomplishment (Maslach & Jackson, 1981). Burnout is a particularly important construct as it has been linked to many areas of well-being such as physical ill-health (Acker, 2010) and sickness absence from work (Toppinen-Tanner, Ojajärvi, Väänänen, Kalimo, & Jäppinen, 2005). The level of burnout amongst mental health workers has been shown to reach 67% (Morse, Salyers, Rollins, & Pfahler, 2012) indicating a high level of prevalence within this population.

Chapter one systematically reviews the relationship between burnout and self-compassion. Self-compassion has been said to entail "seeing one's own experience in light of the common human experience, acknowledging that suffering, failure, and inadequacies are part of the human condition, and that all people-oneself included-are worthy of compassion" (Neff, 2003, p. 87). Higher levels of self-compassion have been linked with wellbeing (Zessin, Dickhäuser, & Garbade, 2015), a higher quality of life (Kim & Ko, 2018) and lower levels of anxiety, depression and stress (MacBeth & Gumley, 2012). Self-compassion is important within healthcare as it has been argued that those without self-compassion may not show compassion towards service users (Heffernan, Quinn, Griffin, McNulty & Fitzpatrick, 2010). The literature seems to indicate a negative correlation between self-compassion and burnout.

Chapter two describes an empirical study, of the relationships between self-compassion, empathy and job demands and how they relate to burnout within an IAPT population. This population has received very little research in terms of burnout, despite the limited literature suggesting that burnout is prevalent (Steel, Macdonald, Schröder, & Mellor-Clark, 2015; Westwood, Morison, Allt, & Holmes,

2017; Scott, 2018). The empirical study examined both intra-psychic factors (self-compassion and empathy) and organisational factors (caseload satisfaction, perceived pressure from service targets, number of hours worked and quantity of clinical work), which have been shown to be associated with burnout. To the author's knowledge, this is the first research which explores empathy and self-compassion in conjunction with organisational related variables in an IAPT population.

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Chapter 1: Literature Review

The Relationship Between Burnout and Self-Compassion: A Systematic Review

Abstract

Objectives: The constructs of burnout and self-compassion have both received much research attention but the relationship between these two constructs is far from fully understood. This paper presents a systematic review of the relationship between burnout and self-compassion.

Design: A systematic review was conducted in line with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines. Science Direct, PubMed, PsycINFO, MEDLINE and CINAHL Plus were searched using various search terms to identify relevant papers.

Results: Fourteen papers were identified that met the inclusion/exclusion criteria for the review. All studies indicated some form of negative relationship between burnout and self-compassion, indicating that higher global levels of self-compassion are associated with lower levels of burnout. Not all individual components of self-compassion demonstrated this relationship unanimously across the literature, indicating important conceptual differences between the components of self-compassion.

Conclusions: There was consistent evidence in support of a negative relationship between burnout and self-compassion, particularly when self-compassion was measured using a global score. Further research is required to better understand the relationship between the individual sub-scales of self-compassion and their relationship to burnout. Future research addressing methodological limitations would improve our understanding of the nature of the relationships between self-compassion and burnout.

Keywords: Self-compassion, burnout, systematic review, healthcare

Introduction

The construct of occupational burnout began to be formally recognised in the 1970's (Freudenberger, 1974). Since then, burnout has become increasingly researched with an estimated 6000 books, journal articles and dissertations written (Schaufeli, Leiter, & Maslach, 2008). Burnout has been described in the literature as consisting of three components; emotional exhaustion, depersonalisation and personal accomplishment (Maslach, & Jackson, 1981). Emotional exhaustion is a state of fatigue or feeling drained after exceeding your capacity for emotional stressors. Depersonalisation can be defined as experiencing feelings of cynicism and detachment from the job and personal accomplishment is a sense of achievement through one's work with clients. This tripartite construct has underpinned the majority of burnout research since the 1970's (Maslach, Schaufeli, & Leiter, 2001).

Research indicates a widespread issue with burnout within healthcare populations throughout several countries. Research conducted with healthcare workers from the United Kingdom (U.K.) have identified burnout in a wide range of healthcare professions including consultants (Khan, Teoh, Islam, & Hassard, 2018), ear nose and throat surgeons (Vijendren, Yung, & Shiralkar, 2016), doctors (Imo, 2017) and psychiatric nurses (Laker, Cella, Callard, & Wykes, 2018). Outside the U.K., studies have identified burnout in oncology workers in Spain (Font, Corti, & Berger, 2015), mental health workers from Singapore (Yang, Meredith, & Khan, 2015) and clinical psychologists in Australia (Souza, Egan, & Rees, 2011). The healthcare literature sees burnout as so prevalent it has been argued that it should be treated as a public health issue due to the harmful effects experienced by individuals (de Paiva, Canário, de Paiva China & Gonçalves, 2017). In mental health populations the prevalence of burnout is reported as exceeding 50% (Morse, Salyers, Rollins, Monroe-DeVita, & Pfahler, 2012).

During the last decade, policies of austerity in the U.K. has meant that the NHS has suffered several years of real term funding cuts, meaning staff are experiencing increased pressure whilst working with reduced resources (Wilkinson, 2015). When there is increased pressure in the workplace, it is possible that burnout

and stress experienced by staff may also increase (Rössler, 2012). Burnout has been linked with increased sickness absence from work (Ahola, et al., 2008; Borritz, Rugulies, Christensen, Villadsen, & Kristensen, 2006). The public sector currently has higher rates of sickness than the private sector (2.9% and 1.7% respectively: Office for National Statistics, 2016). Sickness figures within the National Health Service (NHS) show that the rate of sickness from January to June 2018 was 4.18% with the highest sickness rates found in ambulance services (5.39%) and mental health and learning disability trusts (4.79%; NHS Digital, 2018). In comparison, special health authorities (2.79%) and clinical commissioning groups (2.86%) had the lowest rates of staff sickness. This indicates a higher sickness rate amongst staff working in trusts where patient contact typically forms a significant part of their role. Work stress has also affected 39.8% of 476,631 NHS staff who indicated that they felt unwell due to work-related stress in the previous 12 months (NHS, 2018). In addition to burnout being linked to sickness absence, it has also been associated with higher staff turnover (Chiang & Chang, 2012) and self-reported sub-optimum patient care (Shanafelt, Bradley, Wipf, & Back, 2002). Understanding factors that increase the risk of burnout and how to accurately measure burnout is important for both staff wellbeing and service user care.

The Maslach Burnout Inventory (MBI; Maslach, & Jackson, 1981) was designed to measure burnout in the human services professions. The MBI has been the most commonly used measure of burnout and has been termed the 'gold standard' assessment of burnout (Schutte, Toppinen, Kalimon, & Schaufeli, 2000). The MBI posits a three factor structure consisting of emotional exhaustion, depersonalisation and personal accomplishment (Maslach & Jackson, 1981). However, subsequent studies have identified support for alternative factor structures. Two alternatives both indicate a two-factor solution, one positing emotional exhaustion and depersonalisation as the two core constructs associated with burnout (Kalliath, Driscoll, Gillespie, & Bluedorn, 2000) and the other collapsing emotional exhaustion and depersonalisation into a single factor with personal accomplishment as the second construct associated with burnout (de Beer & Bianchi, 2019). A five factor structure has also been suggested which splits emotional exhaustion and personal accomplishment into two factors with depersonalisation remaining as one (Densten, 2001). The three factor structure in the original form also has empirical

support (Kokkinos, 2006). Emotional exhaustion has been viewed as the key aspect of burnout with depersonalisation and personal accomplishment as related variables (Koeske & Koeske, 1989). In general, research literature finds support for emotional exhaustion as the strongest predictor of burnout and personal accomplishment as the weakest predictor. Although the factor structure is disputed by some researchers, there is still wide agreement that the MBI provides a good measure of burnout, particularly in the absence of an alternative measure demonstrating stronger reliability and validity.

There have been several attempts to develop an alternative burnout measure. The Oldenburg Burnout Inventory (OLBI; Demerouti, Bakker, Vardakou, & Kantas, 2003) differs from the MBI by asking a mixture of positively and negatively phrased questions. The OLBI examines both the physical and cognitive aspects of exhaustion (Demerouti et al., 2003). It has been shown to have good convergent validity with the Maslach Burnout Inventory – General Survey (MBI-GS) with an estimated correlation of 0.74 (Demerouti et al., 2003). However, guidelines are lacking for those wishing to translate and adapt the measure for new samples (International Test Commission, 2018). The Copenhagen Burnout Inventory (CBI; Kristensen, Borritz, Villadsen, & Christensen, 2005) was also developed as an alternative to the MBI. This questionnaire shares similarities with the MBI in that "the questions in the scale for work-related burnout are inspired by the subscale on emotional exhaustion of the MBI/MBI-GS questionnaires..." (Kristensen et al., 2005. p. 199). The Professional Quality of Life Scale (ProQOL; Stamm, 2010) measures burnout, compassion satisfaction, compassion fatigue and secondary traumatic stress. However, the ProQOL has received criticism for the validity and reliability of the secondary traumatic stress and burnout scales (Hemsworth, Baregheh, Aoun & Karanjian, 2018). Despite critiques of burnout measures, particularly regarding the factor structure, they are utilised widely in the literature across a range of populations and are currently one of the best ways of measuring the construct.

Burnout has been explored in terms of its relationship with intrapersonal qualities, such as compassion, with regard to fostering resiliency in individuals. Compassion has been defined as 'a sensitivity to suffering in self and others with a commitment to try to alleviate and prevent it' (Gilbert, 2017, p. 11). Compassion can be applied to

oneself (self-compassion), to others (compassion to others) and be received from others (compassion from others). Compassion satisfaction (deriving pleasure from your work) and compassion fatigue (extreme stress due to working with suffering that it creates vicarious trauma) are also both present within the compassion literature (Coetzee & Laschinger, 2017; Sacco & Copel, 2017). The importance of compassion in the NHS was highlighted in the Francis Report (Department of Health, 2013) which identified poor patient care in Mid-Staffordshire NHS Foundation Trust. Since then, the nursing and midwifery council have recognised the importance of compassion and stated that:

"compassion in practice was built on the values of the 6Cs (care, compassion, communication, courage, competence, commitment)" (NHS England, 2016, p. 3). Furthermore, compassion is also one of the NHS constitutional values (Health Education England, 2018).

Self-compassion has been described as "being touched by and open to one's own suffering, not avoiding or disconnecting from it, generating the desire to alleviate one's suffering and to heal oneself with kindness...offering non-judgemental understanding to one's pain, inadequacies and failures, so that one's experience is seen as part of the larger human experience" (Neff, 2003a, p. 87). Neff (2003b) argues that self-compassion has three interrelated dimensions: self-kindness versus self-judgement, being kind and understanding to yourself as opposed to being judgemental and critical; mindfulness versus over-identification, being in the present moment and aware of thoughts and feelings rather than being consumed by them and common humanity versus isolation, an awareness that negative feelings are also experienced by others. Neff's (2003a) theory of self-compassion is rooted in Buddhist philosophies and there has been an increasing interest in integrating Eastern philosophy, in particular Buddhism, within western psychology (Epstein, 1995; Grossman & Van Dam, 2011).

Although there are debates regarding the construct of self compassion (Gilbert, 2017; Neff, 2003a), the empirical literature thus far relies primarily on the Self-Compassion Scale (SCS; Neff, 2003b), a 26 item scale giving a total score for self-compassion or individual sub-scale scores of self-kindness, self-judgement, common humanity, isolation, mindfulness and over-identification. A 12 item self-

compassion scale short form (SCS-SF) is very strongly correlated with the full form when using the total score (Raes, Pommier, Neff, & Van Gucht, 2011).

The SCS has been shown to possess high internal reliability and good testretest reliability (Cleare, Gumley, Cleare, & Connor, 2018) but there are differing opinions on the factor structure. Neff's (2003b) original assertion that a full score should be used has received support from other researchers (Cleare et al., 2018). However, it has been argued that each of the sub-scales should be treated separately, rather than being combined together to measure the over-arching construct of self-compassion (Williams, Dalgleish, Karl, & Kuyken, 2014). There is also evidence for a two factor model with the three positive dimensions of selfkindness, common humanity and mindfulness being grouped together, and the three negative dimensions of self-judgement, isolation and over-identification being grouped together (Costa, Marôco, Pinto-Gouveia, Ferreira, & Castilho, 2016). It has also been argued that the negative sub-scales from the SCS measure the opposite of self-compassion and should not be included in the measure (Muris, 2015). Despite the criticisms of the SCS, Neff (2016) argues that the SCS is consistent with her theoretical construction of self-compassion, and thus the SCS is theoretically valid when using a global score of the six sub-scales. The Compassionate Engagement and Action Scale is a more recent measure of self-compassion that has been published (Gilbert et al., 2017), which incorporates elements of compassion for others and from others, in addition to self-compassion. However, due to its relative novelty there is little empirical literature using this measure.

Self-compassion has been associated with several indicators of wellbeing. For example, a meta-analysis investigating the relationship between self-compassion and mental health has shown that higher levels of self-compassion were associated with lower levels of anxiety, depression and stress (MacBeth & Gumley, 2012). In older adults, research has found that higher levels of self-compassion were associated with higher life satisfaction, higher quality of life, fewer sleep difficulties and reduced mental health difficulties (Kim & Ko, 2018). Furthermore, a review of 79 studies has also concluded that self-compassion has a positive relationship with a range of indices of wellbeing (Zessin, Dickhäuser, & Garbade, 2015).

Within healthcare work it has been argued that nurses without self-compassion may be unable to show compassion to their service users (Heffernan, Quinn-Griffin, McNulty, & Fitzpatrick, 2010). Due to a number of empirically supported benefits associated with mindfulness, self-compassion and self-care, it has been argued that it could be construed as harmful to healthcare workers if these interventions were not implemented in the workplace (Egan, Mantzios, & Jackson, 2017). Research has shown that self-compassion can be taught and trained (Gilbert & Procter, 2006). Cultivating a compassionate motivation and a caring mentality via the use of body-focused practices (such as soothing-rhythm breathing) imagery exercises (such as using imagery to develop one's own 'compassionate self'), mindfulness practices, and other interventions such as compassionate letter writing have been argued to improve compassion (Gilbert, 2013).

Mindfulness has been has associated with lower burnout in a variety of human service workers, indicating that mindfulness may act as a protective factor against burnout (Harker, Pidgeon, Klaassen, & King, 2016; Yang, Meredith, & Khan, 2017). Mindfulness interventions have demonstrated promising results in terms of reducing burnout. Nurses who completed a six week mindfulness group based intervention reported increased self-compassion and decreased burnout (Duarte & Pinto-Gouveia, 2016). After a six week web based mindful self-compassion program, psychologists who completed the program reported higher levels of self-compassion and lower levels of burnout compared to a wait-list control group (Eriksson, Germundsjö, Åström, & Rönnlund, 2018). Primary care physicians have also been shown to benefit from a Mindful Medicine Curriculum delivered over 15 hours with those undertaking the intervention reporting significant improvements in mindfulness, emotional exhaustion and depersonalisation when in compared to a wait list control group (Schroeder et al., 2016).

Due to the increasing pressures in the NHS and the impact on staff wellbeing, it is important to understand the psychological factors which may protect against burnout. Compassion has been identified as an important construct within healthcare, a core NHS value and one of the nursing and midwifery councils '6C's'. Self-compassion has been linked with several areas of psychological wellbeing and interventions aimed at increasing levels of self-compassion have reported promising

results. Currently there is no synthesis of the literature relating to the relationship between burnout and self-compassion within healthcare workers. The present systematic review summarises and synthesises the empirical evidence regarding the relationship between self-compassion and burnout in healthcare workers.

In reviewing the evidence regarding the relationship between burnout and selfcompassion, the following questions were explored:

- 1) Is there a relationship between burnout and self-compassion?
- 2) What is the nature of that relationship?
- 3) What is the methodological standard of the research evidence?

Method

Protocol registration

The review protocol (see appendix A) was registered on PROSPERO, an international register of systematic reviews within healthcare (CRD40218084074). The review was conducted in accordance with PRISMA principles (Moher, Liberati, Tetzlaff, Altman, & Group, 2009).

Search strategy

Initial scoping searches were carried out in order to identify the most suitable search terms and databases. Five databases were searched: Science Direct, PubMed, PsycINFO, MEDLINE and CINAHL Plus to identify published studies (from earliest records until April 2018). The search terms used were "selfcompassion" AND "burn*", "self-compassion" AND "burn*" and "self compassion" AND "burn*". Manual searches of the references of all included articles was undertaken as well as using the search terms in google scholar. In an attempt to avoid the file drawer problem of publication bias, a key author was contacted to see if they had any unpublished work. Also, unpublished work, including thesis manuscripts, were included in the review. Titles and abstracts were initially screened to see if the

inclusion/exclusion criteria had been met. Where it was not clear from the abstract, full texts were sourced to establish eligibility. In order to ensure that the inclusion and exclusion criteria were followed, 10% of all searches were checked by a clinical psychologist. All papers identified as meeting the eligibility criteria were reviewed by second author (KL) to confirm eligibility as part of the quality assessment process.

Inclusion and exclusion criteria

In order to be included in the review, studies had to use quantitative analysis, a cross-sectional design and to draw on participants from any healthcare setting. In addition, studies had to have a full English text available and to have used a validated measure of burnout and self-compassion. Exclusion criteria were therefore any studies not meeting those requirements, such as intervention studies, or research with participants in non-healthcare settings. Those undergoing training, providing they were training within healthcare, were included. Research not published in a peer-reviewed journal was also included.

Data Extraction

Data pertaining to the following areas were extracted: healthcare setting, burnout measure, self-compassion measure, profession, gender, age (range and mean) and the relationship between burnout and self-compassion. In terms of the data relating to the relationship between self-compassion and burnout, key statistical values relating to the tests undertaken and significance values were extracted.

Risk of bias assessment

The Agency for Healthcare Research and Quality Tool (Williams, Plassman, Burke, Holsinger, & Benjamin, 2010) was used to assess the methodological quality in the papers (see appendix B). The tool was adapted by omitting some items that were not applicable to the studies in this review. It has previously been used with similar adaptations in a similar review (Wilkinson, Whittington, Perry, & Eames, 2017). Categories assessed included; unbiased selection of the cohort, sample size,

adequate description of the cohort, use of validated measures, appropriate analytic methods and controls of confounding variables. The tool assesses studies based on four ratings: 'yes', 'partially', 'no' or 'cannot tell'. The first and second authors independently undertook the quality reviews and disputed assessments of each paper were resolved by discussion.

Results

Search Results

Searches of the five databases, google scholar and reference searching yielded 2490 citations, of which, 2064 remained after duplications were removed. The titles and abstracts were screened in these papers and a further 2034 were excluded, leaving a total of 30. The full texts were obtained for these papers to ensure that they met the eligibility criteria. Of these papers, 17 did not meet the inclusion criteria due to being an intervention study or having qualitative methodology (3), not being written in English (1), having no validated measure of burnout or self-compassion (11) and not researching healthcare workers (2). A further paper was yielded during a reference search of included papers. A flow chart diagram of the screening process is presented in Figure 1 (Moher et al., 2009).

Study Characteristics

Study characteristics are reported in Table 1. All studies were published between 2009 and 2018. The healthcare workers researched were veteran affairs mental health staff (Atkinson, Rodman, Thuras, Shiroma, & Lim, 2017), a range of healthcare professionals with service user contact (Amrani, 2011), undergraduate medical students (Babenko, Mosewich, Abraham, & Lai, 2018), student midwives (Beaumont, Durkin, Hollins Martin, & Carson, 2016a), student counsellors and student cognitive behavioural therapists (Beaumont, Durkin, Hollins Martin, & Carson, 2016b), nurses (Dev, Fernando, Lim, & Consedine, 2018; Duarte & Pinto-Gouveia, 2017; Duarte, Pinto-Gouveia, & Cruz, 2016), nursing students (Durkin, Beaumont, Hollins Martin, & Carson, 2016), counsellors and therapists (Gillespie,

2017), paediatric residents (Olson, Kemper, & Mahan, 2015), medical students (Richardson et al., 2016), counsellors (Ringenbach, 2009) and clinical psychologists including trainees (Yip, Mak, Chio, & Law, 2017).

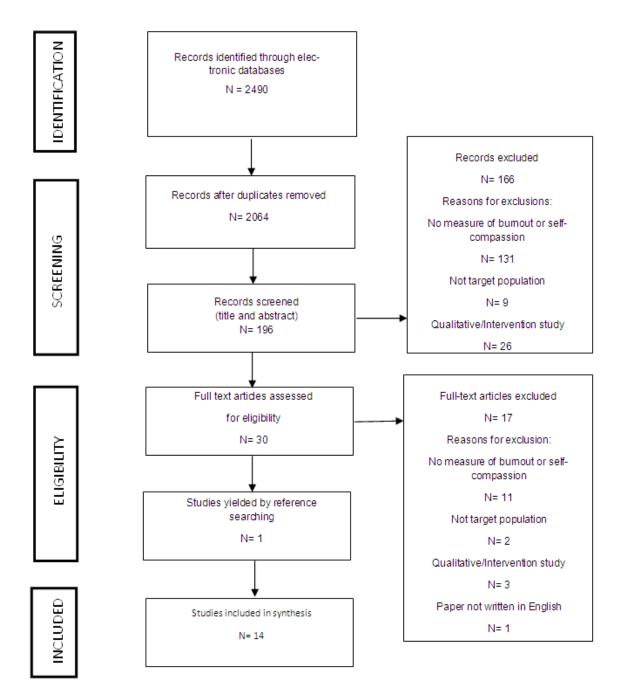


Figure 1. Flow Diagram of Included Studies

Table 1
Characteristics of Included Studies

Author and Year	Health Care Setting	Number of Participants	Gender	Age Range	Age Mean	Age Standard Deviation
Amrani (2010)	Healthcare professionals with patient contact (psychologists, social workers, graduate students) in the United States of America	Total 301	Female 221 (73.4%) Male 80 (26.6%)	23-89	48.88	14.95
Atkinson et al. (2017)	Veteran affairs mental health staff in the United States of America	Total 128 Clerical 8 Nursing 26 Social Work 26 Psychology 28 Psychiatry 16 Other 17 No Response 7	Female 96 (75%) Male 25 (19.5%) No Response 7 (5.5%)	Not Reported	Not Reported	Not Reported
Babenko et al. (2018)	Undergraduate medical students in Canada	Total 200	Female 60.4% Male 39.6%	Not Reported	Not Reported	Not Reported
Beaumont et al. (2016)	Student midwives in the United Kingdom	Total 103	Female 103 Male 0	19-56	Not Reported	Not Reported
Beaumont et al. (2016)	Student CBT therapists and student counsellors in the United Kingdom	Total 54	Not Reported	Not Reported	Not Reported	Not Reported
Dev et al. (2018)	Registered nurses in New Zealand	Total 799	Female 93.9%	Not Reported	45.47	11.81
Duarte et al. (2016)	Registered nurses in public hospitals in Portugal	Total 280	Female 81.1%	22-60	37.66	9.34
Duarte et al. (2017)	Oncology nurses in public hospitals in Portugal	Total 221	Female 196 (91.2%)	24-58	39.06	8.85

Table 1 continued

Characteristics of Included Studies

Author and Year	Healthcare Setting	Number of Participants	Gender	Age Range	Age Mean	Age Standard Deviation
Durkin et al. (2016)	Community Nursing Students in the in the United Kingdom	Total 37	Female 34 Male 3	23-56	36	Not Reported
Gillespie (2014)	Counsellors and therapists in the United States of America	Total 185 In supervision – 42 Marriage and family 59 Professional counselling 39 Social work 19 Pastoral counselling 8 Psychology 15 Psychiatry 1 School counselling 1	Female 113 Male 72	25-77	47.76	12.78
Olson et al. (2015)	Paediatric residents in the United States of America	Total 45 35 paediatrics 10 medicine-paediatrics	Male 16 (36%)	26-33	28.4	1.7
Richardson et al. (2016)	Medical students and residency programs in the United States of America Total 88 27.3% third year medical students 10.2% obs&gynae 30.7% internal medicine 22.7% emergency medicine 9.1% general surgery		Female 48.9%	Not Reported	28.48	3.08
Ringenbach (2009)	Counsellors in the United States of America	Total 164 No further details	Female 122 Male 7 Transgender 1	Number of participants in ranges from 24-29 to 66-71 but no exact range reported	Not Reported	Not Reported
Yip et al. (2017)	Clinical psychologists and trainees in Hong Kong	Total 77 4 trainee psychologists 73 qualified psychologists	Female 64 Male 9	Number of participants in ranges from 22-30 to 51-60 but no exact range reported	Not Reported	Not Reported

The studies included were carried out in a total of six countries with the United States of America being the most cited nation (Amrani, 2011; Atkinson et al., 2017; Gillespie, 2017; Olson et al., 2015; Richardson et al., 2016; Ringenbach, 2009). The other studies were conducted in a range of countries including the U.K. (Beaumont et al., 2016a, 2016b; Durkin et al., 2016), Portugal (Duarte & Pinto-Gouveia, 2017; Duarte et al., 2016), Canada (Babenko et al., 2018), New Zealand (Dev et al., 2018) and Hong Kong (Yip et al., 2017).

Several measures of burnout were used throughout the studies. The most common was the Professional Quality of Life Scale (Stamm, 2010) which was used in nine studies (Beaumont et al., 2016a, 2016b; Duarte & Pinto-Gouveia, 2017; Duarte et al., 2016; Durkin et al., 2016; Gillespie, 2017; Richardson et al., 2016; Ringenbach, 2009 and Yip et al., 2017). The MBI (Maslach & Jackson, 1981) was used in two studies (Amrani, 2011; Olson et al., 2015), the CBI (Kristensen et al., 2005) in two studies (Atkinson et al., 2017; Dev et al., 2018) and the OLBI (Demerouti et al., 2003) was used in one study (Babenko et al., 2018). The majority of papers assessed self-compassion using the full SCS (Neff, 2003a), with three papers using the abbreviated version (SCS-SF;Raes et al., 2011).

The 14 studies included in the review studied a total of 2682 participants. Three studies did not clearly report the job roles of participants, therefore making it difficult to ascertain the total number of participants in each job role across studies. These three studies included more than one job role but did not provide details of how many participants came from each role (Amrani, 2011; Beaumont et al., 2016b; Gillespie, 2017). When looking at those studies that provided details regarding the number of participants from each job role, nursing was the most frequently cited profession with a total of 1326 participants. It was possible to identify 573 participants who were classed as a trainee, student or medical resident meaning that these were undertaking training and/or further study.

All studies aside from (Beaumont et al., 2016b) included some descriptive statistics on gender. One study reported that fewer than half of the responders were female (48.9%) but there were no details as to the percentage of male participants and if any other gender categories were used (Richardson et al., 2016). Therefore, it is not possible to ascertain for certain if females were in a minority. Olson et al.

(2015) reported the number of male participants as 16 (36% of the sample) but did not provide details about the gender for the remaining sample. Once again, it is therefore not possible to determine with certainty if these were female participants, non-binary participants or if participants did not provide a response about gender. The remaining papers reported that females were in the majority of their sample. One study had all females in their sample and did not indicate that gender formed part of the inclusion/exclusion criteria (Beaumont et al., 2016a).

Nine studies provided details on the age range of participants (Amrani, 2011; Beaumont et al., 2016a; Duarte & Pinto-Gouveia, 2017; Duarte et al., 2016; Durkin et al., 2016; Gillespie, 2017; Olson et al., 2015; Ringenbach, 2009; Yip et al., 2017) with the remaining studies not reporting this information. The youngest age reported was 19 (Beaumont et al., 2016a) and the oldest reported was 89 (Amrani, 2011). Mean ages were reported by eight studies (Amrani, 2011; Dev et al., 2018; Duarte & Pinto-Gouveia, 2017; Duarte et al., 2016; Durkin et al., 2016; Gillespie, 2017; Olson et al., 2015; Richardson et al., 2016) with means ranging from 28.4 to 49.67. The reported participant characteristics (bearing in mind some missing data), seems to indicate that the reviewed sample comprised more female than male participants, who on average were aged between 30-40 years.

Risk of bias

The results of the quality assessments undertaken are presented in table 2. The quality assessment tool facilitated careful analysis of research methodology. Of the papers reviewed, only one provided a power calculation to indicate the appropriate sample size for the anticipated effect size. For the remaining papers there was no indication of anticipated effect size and thus it is possible that a number of studies were under or over-powered. Unsurprisingly, given the inclusion criteria, the strongest category of the quality review was the use of validated measures. The primary issue with the quality assessment was unreported information in the papers. For example, only two papers (Dev et al., 2018; Yip et al., 2017) provided a detailed description of the sample, with the remaining papers scoring 'partially' or 'no' to this aspect of the quality assessment. It is possible that studies did record and assess demographics and explored the impact of confounding factors on the results, but that

these were not reported in the published paper. To summarise, the quality assessment indicated that none of the papers achieved 'yes' in every category, suggesting that conclusions arising from these research papers should be treated cautiously and be viewed in the context of methodological limitations.

Methodology

All studies apart from Gillespie (2014) and Yip et al. (2016) used correlational analysis when exploring the relationship between burnout and self-compassion. Eight studies used regression analysis to further explore the relationship between these two variables (Amrani, 2011; Atkinson et al., 2017; Babenko et al., 2018; Dev et al., 2018; Duarte & Pinto-Gouveia, 2017; Duarte et al., 2016; Gillespie, 2014; Olson et al., 2015; Richardson et al., 2016). Two of the studies used t-tests (Beaumont et al., 2016a, 2016b) and one used mediation models (Yip et al., 2017). Table 3 displays the data extracted from included studies pertaining to the relationship between burnout and self-compassion.

Burnout and Self-Compassion relationship with global scores

Nine studies found a significant negative relationship between a global score of self-compassion and a global score of burnout when conducting a correlational analysis (Atkinson et al., 2017; Beaumont et al., 2016a, 2016; Dev et al., 2018; Duarte & Pinto-Gouveia, 2017; Duarte et al., 2016; Durkin et al., 2016; Richardson et al., 2016; Ringenbach, 2009). The strength of the correlations ranged from r= -.312 (Beaumont et al., 2016a) to r= -.525 (Ringenbach, 2009) indicating a moderate negative correlation between self-compassion and burnout in all of the studies. This finding generalised across different measures of burnout and indicated a fairly robust relationship in the literature. Furthermore, the strength of the reported correlations did not appear to be linked with the quality of the research as measured by the quality assessment tool. For example, papers scoring more 'yes' ratings reported correlations of r= -.35 (Dev et al., 2018) and r= -.51 (Duarte et al., 2017) whereas papers scoring fewer 'yes' ratings reported correlations of r= -.486 (Beaumont et al., 2016b) and r= -.369 (Durkin et al., 2016). Whilst this negative relationship is

prevalent within the literature, more rigorous methodological controls allow a truer estimate of effect size by removing potential sources of error.

Burnout sub-scales with self-compassion global scores

Whilst the total burnout score appears to be generally negatively correlated with self-compassion across studies, given the non-unitary nature of the construct of burnout, it is important to consider how distinct facets of burnout might have different relationships with self-compassion. Three of the studies used burnout questionnaires which were broken down into different components of burnout (Amrani, 2011; Babenko et al., 2018; Olson et al., 2015). Babenko et al.'s (2018) findings, using the OLBI, support a relationship between self-compassion and different burnout domains, in that self-compassion was negatively correlated to the exhaustion subscale and positively correlated to the engagement sub-scale

Table 2 Quality Assessment Results

	Unbiased selection of the cohort?	Selection minimizes baseline differences in prognostic factors?	Sample size calculated?	Adequate description of the cohort?	Validated method for ascertaining exposure?	Validated method for ascertaining clinical outcomes?	Outcome assessment blind to exposure?	Adequate follow-up period?	Completeness of follow-up?	Analysis controls for confounding?	Analytic methods appropriate?
Amrani (2010)	Partially	N/A	No	Partially	N/A	Yes	N/A	N/A	N/A	Partially	Yes
Atkinson et al. (2017)	Partially	N/A	No	Partially	N/A	Yes	N/A	N/A	N/A	Yes	Partially
Babenko et al. (2018)	Partially	N/A	No	Partially	N/A	Yes	N/A	N/A	N/A	Yes	Yes
Beaumont et al. (2016a)	Partially	N/A	No	No	N/A	Yes	N/A	N/A	N/A	No	Partially
Beaumont et al. (2016b)	Partially	N/A	No	No	N/A	Yes	N/A	N/A	N/A	No	No
Dev et al. (2018)	Partially	N/A	No	Yes	N/A	Yes	N/A	N/A	N/A	Yes	Yes
Duarte and Pinto- Gouveia (2017)	Partially	N/A	Yes	Partially	N/A	Yes	N/A	N/A	N/A	Yes	Yes
Duarte et al. (2016)	Partially	N/A	No	Partially	N/A	Yes	N/A	N/A	N/A	Partially	Yes
Durkin et al (2016)	Partially	N/A	No	No	N/A	Yes	N/A	N/A	N/A	No	Yes
Gillespie (2017)	Partially	N/A	No	Partially	N/A	Yes	N/A	N/A	N/A	Yes	Yes
Olson et al. (2015)	Partially	N/A	No	Partially	N/A	Yes	N/A	N/A	N/A	Partially	Partially
Richardson et al. (2016)	Partially	N/A	No	Partially	N/A	Yes	N/A	N/A	N/A	Yes	Partially
Ringenbach (2009)	Partially	N/A	No	Partially	N/A	Yes	N/A	N/A	N/A	Partially	Yes
Yip et al (2017)	Partially	N/A	No	Yes	N/A	Yes	N/A	N/A	N/A	Yes	Yes

Table 3

Relationship Between Burnout and Self-Compassion

Author and Year	Design	Self-Compassion Measure	Burnout Measure	Relationship between Burnout and Self-Compassion
Amrani (2010)	Cross-Sectional	Self-Compassion Scale	Maslach Burnout Inventory	Correlation analyses Self-compassion total score and EE -0.41*, DP -0.33*, PA 0.46* Self-Kindness and EE29***, DP24***, PA .27*** Common Humanity and EE40*, DP16*, PA .24*** Mindfulness and EE31***, DP26***, PA .43*** Self-Judgment and EE37**, DP27***, P .36*** Isolation and EE39***, DP31***, PA .40*** Over Identification and EE45***, DP r =31***, PA .42*** Regression analyses Relationship between self-compassion and EE while controlling for empathy β =399, $F(l, 248)$ = 45.536, p<0.001 Relationship between self-compassion and DP while controlling for empathy β =351, $F(l, 248)$ = 33.420, p<0.001
Atkinson et al (2017)	Cross-Sectional	Self-Compassion Scale	Copenhagen Burnout Inventory	Correlation analyses Self-compassion and Burnout -0.41*** Regression analyses Step 1: Age, sex, years worked, staff supervised $F(4, 113)=1.48$, p>0.05, R ² =0.02 Step 2: Step 1 plus depression $F(5, 112)=3.48$, p<0.01, R ² =0.10 Step 3: Step 2 plus self-compassion $F(6, 111)=4.53$, p<0.001, R ² =0.15
Babenko et al (2018)	Cross-Sectional	Self-Compassion Scale - Short Form	Oldenburg Burnout Inventory	Correlation analyses Exhaustion and self-compassion -0.25** Engagement and self-compassion 0.32** Regression analyses Outcome variable: Engagement subscale of OLBI Step 1: Gender, year in program, autonomy, competence, relatedness, $F(5,186)$ =15.91, p<0.001, R²=0.28 Step 2: Step 1 plus self-compassion, leisure time exercise, performance approach goals performance avoidance goals, mastery avoidance goals, mastery avoidance goals, mastery avoidance goals $F(11,180)$ =9.00, P<0.001, R²=0.32 (Self-compassion was the largest individual predictor, β =0.13**). Outcome variable: Exhaustion subscale of OLBI Step 1: Gender, year in program, autonomy, competence, relatedness, $F(5,186)$ =18.11, p<0.001, R²=0.31 Step 2: Step 1 plus self-compassion, leisure time exercise, performance approach goals performance avoidance goals, mastery avoidance goals, mastery avoidance goals, $F(11,180)$ =15.04, p<0.001, R²=0.45. (Self-compassion was the largest individual predictor, β =00.32**).

Table 3 continued

Author and Year	Design	Self-Compassion Measure	Burnout Measure	Relationship between Burnout and Self-Compassion
Beaumont et al (2016a)	Cross-Sectional	Self-Compassion Scale	Professional Quality of Life	Correlation analyses Self-compassion total score and burnout312** Self-judgement and burnout .283** Self-kindness and burnout203* T-Test High/Low self-judgement and burnout t= -2.27*
Beaumont et al (2016b)	Cross-Sectional	Self-Compassion Scale	Professional Quality of Life	Correlation analyses Self-compassion total score and burnout486** Self-judgement and burnout .545** Self-kindness and burnout442** T-Test High/Low self-compassion and burnout t = 3.41***
Dev et al (2018)	Cross-Sectional	Self-Compassion Scale – Short Form	Copenhagen Burnout Inventory	Correlation analyses Self-Compassion and burnout r= -0.35**
Duarte et al (2016)	Cross-Sectional	Self-Compassion Scale	Professional Quality of Life	Correlation analyses Self-compassion total and burnout r=44** Self-kindness and burnout r= -0.34** Mindfulness and burnout r= -0.35** Common humanity and burnout r= -0.19** Self-judgement and burnout r= 0.38** Over identification and burnout r= 0.30** Isolation and burnout r= 0.37** Regression analyses Self-compassion variables explained 22% of the variance of burnout $F(6, 276) = 12.71$, p <0.001. Significant predictors of the six subscales: Self-judgement β = .24, p<0.01 Isolation β = .19*, p<0.05 Mindfulness β =19*, p<0.05
Duarte et al (2017)	Cross-Sectional	Self-Compassion Scale	Professional Quality of Life	Correlation analyses Self-compassion and burnout51** Regression analyses Step 1: Age, years in current position R_2 =0.03, p>0.05 Step 2: Step 1 plus perspective taking, empathic concern and personal distress R_2 =0.09, p>0.05 Step 3: Step 2 plus self-compassion R^2 =0.25*** Step 4: Step 3 plus psychological inflexibility R^2 =0.30***

Table 3 continued

Author and Year	Design	Self-Compassion Measure	Burnout Measure	Relationship between Burnout and Self-Compassion
Durkin et al (2016)	Cross-Sectional	Self-Compassion Scale	Professional Quality of Life	Correlation analyses Self-compassion total score and burnout r= -0.369* Self-kindness and burnout r= -0.351* Self-judgement and burnout r= 0.315
Gillespie (2014)	Cross-Sectional	Self-Compassion Scale	Professional Quality of Life	Regression analyses Outcome variable burnout, with age as a covariate: Self-kindness R^2 = .183*** Self-judgement R^2 = .200*** Common humanity R^2 = .073**
Olson et al (2015)	Cross-Sectional	Self-Compassion Scale	Maslach Burnout Inventory	Correlation analyses EE=-0.35* DP=-0.27 PA=0.24 Regression analyses Regression controlled for gender on emotional exhaustion and found self-compassion F=10.07*** remained significant
Richardson et al (2016)	Cross-Sectional	Self-Compassion Scale - Short Form	Professional Quality of Life	Correlation analyses Burnout and Self-compassion total score
Ringenbach (2009)	Cross-Sectional	Self-Compassion Scale	Professional Quality of Life	Correlation analyses Burnout and Self-compassion r= -0.525** Burnout and Self-compassion when controlling for compassion fatigue r= -0.365*** Burnout and Self-compassion when controlling for compassion satisfaction r= -0.389***

Table 3 continued

Author and Year	Design	Self-Compassion Measure	Burnout Measure	Relationship between Burnout and Self-Compassion
Yip et al (2017)	Cross-Sectional	Self-Compassion Scale	Professional Quality of Life	Correlation analyses Self-warmth and burnout $r=-0.24^*$ Self-coldness and burnout $r=0.36^{**}$ Multiple mediation models Self-warmth had no significant effect on burnout $\beta=0.05$, p>0.05 Self-coldness had a significant effect on burnout $\beta=0.35^{**}$

^{*}p<0.05, **p<0.01, ***p<0.001

A varying pattern emerged when using the MBI to assess burnout in terms of the relationship between the three burnout sub-scales (emotional exhaustion, depersonalisation and personal accomplishment) and self-compassion. Amrani (2011) reported a significant negative correlation between self-compassion and the constructs of emotional exhaustion and depersonalisation. A positive correlation was found between personal accomplishment and self-compassion. When using the MBI, high levels of emotional exhaustion, high levels of depersonalisation and low levels of personal accomplishment are strongly indicative of burnout thus meaning Amrani's (2011) research indicates higher levels of self-compassion are associated with lower levels of burnout across the three subscales. Olsen et al. (2015) partially replicated these results finding a significant negative relationship for the emotional exhaustion subscale, but no significant relationship between depersonalisation or personal accomplishment and self-compassion was found. The non-significant relationships were in the same direction as Amrani et al.'s (2011) study, and with a larger sample size may have reached significance. Olson et al.'s (2015) study used a small sample of only 45 participants and did not include a power analysis, and may have been underpowered, particularly as there were several analyses conducted, with a total of six independent variables. In contrast, although Amrani (2011) did not include a power analysis, although it is likely that 301 participants was an adequate sample size in terms of powering the analysis, given the number of variables and analyses done.

Burnout global score with self-compassion sub-scales

Moving the focus from burnout measures to the measure of self-compassion, given the debate regarding the use of a global self-compassion score versus the SCS subscales, it was of interest to explore whether the literature demonstrated different relationships between burnout and self-compassion when using subscales as opposed to the global self-compassion score. Duarte et al. (2016) found a significant negative correlation between burnout and the positive sub-scales of the SCS: self-kindness, mindfulness, common humanity, and a significant positive correlation between burnout and the negative sub-scales of the SCS: self-judgment, over identification and isolation. This is consistent with Neff's (2003b) theoretical

position that the negative sub scales represent the opposing ends of the positive subscales of the SCS, and are all important to the global overarching construct of self-compassion. This unanimous finding was not replicated by Richardson et al. (2016), who found only five of the six subscales showed a significant correlation with burnout. Common humanity and burnout were not significantly related. This may be attributable to the use of the SCS-SF in this study, where the use of subscales is not recommended (Raes et al., 2011).

Four studies reported results for some of the individual sub-scales of self-compassion where burnout was reported as a total score. Two studies reported a significant negative correlation between self-kindness and burnout and a significant positive correlation between self-judgement and burnout (Beaumont et al., 2016a, 2016b). One study reported a significant negative correlation between self-kindness and burnout (Durkin et al., 2016). These three studies did not indicate if they had conducted any analyses on the remaining sub-scales. One study did not report a full self-compassion score but was concerned with self-warmth, which combined the scores of the sub-scales mindfulness, self-kindness and common humanity, and self-coldness, which combined the scores of the sub-scales self-judgement, over identification and isolation (Yip et al., 2017). In this study multiple mediation models were used. Self-warmth did not have a significant effect on burnout. However, self-coldness did have a significant positive effect on burnout.

Burnout sub-scales with self-compassion sub-scales

Amrani (2011) reported correlations between the six individual sub-tests on the SCS and the three elements of burnout as measured by the MBI. However, the direction of the results was unclear due to conflicting information in the paper. It was reported in the narrative of the paper that greater self-kindness, common humanity and mindfulness were associated with lower levels of emotional exhaustion and depersonalisation and higher levels of personal accomplishment, indicating lower burnout. It was also reported that higher levels of self-judgement, isolation and over-identification were significantly related to greater emotional exhaustion, depersonalisation and less personal accomplishment, indicating higher burnout. However, the reported correlations for the latter three sub-scales indicated that the

relationship was in the opposite direction (negative relationships with emotional exhaustion and depersonalisation and a positive relationship with personal accomplishment) to that reported in the narrative of the paper. It is therefore not possible to ascertain from this paper if these reported correlation figures were reversed scored, or if the description of the results in the narrative is incorrect. Whilst inconsistencies are apparent, it appears as though the majority of results for the individual sub-scales are associated with burnout in the anticipated direction. However, this has not been a unanimous finding and not all the reviewed studies have reported on all the subscales. Therefore, it is not possible to ascertain if non-significant results have been omitted or if they were not tested.

Results from regression analyses

Nine studies used regression analyses to identify the strength of predictor variables on burnout, and to further explore how self-compassion might affect burnout in healthcare staff. Six of these studies used the global score from the SCS as opposed to individual sub-scales scores in their regressions. Self-compassion was found to be the strongest predictor of burnout in one study where the less significant variables were age, gender, years worked, staff supervised and depression (Atkinson et al., 2017). In a model where empathic concern, personal distress and self-compassion were regressed onto burnout, self-compassion was the strongest predictor of burnout (Richardson et al., 2016). Similarly, self-compassion was the strongest predictor of burnout even when accounting for the influence of age, years in current position, perspective taking, empathic concern, personal distress and psychological inflexibility (Duarte & Pinto-Gouveia, 2017). When considering the exhaustion element of the OLBI, self-compassion was a stronger predictor variable than gender, year in study program, autonomy, relatedness, leisure time exercise, performance approach/avoidance goals and mastery approach/avoidance goals (Babenko et al., 2018). The only predictor that was stronger than self-compassion in this model was competence. In the same study, the same variables were regressed onto the engagement element of the OLBI. Although self-compassion remained a significant predictor of engagement, this was weaker than the variance accounted for the exhaustion outcome variable. In addition to reported correlational findings demonstrating the relationships between selfcompassion and burnout, the reported regression analyses provide further evidence for this relationship and indicate that self-compassion is an important contributor over and above most other related variables

In terms of the sub-scales of the SCS and how they account for variance in burnout, self-judgement, isolation and mindfulness emerged as significant predictors of burnout and explained 22% of the variance in burnout (Duarte et al., 2016). One study reported three separate regression analyses using self-kindness, self-judgement and common humanity as individual predictor variables and found that all three models were significant in predicting burnout (Gillespie, 2014).

With regards to the results of studies where individual sub-scales of the SCS were used in the analysis, both correlation and regression analyses indicate a general trend for the sub-scales being related to burnout in the anticipated direction. There were a small number of non-significant results concerning the positive sub-scales of the SCS, with all negative sub-scales being significantly positively correlated with burnout. This could indicate that there is less psychometric validity with the positive sub-scales, or that the positive sub-scales are less likely to be related to burnout. However, it is important not to draw firm conclusions at this stage due to the small number of studies that have provided full analyses and reporting of all six sub-scales.

Results from t-test analyses

Two studies used t-tests to split the self-judgement sub scale into high and low self-judgement (Beaumont et al., 2016a) and to split the self-compassion scale into high and low self-compassion (Beaumont et al., 2016b). Both studies reported significant differences between the high and low scores, indicating that higher burnout is related to lower self-compassion and higher self-judgement. However, caution should be taken in interpreting these results as the methodology for defining groups as 'high' versus 'low' was not reported.

Summary

The majority of the results demonstrated a significant negative relationship between burnout and a global score of self-compassion, suggesting strong support for exploring the construct of self-compassion in relation to burnout, across healthcare populations. When reviewing the results of the individual studies, there was an inclusion of analyses on certain sub-scales but an absence of analyses on other sub-scales in some studies. Only four studies reported results of sub-scales (or a combination of sub-scales) where some of the results were not significant (Amrani, 2011; Durkin et al., 2016; Richardson et al., 2016; Yip et al., 2017). Three studies reported some sub-scales with significant results but failed to report on the other sub-scales (Beaumont et al., 2016a, 2016b; Gillespie, 2014). This makes it difficult to ascertain if only significant results were reported, hence the un-reported subscales were not significant, or if analyses were only conducted on the reported significant result and were not conducted on the other sub-scales. This creates difficulty drawing conclusions regarding the contribution of sub-scales to the global score and the relationships that the sub-scales may have with burnout.

All papers identified limitations to their research. 13 studies highlighted limitations regarding their sample, for example, a small sample size (Beaumont et al., 2016b; Duarte et al., 2016; Duarte & Pinto-Gouveia, 2017; Durkin et al., 2016; Richardson et al., 2016; Yip et al., 2017) or using a convenience sample (Dev et al., 2018; Duarte et al., 2016; Duarte & Pinto-Gouveia, 2017; Gillespie, 2014; Ringenback 2009). 10 of the studies also identified that due to the cross-sectional nature of the research, causality could not be inferred. Other limitations included using basic measures (Amrani, 2011; Atkinson et al., 2017), the results only accounting for a small amount of variance (Richardson et al., 2016) and not controlling for the impact of other variables (Yip et al., 2017).

Discussion

This paper presents a systematic review of studies exploring the relationship between self-compassion and burnout. Burnout within healthcare workers has been shown to have negative effects on both the individual (MacBeth & Gumley, 2012) and service users (Shanafelt et al., 2002). With levels of burnout amongst some

healthcare workers being in excess of 50% (Morse et al., 2012), it is extremely important to better understand those factors which predict and prevent burnout. A review of the literature on burnout and self-compassion can better help us to understand the relationship between these two constructs and to identify ways in which any relationship can be used to support staff wellbeing.

In this review, 14 studies were identified as meeting the inclusion/exclusion criteria. The studies were conducted across a range of healthcare populations and settings. Two of the aims of this review were to identify if there is a relationship between burnout and self-compassion, and what the nature of this relationship is. All of the studies indicated some form of significant negative relationship between burnout and self-compassion meaning that higher levels of self-compassion are associated with lower levels of burnout. These results has been demonstrated across a variety of populations and healthcare settings. Most of the correlations were in the moderate range. The quality of the papers did not appear to have any impact on the strength of the relationship between burnout and self-compassion. However, as many of the studies did not control for confounding variables, it is possible that the relationship between self-compassion and burnout has been overestimated. Studies where sub-scales of self-compassion were reported, identified the majority had a significant relationship with burnout in the expected direction. However, not all studies reported on individual sub-scales, thus there is less reliable evidence regarding the relationship of the SCS sub-scales to burnout and only tentative conclusions might be drawn from the current literature. However, particularly with regard to the negative subscales of the SCS, burnout does appear to have a significant relationship with different subscales of the SCS, as well as the total score.

A further aim of this review was to consider the methodological standard of the research. The most prevalent issue identified was a lack of reported data, for instance in terms of limited reporting of data analysis (e.g. Beaumont et al., 2016a; Durkin et al., 2016), failing to report the relationship of potential confounding demographic variables (e.g. Durkin et al., 2016), or addressing potential sampling bias (e.g. Beaumont et al., 2016b; Richardson, 2016). Therefore, there is considerable potential for the relationship reported in the literature to be accounted for by confounding and mediating variables that affect both self-compassion and

burnout. The literature reviewed indicates a robust relationship between self-compassion and burnout, with all studies demonstrating this relationship. However, it remains to be seen whether more rigorous methodology, controlling for confounds, would result in increased or reduced effect sizes, or eliminate the relationship entirely. The quality of the research, as measured by the quality assessment tool, identifies a number of methodological limitations makes it more important to only draw tentative conclusions.

The reviewed literature would on initial examination seem to imply that improving self-compassion might be protective against burnout, which supports some of the empirical research demonstrating that interventions targeting aspects of self-compassion can lead to reduced burnout (Eriksson et al., 2018; Duarte & Pinto-Gouveia, 2016). However, the risk of this particular view is that the solutions to burnout are located internally as a matter for the individual to address, rather than giving consideration to the external conditions known to contribute to burnout (Morse et al., 2012). Given that few of the studies controlled for work demands, demographics etc., it is not clear whether or not the relationship between SCS and burnout might be more or less important than other factors related to burnout. The risk of over-interpreting the findings reported in the present study is that interventions preventing burnout ignore the important contributing factors of working contexts, and focus on intra-psychic interventions around self-compassion.

Clinical implications

Each of the studies used in this review indicate that burnout was prevalent within their samples of healthcare workers, which is in accordance with the broader literature suggesting that burnout is a significant issue within this population (Morse et al., 2012). Given the impact that burnout has on the individual and the organisation (Wilkinson, 2015), it is extremely important that organisations are aware of the level of burnout that exists within their services, and the potential impact on service users and staff.

On the surface, it seems that there is a consistent negative relationship between burnout and self-compassion. However, this review has highlighted that the relationship between the components of self-compassion as measured by the six

sub-scales of the SCS (which include the mindfulness subscale) and burnout is far from clear. Despite this, mindfulness interventions for burnout (e.g. Eriksson et al., 2018) have become increasing popular. Self-compassion interventions to mitigate burnout seem somewhat premature, given that it is still not known which of the six elements of self-compassion has the strongest relationship with burnout.

Although this review can have relevance to several professions, it holds particular clinical implications for clinical psychologists. Clinical psychologists often provide clinical supervision to other clinical staff who may be at risk of burnout. Therefore, it would be beneficial for them to be aware of the relationship between burnout and self-compassion so that this can be monitored and discussed in clinical supervision. They are also in a position to be able to keep abreast of current research in the area in order to signpost supervisee's or other colleagues to evidence based interventions which improve levels of self-compassion. Furthermore, clinical psychologists play a role in carrying out and supervising research. Therefore it is important for them to be aware that much of the literature has methodological limitations, as measured by the quality assessment, so that they can ensure that any research they carry out or supervise has robust and good quality methodology.

Strengths and limitations

The review used multiple measures of burnout, and different theoretical constructs of burnout, which limits cross study comparisons. The MBI has been referred to as the gold standard measure of burnout for those working in human services (Schutte et al., 2000). However relying solely on the MBI might limit the scope of research to studies without budget constraints, given the license fee for the MBI. Limiting the review to this measure would mean that research where there are budget constraints could be excluded. However, the review indicates a similar relationship between burnout and self-compassion, regardless of the burnout measure used, indicating that the relationship may generalise across measures.

This review excluded studies where the manuscript was not available in English. Three of the studies used in the review were conducted in countries where English is not the first language. Therefore, it may be possible that further research

has been conducted in these countries but is not available in English. Furthermore, the reviewed papers are limited to a western culture, which means that findings may not generalise to other populations.

The results of the review only identified one validated measure of self-compassion. There is considerable debate concerning the factor structure of the SCS (e.g. Costa et al., 2016; Williams at al., 2014) and alternative theories and conceptualisations of self-compassion exist (e.g. Gilbert, 2017). Therefore, this review is limited to the measurement and theoretical underpinnings of self-compassion as defined by Neff (2003a; 2003b).

A strength of this review is that it followed a pre-determined protocol underpinned by the PRISMA guidelines (Moher et al., 2009). The review also included a quality assessment which highlighted the lack of methodological quality in the research which, in turn, has implications for the interpretation of the findings. This is of particular importance when research has the ability to influence clinical practice. There is a danger that expensive initiatives are developed and implemented which are reliant on poor quality evidence.

Although a meta-analysis would enable more rigorous investigation of the data, including establishing more accurate effect sizes, a systematic review was conducted which would enable the use of several measures of burnout and enable a review to be completed on research with missing data. The current review also did not include qualitative papers which meant that some research which may have provided information containing depth and detail were not eligible for inclusion. However, this has enabled a more robust comparison between the variables of self-compassion and burnout which is generalisable to the wider healthcare population.

Suggestions for future research

All of the research in this area is cross-sectional meaning that causation cannot be established between the variables. Therefore, there is a gap in the literature for longitudinal or prospective designs where causality between the variables can be inferred. Such research would benefit from particular attention to

ensure robust methodology, e.g., controlling for confounds and reporting non-significant results.

The studies investigating the individual sub-scales of the SCS and burnout indicated varying results, but with the majority of results being significant and in the expected direction. A number of studies did not report data on all of the sub-scales. Therefore, it would be beneficial to develop research in this area so that the different elements of self-compassion can be better understood in terms of their relationship to burnout. This can help to inform interventions based on self-compassion to be better tailored with regards to supporting those experiencing burnout. Furthermore, the differing theoretical perspectives and constructs of self-compassion would benefit from further exploration to seek a more unified consensus so that measurement of self-compassion can be attuned to a global definition.

The research in this area is very much in its infancy, particularly given that the majority of studies in this review were published in the past three years. Early studies may well be tentative and exploratory, developing a mandate for further study of more specific questions. The findings within the literature indicates that the next stage would be to ascertain what factors account for the relationship between burnout and self-compassion. As the reviewed studies used the SCS, which has been questioned (Costa et al., 2016; Muris, 2015; Williams et al., 2014), it may be beneficial for future research to explore if the relationship between burnout and self-compassion remains significant when using a different measure of self-compassion (e.g. Compassionate Engagement and Action Scale; Gilbert, 2017).

Conclusion

This paper systematically reviewed the empirical literature relating to burnout and self-compassion. From the 14 papers identified, it was clear that there was a negative relationship between self-compassion and burnout, although the strength of that relationship should be explored in future research in relation to possible confounding factors, and to assess reliability. The nature of this relationship when breaking down self-compassion into its individual components is unclear at present. This is of particular importance as interventions seeking to improve self-compassion in healthcare workers have begun to emerge, however this review shows that there remains ambiguity as to which aspects of self-compassion are most significant. This

is further complicated by the complex systemic context of healthcare in which research is being carried out. Future research into developing our understanding of the significance of the individual components of self-compassion would be beneficial, along with ensuring that robust methodology is employed.

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BLIDNOLIT IN HEALTI	JOADE: THE DOLE (JE SELE-COMPASSION	EMPATHY AND JOB DEMANDS

Chapter 2: Empirical paper

Burnout in IAPT: The role of job demands, self-compassion and empathy¹

¹ Prepared according to author guidelines for the Applied Psychology: Health and Wellbeing journal

Abstract

Objective: The aims of this study were to investigate burnout within Improving Access to Psychological Therapies (IAPT) practitioners and how job demands, self-compassion and empathy related to levels of burnout.

Method: Self-report data from 132 participants were used in the analysis. Burnout, self-compassion and empathy were assessed using the Maslach Burnout Inventory (Maslach, Jackson, & Leiter, 1996), Self-Compassion Scale (Neff, 2003b), Toronto Empathy Questionnaire (Spreng, McKinnon, Raymond, Mar, & Levine, 2009) respectively, and job demands were assessed by self-reported estimates and Likert rating scales.

Results: Correlational analyses demonstrated that all three sub-scales measuring burnout were significantly correlated with self-compassion. Empathy was negatively correlated with depersonalisation and positively correlated with personal accomplishment. Caseload satisfaction was positively correlated with emotional exhaustion and depersonalisation. Perceived pressure from service targets was positively correlated with emotional exhaustion. Burnout was not related to the number of hours worked or the amount of clinical contact when taken as a percentage of total working hours. Job demands, self-compassion and empathy were all shown to account for a significant amount of variance of each of the three burnout sub-scales. Self-compassion was shown to moderate the relationship between job demands and emotional exhaustion but did not moderate the relationships between job demands and either the depersonalisation or personal accomplishment subscales of burnout.

Conclusion: The results highlight the importance of burnout experienced by IAPT practitioners and offer some indication as to the intra-psychic and organisational factors that relate to burnout, and how these factors may interact. Concern is expressed at the level of burnout in what is a relatively newly qualified population. Further research suggestions are recommended to explore the reliability of this finding, and to consider the interplay between organisational and psychological factors with regard to staff interventions in wellbeing.

Keywords: burnout, IAPT, job demands, self-compassion, empathy

Introduction

During the Labour government between 1997 and 2010, mental health received an increase in spending (Turner et al., 2015) and consideration was given to provision within primary care mental health services. The National Health Service (NHS) plan (NHS, 2000) articulated a ten year plan declaring mental health as a core clinical priority. An addition to the workforce, as outlined by the NHS plan, was the role of the graduate mental health worker. It was envisaged that they would complete a post-graduate certificate which would enable them to deliver psychological interventions based on Cognitive Behavioural Therapy (CBT) principles and interventions with people who had experienced difficulties with anxiety and/or depression.

The Improving Access to Psychological Therapies (IAPT) initiative originated from the identification of a lack of psychological therapy provision in England (Layard et al., 2006). It was argued that if provision for psychological therapies was improved for those who were experiencing anxiety and depression, the reduction in the cost of medication and out of work benefits would pay for the additional psychological services (Clark et al., 2009). Prior to IAPT, the economic cost of depression to the United Kingdom (U.K.) economy was 4% of gross domestic product, with approximately 900,000 people claiming incapacity benefit due to mental health difficulties (Hague, 2008). With additional psychological provision, it was estimated that by 2011 approximately 25,000 people who had accessed an IAPT service would no longer be claiming out of work benefits or sick pay (Richards & Borglin, 2011). Thus the rationale for IAPT was heavily founded on social and economic grounds, namely to increase the productivity of the national workforce, reduce the economic cost associated with unemployment and reduce the financial costs to the state of supporting those deemed unable to work due to illnesses related to anxiety and depression.

In 2008, the first wave of IAPT services was introduced, with most areas having an IAPT service by 2011. A total of £309 million was invested to complete the three year roll out which included training 3600 new psychological therapists (Clark, 2011). By 2018 it was established that there were IAPT services in each of the 209 Clinical Commissioning Groups (CCG's) in England (Clark, 2018). There

has been further commitment to increase provision within existing IAPT teams in "The Five Year Forward View for Mental Health" (NHS England, 2016) to provide psychological therapy to 1.5 million people per year by 2021. Although the "NHS Long Term Plan (NHS, 2019) has recently been published which includes further provision and development of mental health services, recruitment for the current research was completed when participants were working within the context and time-frame of "The Five Year Forward View for Mental Health" (NHS England, 2016).

IAPT saw the introduction of two new roles, psychological wellbeing practitioners (PWP's) and high intensity therapists (HIT's). Interventions delivered were recommended by the National Institute of Health and Care Excellence (NICE) based upon the stepped care approach, with the aim of providing the least intrusive interventions for individuals, and in turn, ration more intensive interventions appropriately (Richards, Chellingsworth, Hope, Turpin, & Whyte, 2010). PWP's deliver interventions at step 2 of the stepped care model, with a focus on a high volume of clients (PWP Best Practice Guide, 2014). Therefore, it is possible that PWP's will work with over 250 clients per year (Golden, 2011). In order to maintain a high caseload, face-to-face interventions are being replaced with Computerised Cognitive Behavioural Therapy (CCBT), therapy groups and over the telephone therapy. HIT's deliver interventions at step 3 of the stepped care model which include Cognitive Behavioural Therapy (CBT), Interpersonal Therapy, Behaviour Couples Therapy and Eye Movement Desensitisation and Reprocessing. PWP's should be aiming to attain 18-20 clinical contact hours per week with HITs aiming to attain 20 clinical contact hours per week, with pro-rata reductions for part-time workers and those with management or supervision responsibilities (National Collaborating Centre for Mental Health, 2018). The guidelines state that "more than 20 clinical contact hours is not recommended and may be detrimental to both wellbeing and clinical effectiveness" (National Collaborating Centre for Mental Health, 2018, pg. 43).

Since the introduction of IAPT, over 7000 new therapists have been trained (NHS England, 2015) and 1.44 million people were referred to an IAPT service between April 2017 and March 2018 (NHS Digital, 2018). However, there are debates about the over-reliance on CBT (Samuels & Veale, 2009), the ability to form a therapeutic relationship with over the telephone therapy (Turner, Brown, &

Carpenter, 2018), the costs associated with providing the service (Griffiths & Steen, 2013) and the accuracy of the reported recovery rates (Griffiths, Steen, & Pietroni, 2013). IAPT has several service targets including waiting time targets and 50% recovery rate targets. Services report monthly to the CCG's regarding their attainment of these targets. It has been argued that by promoting a culture of recovery, IAPT has neglected to consider complexities and comorbidities which affect mental health difficulties (Fairfax, 2008). Furthermore, it has been argued that IAPT has created "a 'virtual reality' where attention to targets, outcomes, protocols and policies is privileged over attention to the patient's psychological needs" (Rizq, 2012, p. 7).

The wellbeing of IAPT practitioners, particularly in relation to stress and burnout has received some empirical attention (Scott, 2018). Burnout was first described in the literature by Freudenberger (1974) and Maslach (1976) who independently identified the concept when researching human services staff. Burnout has been conceptualised as consisting of emotional exhaustion, depersonalisation and personal accomplishment and the Maslach Burnout Inventory (MBI) was developed to measure these three constructs (Maslach & Jackson, 1981). This three factor structure has underpinned the majority of burnout research over several decades (Maslach, Schaufeli, & Leiter, 2001). The MBI has been referred to as the gold standard measure of burnout (Schutte, Toppinen, Kalimon, & Schaufeli, 2000), although there have been concerns regarding the factor structure of the measure (de Beer & Bianchi, 2019). In particular, the construct of personal accomplishment is considered to possess the weakest validity of the three factors (Kalliath, Driscoll, Gillespie, & Bluedorn, 2000).

Burnout amongst mental health workers has been shown to vary between 21% and 67% when using psychometric measures (Morse, Salyers, Rollins, Monroe-DeVita, & Pfahler, 2012). The impact of burnout on individuals and the organisation is wide ranging. Burnout appears related to physical ill-health (Acker, 2010) and predicts future sick leave, even controlling for the effects of age, gender, occupation and previous absence (Toppinen-Tanner, Ojajärvi, Väänänen, Kalimo, & Jäppinen, 2005). These findings are particularly pertinent, as the highest rate of staff sickness in the National Health Service (NHS) is in trusts providing direct service user care (NHS Digital, 2018). Burnout has also been shown to be associated with poorer

patient care (Shanafelt, Bradley, Wipf, & Back, 2002) and reduced fidelity to adhere to evidence based practices with the result that service users may not receive the optimum treatment (Rollins, Salyers, Tsai, & Lydick, 2010). Burnout, via the impact on staff absence, performance and attrition, also has important financial consequences for NHS services (Gilbody et al., 2006).

IAPT presents some unique features that could further exacerbate burnout. Some clients presenting to IAPT services have complex difficulties (Cairns, 2014), which are not covered in depth by IAPT training. Consequently, practitioners may lack the necessary skills to work with such additional complexities. It has been suggested that the "growing complexity of clients may contribute to a lack of job satisfaction and frequent staff departures" (Painter, 2018, p. 10) with previous research showing a link between burnout and dissatisfaction with caseload (Huebner, 1992). Recently, research has indicated that higher client contact hours are associated with burnout in IAPT staff (Westwood, Morison, Allt, & Holmes, 2017). Furthermore, in the same study, a burnout prevalence of between 50 and 69% was identified in IAPT practitioners. By contrast, recent research has revealed emotional exhaustion in 23% of nurses (Fornés-Vives, García-Banda, Frias-Navarro, & Pascual-Soler, 2019), 40% of mental health professionals (O'Connor, Neff, & Pitman, 2018) and burnout in 28.9% of U.K. ear, nose and throat surgeons (Vijendren, Yung, & Shiralkar, 2018). A high turnover of PWP's has also been linked to burnout (Steel, Macdonald, Schröder, & Mellor-Clark, 2015). IAPT staff are also faced with specific pressures regarding service targets which "under poor leadership. they can appear burdensome and oppressive..." (Clark, 2018, pg. 177).

Research suggests that organisational and environmental pressures are more strongly associated with higher rates of burnout than individual factors such as age or gender (Westwood et al., 2017). Research has also found that the number of hours worked is related to emotional exhaustion (Rupert and Morgan, 2005). Research within an IAPT population that organisational factors were stronger predictors of burnout than personal characteristics of the workforce (Westwood et al., 2017). IAPT practitioners have identified stressors which include resource issues (e.g. staffing, clinic space) and high volume, target orientated work (Walklet & Percy, 2014).

Self-compassion has been shown to be a stronger predictor of burnout than age, gender, years worked, depression (Atkinson, Rodman, Thuras, Shiroma, & Lim, 2017), empathic concern, personal distress and psychological inflexibility (Duarte & Pinto-Gouveia, 2017), thus making it an important construct to explore. Selfcompassion has been described as "being touched by and open to one's own suffering, not avoiding or disconnecting from it, generating the desire to alleviate one's suffering and to heal oneself with kindness...offering non-judgemental understanding to one's pain, inadequacies and failures, so that one's experience is seen as part of the larger human experience" (Neff, 2003a, pg. 87). Neff (2003b) proposed six elements of self-compassion consisting of self-kindness versus selfjudgement, mindfulness versus over identification and common humanity versus isolation, which are measured by the Self-Compassion Scale (SCS). There has been debate as to the utility of a total SCS score, with recommendations to use the six individual sub-scales instead (Williams, Dalgleish, Karl, & Kuyken, 2014). A contrasting theoretical account of compassion comes from Gilbert (2017) who presents compassion as a motivating human force that is linked to human evolution and survival. This broader construct argues compassion can be directed to others, or received from others, or in the case of self-compassion, directed towards the self.

Self-compassion has been shown to have a negative relationship with burnout, thus those with higher levels of self-compassion also report lower levels of burnout (Babenko, Mosewich, Abraham, & Lai, 2018; Dev, Fernando, Lim, & Consedine, 2018; Ringenbach, 2009). Self-compassion is also important within healthcare, as it has been argued that those who lack self-compassion are less likely to show compassion towards patients (Heffernan, Quinn, Griffin, McNulty, & Fitzpatrick, 2010).

Mindfulness is one of the elements of self-compassion, as defined by Neff (2003b). Interventions involving mindfulness have received considerable empirical support with results showing that higher levels of mindfulness are associated with reduced burnout in those working within healthcare, for example, nurses (Duarte & Pinto-Gouveia, 2016) and primary care physicians (Schroeder et al., 2016). Therefore mindfulness may be a facet of self compassion offering protection against burnout.

Empathy is a construct seen as an important building block of compassion (Gilbert, 2017; Neff, 2003a), though these two constructs have distinct features. Empathy has been defined as the ability "to sense the client's private world as if it were your own, but without ever losing the "as if" quality" (Rogers, 1957, p. 99). Despite this early definition, more recently, many definitions and conceptualisations have been recorded in the literature (Decety & Lamm, 2006). Empathy is hypothesised as having four dimensions: cognitive, behavioural, emotive and moral (Morse et al., 1992). The cognitive dimension is the ability to understand other people's perspectives, the behavioural dimension is the ability to communicate empathy, the emotive dimension is the ability to immerse oneself into other's psychological states and the moral dimension is a selfless drive to be empathic (Yu & Kirk, 2009).

Empathy is a concept that is integral to various therapy models and theories such as CBT (Beck, Rush, Shaw, & Emery, 1979), person centred psychotherapy (Rogers, 1957) and psychoanalytic theory (Bohart & Greenberg, 1997), and is argued to underpin psychotherapeutic work. For example, it has been argued that a key aspect of a therapeutic relationship is for individuals to be understood, falling under the cognitive dimension of empathy, and then for the clinician to communicate this understanding to them, falling under the behavioural dimension of empathy (Shattell, Starr, & Thomas, 2007). In addition, emotional engagement, which has been shown to mediate the relationship between empathy and therapy outcome, can help individuals to learn that they are worthy of respect (Greenberg, Watson, Elliot, & Bohart, 2001).

There have been several studies highlighting a significant relationship between burnout and empathy (Williams, Lau, Thornton, & Olney, 2017; Yuguero, Marsal, Esquerda, Vivanco, & Soler- González, 2017). However, the nature of the relationship between empathy and burnout is complex, with it being suggested that "further studies will be necessary to determine whether the contradictory effects of empathy observed, favouring or protecting against burnout, are linked to the type of empathy used" (Picard et al., 2016, p. 360). A systematic review concerning burnout and empathy in healthcare professionals found that whilst the majority of research fully supported a negative relationship between burnout and empathy, this was not a unanimous finding (Wilkinson, Whittington, Perry, & Eames, 2017). There is

sufficient evidence to suggest that in most circumstances empathy and burnout have a negative relationship, but the inconsistent findings suggest a more complex relationship which could be due to the number of empathy and burnout measures used, different dimensions of empathy being researched or methodological issues.

A variety of interventions have been shown to alter empathy levels, particularly in the behavioural domain, though firm conclusions regarding the optimal intervention are not possible to draw due to poor methodological considerations of the available studies and a variation between empathy measurement tools (Stepien & Baernstein, 2006). There are a number of questionnaires measuring empathy including the Toronto Empathy Questionnaire (Spreng, McKinnon, Mar, & Levine, 2009), the Empathy Construct Rating Scale (Monica, 1981) and the Interpersonal Reactivity Index (Davis, 1983). Despite there being a number of empathy measures, it has been argued that it has not been possible to identify a 'gold standard' measure which is psychometrically and conceptually sound (Yu & Kirk, 2009).

Limited research investigating the relationship between empathy and selfcompassion has found mixed results. Daltry, Mehr, Sauers, & Silbert (2018) found no association between empathy and self-compassion for female participants but higher self-compassion was related to lower empathy for others in male participants. Further mixed results were found with a significant positive relationship identified between perspective taking and self-compassion but no significant relationship found between empathic concern and self-compassion (Birnie, Speca, & Carlson, 2009). The common humanity versus isolation subscale of the self-compassion scale was positively related to empathic concern and perspective taking (Fuochi, Veneziani, & Voci, 2018). However, the researchers employed the short form of the selfcompassion scale and due to low internal consistencies, it is not recommended that SCS sub-scales are used in the short form (Raes et al., 2011). Therefore, it would be beneficial to repeat the study using the full SCS to see if the results are replicated before drawing conclusions regarding this relationship. There appears to be some conceptual overlap between empathy and self-compassion but the relationship appears complex, particularly given the number of measures and dimensions of empathy.

Aims and Hypotheses

The NHS has experienced a period of austerity measures which have put additional pressure on staff and resources, thus providing organisational challenges that may increase the risk of staff burnout. Protecting staff from burnout is important for service provision as research shows that it can have a variety of adverse effects such as increased sick leave, staff turnover and sub-optimum patient care, which in turn creates additional demands on services. The literature identifies intra-psychic factors relating to burnout, such as self-compassion and empathy, in addition to organisational factors such as caseload and hours of clinical work undertaken.

The current study aimed to explore factors associated with burnout in IAPT practitioners. Specifically, the study explored the relationships between burnout and self-compassion, empathy and job demands. Self-compassion and empathy were identified from the literature indicating they may be protective against burnout. Furthermore, there is emerging evidence pertaining to effective interventions drawing on these constructs that are being offered in order to support staff wellbeing. The job demands investigated were the number of hours worked, the number of clinical hours worked, the perceived pressure experienced from service targets and reported satisfaction with caseload. These were chosen due to their pertinence within IAPT services, in addition to the links with burnout highlighted by the empirical literature. As there is consistent evidence that self-compassion is related to lower burnout, it is worth considering the protective role that self-compassion may play in terms of buffering against organisational factors. Consequently, the following hypotheses were identified:

Hypothesis one: There will be a significant relationship between empathy and burnout.

Hypothesis two: There will be a negative relationship between self-compassion and burnout.

Hypotheses three: There will be a positive relationship between job demands (caseload dissatisfaction, hours worked, clinical hours and perceived pressure from service targets) and burnout.

Hypothesis four: Self-Compassion will moderate the strength of the relationship between job demands and burnout.

Method

Design

A cross-sectional, online questionnaire design was used.

Participants

Between February 2018 and December 2018, participants were recruited online via a psychology forum (IAPT specific forum), the Psychological Professions Network North West and Facebook. Participants were eligible for entry into a prize draw for a £50 Amazon voucher.

Inclusion and exclusion criteria

People were eligible to participate in the study if they were currently working in any primary care adult mental health IAPT service and had been qualified and working in their current role for over 12 months. People working in children and young people's IAPT services were not included in the study.

Permission of ethics committees

Approval for this research was granted from the University of Liverpool's committee of research ethics (application number 2479; see Appendix C).

Measures

Participants were asked to complete the following self-report measures:

Demographic Questions: Information was collected regarding the participant's age, gender, occupational role and length of time in the role (see Appendix D).

Maslach Burnout Inventory: Burnout was measured using the Maslach Burnout Inventory (MBI; Maslach, Jackson, & Leiter, 1996; see Appendix E). The MBI is a 22 item, self-report measure and consists of three separate subscales which measure emotional exhaustion (nine items), depersonalisation (five items) and

personal accomplishment (eight items). Each item is scored on a seven point scale from zero (never) to six (everyday). There is no overall score; instead, there are three scores related to emotional exhaustion, depersonalisation and personal accomplishment. Although cut off scores for each subscale were published in the MBI 3rd edition manual, these have been removed from the MBI 4th edition manual due to the lack of diagnostic validity. High levels of emotional exhaustion, high levels of depersonalisation and low levels of personal accomplishment are deemed to be indicative of burnout. A meta-analysis of 45 studies has shown that the average internal consistency as measured by Cronbach alpha's for emotional exhaustion, depersonalisation and personal accomplishment is $\alpha = 0.88$, $\alpha = 0.71$ and $\alpha = 0.78$ respectively (Aguayo, Vargas, de la Fuente, & Lozano, 2011).

Self-Compassion Scale: The self-compassion scale (Neff, 2003) is a 26 item self-report measure designed to assess six components of self-compassion; self-kindness, self-judgement, common humanity, isolation, mindfulness and over-identification (see Appendix F). The items are on a five point scale from one (almost never) to five (almost always). Scores on the six components can be added (with reverse scoring for the negative items) to form a total score. The six sub-scales can also be analysed in isolation from one another. The questionnaire has demonstrated good internal consistency with a Cronbach Alpha of α = .90 (Joeng et al., 2017).

Toronto Empathy Questionnaire: Empathy was measured using the Toronto Empathy Questionnaire (TEQ; Spreng et al., 2009; see Appendix G). The TEQ is a 16 item, self-report measure where each question is rated on a five point scale from zero (never) to four (always). Scores can be totalled (with reverse scoring for negatively worded items) producing a total empathy score. The questionnaire has been demonstrated to possess good internal consistency with a Cronbach Alpha of α = .85 (Spreng et al., 2009).

Job Demands: There were a total of four questions regarding job demands. There are currently no validated measures to investigate caseload satisfaction or pressure from service targets, therefore the following questions were asked pertaining to the job demand hypotheses:

- 1. How many hours do you work each week?
- 2. How many clinical contact hours (including DNA's and late cancellations) on average do you schedule per week?

- How would you rate your satisfaction with your current caseload? This item
 was measured on a seven point Likert scale from 'Very Dissatisfied' to 'Very
 Satisfied'.
- 4. How pressured do you feel to achieve the service related targets that are set within your service? This item was measured on a seven point Likert scale from 'Extremely Pressured' to 'Not at All Pressured'.

Procedure

Links to the online questionnaires (hosted by Qualtrics) were made available via the recruitment sources. The inclusion and exclusion criteria were made explicit and participants were asked to confirm that they met all the criteria. Participants were asked to confirm consent online after reading the participant information sheet (see Appendix H). Participants could withdraw during completion of the questionnaires by clicking a button at the bottom of each page saying that they wished to withdraw which took them to the de-brief information. Participants were made aware that once they had completed all questionnaires, they could no longer withdraw from the study as the data was anonymous. Participants were asked a series of questionnaires which were detailed in the measures section. De-brief information was provided at the end of the questionnaire (see Appendix I). Participants were also given the option to enter an email address should they wish to be entered into the prize draw and/or receive a summary of the results (see Appendix J for the study advertisement poster).

Data Analysis

A power calculation was conducted using G Power 3.1 which indicated that with seven predictor variables, a sample size of n = 103 was required to achieve 80% power, with α = .05, assuming an effect size of R^2 = .15.

The data was analysed using Statistical Package for Social Science (SPSS) version 22, including the use of Hayes's (2013) PROCESS macro. The statistical analyses used were Spearman's Rho correlations, hierarchical multiple regression and moderation analysis. Due to the number of correlation analyses, the p-value was adjusted using a Bonferroni's correction (p-value .05/36=.0014).

Three hierarchical multiple regression analyses were conducted with the outcome variables of emotional exhaustion, depersonalisation and personal accomplishment. This enabled further investigation into the significance of these variables on burnout, whilst considering and controlling for shared variance. The first stage of the regression consisted of age and gender due to some significance of these variables within the correlational analyses. The second stage consisted of the job demands of caseload satisfaction, perceived pressure from service targets and clinical hours worked as a percentage of total working hours (as these were either significant job demands as demonstrated in the earlier analyses, or had significant correlations with other predictor variables). As organisational factors have been shown to be of greater importance than individual factors when considering burnout in healthcare workers and IAPT practitioners (Morse et al., 2012; Westwood et al., 2017), these variables were added in an earlier step in the analysis due to their importance (Tabachnick & Fidell, 2013). The third stage consisted of selfcompassion and the fourth stage consisted of empathy. Self-compassion was entered before empathy as the literature is more consistent with regards to its relationship to burnout. Data normality of the outcome variables were assessed by consulting skewness and kurtosis values (Abbott, 2016). When the z values for skewness or kurtosis were outside -1.96 and 1.96 (Field, 2005) square root transformations were performed. The assumptions of random distribution of residuals and homoscedasticity were investigated from a scatterplot of the standardised residuals and standardised predicted values. Upon plotting a graph of cooks distance vs leverage values, one outlier was identified and removed from the analysis. All variance inflation factors were lower than 10 (Myers, 1990) and no variables were highly correlated indicating no problems with multicollinearity. For the regressions, residuals were normally distributed (see Appendix K for plots). On the basis of these investigations, the assumptions of a hierarchical multiple regression model were met.

The moderation analyses were performed using the PROCESS macro (Hayes, 2013). A total score between caseload satisfaction and perceived pressure from service targets was calculated to form the 'job demand' variable in this analysis.

Results

Sample characteristics and missing data

A total of 193 prospective participants accessed the participant information sheet. Two did not proceed past this point. Thirteen participants opted to click the 'withdraw' button during the completion of the questionnaire and all of these participants had missing measures. One participant was excluded due to not meeting the inclusion criteria of being qualified 12 months in their current role. 45 participants exited the questionnaire prior to completing all measures. Unfortunately, the online platform did not allow for participants to save their progress and return to it at a later date. Therefore, the number of participants used in the analyses was 132. Data from one participant was removed due to an obvious typographical error, which stated having 25 clinical contact hours but only working 7.5 hours per week. As it was not possible to ascertain which entry was the error, both data points were removed, however their remaining responses to the other questionnaires was retained and included for analysis.

The mean age of the participants was 38.04 (SD 10.21) with a range of 24 to 64. The mean number of years that the participants had been qualified in their current position was 4.95 years (SD 3.24), with a range from 1 to 17 years. Participant demographics are presented in Table 1.

Internal Consistency of Measures

The MBI consists of three subscales, emotional exhaustion, depersonalisation and personal accomplishment. The emotional exhaustion subscale consisted of nine items and had a Cronbach's alpha of α = .935, the depersonalisation subscale consisted of five items and had a Cronbach's alpha of α = .819 and personal accomplishment consisted of eight items and had a Cronbach's alpha of α = .723. The TEQ consists of 16 items with a Cronbach alpha of α = .788. The SCS consists of 26 items with a Cronbach alpha of α = .952. All of these reliabilities are similar to other published studies using the same measures. Means and standard deviations for the key measures are presented in Table 2.

Table 1
Participant Demographics (n=132)

Demographic		n (%)		
Age	18-24 25-29 30-34 35-39 40-44 45-49 50-54 55-59 60 and over	1 (0.76) 27 (11.64) 34 (44.88) 28 (21.21) 7 (5.30) 10 (7.58) 9 (6.82) 11 (8.33) 5 (3.79)		
Gender	Male Female	12 (9.09) 120 (90.91)		
Role	Psychological Wellbeing Practitioner High Intensity Therapist Cognitive Behavioural Therapist Counsellor Clinical Psychologist Senior Psychological Wellbeing Practitioner Graduate Mental Health Worker Nurse Practitioner Interpersonal Therapist Team Manager/High Intensity Therapist	42 (31.82) 38 (28.79) 30 (22.73) 10 (7.58) 4 (3.03) 4 (3.03) 1 (0.76) 1 (0.76) 1 (0.76) 1 (0.76)		
Years Qualified in Current Role	1-2 3-4 5-6 7-8 9-10 11-12 13-14 15-16	43 (32.58) 23 (17.42) 25 (18.94) 22 (16.67) 15 (11.36) 1 (0.76) 1 (0.76) 1 (0.76) 1 (0.76)		
Number of Hours Worked Each Week ^a	≤20 20.5 - 25 25.5 - 30 30.5 - 35 35.5 - 40	7 (5.34) 14 (10.69) 16 (12.21) 8 (6.11) 86 (65.65)		
Number of Weekly Clinical Hours ^a	≤10 11 - 15 16 - 20 21 - 25 26 - 30 31 - 35	8 (6.11) 15 (11.45) 42 (32.06) 54 (41.22) 9 (6.87) 3 (2.29)		

Table 1 continued

Demographic		n (%)
Clinical Hours as a Percentage of Working Hours ^a	≤30% 31 - 35% 36 - 40% 41 - 45% 46 - 50% 51 - 53% 54 - 60% 61 - 65% 66 - 70% 71 - 75% 76 - 80% 81 - 85% 86 - 90%	3 (2.29) 2 (1.53) 4 (3.05) 1 (0.76) 8 (6.11) 19 (14.50) 40 (30.53) 20 (15.27) 16 (12.21) 3 (2.29) 7 (5.34) 3 (2.29) 3 (2.29)
	91 – 95% 96 – 100%	1 (0.76) 1 (0.76)

^an=131, ^b Deviation in range to reflect the guidelines in the improving access to psychological therapies manual (National Collaborating Centre for Mental Health, 2018) which states that full-time practitioners should have a maximum of 20 hours clinical contact, which is pro-rata for part-time staff and those with additional responsibilities. 20 hours of a full time practitioner equates to 53%.

Table 2
Means and Standard Deviations of Key Measures

Measure	M (SD)
MBI - Emotional Exhaustion	31.62 (12.05)
MBI - Depersonalisation	8.33 (6.50)
MBI - Personal Accomplishment	37.11 (5.78)
Self-Compassion Scale	81.31 (20.30)
Toronto Empathy Questionnaire	48.91 (5.58)

Burnout Prevalence

There is not a cut off score on the MBI for burnout. In order to demonstrate the prevalence of burnout within this sample, table 3 shows the means and standard deviations for the MBI in contrast with other similar studies.

Table 3
Comparisons between current sample and previously published studies

-	IAPT	IAPT	Mental Health	Mental Health
	practitioners;	practitioners;	Workers;	Professionals
	current study	Steel et al. (2015)	Maslach et al.	(meta-analysis);
			(1996)	O'Connor et al.
				(2018)
N	132	116	730	9409
EE Mean (SD)	31.32 (12.05)	20.47 (9.70)	16.89 (8.9)	21.25 (No SD)
DP Mean (SD)	8.33 (6.50)	3.26 (3.45)	5.72 (4.62)	6.82 (No SD)
PA Mean (SD)	37.11 (5.78)	38.71 (5.36)	30.87 (6.37)	34.61 (No SD)

Hypothesis 1: Empathy and Burnout

This hypothesis predicted that there would be a significant relationship between empathy and burnout. In order to test this hypothesis, three Spearman Rho correlations (see Table 4) were carried out relating to the three sub-scales of the MBI using the total score of the Toronto Empathy Questionnaire. Empathy had a significant negative relationship with depersonalisation (r_s = -.332, p<.001) and a significant positive relationship with personal accomplishment (r_s = .302, p<.001), but there was no significant relationship with emotional exhaustion (r_s = -.172, p=.048). Therefore, as there is no significant relationship between emotional exhaustion and burnout but a significant relationship between depersonalisation and personal accomplishment and empathy, there is partial support for this hypothesis.

Table 4
Correlation matrix of the main variables.

	1	2	3	4	5	6	7	8	9	10	11
1. Gender	-										
2. Age	314**	-									
3. Hours Worked	174*	128	-								
4. Clinical Hours (%)	144	115	113	-							
5. CLSat	110	.031	.148	.116	-						
6. Targets	052	.224*	075	.157	.478**	-					
7. Empathy	.236*	083	167	070	059	.076	-				
8. SC	034	.189*	169	242*	142	236*	138	-			
9. EE	069	017	.147*†	.075 [†]	.671** [†]	.534**†	172*	409**†	-		
10. DP	.052	216*	.141 [†]	.123 [†]	.318**†	.250*†	357**	481**†	.617**	-	
11. PA	015	.169	013 [†]	055 [†]	210*†	116 [†]	.302**	.321**†	298*	326**	-

Note: CLSat=Caseload Satisfaction, SC=Self-compassion, EE=Emotional Exhaustion, DP=Depersonalisation, PA=Personal Accomplishment. *p<.05, **p≤.001 (Bonferroni corrected p-value). †=one-tailed

Hypothesis 2: Self-Compassion and Burnout

To test the hypothesised negative relationship between self-compassion and burnout, three Spearman Rho correlations were conducted pertaining to the three sub-scales of the MBI using the total score of the self-compassion scale. Self-compassion was negatively associated with emotional exhaustion (r_s = -.409, p<.001) and depersonalisation (r_s = -.481, p<.001) and there was a significant positive relationship between self-compassion and personal accomplishment (r_s = .321, p<.001), thus providing support for this hypothesis.

The relationship between self-compassion and burnout was further tested by using the six sub-scales of the self-compassion scale. Table 5 presents correlation coefficients for the relationships between the six subscales of self-compassion and burnout.

Table 5
The relationship between burnout and self-compassion with its six subscales

Self-Compassion Subscales	Burnout subscales	Correlation
Self-Kindness	Emotional Exhaustion	351**
	Depersonalisation	450**
	Personal Accomplishment	.312**
Self-Judgement	Emotional Exhaustion	.401**
3	Depersonalisation	.448**
	Personal Accomplishment	234*
Common Humanity	Emotional Exhaustion	267**
•	Depersonalisation	343**
	Personal Accomplishment	.247*
Isolation	Emotional Exhaustion	.426**
	Depersonalisation	.440**
	Personal Accomplishment	293**
Mindfulness	Emotional Exhaustion	242*
	Depersonalisation	330**
	Personal Accomplishment	.295**
Over-Identification	Emotional Exhaustion	.337**
	Depersonalisation	.387**
	Personal Accomplishment	267**

^{*}p<.05, **p<.001

There were multiple significant correlations with only self-judgement and personal accomplishment, common humanity and personal accomplishment, and mindfulness and emotional exhaustion not being significant to the p<0.001 Bonferroni corrected value. They were however, significant at the standard p<0.05 value.

Hypothesis 3: Job Demands and Burnout

This hypothesis was further broken down into four different job demands; caseload satisfaction, perceived pressure from service targets, number of hours worked and amount of clinical work as a percentage of working hours, with each demand analysed separately (Spearman's Rho; see table 4).

Caseload Satisfaction

Higher scores on the caseload satisfaction question indicated dissatisfaction with caseload. Caseload satisfaction was associated with emotional exhaustion

 $(r_s = .671, p<.001)$ and depersonalisation $(r_s = .318, p<.001)$, but not personal accomplishment $(r_s = -.210, p=.008)$. This result indicates that dissatisfaction with caseload is associated with increased emotional exhaustion and depersonalisation.

Perceived Pressure from Service Targets

Higher scores on the question pertaining to perceived pressure from service targets indicated higher perceived pressure. Perceived pressure from service targets was positively associated with emotional exhaustion (r_s = .534, p<.001). There was no significant correlation with depersonalisation (r_s = .250, p=.002) and personal accomplishment (r_s = -.116, p=.093). This result indicates that higher perceived pressure from service targets is associated with higher levels of emotional exhaustion.

Number of hours worked

The total number of hours worked did not correlate significantly with emotional exhaustion (r_s = .147,p=0.47), depersonalisation (r_s = .141, p=.054) or personal accomplishment (r_s = -.013, p= .443).

Clinical hours as a percentage of total working hours

The total number of clinical hours worked as a percentage of working hours did not have a significant relationship with emotional exhaustion (r_s = .075, p= .198), depersonalisation (r_s = .123, p= .080) or personal accomplishment (r_s = -.055, p= .265). This result indicates that, for the participants in this study, the number of clinical hours worked, in relation to their working hours, does not relate to burnout.

Regression Analyses

In order to explore which were the strongest predictors of burnout and control for the influence of correlated variables, a series of four stage hierarchical multiple regressions were performed with emotional exhaustion, depersonalisation and personal accomplishment as the outcome variables.

Emotional Exhaustion

A hierarchical multiple regression was calculated to predict emotional exhaustion, with step 1 entering gender and age. This regression model was not significant, F(2, 127), .538, p= .585, R²= -.007. At step 2, caseload satisfaction, perceived pressure from service targets and clinical hours as a percentage of working hours were included and this model accounted for a significant proportion of the variance, F(3, 124), 45.592, p<.05, R²=.509. At step 3, self-compassion was added and this model accounted for a significant proportion of the variance, F(1, 123), 29.086, p<.05, R²=.600. At step 4, empathy was added and the model accounted for a significant proportion of the variance, F(1, 122), 5.537, p<.05, R²=.614. The results of the individual predictors are presented in table 6. The model accounted for 61.4% of the variance in emotional exhaustion.

Depersonalisation

A hierarchical multiple regression was undertaken in order to predict depersonalisation with step 1 comprising of gender and age. This regression model accounted for a significant proportion of the variance, F(2, 127), 3.311, p<.05, R^2 =.035. At step 2, caseload satisfaction, perceived pressure from service targets and clinical hours as a percentage of working hours were added and this model accounted for a significant proportion of the variance, F(3, 124), 4.921, p<.05, R^2 =.116. At step 3, self-compassion was added and this model accounted for a significant proportion of the variance, F(1, 123), 30.329, p<.05, R^2 =.285. At step 4, empathy was added and the model accounted for a significant proportion of the variance, F(1, 122), 26.188, p<.05, R^2 =.407. The results of the individual predictors are presented in table 7. The model accounted for 40.7% of the variance in depersonalisation.

Table 6
Individual Predictors of emotional exhaustion

	Unstandardized β	SE	Standardized β	Confidence Interval (95%)
Step 1 Constant Gender Age	3.570 .396 .009	1.069 .427 .012	.087 .070	449 – 1.242 015033
Step 2 Constant Gender Age % of Clinical Hours Caseload Satisfaction Pressure from Targets	6.957 .124 .014 .006 416 297	.897 .303 .009 .007 .056	.027 .109 .054 544* 281*	475724 003031 008020 527305 452141
Step 3 Constant Gender Age. % of Clinical Hours Caseload Satisfaction Pressure from Targets Self-compassion	4.658 .054 .005 .012 414 181	.915 .274 .008 .006 .051 .074	.012 .037 .108 541* 171* .332*	487596 011021 001025 515314 327034 .014030
Step 4 Constant Gender Age % of Clinical Hours Caseload Satisfaction Pressure from Targets Self-compassion Empathy	3.360 092 .007 .014 401 212 .020	1.054 .276 .008 .006 .050 .074 .004	020 .053 .126* 524* 201* .311* .138*	639454 009023 .001026 500301 358066 .012028 .005 - 0.61

Note: *=significant predictor p<.05

Table 7
Individual Predictors of Depersonalisation

	Unstandardized β	SE	Standardized β	CI (95%)
Step 1				
Constant	4.094	1.021		
Gender	216	.408	049	-1.024592
Age	029	.012	234*	052007
Step 2				
Constant	2.421	1.174		
Gender	127	.397	029	912658
Age	032	.011	251*	054009
% of Clinical Hours	.001	.009	.007	017019
Caseload Satisfaction	.159	.074	.213*	.014305
Pressure from Targets	.155	.103	.150	048358
Step 3				
Constant	5.484	1.193		
Gender	034	.357	008	741673
Age	019	.010	153	040002
% of Clinical Hours	007	.008	066	024009
Caseload Satisfaction	.157	.066	.210*	.026288
Pressure from Targets	.000	.096	.000	191191
Self-compassion	029	.005	454*	039019
Step 4				
Constant	8.898	1.276		
Gender	.353	.334	.079	308 – 1.014
Age	025	.010	198*	044006
% of Clinical Hours	013	.008	166	028003
Caseload Satisfaction	.121	.061	.162*	.001241
Pressure from Targets	.083	.089	.081	093260
Self-compassion	025	.005	397*	035016
Empathy	087	.017	372*	120053

Note: *=significant predictor p<.05

Personal Accomplishment

A hierarchical multiple regression was undertaken to predict personal accomplishment with step 1 comprising of gender and age. This regression model was not significant, F(2, 127), 1.297, p=.277, R²=.005. At step 2, caseload satisfaction, perceived pressure from service targets and clinical hours as a percentage of working hours were added and this model accounted for a significant proportion of the variance, F(3, 124), 2.796, p<.05, R²=.045. At step 3, self-compassion was added and this model accounted for a significant proportion of the variance, F(1, 123), 11.416, p<.05, R²=.119. At step 4, empathy was added and the

model accounted for a significant proportion of the variance, F(1, 122), 14.506, p<.05, R^2 =.206. The results of the individual predictors are presented in table 8. The model accounted for 20.6% of the variance in personal accomplishment.

Table 8
Individual Predictors of Personal Accomplishment.

	Unstandardized β	SE	Standardized β	CI (95%)
Step 1				
Constant	3.936	.723		
Gender	148	.289	048	720424
Age	013	.008	150	029003
Step 2				
Constant	2.954	.851		
Gender	090	.288	029	659479
Age	013	.008	149	029003
% of Clinical Hours	.003	.007	.044	010016
Caseload Satisfaction	.104	.053	.200	001210
Pressure from Targets	.047	.074	.065	100194
Step 3				
Constant	4.409	.924		
Gender	046	.277	015	593502
Age	007	.008	082	023009
% of Clinical Hours	.000	.006	006	013012
Caseload Satisfaction	.103	.051	.198*	.002204
Pressure from Targets	026	.075	037	174122
Self-compassion	014	.004	309*	022006
Step 4				
Constant	6.459	1.029		
Gender	.187	.269	.060	347720
Age	011	.008	121	026005
% of Clinical Hours	004	.006	049	016009
Caseload Satisfaction	.082	.049	.157	015179
Pressure from Targets	.024	.072	.033	119166
Self-compassion	012	.004	260*	019004
Empathy	052	.014	321*	079025

Note: *=significant predictor p<.05

Hypothesis 4: Moderation Analysis

This hypothesis predicted that self-compassion would moderate the relationship between job demands and burnout. A total score between caseload satisfaction and perceived pressure from service targets was calculated by adding the two scores together to form the 'job demand' variable in this analysis. These job

demand variables were selected due to being significant with burnout in the correlational analysis.

The variables accounted for a significant amount of variance in emotional exhaustion F(3,127)=66.959, p<.001, R^2 =.613, with the interaction effect being significant. The variables accounted for a significant amount of variance in depersonalisation F(3,127)=17.638, p<.001, R^2 =.294, but the interaction effect was not significant. The variables accounted for a significant amount of variance in personal accomplishment F(3,127)=6.927, p<.001, R^2 =.141, but the interaction effect was not significant. Therefore, self-compassion moderated the relationship between job demands and emotional exhaustion, but did not moderate the relationship between job demands and depersonalisation or personal accomplishment. The results of the moderation analysis are presented in table 9.

Table 9
Simple Moderation Analysis.

Variable	β	SE	t	p	95% Confidence Interval
Emotional Exhaustion					
Constant	4.716	.075	62.867	.000	4.568 - 4.865
Job Demands	350	.013	-11.182	.000	412288
Self-Compassion	018	.004	4.998	.000	.011026
Interaction	.003	.001	2.657	.009	.001006
Depersonalisation					
Constant	2.534	.099	25.567	.000	2.338 - 2.730
Job Demands	.114	.041	2.764	.006	.032196
Self-Compassion	028	.005	-5.690	.000	038019
Interaction	003	.002	-1.550	.124	006001
Personal Accomplishment					
Constant	3.174	.076	41.671	.000	3.023 - 3.325
Job Demands	.047	.032	1.475	.143	016110
Self-Compassion	014	.004	-3.657	.000	022006
Interaction	.000	.001	016	.988	003003

Note: Interaction = self-compassion x job demands.

Discussion

The current study investigated burnout and its relationship to self-compassion, empathy and job demands within IAPT practitioners. The prevalence of emotional exhaustion in this sample was much higher than in similar studies, including a

previous study of IAPT practitioners (Steel et al., 2015). The difference may be accounted for by the different recruitment strategies employed in the studies or service contexts arising between the time points of Steel et al.'s (2015) study and the present study. The depersonalisation scores in the current study were somewhat higher than the comparison studies and notably higher than Steel et al.'s (2015) study. Given the time difference between the current study and Steel et al. (2015) it could be explained by Maslach et al.'s (2001) assertion that emotional exhaustion is the first component of burnout to emerge, which is then followed by depersonalisation. The levels of reported personal accomplishment in the current study are comparable to other similar studies. Given the high levels of burnout, and the relatively short time during which practitioners have been employed in their role (50% being qualified four years or less), the levels of burnout are concerning, particularly when high burnout has been linked to physical ill health (Acker, 2010) and sick leave (Toppinen-Tanner et al., 2005).

Empathy was not shown to have a significant relationship with emotional exhaustion, but it did have a significant relationship with depersonalisation and personal accomplishment. This finding further adds to a confusing picture regarding the role of empathy in burnout as previous research has found equivocal evidence regarding both the significance of a relationship between empathy and burnout variables, and a direction of the relationship (Wilkinson et al., 2017). It has been noted that a particular challenge in measuring empathy is that no measure is conceptually and psychometrically sound (Yu & Kirk, 2009) and the variety of measures could be contributing to the unclear picture. For example, in Wilkinson et al.'s (2017) systematic review between burnout (as measured by the MBI) and empathy, of the ten studies included, there were a total of eight empathy measures thus making between-study comparisons complex.

Self-compassion was shown to have a significant negative relationship with emotional exhaustion and depersonalisation and a significant positive relationship with personal accomplishment. This finding supports that of the current evidence base indicating a negative relationship between burnout and self-compassion (Atkinson et al., 2017; Babenko et al., 2018). Further analysis was conducted on the separate sub-scales to better understand the nature of the relationship between the individual sub-scales of the SCS and burnout. This analysis indicated that the vast

majority of sub-scales had a significant relationship with all three burnout variables, with increased burnout associated with lower self-compassion. Personal accomplishment was not however significantly related to either common humanity or self-judgment and emotional exhaustion was not significantly correlated with mindfulness. A non-significant relationship between mindfulness and emotional exhaustion is interesting as higher levels of mindfulness have been linked with lower levels of burnout (Duarte & Pinto-Gouveia, 2016; Schroeder et al., 2016). There is a risk that a Bonferroni correction will "increase the chance that we will miss a genuine difference in the data" (Field, 2005, pg. 340). The three non-singificant results would have been significant in the absence of the Bonferroni correction. Therefore cautious interpretation of these results should be taken.

Perceived pressure from service targets was shown to be significantly related to emotional exhaustion thus indicating that those who feel under greater pressure to achieve service related targets are more likely to report higher levels of emotional exhaustion. There was not a significant relationship between perceived pressure from service targets and depersonalisation or personal accomplishment. As no previous research has been conducted into the impact that pressure from service targets has in relation to burnout within IAPT practitioners, this is a new finding and one that should be considered when thinking about how the wider organisational context impacts on burnout of practitioners.

Caseload satisfaction was significantly related to emotional exhaustion and depersonalisation indicating that those who were most dissatisfied with their caseload, were more likely to experience higher levels of emotional exhaustion and depersonalisation. This finding supports earlier research that caseload satisfaction is linked to burnout (Huebner, 1992), although it is the first such finding in relation to IAPT practitioners. It has also been recognised that there is growing complexity of clients within IAPT services (Cairns, 2014) and that caseloads are often high (Golden, 2011) which indicates that there may be organisational changes that can be made to better support IAPT practitioners.

The number of hours worked was not significantly related to burnout. This is in contrast with previous research that found that emotional exhaustion is related to the number of hours worked (Rupert and Morgan, 2005). However, the results of the correlation between emotional exhaustion and burnout would have been significant,

had the Bonferroni correction not been made. Therefore the results should be interpreted within the context of the increased likelihood of type two errors caused by Bonferroni corrections (Field, 2005). The number of clinical hours worked as a percentage of total working hours was not related to burnout in the current study. Previous research within an IAPT population found that those who had greater clinical contact hours were more likely to experience burnout (Westwood et al., 2017). A reason for this difference could be due to inclusion criteria of both studies. Westwood et al., (2017) excluded those working less than 35 hours per week whereas the current study did not use this exclusion criteria.

Previous research indicates that organisational factors are more important in burnout than individual or intra-psychic factors (Westwood et al., 2017). Some organisational factors in the current research study were shown to have stronger correlations to burnout than intra-psychic factors and also accounted for a larger amount of the variance of burnout in the multiple regression analyses. However, whilst self-compassion and empathy accounted for a smaller amount of variance in burnout, they still contributed a significant amount of variance, indicating an important interplay between both intra-psychic and organisational factors.

It is important to note that self-compassion moderated the relationship between job demands and emotional exhaustion. Neff's (2003b) conceptualisation of self-compassion can help us to understand this finding. For example, those with higher self-compassion may observe any negative thoughts and emotions about organisational demands in a non-judgemental way without becoming immersed in the negativity of them (mindfulness versus over-identification), accepting that challenges in the workplace will affect many people (common humanity versus isolation) and are less critical of themselves in their endeavour to achieve the demands required (self-kindness versus self-judgement). However, self-compassion did not moderate the relationship between job demands and depersonalisation or personal accomplishment. This result indicates that interventions to improve self-compassion may not have substantial impact on depersonalisation or personal accomplishment. These results further highlight the complex interplay between intrapsychic factors and organisational factors and shows that interventions targeted at staff wellbeing should have consideration of both factors.

Limitations

Data transformation on the outcome variables in the multiple hierarchical regression was required. Although transformations on skewed and kurtoted outcome variables are recommended (Tabachnick & Findell, 2013), this requires an additional level of caution when interpreting the results. Furthermore, some of the results that were not significant still had a significance value substantially below the 0.05 value (e.g. 0.002 or 0.003). However, due to the Bonferroni correction, the significance value was reduced. As Bonferroni corrections are known to increase the likelihood of a type two error (Field, 2005), results with significance values below 0.05 but which were not deemed significant, should be interpreted cautiously.

This was the first research study to investigate the effects of caseload satisfaction and perceived pressure from targets within an IAPT population. There were no existing measures investigating these variables in isolation. As an exploratory piece of research, these measurements were broad, utilising a seven point likert scale. However, as the results indicate that these are important variables, they should receive further empirical attention where measurement can be more accurately recorded.

The measures used also have limitations. There is considerable debate around the factor structure of the MBI (de Beer & Bianchi, 2019), in particular, the construct of personal accomplishment (Kalliath et al., 2000) and the self-compassion scale has received criticism for using a total score as opposed to the individual subscales (Williams et al., 2014). It is important to note that this research studied self-compassion with Neff's (2003a) theoretical underpinnings which is only one theory of self-compassion.

The study aimed to recruit a national sample which eliminated a geographical bias. However, the recruitment strategy employed the need for a self-selecting sample which could have introduced selection bias. For example, there could have been more dissatisfied people recruited as opposed to happy workers as the former may have been more motivated to participate in research where their difficulties can be communicated. The online nature of the study may also have felt accessible to those who are comfortable with using computers, tablets or smart phones. Although the population being researched are required to use computers as part of their work,

it still should be acknowledged that some may have chosen not to participant in online research, or not had easy access to for example, a personal computer outside of work.

Finally the cross-sectional nature of the research means that causation cannot be inferred. Although the inclusion of hierarchical multiple regressions sought to offer alternative investigations of the variables in addition to correlations, a longitudinal design would have enabled causation to be inferred.

Clinical Implications

A significant clinical implication of this research is the identification of a very high level of emotional exhaustion, in a relatively newly qualified sample, exceeding the levels previously reported in IAPT staff (Steele et al., 2015). This is extremely concerning for the wellbeing and longevity of the workforce in that burnout is associated with physical ill health (Acker, 2010) and staff absence, poor performance and attrition (Gilbody et al., 2006).

A further clinical implication is the contribution that both organisational and individual factors have on burnout. Much of the literature on reducing burnout is often concerned with interventions targeted at intra-psychic constructs (e.g. self-compassion) as opposed to organisational processes and influences. This research highlights the importance of both areas in their relationship to burnout. It is also worth noting that some of the organisational factors (e.g. perceived pressure from service targets and caseload satisfaction) had stronger correlations with emotional exhaustion than the individual factors (i.e. self-compassion and empathy) and accounted for more variance in burnout. There appears to be a complex relationship between these factors, and thus focusing on improving organisational or intrapsychic factors in isolation from the other is likely to have a limited impact.

There are several clinical implications which are relevant for services and supervisors. It would be beneficial for services to consider if any organisational factors could be changed, or managed differently, to better support staff, in addition to interventions designed to target intra-psychic factors. Ensuring that practitioners feel well supported in order for them to manage the complexities within their

caseload could be achieved by providing regular continuous professional development (CPD), additional training, clinical supervision and creating close relationships and pathways with other services, should a referral on to more specialised services be required. Supporting practitioners with pressure from service targets could involve supportive discussions from management to practitioners, where practitioner's difficulties are treated in a non-judgemental manner and reducing the emphasis on targets within the service. Services could also offer evidence based interventions in self-compassion and empathy to increase these within their workforce. This would ideally be done as part of pre-existing CPD time or in a way that does not increase the pressure of other demands, such as targets.

Particularly as this research highlights the high level of burnout within a relatively newly qualified sample, it would be extremely beneficial for training providers to incorporate training on burnout and self-care as part of the IAPT curriculum for both Psychological Wellbeing Practitioner training and High Intensity Therapy training. This would enable the workforce to be aware of the concept of burnout, what the signs of burnout are, how they can measure this independently (e.g. the use of existing validated psychometric measures) and also be aware of what strategies they can utilise to ensure they are able to engage in self-care as and when required.

There are also implications for clinical psychologists. Given that clinical psychologists are often within managerial or clinical leadership positions in IAPT services, it is important for them to be aware of the prevalence of burnout and the complex inter-play between both organisation and intra-psychic factors. It may be that clinical psychologists are in positions to be able to influence clinical leadership in areas such as caseload complexity and perceived pressure from service targets which have been identified as having a particularly strong relationship with burnout.

It would be beneficial for clinical supervisors, regardless of their professional role, to be aware of the high levels of burnout within IAPT services and have open and regular discussions with their supervisees about their wellbeing. Validated burnout measures could be used within this context, with the explicit consent of the supervisee, to measure, monitor and explore burnout with the view to providing additional support if required. They should also consider having regular discussions

about their supervisees caseload and how they are managing with complexities and supporting them to access any further training and development as required.

Future research

Caseload satisfaction and perceived pressure from service targets had the strongest relationship with burnout in the current study. Further research which explores the impact of these variables is recommended. It would be worthwhile investigating which aspects of practitioner's caseload are associated with dissatisfaction, and how these are related to burnout. For example, is dissatisfaction experienced with regards to co-morbidities, social and systemic influences, the size of caseload or the duration of presenting difficulties. Furthermore, considering if burnout is linked to objective or subjective complexity may better inform how practitioners can be supported. Further investigation of perceived pressure from service targets would be beneficial given the link that this has with burnout in the current study. Further qualitative research is recommended to understand the specific challenges experienced by IAPT staff with service targets. The findings could then be implemented in a quantitative study to explore generalisability of the qualitative results.

It would be beneficial for future research to investigate burnout within IAPT practitioners. As IAPT is a relatively new service, with a relatively new workforce, it is concerning that levels of burnout are so high. It also appears that burnout has increased in the past few years. Therefore, further exploration and investigation of the individual and organisation factors which have contributed to this increase is recommended. Research which identifies additional factors that are associated with burnout within this population can help to identify the changes that may be needed in order to better support the current and future IAPT workforce. It would also be helpful to look at interventions that may help to increase self-compassion in IAPT practitioners. However, in addition to this, research which explores the role played by organisational factors and the effects upon burnout (if these factors are changed to create a more manageable working environment) would also be helpful. This kind of research would also remove the 'blame' of burnout from the individual by

considering the wider systemic and organisational factors that the research identifies as being particularly influential.

Conclusion

This study investigated burnout and the roles of job demands, self-compassion and empathy in IAPT practitioners. The current research identified a number of key findings indicating that both individual and organisational factors emerged as significant predictors of burnout. It is recommended that future research is undertaken within an IAPT population to better understand the factors linked with burnout in this population. Furthermore, given the organisational demands on IAPT services, it would be beneficial to further explore the impact of such processes upon burnout. If further such research confirms and strengthens the role played by organisational factors, then services should strongly consider change at a systemic and organisational level in order to better support the workforce.

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Appendix A

Systematic Review Protocol

Self-compassion and burnout in healthcare professionals: a systematic review

Katy Lobley, James Reilly, Tobyn Bell, Emma Morris

Citation

Katy Lobley, James Reilly, Tobyn Bell, Emma Morris. Self-compassion and burnout in healthcare professionals: a systematic review. PROSPERO 2018 CRD42018084074 Available from:

http://www.crd.york.ac.uk/PROSPERO/display_record.php?ID=CRD42018084074

Review question

Do levels of self-compassion have a relationship with burnout in healthcare professionals? **Searches**

Five databases will be searched: PsycINFO, ScienceDirect, MEDLINE, CINAHL Plus and PubMed. The search terms that will be used are 'burn*' and 'self-compassion', 'burn*' and 'self compassion', 'burn*' and 'selfcompassion'.

There will be no restrictions for publication date and papers not written in English will be excluded.

Types of study to be included

Cross-sectional and correlational studies will be included. Qualitative studies will be excluded.

Condition or domain being studied

Levels of self-compassion in healthcare staff are being studied in relation to burnout. Self-compassion has been defined as "being kind and understanding toward oneself in instances of pain or failure rather than being harshly self-critical" (Neff, 2003). Burnout has been defined as a "psychological syndrome involving emotional exhaustion, depersonalization, and a diminished sense of personal accomplishment" (Maslach, 1982).

Participants/population

The population being studied is healthcare professionals. No healthcare population will be excluded but any studies which include participants from outside healthcare (even if those from healthcare are also included) will be excluded from the review. Papers not written in English will be excluded. Papers with participants from anywhere in the world will be included.

Intervention(s), exposure(s)

Not applicable.

Comparator(s)/control

Not applicable.

Context

Burnout has been defined as 'a psychological syndrome involving emotional exhaustion, depersonalization and a diminished sense of personal accomplishment' (Maslach, 1982). It has a big impact on healthcare services as it can result in staff working with lower productivity and lead to increases in sickness and job turnover. At a time where burnout within healthcare staff has been heavily publicised, it is important to try to establish what

factors may prevent burnout. Self-compassion has been defined as 'being kind and understanding towards oneself in instances of pain or failure rather than being harshly self-critical' (Neff, 2003). It has been shown in the literature to be a protective factor against burnout, although to date this has not been systematically reviewed. For the purpose of the review, there must be a measure of burnout and self-compassion in order to be included.

Main outcome(s)

The primary outcome of the review is to establish if elevated levels of self-compassion are related to lower levels of burnout within healthcare professionals. It will be important to establish if there is a consensus across the literature and what may account for any variability between studies.

Timing and effect measures

Additional outcome(s)

Not applicable

Data extraction (selection and coding)

All references generated in the search will be exported into a reference management software. One researcher will screen the titles and abstracts for suitability and all duplicates will be excluded at this point. The remaining articles will be read by two researchers and where there is disagreement, a third researcher will be consulted to resolve the dispute. Further searches will be carried out by checking the reference list of all included articles.

Risk of bias (quality) assessment

The quality of studies will be assessed using the 'Agency for Healthcare Research and Quality Tool' (Williams, Plassman, Burke, Holsinger and Benjamin, 2010).

There are 4 researchers involved in the review. In the first instance discrepancies will be attempted to be resolved by two of the researchers but if an agreement cannot be reached, a third researcher will be consulted.

Strategy for data synthesis

The review will provide a narrative synthesis of the findings with tables used to display a summary of included papers.

Analysis of subgroups or subsets

Should there be sufficient papers, a sub-group of mental health professionals will be reviewed.

Contact details for further information

Emma Morris

emorris@liverpool.ac.uk

Organisational affiliation of the review

University of Liverpool

www.liverpool.ac.uk

Review team members and their organisational affiliations

Dr Katy Lobley. University of Liverpool

Dr James Reilly. University of Liverpool

Mr Tobyn Bell. Greater Manchester Mental Health NHS Foundation Trust

Mrs Emma Morris. University of Liverpool

Type and method of review

Systematic review

Anticipated or actual start date

09 April 2018

Anticipated completion date

30 November 2018

Funding sources/sponsors

University of Liverpool

Conflicts of interest

None known

None known

Language

English

Country

England

Stage of review

Review Ongoing

Subject index terms status

Subject indexing assigned by CRD

Subject index terms

Burnout, Professional; Empathy; Health Personnel; Humans

Date of registration in PROSPERO

06 April 2018

Date of publication of this version

18 September 2018

Details of any existing review of the same topic by the same authors

Appendix B

Quality Assessment Tool

Quality Assessment - Observational Studies

General instructions: Grade each criterion as "Yes," "No," "Partially," or "Can't tell." Factors to consider when making an assessment are listed under each criterion. Where appropriate (particularly when assigning a "No," "Partially," or "Can't tell" score), please provide a brief rationale for your decision (in parentheses) in the evidence table. Criteria marked *italics* are considered the most essential quality indicators for our purposes.

1) Unbiased selection of the cohort?

Factors that help *reduce* selection bias:

- Prospective study design and recruitment of subjects
- Inclusion/exclusion criteria o Clearly described (especially re: age and cognitive status) o
 Assessed using valid and reliable measures
- Recruitment strategy o Clearly described
 - Relatively free from bias (selection bias might be introduced, e.g., by recruitment via advertisement)

2) Selection minimizes baseline differences in prognostic factors?

Factors to consider:

- Was selection of the comparison group appropriate?
 - **Note:** This may not be an issue in the cohort studies we review. In general, the exposed and unexposed groups should be from the same source. However, it is possible that for some medical condition exposures the exposed group will be patients from a specialty medical clinic and the unexposed comparison group will be from another source. Consider whether these two sources are likely to differ on factors related to the outcome (besides the exposure factor).
- In addition to selecting the cohort in an unbiased way, did study investigators do other things to ensure that exposed/unexposed groups were comparable, e.g., by using stratification, matching, or propensity scores?

3) Sample size calculated/5% difference?

Factors to consider:

- Did the authors report conducting a power analysis or describe some other basis for determining the adequacy of study group sizes for the primary outcome(s) of interest to us?
- Was the sample size sufficiently large to detect a clinically significant difference of 5% in event rates or an OR/RR increase of ≥ 1.5 or decrease of ≥ 0.67 between groups in at least one primary outcome measure of interest to us?

4) Adequate description of the cohort?

Consider whether the cohort is well-characterized in terms of baseline:

- Age
- Sex
- Race

- Educational level
- Cognitive status
- For genetic association studies, were the diseased and non-diseased populations drawn from groups with the same ethnic/racial mix?

5) Validated method for ascertaining exposure?

Factors to consider:

- Was the method used to ascertain exposure clearly described? (Details should be sufficient to permit replication in new studies.)
- Was a valid and reliable measure used to ascertain exposure? (Subjective measures based on self-report tend to have lower reliability and validity than objective measures such as clinical reports and lab findings.)
- For gene association studies, is the "call rate" of genotyping (the proportion of samples in which the genotyping provides an unambiguous reading) reported? Were quality checks implemented or rules established to determine when genotyping results would be considered valid?

To clarify your score, please make a note of the method/measure used to ascertain exposure.

6) Validated method for ascertaining clinical outcomes?

Factors to consider:

- Were primary outcomes (AD and/or cognitive decline) assessed using valid and reliable measures? (See details below.)
- Were these measures implemented consistently across all study participants?

7) Outcome assessment blind to exposure?

 Were the study investigators who assessed outcomes blind to the intervention or exposure status of participants?

8) Adequate follow-up period?

Factors to consider:

- Minimum adequate follow-up period is 2 years for AD and 1 year for cognitive decline
- Follow-up period should be the same for all groups \circ In cohort studies, length of follow-up should be the same across all groups.
 - o In nested case-control studies, period between the intervention/exposure and outcome should be the same for cases and controls.
 - OK if differences in follow-up time were adjusted for using statistical techniques, e.g., survival analysis.

9) Completeness of follow-up?

Factors to consider:

• Did attrition from any group exceed 30%? (Attrition is measured in relation to the time between baseline/allocation and outcome measurement. Where different numbers of patients are followed up for different outcomes, use the number followed up for the primary outcome for this calculation.)

• Did attrition differ between groups by more than 10% percent?

10) Analysis controls for confounding?

Factors to consider:

- Did the analysis control for any baseline differences between groups?
- Does the study identify and control for important confounding variables and effect modifiers? (Confounding variables are risk factors that are correlated with the intervention/exposure and outcome and may therefore bias the estimation of the effect of intervention/exposure on outcome if unmeasured. Effect modifiers are not correlated with the intervention/exposure, but change the effect of the intervention/exposure on the outcome. Age, race/ethnicity, education, and measures of SES are examples of effect modifiers and confounding variables for the exposures and outcomes of interest in this study.)

11) Analytic methods appropriate?

Factors to consider:

- Was the kind of analysis done appropriate for the kind of outcome data?
 - Dichotomous logistic regression, survival o Categorical mixed model for categorical outcomes o Continuous – ANCOVA, mixed model
- Was the analysis done on an intention-to-treat basis? (That is, was the impact of loss to follow-up [or differential loss to followup] assessed, e.g., through sensitivity analysis or another intent-to-treat adjustment method?
- Was the number of variables used in the analysis appropriate for the sample size? (The statistical techniques used must be appropriate to the data and take into account issues such as controlling for small sample size, clustering, rare outcomes, multiple comparison, and number of covariates for a given sample size. The multiple comparisons issue may be a problem particularly when performance results on numerous cognitive measures are being compared. When assessing change on cognitive measure over time, consider whether change score should be adjusted for baseline score, and consider distribution of baseline scores and change scores.)
- For gene association studies:
 - Did the investigators conduct statistical tests to check whether the observed genotype frequencies are consistent with the Hardy-Weinberg Equilibrium?
 - Did the investigators adjust for multiple comparisons?

Appendix C Ethical Approval Letter



Health and Life Sciences Research Ethics Committee (Psychology, Health and Society)

2 February 2018

Dear Dr Lobley

I am pleased to inform you that your application for research ethics approval has been approved.

Application details and conditions of approval can be found below. Appendix A contains a list of documents approved by the Committee. Application Details

Reference: 2479

Project Title: Burnout in IAPT: The Role of Self-Compassion, Empathy and Job Demands

Principal Investigator/Supervisor: Dr Katy Lobley

Co-Investigator(s): Mrs Emma Morris, Dr James Reilly

Lead Student Investigator: -

Department: School of Psychology (including DClinPOsych)

Approval Date: 02/02/2018

Approval Expiry Date: Five years from the approval date listed above

The application was **APPROVED** subject to the following conditions:

Conditions of approval

- All serious adverse events must be reported via the Research Integrity and Ethics Team (ethics@liverpool.ac.uk) within 24 hours of their occurrence.
- If you wish to extend the duration of the study beyond the research ethics approval expiry date listed above, a new application should be submitted.
- If you wish to make an amendment to the research, please create and submit an amendment
- form using the research ethics system. If the named Principal Investigator or Supervisor leaves

the employment of the University during the course of this approval, the approval will lapse.

Therefore it will be necessary to create and submit an amendment form using the research ethics system.

• It is the responsibility of the Principal Investigator/Supervisor to inform all the investigators of the terms of the approval.

Kind regards,

Health and Life Sciences Research Ethics Committee (Psychology, Health and Society) iphsrec@liverpool.ac.uk

0151 795 5420

Appendix - Approved Documents

(Relevant only to amendments involving changes to the study documentation)

The final document set reviewed and approved by the committee is listed below:

Document Type	File Name	Date	Version
Questionnaire	Totonto Empathy Questionniare	20/10/2017	1
Questionnaire	Self Compassion Scale Quesionnaire	20/10/2017	1
Questionnaire	Maslach Burnout Inventory - HSS Questionnaire	20/10/2017	1
Questionnaire	Demographic and Job Demand Questions	20/10/2017	1
Study Proposal/Protocol	Emma Morris - Research Protocol version 3	26/10/2017	3
Evidence Of Peer Review	Morris, Emma_Amendment approval_17.11.17	17/11/2017	1
Advertisement	research poster	23/01/2018	2

Appendix D

Demographic Questions

What is your gender?

How old are you?

What is your current job role?

How long have you been working in a qualified capacity in your current job role?

Appendix E

Maslach Burnout Inventory

For use by Emma Morris only. Received from Mind Garden, Inc. on February 6, 2018



www.mindgarden.com

To whom it may concern,

The above-named person has made a license purchase from Mind Garden, Inc. and has permission to administer the following copyrighted instrument up to the quantity purchased:

Maslach Burnout Inventory Forms: Human Services Survey, Human Services Survey for Medical Personnel, Educators Survey, General Survey, or General Survey for Students.

Three sample items from a single form of this instrument may be reproduced for inclusion in a thesis or dissertation. An entire form or instrument may not be included or reproduced at any time in any published material. Citation of the instrument must include the applicable copyright statement listed below.

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MBI - General Survey for Students - MBI-GS (S): Copyright ©1996, 2016 Wilmar B. Schaufeli, Michael P. Leiter, Christina Maslach & Susan E. Jackson. All rights reserved in all media. Published by Mind Garden, Inc., www.mindgarden.com

Sincerely,

Robert Most Mind Garden, Inc.

www.mindgarden.com

Three sample items:

"I feel emotionally drained from my work."

"I feel used up at the end of the workday."

"I feel fatigued when I get up in the morning and have to face another day on the job."

MBI - Human Services Survey for Medical Personnel - MBI-HSS (MP): Copyright ©1981, 2016 by Christina Maslach & Susan E. Jackson. All rights reserved in all media. Published by Mind Garden, Inc., www.mindgarden.com

Appendix F

Self-Compassion Scale

HOW I TYPICALLY ACT TOWARDS MYSELF IN DIFFICULT TIMES

Please read each statement carefully before answering. To the left of each item, indicate how often you behave in the stated manner, using the following scale:

Almost never				Almost always
1	2	3	4	5
1. I'm disapp	roving and judgn	nental about my c	own flaws and inac	dequacies.
2. When I'm	feeling down I te	end to obsess and	fixate on everythi	ng that's wrong.
3. When thir through.	gs are going bad	ly for me, I see the	e difficulties as pa	rt of life that everyone goes
	nk about my inac	•	s to make me feel	more separate and cut off
5. I try to be	loving towards m	nyself when I'm fe	eling emotional p	ain.
6. When I fai	l at something im	nportant to me I b	ecome consumed	by feelings of inadequacy.
7. When I'm of feeling li		emind myself tha	t there are lots of	other people in the world
8. When tim	es are really diffic	cult, I tend to be t	ough on myself.	
9. When son	nething upsets m	e I try to keep my	emotions in balar	nce.
	el inadequate in y most people.	some way, I try to	remind myself th	nat feelings of inadequacy are
11. I'm intole	rant and impatie	nt towards those	aspects of my per	sonality I don't like.
12. When I'm	going through a	very hard time, I	give myself the ca	ring and tenderness I need.
13. When I'm am.	feeling down, I t	end to feel like m	ost other people a	are probably happier than I
14. When sor	mething painful h	appens I try to ta	ke a balanced viev	w of the situation.
15. I try to se	e my failings as p	art of the human	condition.	
16. When I se	ee aspects of mys	elf that I don't lik	e, I get down on n	nyself.
17. When I fa	il at something ir	mportant to me I i	try to keep things	in perspective.

BURNOUT IN HEALTHCARE: THE ROLE OF SELF-COMPASSION, EMPATHY AND JOB DEMANDS

18. When I'm really struggling, I tend to feel like other people must be having an easier time
of it.
19. I'm kind to myself when I'm experiencing suffering.
20. When something upsets me I get carried away with my feelings.
21. I can be a bit cold-hearted towards myself when I'm experiencing suffering.
22. When I'm feeling down I try to approach my feelings with curiosity and openness.
23. I'm tolerant of my own flaws and inadequacies.
24. When something painful happens I tend to blow the incident out of proportion.
25. When I fail at something that's important to me, I tend to feel alone in my failure.
26. I try to be understanding and patient towards those aspects of my personality I don't like

Appendix G

Toronto Empathy Questionnaire

Below is a list of statements. Please read each statement carefully and rate how frequently you feel or act in the manner described.

Scale:

Never Rarely	Sometimes	Often	Always	
--------------	-----------	-------	--------	--

- 1. When someone else is feeling excited, I tend to get excited too.
- 2. Other people's misfortunes do not disturb me a great deal.
- 3. It upsets me to see someone being treated disrespectfully.
- 4. I remain unaffected when someone close to me is happy.
- 5. I enjoy making other people feel better.
- 6. I have tender, concerned feelings for people less fortunate than me.
- 7. When a friend starts to talk about his\her problems, I try to steer the conversation towards something else.
- 8. I can tell when others are sad even when they do not say anything.
- 9. I find that I am "in tune" with other people's moods.
- 10. I do not feel sympathy for people who cause their own serious illnesses.
- 11. I become irritated when someone cries.
- 12. I am not really interested in how other people feel.
- 13. I get a strong urge to help when I see someone who is upset.
- 14. When I see someone being treated unfairly, I do not feel very much pity for them.
- 15. I find it silly for people to cry out of happiness.
- 16. When I see someone being taken advantage of, I feel kind of protective towards him\her.

Appendix H

Participant Information Sheet

Title of Study

Factors associated with Burnout in IAPT practitioners: The role of self-compassion, empathy and work demands.

You are being invited to participate in a research study. Before you decide whether to participate, it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully and feel free to ask us if you would like more information or if there is anything that you do not understand. You can email the principle researcher on emorris@liverpool.ac.uk with any questions. Please also feel free to discuss this with your friends, relatives and GP if you wish. We would like to stress that you do not have to accept this invitation and should only agree to take part if you want to.

What is the purpose of the study?

The aim of this study is to explore various factors that may be associated with burnout within staff members. Staff currently working within Improving Access to Psychological Therapies (IAPT) Services are being recruited for this research as to date, there is no existing research exploring burnout within this particular staff population.

Why have I been chosen to take part?

We are asking any current IAPT practitioners who work in an adult IAPT service to take part in this study. It does not matter if the service you work in is provided by the NHS or by the third sector. We ask that any participants have been qualified in their role (e.g. PWP, HIT, Counsellor) for a minimum of 12 months. This is so we can minimise the extenuating factor of training which can in itself be challenging.

Do I have to take part?

Participation in this research is entirely voluntary. Should you wish to withdraw from the study at any time, there will be a box on each screen that you can click to withdraw. This will take you directly to the de-brief information and your participant from the study will be withdrawn. You may close the browser at any time but please note that this will not take to you to the de-brief information.

What will happen if I take part?

If you chose to take part, you will be asked to complete a series of questionnaires. This will take approximately 15-20 minutes. At the end of the questionnaires there will be an opportunity for you to enter your email address which will enter you into a prize draw to win a £50 amazon voucher. Please note that your email address will be stored separately to the information provided in the questionnaires. This is to ensure that all of your responses are completely anonymous.

Expenses and / or payments

There will be a prize draw for a £50 amazon voucher to thank participants for their time in taking part in the study.

Are there any risks in taking part?

Although it is hoped that there will be no risks of taking part, it may be possible that some of the questions asked may elicit some difficult emotions. Should you experience any difficulties from taking part please feel free to contact any of the researchers. Alternatively, there will be some de-brief information at the end of the study which will provide information of who you can contact should you require any help or support after participating.

Are there any benefits in taking part?

There will be several benefits of taking part in this research. Firstly it will help us to identify if and how prevalent burnout is within an IAPT practitioner population. Secondly, it will then enable us to explore what factors are associated with burnout and how these may be related to one another. This can then help to inform services as to where additional support, training or guidance may be needed so that our workforce can be supported.

What if I am unhappy or if there is a problem?

If you are unhappy, or if there is a problem, please feel free to let us know by contacting researcher Emma Morris at emorris@liverpool.ac.uk and we will try to help. If you remain unhappy or have a complaint which you feel you cannot come to us with then you should contact the Research Governance Officer at ethics@liv.ac.uk. When contacting the Research Governance Officer, please provide details of the name or description of the study (so that it can be identified), the researcher(s) involved, and the details of the complaint you wish to make.

Will my participation be kept confidential?

All information will be collected via the online questionnaire. It is important to note that at no time will you be asked any identifiable information and as such, the information throughout will be entirely anonymous. The questionnaire data will be

stored on the Qualtrics online questionnaire platform until the analysis. During the analysis, the data will be transferred into a statistical analysis program and the file will be stored securely on the University of Liverpool's secure server. The researchers will have access to the data and it may be necessary for other University of Liverpool staff who specialise in data analysis to have access to the anonymised data within the statistical program to support with the analysis. The University of Liverpool data management policy states that data should be stored securely for 10 years, after which time it will be destroyed by the data custodian, who in this research will be Dr. Katy Lobley.

What will happen to the results of the study?

A brief results sheet will be made available to participants should they wish to receive one. At the end of the questionnaire there is the opportunity to provide an email address to receive this after the study is completed. It is intended that the results will be published in a journal. No individual participant will be identifiable at any point in the research or when disseminating the results.

What will happen if I want to stop taking part?

You can withdraw from the study at any time and without any explanation. As some of the questionnaires used require responses to every question, should you decide to withdraw, any questions that you completed will not form part of the analysis. As the results are anonymised, it will not be possible to withdraw your data once you have completed the questionnaires.

Can I have a copy of the results?

There will be an option on the last page to put in your email address (which will be stored separately to your questionnaire responses) and you will be emailed a summary of the results. Should you not wish to receive a summary of the results, you can keep this box blank.

Who can I contact if I have further questions?

If you have any questions you can contact:
Emma Morris
Doctorate in Clinical Psychology Programme
Ground Floor, Whelan Building
Brownlow Hill
University of Liverpool
Liverpool
L69 3GB

emorris@liverpool.ac.uk

Participant Consent

- 1. I confirm that I have read and have understood the information on this page for the above study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily.
- 2. I understand that my participation is voluntary and that I am free to withdraw at any time during completion of the questionnaires without giving any reason, without my rights being affected. In addition, should I not wish to answer any particular question or questions, I am free to decline which will end the study.
- 3. I understand that the data collected will be completely anonymous and as such, I will not be able to withdraw from the research once I have completed all of the questionnaires.
- 4. I agree to take part in the above study.

Appendix I

Participant De-Brief Sheet

Thank you for your time and effort in participating in this study.

The aim of this research is to investigate factors associated with burnout in IAPT practitioners. There is a lot of research indicating that mental health professionals experience burnout. Therefore the first aim was to establish if, and how prevalent, burnout is within IAPT practitioners. It was hypothesised that burnout would be prevalent within IAPT practitioners as the research tells us that burnout is very prevalent amongst mental health staff. Secondly it was important to investigate some of the key factors that are associated with burnout in the published literature. It is predicted that empathy is related to burnout but the existing literature is unclear as to the direction of this relationship. It was also predicted that high levels of self-compassion would be protective against burnout. In addition to these measures, it was also decided to investigate some job demands that are more applicable to an IAPT service. It is therefore predicted that perceived pressure from service targets, dissatisfaction with caseload and the amount of hours and clinical hours worked will be positively correlated with burnout.

Support Available

If you feel any distress after taking part in this research the following services may be of some support.

The Samaritans

www.samaritans.org

Telephone: 116 123

The Samaritans are available 24 hours a day, 7 days a week to talk to you about anything that is upsetting or concerning.

Support Line

Helpline: 01708 765200 (hours vary so ring for details)

info@supportline.org.uk

Support line offers a confidential telephone helpline which offers emotional support for any issue, including work difficulties.

If you are concerned about burnout at work, you could also speak with your clinical supervisor, line manager, occupational health department or your GP.

What can I do if I have any further problems or wish to speak to someone about the study?

You can contact the researcher Emma Morris on emorris@liverpool.ac.uk or alternatively you could contact Dr. Katy Lobley, Doctorate of Clinical Psychology Programme, Whelan Building, University of Liverpool, Brownlow Hill, Liverpool. L69 3GB. Telephone (0151) 794 5530.

Appendix J

Study Advertisement Poster



ARE YOU A PRACTITIONER IN AN IAPT SERVICE?

We are currently undertaking research in factors associated with burnout in IAPT practitioners.

In order to be eligible to participate we ask that:

- You are a qualified practitioner (e.g. PWP, HIT, Counselling, Clinical Psychologist etc)
- You completed your training at least 12 months ago.
- You currently work in an adult mental health IAPT service and have a clinical caseload

The research is an online questionnaire which should take around 15-20 minutes. The webpage below will take you to the study details where you can read more about it and decide if you would like to participate. Alternatively you can scan the QR code with your smart phone or tablet.

https://goo.gl/5kKVaB



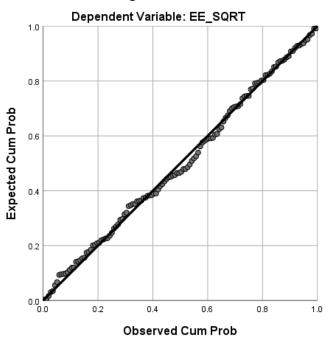
For any further details, please contact the researcher Emma Morris, at emorris@liverpool.ac.uk

Appendix K

Normality Plots of Regression Standardized Residuals

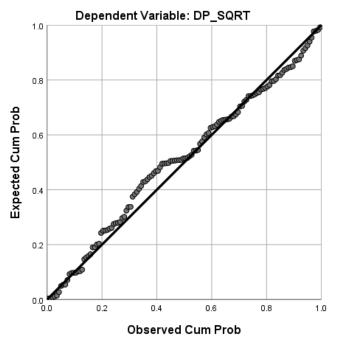
Predictor Variable: Emotional Exhaustion

Normal P-P Plot of Regression Standardized Residual



Predictor Variable: Depersonalisation

Normal P-P Plot of Regression Standardized Residual



Predictor Variable: Personal Accomplishment

Normal P-P Plot of Regression Standardized Residual

