Doctorate in Clinical Psychology

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Doctoral Thesis

Well-being in psychologists

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Abstract

Practising psychologists across a range of disciplines are known to frequently work with individuals who have complex emotional difficulties. Excessive job demands and lack of resources are known to impact on the well-being of these professionals (Hannigan, Edwards, & Burnard, 2004) with consequences for the individual, clients, and organisations at a wider level. This thesis examines some of the factors which can affect wellbeing in psychologists.

Section 1 presents the findings from a systematic literature review including 22 papers that looked at the experience of burnout in practising psychologists (e.g., clinical, counselling, and school psychologists). Psychologist burnout was within the moderate to high range in at least half of the studies examined. Variables including gender, practice setting and level of experience were related to burnout, as were several psychosocial variables. Methodological quality of studies varied hugely and compared to other professions, the literature on burnout for psychologists was generally lacking. Relevance to clinical practice and implications for future research are discussed.

Section 2 comprises the quantitative research study, which explored whether job demands predicted psychological well-being in clinical psychologists, and whether the quality of the supervisory relationship was capable of moderating that relationship. A total of 194 clinical psychologists participated in the online study consisting of a questionnaire gathering demographic information and information on job characteristics, and five standardised self-report measures including a measure of job demands, a measure of the supervisory relationship, and three measures of psychological well-being. Job demands significantly predicted psychological well-being, but that relationship was not moderated by the strength of the supervisory relationship. A discussion of the findings, including possible reasons for the lack of moderation, are presented, along with suggestions for further research.

Section three presents a critical appraisal of the research. It discusses the findings of the literature review and research study, as well as a critique of the methodology. Reflections on the research process are given and implications for clinical practice are discussed.

Declaration

This thesis presents research carried out as part of the Doctorate in Clinical Psychology course at the Faculty of Health and Medicine, Lancaster University, from January 2014 to May 2015. The research presented is my own, except where otherwise stated. The work has not been submitted for any other academic award.

Helen F. Walls

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Burnout in psychologists: A systematic review of the literature

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Doctorate in Clinical Psychology

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Abstract

Working within the field of mental health is notoriously stressful and practising psychologists often work with the most complex situations and individuals experiencing high levels of distress. This review has sought to identify prevalence and correlates of burnout in practicing psychologists from a range of professions including clinical, counselling, correctional, and school psychologists.

A systematic search of five databases identified 22 papers for reviews. Psychologist burnout was considered to be within the moderate to high range in at least half of the studies, whilst other studies showed it to be within the normal range. In addition to demographics variables such as gender, and job characteristics such as practice setting and level of experience, several psychosocial variables were found to consistently relate to the experience of burnout. These included available resources (e.g., autonomy, social support), job demands/stresses, psychologists' beliefs about therapy, individual characteristics (e.g., personality factors), and leisure activities.

Recommendations to reduce burnout include increasing autonomy for practising psychologists, encouraging uptake of leisure activities outside of work, and developing social support systems in work in the form of supervision, mentoring, or mindfulness groups, to help reduce or prevent experience of burnout in this professional group.

KEYWORDS: psychologist, burnout, mental health, resources

The last four decades have seen extensive research into 'burnout', a concept that is seen as a response to constant emotional pressure that is often felt when dealing with individuals who are emotionally distressed (Maslach, 1982; Maslach & Schaufeli, 1993). Burnout is a significant problem for individuals and has been found to correlate with poor physical health, depression, difficult interpersonal relationships, lack of satisfaction, and lack of productivity (Kahill, 1988; Morse, Salyers, Rollins, Monroe-DeVita, & Pfahler, 2012). However burnout can also have significant consequences for service users and organisations as a whole. For example in therapeutic settings, therapist burnout can lead to reduced quality of care for clients (McCarthy & Frieze, 1999) and compassion fatigue resulting in diminished client care (Negash & Sahin, 2011). For the wider organisation, burnout has been associated with negative attitudes, lack of commitment, and absenteeism (Morse et al., 2012) and increased rates of voluntary turnover (Acker, 2012; Kahill, 1988; Maslach & Jackson, 1981; Morse et al., 2012). In fact, employee turnover rates have been found to be higher in healthcare than many other industries (Numerof, Abrams, & Shank, 2002). The proximal and distal negative effects of burnout suggest it is an important area to research further.

Burnout is defined as a multifaceted syndrome of "emotional exhaustion, depersonalisation, and reduced personal accomplishment that can occur among individuals who work with people in some capacity" (Maslach, Jackson, & Leiter, 1996, p. 4). Emotional exhaustion means feeling emotionally drained by a job and is considered the primary component of the burnout syndrome (Acker, 2012; Maslach, 1982); depersonalisation involves the development of pessimistic or negative attitudes toward clients; and reduced personal accomplishment involves feeling inept in a professional role (Maslach 1982, McCarthy & Frieze, 1999). Although it is recognised that alternative definitions exist (e.g., Kristensen, Borritz, Villadsen, & Christensen, 2005; Schaufeli &

Greenglass, 2001), the above definition will be used throughout this research as it is the most widely-accepted, well-validated and thoroughly-researched.

Burnout is sometimes confused with 'stress', but literature consistently suggests that 'stress' and 'burnout' are conceptually different (e.g., Awa et al., 2010; Lee, Lim, Yang, & Lee Min, 2011; Maslach, Schaufeli, & Leiter, 2001; Pines & Keinan, 2005; Wu et al., 2007). Stress is a response to the demands or excessive pressures placed upon a person (Health and Safety Executive; HSE, 2001), whereas burnout is considered a *product* of prolonged stress (Cooper et al., 2001; Freudenberger, 1974; Hobfoll & Shirom, 2000; Maslach, Schaufeli, & Leiter, 2001; Schaufeli & Enzmann, 1998). Stressors can be emotional or interpersonal (Maslach, Schaufeli, & Leiter, 2001).

Research in the helping professions

Although people in many professions suffer burnout (Demerouti et al., 2001; Leiter & Schaufeli, 1996), those in the helping professions (such as those who work in the police or health and social care; Maslach & Jackson, 1981; Shanafelt et al., 2012) may be more prone to it due to their often-intense interactions with other individuals (Maslach, 1976; Maslach & Jackson, 1981). A meta-analysis of 61 studies found strong correlations between the emotional exhaustion dimension of burnout and job demands placed upon the individual, within the helping professions (Lee & Ashforth, 1996). Job demands included role ambiguity, clarity, conflict, and stress, stressful events, workload, and physical comfort. However, job resources (including autonomy, skill utilisation, rewards, social/supervisor/co-worker support, community bond, family resources, and peer cohesion) were found to help workers cope with job demands.

When considering mental health professionals specifically, prevalence of burnout is high with between 21-67% of mental health workers experiencing high levels of burnout (Morse et al., 2012). For example, a recent large study involving 460 mental health service

providers in America, found over half the sample to be experiencing moderate to high emotional exhaustion (Acker, 2012). Again, a strong correlation between job role stress and levels of burnout was also found.

A review by Leiter and Harvie (1996) examined demographic characteristics and antecedents of burnout in mental health workers (consisting of psychiatrists, counsellors, psychologists, mental health social workers, nurses, and occupational therapists). Most studies found no significant relationships between burnout and demographic variables including gender, ethnicity, marital status and education level. A negative relationship was consistently found between years of experience and the emotional exhaustion dimension of burnout, suggesting that more experienced people are less burnt out.

Although inconsistencies existed between studies, the review concluded that burnout was most evident in work-related situations where professionals could not enact their personal values through work; excessive demands with caseloads and personal conflict that prevented professionals from meeting service users' needs contributed to burnout, and this was intensified by inadequate support from colleagues or family, or by the work itself preventing professionals from accessing resources (Leiter & Harvie, 1996).

A more recent review by Lee et al. (2011) looked at burnout in psychotherapists including school counsellors, school psychologists, mental health counsellors, clinical psychologists, licensed psychologists, residential counsellors and substance abuse counsellors across 17 studies. Job stress (indicated by high workload), over-involvement in the therapeutic process, feelings of lack of control and reduced autonomy were found to correlate with all dimensions of burnout (Lee et al., 2011), with job stress and over-involvement being most closely correlated with the emotional exhaustion dimension.

However, since these reviews included mental health workers from a range of disciplines, the heterogeneity of the samples made it difficult to draw firm conclusions

relative to more specific mental health professionals. As is often the case with review studies, inconsistent measures of variables (namely burnout) also made comparisons between studies difficult.

Although studies looking at burnout are mostly quantitative, one qualitative study similarly found that psychotherapists' perceptions of what contributed to their experience of burnout included lack of success in therapy, combined with the one-way attentiveness they give to clients, and the responsibility the therapist felt within the therapeutic relationship (Farber & Heifetz, 1982).

Thus previous research suggests a high prevalence of burnout in mental health professionals, but factors associated with burnout are less conclusive. There appears to be a lack of relationship between gender, marital status, ethnicity and education level and burnout, but some significant findings about individual characteristics and how these relate to burnout. Relationships between client characteristics and burnout are inconclusive, but work characteristics are more consistently related to burnout in the literature.

Burnout in psychologists

Although there is substantial research into burnout in psychotherapists as a collective, there is less research that looks at psychologists specifically. Psychologists are trained to work with complex mental health difficulties and in a range of contexts, many working across the lifespan, which requires extensive knowledge and training and a thorough understanding of the evidence base (APA, 2011). Practitioner psychologists' roles are varied; in additional to direct clinical work, they may provide consultation to other multi-disciplinary professionals, have input at organisational levels in terms of policy writing and standard setting, and often occupy managerial positions. It would therefore be of interest to explore the phenomenon of burnout in these professionals, given the emotionally demanding nature and breadth of their work.

Second, part of psychologists' training involves personal development and reflection, reflexivity and a focus on resilience-building (British Psychological Society; BPS, 2015), which they are encouraged to continue when qualified. Clinical supervision often facilitates this core component of the role, which practising psychologists are trained to use effectively as well as provide to others. Supervision includes a restorative function that is aimed to support them in managing the demands of their work (Milne, 2009); restorative supervision follows a supportive and developmental process and gives time to focussing on processing emotional demands of work, relationships, and reflection (Wallbank, 2012). It might be hypothesised that this could also influence burnout in psychologists. Personal experience has influenced my interest in this area; I have experienced supervision positively and believe it to have affected my well-being in a work context. This has demonstrated the valuable role supervision plays in my position as a practising psychologist.

To date, there is limited research in this area. A study of 255 psychologists found a significant negative relationship between burnout and social support from friends and family, and also between burnout and beliefs about the profession itself, such as lack of commitment (Kahill, 1986). Years of experience and other demographic variables were not significantly related to burnout. In a more recent study of 260 professional psychologists, they were asked to rate which 'stressors' (including burnout, countertransference, compassion fatigue, depression and personal trauma) most frequently affected their therapeutic efficacy (Bearse, McMinn, Seegobin, & Free, 2013). Burnout was found to most frequently affect therapeutic efficacy and this difference was statistically significant. However, possible factors predicting or resulting from burnout were not investigated.

Cushway and Tyler (1996) reviewed the literature around stress rather than burnout in clinical psychologists in the UK. The study yielded a list of risk factors that can contribute to emotional well-being in clinical psychologists including quality of relationship with partner,

gender, job satisfaction, coping strategies, threat to other roles and relationships, and experience in the job. A review by Hannigan, Edwards and Burnard (2004) also explored stress in British clinical psychologists and found that almost half showed clinically significant levels of poor emotional well-being with stress as a major factor. Causes of stress were identified as excessive workloads, professional self-doubt, poor management and lack of resources. However, as the authors acknowledge, several methodological problems exist with the studies included in the review: non-standardised self-report measures were used giving cause for concern about their reliability and validity, and a lack of consistency between measures used made comparisons difficult. Some of the studies also used small sample sizes, which could limit the generalisability of findings.

While the above studies highlighted risk factors for increased stress in clinical psychologists, rather than burnout, burnout is known to be a result of prolonged exposure to stress (Maslach, Schaufeli, & Leiter, 2001), so it is useful to have an understanding of what can contribute to stress in this population. However, the small number of studies included in the reviews, and the even more limited research on burnout in psychologists highlights the paucity of literature in the area.

The current review

As noted above, reviews of burnout in mental health professionals exist which consider burnout for all members of multidisciplinary teams, (e.g., Leiter & Harvie, 1996; Morse et al., 2012), but the individual data for psychologists cannot be separated out. One meta-analysis looked at the antecedents and consequences of burnout in psychotherapists (Lee et al., 2011) but again the sample was heterogeneous despite the overall classification of 'psychotherapist'. In addition, two reviews have focused on stress in clinical psychologists in the UK (Cushway & Tyler, 1996; Hannigan, Edwards, & Burnard, 2004), but these do not

consider burnout per se and are limited to UK clinical psychologists rather than practising psychologists generally.

Consequently, this review will investigate the existence of burnout in practitioner psychologists internationally and across a range of professional contexts (e.g., community services, schools, and correctional facilities). Levels of burnout will be identified and antecedents and consequences of burnout will be examined. Comparisons between practitioner groups will be made where possible. This review has taken into consideration the PRISMA guidelines for reporting and conduct of systematic reviews (Moher, Liberati, Tetzlaff, & Altman, 2009).

Method

Search Strategy

Between 16th and 18th December 2014, the following databases were systematically and individually searched: PsycINFO (date range: 1887-December 2014), CINAHL (Cumulative Index to Nursing and Allied Health Literature; 1937-December 2014), MEDLINE (1966-December 2014), Social Care Online (1980-December 2014) and Web of Science (1945-December 2014). Figure 1 presents a flow diagram of the search strategy and results.

[Insert Figure 1]

Following consultation with an expert librarian, relevant journal articles for the review were identified using the keyword search terms ‘burnout’ combined with Boolean operator AND keyword search terms ‘psychologist*’ OR ‘psychotherapist*’. Searches were initially conducted using MeSH headings but it was apparent that in this case, they either did not limit the searches helpfully, or expanded them to include ‘stress’ which was not a focus of this review. For example, the PsycINFO database suggested the MeSH heading of

'occupational stress' instead of burnout, but as previously discussed, the author specially wished to focus searches on burnout rather than stress, as the two are considered conceptually different (Maslach, Schaufeli, & Leiter, 2001). The term psychotherapist was used in addition to psychologist, as some literature uses the term 'psychotherapist' to include psychologists, or the terms are sometimes used interchangeably. See appendix 1-A for a further explanation.

Articles were included if they met the following inclusion criteria: (a) written in English; (b) published in a peer-reviewed journal; (c) included results on antecedents and/or consequences of burnout; (d) included practitioner psychologists in the participant sample; (e) utilised quantitative methodology. Articles were excluded if they (a) looked at stress rather than burnout; (b) looked at psychotherapists or other mental health professionals which did not include psychologists; (c) looked at psychotherapists or other mental health professionals including psychologists, but the psychologists' individual results could not be clearly separated; (d) were review articles.

The searches retrieved a total of 602 articles (PsycINFO: 350; CINAHL: 19; MEDLINE: 48; Social Care Online: 13; Web of Science: 172); see appendix 1-B for a breakdown of individual databases. A detailed search strategy shall be described for one database: PsycINFO retrieved 350 articles, which was then limited to peer-reviewed journal articles only, reducing the number to 194. When an English only language limiter was added, the number reduced to 156. The abstracts of these 156 articles were viewed and excluded or included according to the pre-determined criteria listed above. Where it was unclear whether the article was relevant, the full article was retrieved and read. This was particularly necessary when participants were described as 'psychotherapists' in abstracts but there was a possibility that they were in fact psychologists. One hundred and twenty three articles were excluded and 33 were read in full. Eleven of these were found to be not

relevant, leaving a total of 21 papers. Reference sections of these 21 papers were searched manually and one additional article was found giving a final total of 22 papers to be included in the review. The other databases were searched in a similar manner; none retrieved any additional new papers, but did identify several duplicates (see appendix 1-C).

Quality Assessment

Despite a wealth of literature around methods of quality assessment for empirical papers in allied health research, there is little consensus regarding a preferred method (Katrak, Bialocerkowski, Massy-Westropp, Kumar & Grimmer, 2004; Sanderson, Tatt, & Higgins, 2007). Sanderson, Tatt and Higgins (2007) suggest the fundamental domains to assess when considering the quality of a study are (i) descriptions of methods for selecting participants, (ii) methods for measuring variables and (iii) control of confounding variables.

The STrengthening the Reporting of OBservational studies in Epidemiology (STROBE) statement (Vandenbroucke et al., 2007) provides guidelines for the reporting of cohort, cross-sectional and case-control studies. Despite the STROBE targeting the reporting of studies, several items are associated with studies' susceptibility to bias, hence making it an adequate quality assessment tool (Sanderson, Tatt and Higgins, 2007). This study therefore assessed the overall quality of studies using an adapted version of the STROBE statement tool. Items that were not applicable for the studies being assessed were removed (see appendix 1-D for the full checklist). The criteria were rated according to how well they were met (3=met, 2=partially met, 1=not met and 0=N/A).

Results

General Study Characteristics

Table 1 presents summary information for each of the 22 papers, which have been given a numerical I.D. for ease of referral throughout the report. Dates of studies ranged

from 1985 to 2014. Studies were biased towards western cultures with 19 being conducted in the U.S. and 3 in Australia. Inclusion criteria specified that studies had to be written in English, which may have excluded studies from other nationalities.

[Insert Table 1]

Participant Characteristics

Sample sizes ranged from 50 to 595 (total participants: 5563). Percentage of females ranged from 37 to 86.9. All participants were qualified psychologists to Masters or Doctoral level. Specific types of psychologists (displayed in table 2) included clinical psychologists, counselling psychologists, correctional psychologists, licenced/practising/professional psychologists and school psychologists. Where information was given, mean ages of participants ranged from 38.72 years to 54.10 years. Ethnicity was not stated in the majority of studies.

[Insert Table 2]

Statistical Analysis

Studies used a combination of Pearson correlations and regression analyses to determine relationships between burnout and other variables/demographics.

Quality Assessment

Applying the quality criteria based on the STROBE guidelines as outlined above gave scores that ranged from 39 (54%) to 62 (86%). Five papers scored highly, whereas three scored very low. Overall, confounding variables and acknowledgement of potential sources of bias or how to address these were not referred to across most of the studies. Furthermore, none of the papers gave an *a priori* power calculation. Only one paper (20) reported how missing data was handled and study 4 did this partly. Table 3 shows scorings in more detail.

[Insert Table 3]

Study Findings

First, levels of burnout shall be discussed and comparisons made between studies. Next, demographic correlates of burnout and job characteristic correlates of burnout will be presented, followed by results relating to psychosocial variables.

Measurement of Burnout

Twenty studies used varying versions of the Maslach Burnout Inventory (MBI; Maslach & Jackson, 1981; Maslach & Jackson, 1986; Maslach, Jackson, & Leiter, 1996). This measures the three dimensions of burnout: exhaustion (EE), depersonalisation (DP), and personal accomplishment (PA). The MBI has good psychometric properties (Maslach & Jackson, 1981; Poghosyan, Aiken, & Sloane, 2009), has been developed extensively to ensure it is applicable to a wide professional range, and validated in multiple countries and cultures (Maslach, Jackson, & Leiter, 1996). Normative samples for each version of the MBI differ; hence only broad conclusions can be drawn from the studies. Two studies (2 and 3) used the Copenhagen Burnout Inventory (CBI; Kristensen et al., 2005) to measure burnout, which measures three sub-dimensions entitled personal, work-related and client-related burnout.

Burnout Levels

Nineteen studies reported burnout data numerically. Table 4 displays burnout information and provides an overview of the authors' conclusions about burnout levels in the sample, allowing for qualitative comparisons to be made between studies. Six studies did not make any comparisons to normative means or classifications (7, 9, 10, 11, 17, 19). Of the studies that did make comparisons to normative data, all of the school psychologist studies concluded that burnout was moderate or high in their sample, two thirds of the clinical psychologist studies and half of the licenced/ professionals/ practicing psychologist studies found that burnout was moderate or high. Overall, 9/13 studies (69%) concluded that burnout was a cause for concern in their sample. Broadly speaking, these findings indicate

that burnout is highest in school psychologists, but is still problematic in all psychologist professions.

[Insert Table 4]

Demographic correlates

Only five studies gave information about ethnicity (1, 5, 15, 18, 19). More than 90% of participants were Caucasian and no relationships were reported between ethnicity and burnout[1]. All other demographic information is presented in Table 1.

Age was consistently found to correlate negatively with burnout in over half the studies (1, 3, 6, 7, 8, 9, 10, 15, 16, 17, 21, 22), with younger psychologists experiencing higher levels of burnout. Study 13 also reported a trend, although this was not significant.

Several studies found gender to be a strong correlate of burnout (3, 6, 15, 16, 17, 22), although this was often specific to certain burnout dimensions. Females tended to experience less DP than males (15, 16, 17, 22) and more EE than males (6, 15, 16). Some studies (1, 12, 19) found no significant correlations between gender and burnout, and others did not report on the effect of gender at all, suggesting that the relationship between gender and burnout is inconsistent, and perhaps more dependent on other factors.

Objective Job Characteristics

Practice setting

Several studies consistently found practice setting to correlate with burnout. Study 1 found that psychologists working in private practice were less burnt out than those in government settings across all three dimensions, and this was the case in study 16 even after controlling for hours worked per week. For specific dimensions of burnout, findings showed that EE was higher in agency settings than private settings (4, 5, 15; females only), DP was

[1] When burnout is discussed in the results, the MBI will be the associated measure, unless otherwise stated.

reduced in private settings and higher in agency settings (21, 4, respectively), and PA was higher in psychologists working in private settings (5, 15, 21).

However, study 2 found no significant relationship between practice setting and burnout at all. This is the most recently conducted study, and the authors suggest the possible reason for these findings was the recent integration of private practitioners into the public mental health system in Australia, which caused them to experience increased burnout, similar to those psychologists already working in the public sector. Other studies did not report on such findings. Interestingly, studies 1 and 4 found that lower income related to a lower sense of PA; it is possible that this is linked to practice setting, as salary is generally higher in private practice compared to public sector working.

Overall, there is a strong suggestion that psychologists working privately are less susceptible to burnout that those working in agency or government settings, although this may be linked to additional factors which are not accounted for in these findings, such as income or the types of work undertaken in the distinct settings rather than the environment itself.

Time spent delivering therapy

Several studies looked at how burnout relates to various occupational activities. More time spent delivering therapy (rather than performing other occupational tasks) was found to correlate with a higher sense of PA in seven studies (1, 5, 7, 15, 16, 17 and 21), whereas engaging in lower than desired hours of therapy predicted reduced PA in study 11. Less time spent in therapy also correlated with higher DP scores in study 11, but study 20 found the inverse relationship. Although there was one conflicting finding, the general consensus was that psychologists have a greater sense of PA the more time they spend delivering therapy.

Some studies found that time spent doing activities other than seeing clients correlated with higher levels of burnout (15, 16, 17). Working more hours per week overall

was related to higher levels of burnout in three studies too (EE and DP, 15 and 17; EE only, 16). There were inconsistent findings around time spent doing research; study 15 found that this contributed to a reduced sense of PA, whereas study 19 did not. Interestingly, study 19 measured correctional psychologists, whose professional activities might comprise less research than the clinical psychologists in study 15, so variables that influence personal accomplishment may be different. Regarding time spent doing assessments/testing, study 6 found this correlated with higher overall burnout, but study 7 found the inverse relationship. These mixed findings around psychologists' occupational activities may be due to subjective preferences, making it not possible to generalise, and also suggesting the need for additional research in this area.

Years of experience

Seven studies (2, 5, 7, 9, 15, 21) found years of experience to correlate with burnout; those psychologists with fewer years of experience experienced higher levels of EE. Studies 5 and 7 found a correlation with the DP dimension. The relationship between burnout and experience also remained after study 5 controlled for age. Of the studies to report this relationship, only study 13 found no correlation and the authors did not discuss this finding in their paper.

Psychosocial variables

The additional variables investigated across the 22 studies have been grouped into the following categories: subjective job characteristics, beliefs about therapy, individual characteristics, and resources. Table 5 provides a summary of these.

[Insert Table 5]

Subjective job characteristics

Two studies found a relationship between job satisfaction and burnout: study 10 found an inverse correlation with all three burnout dimensions, and study 8 found an inverse

correlation with EE and DP. Other studies that investigated the job satisfaction variable did not report on any results.

Five studies found 'stress' to be related to burnout. Study 3 investigated the relationship between stress in general (as measured by a non-context specific scale of stress) and found a correlation with burnout that remained after age and gender were controlled for. Focussing on occupational stress, study 7 found that stress (which incorporated job role/definition, internal and external pressures and time pressures) was the most significant contributor to the variance in EE. 'Role stress' which comprised role conflict and role ambiguity explained a large amount of variance in all three burnout dimensions in study 14, after controlling for demographics. Specifically, role conflict predicted EE and DP, and role ambiguity predicted reduced PA. Study 8 also examined the relationship between experienced 'occupational stress' (including factors such as interpersonal conflict, high risk to self/others, time management, dealing with legal issues) and burnout. Study 13 employed a longitudinal design, and found that overall occupational stress scores correlated with EE and DP at time 1 and time 2. The authors concluded that experience of stress may predispose one to experience burnout, but equally, experiencing burnout may predispose someone to experience higher levels of stress later on. Together, the findings of these studies provide strong support for a relationship between stress and burnout, but causal inferences cannot be made due to the correlational nature of study designs.

Beliefs about therapy

Several studies investigated whether psychologists' beliefs or attitudes towards therapy and their clients was related to burnout. Study 4 examined four types of therapist beliefs: beliefs about how clients should experience distress, beliefs about flexibility in therapy, beliefs about level of responsibility the therapist has, and beliefs about level of

control the therapist has. Therapists who held less unhelpful beliefs about therapy exhibited higher levels of PA, and these therapists were generally older in age.

Several other studies also found significant results specifically around the level of control the therapist felt they had in the therapy setting. Studies 1, 4, 15, 16 and 17 all found significant correlations between feelings of little control and high levels of EE and reduced levels of PA. Studies 15, 16 and 17 also found a significant relationship with DP.

Psychologists who were self-reportedly 'over-involved' with their clients were found to experience higher levels of EE and DP in studies 1, 15 and 16. More inconsistent findings were presented relating to PA. Therapists who perceived their clients to be exhibiting more negative or challenging behaviours had higher levels of EE (15, 16, 17) and DP (15, 16, 17, 20).

Study 9 examined therapists' beliefs about perceived importance and perceived competence in carrying out assessment and therapy. As perceived importance of assessment increased, EE and DP levels decreased; as perceived importance of intervention increased, PA increased; and as perceived competence in delivering intervention increased, EE decreased and PA increased.

Finally, study 21 examined therapists' beliefs around maintaining confidentiality about clients between them and their spouse. Beliefs about confidentiality correlated with burnout, in that those psychologists who discussed their clients by name with their spouses experienced less burnout, perhaps as a result of 'off-loading'.

To summarise, studies found that psychologists who generally hold more positive beliefs about therapy, who feel they have little control in therapy, are over-involved with their clients, or perceive their clients' behaviour to be negative are more likely to feel burnt out.

Individual characteristics

Personality as a correlate of burnout was investigated in three studies. Study 11 found that low extraversion and low agreeableness were strong predictors of increased DP, and that low extraversion and low conscientiousness were strong predictors of reduced PA. Study 13 found personality variables to be the most significant predictors of burnout, being more strongly associated than demographic information and occupational stress. All dimensions of burnout correlated with neuroticism (higher EE and DP and lower PA) and specifically, EE correlated negatively with extraversion, agreeableness, and conscientiousness, DP correlated negatively with agreeableness and reduced PA correlated positively with extroversion. Study 18 used a different scale to measure personality, but the findings were consistent with studies 11 and 13: psychologists with less neuroticism and more insight were found to experience less burnout.

Study 3 investigated the characteristic of 'perfectionism' and found a correlation between perfectionism scores and experienced burnout. This finding remained after age and gender were controlled. Study 12 examined humour style and found maladaptive humour (aggressive or self-defeating) correlated with higher levels of EE and DP, whereas adaptive humour (affiliative[2] and self-enhancing) correlated with and predicted increased PA. Self-defeating humour had the greatest impact on burnout as a whole.

These findings for the relationship between individual characteristics and burnout suggest that certain personality types might be more prone to burnout. Although perfectionism and humour style were also found to be related to burnout in psychologists, no other studies have replicated these findings to date.

Resources

Several of the studies looked at professional and personal resources psychologists have access to. Study 6 found that degree of satisfaction with leisure activities correlated

[2] Defined within the study as a type of humor that enhances friendships and strengthens group relationships (Martin, Puhlik-Doris, Larsen, Gray, & Weir, 2003).

with burnout, predominantly with the PA dimension. Engagement in relaxational[3] activities correlated most strongly with lower burnout scores, and educational activities correlated most strongly with increased PA, but also higher EE. Study 2 investigated mindfulness practice amongst psychologists and found a strong negative relationship between overall level of mindfulness and all three burnout dimensions on the CBI. The authors concluded that engagement in mindfulness activities may act preventatively against burnout.

Career sustaining behaviours (CSBs; Stevanovic & Rupert, 2004) were investigated in studies 2 and 15. CSBs include maintaining a good work-life balance, spending time with family members/spouse/friends, engaging in leisure/physical activities, and taking regular breaks from work. Higher scores on CSBs correlated with lower DP and higher PA scores in study 15, but no significant results were found for the EE dimension. Study 2 found a small inverse correlation between overall burnout (as measured by the CBI) and maintaining a sense of humour, and engaging in physical activities.

Study 4 looked at 'personal resources' (including social support, recreation, and self care) and found that having fewer personal resources was significantly associated with more EE, and more resources was significantly associated with higher PA. This remained significant when controlling for demographics and work factors. However, it is not possible to determine from the results which specific personal resources were related to burnout.

Study 10 investigated social support, which comprised of supervisor support, co-worker support and peer support (outside of work). Overall social support correlated strongly with overall burnout, with more social support relating to lower burnout. In particular, supervisor support correlated with all three burnout dimensions (low EE and DP, higher PA). In addition, study 15 found that when psychologists perceived their support to be higher, they

[3] Defined within the paper as "activities that provide relief from stress and strain of everyday living" (Hoeksma, Guy, Brown, & Brady, 1993, p. 54.)

experienced more feelings of PA. Study 8 found that a lack of resources (including access to supervisor) correlated with and was a strong predictor of EE and DP.

Overall there is consensus between several studies that amount of support is related to burnout levels in psychologists. Other important resources linked with burnout experiences are family, regular breaks, engagement in leisure activities and the practice of mindfulness.

Discussion

Major Findings

This review sought to investigate the existence and correlates of burnout in practitioner psychologists across a range of professional contexts. Overall, a large number of psychologists working in diverse areas were included in the studies. All but two studies used the MBI (Maslach & Jackson, 1981), a well-validated tool, to measure the concept of burnout, adding strength to the findings. While it was not possible to make quantitative comparisons between studies due to different versions of the tool being utilised, psychologist burnout was considered to be within the moderate to high range in at least half of the studies and this was not unique to one type of psychologist. This is perhaps understandable given the emotional and complex nature of most psychologists' professional activities (e.g., BPS, 2015; Gleeson & Brewer, 2008), and hence why supervision, which aims to support psychologists to manage the emotional demands of their work, is fundamental to the profession. Two other studies showed burnout to be within the normal range, two showed it to be lower, and the remaining studies did not provide this information.

The papers included in the review were of varying quality, with many under-scoring in their methodology (power calculations, reference to bias and confounding variables). Despite this limitation it was possible to synthesise the findings to draw tentative

conclusions, albeit limited to the contexts from which the findings were drawn (western nations or those with a strong private provision such as Australia and the U.S.).

The common correlates of burnout that were established included age, years of experience, and gender. Younger psychologists were found to experience higher levels of burnout on all three dimensions and this was consistent across the different types of practitioner psychologists. This is representative of the existing literature, which has shown that age is related to burnout across a range of occupations (Brewer & Shapard, 2004; Maslach, Schaufeli, & Leiter, 2001) and in therapists (Craig & Sprang, 2010; Van de Ploeg, 1990).

Also consistent with previous findings (e.g., Leiter & Harvie, 1996), it was found that years of experience were related to lower levels of emotional exhaustion in several studies. It is likely that years of experience are linked to age, in that older psychologists generally have more experience, so are perhaps better equipped to manage their emotional well-being in a professional context, thus reducing their susceptibility to burnout. Since Farber (1985; study 5) found the relationship remained after controlling for age, it would be interesting to track burnout longitudinally to further investigate the relationship between age, years of experience and burnout; this would take into account psychologists who perhaps leave the profession early due to burnout.

However, there may also be negative aspects of having lots of experience in a role. According to Figley's (2002) model, prolonged exposure to dealing with difficult client issues can influence the development of compassion fatigue where professionals simply become tired of caring. As we know from the Francis Report (Francis, 2013), lack of compassion is related to poor client care; this may be related to the development of a toxic culture that is fostered over time. The variable of years of experience thus warrants further exploration.

Gender was also found to be associated with burnout, although findings were less consistent. Several studies found that female psychologists experienced higher levels of emotional exhaustion than males, but conversely, they were found to experience less depersonalisation than males, thus indicating that male and female psychologists experience dimensions of burnout differently. This is replicated consistently in previous literature (e.g., Leiter & Harvie, 1996; Maslach, Shaufeli, & Leiter, 2001; Purvanova & Muros, 2010). It has been suggested that women might experience more exhaustion than males due to typically having more child-care responsibilities outside of work (Rupert & Morgan, 2005).

This review also produced some novel findings compared to previous reviews. Practice setting was related to burnout across several of the studies. Generally those working in private practice experienced less burnout than those in agency/government settings. One early study looking at psychotherapists has also found this (Raquepaw & Miller, 1989). It was suggested that this may be related to the higher income and greater autonomy over professional activities that is given in independent practice (Rupert & Morgan, 2005). However, this finding is specific to the American and Australian psychologists studied; other countries may have different systems that operate in alternative contexts and cultures, making these findings less generalisable to other nations without further research.

Consistent findings also arose about the relationship between burnout and the time psychologists spend delivering therapy; it was commonly found that psychologists who spent more time delivering therapy had higher levels of personal accomplishment, and that doing other activities such as paperwork reduced this. It is possible that this is linked to personal goals psychologists have for their work activities; likely reasons for entering the profession are to help people in mental distress, so when a significant proportion of their working week is dedicating to carrying this out, it is not surprising that this results in a higher sense of personal accomplishment than if time was spent elsewhere. Burnout literature suggests when

individuals do not feel a sense of significance at work or when their goals and expectations of the job are not reached, feelings of low personal accomplishment are likely to arise (Pines, 2000; 2002). This could relate to changes in psychologists' job roles in more recent years and the introduction of other mental health professionals who additionally provide therapy, meaning that psychologists' skills are utilised elsewhere (American Psychological Society, 2011; Australian Psychological Society, 2007; Department of Health, 2008).

This review also identified psychosocial correlates of burnout including stress, beliefs about therapy, personality characteristics and resources. Four studies found a correlation between 'stressors' at work and burnout (most frequently manifested by the emotional exhaustion dimension). Broadly speaking, stressors were characterised as occupational demands placed upon the individual (e.g., internal pressures, lack of time, high risk cases, interpersonal conflict). These demands are experienced as stressful. A variety of job demands have previously found to be related to emotional exhaustion across different professional groups (Demerouti et al., 2001). This is not surprising given the research that suggests that burnout is the result of prolonged stress (Cooper et al., 2001; Freudenberger, 1974; Hobfoll & Shirom, 2000; Maslach, Schaufeli, & Leiter, 2001; Schaufeli & Enzmann, 1998; Wu et al., 2007). However, in the studies reviewed there was variability in the definition of stress/stressors, and in the measures used, making it hard to identify a clear relationship between stress and burnout.

Beliefs that psychologists held about therapy were found to relate to burnout in several studies. Therapists who felt they lacked control in the therapy setting or job in general tended to experience higher levels of emotional exhaustion and depersonalisation and lower levels of personal accomplishment. Control and autonomy have been identified as significant contributors to professional well-being in the extensive previous literature. Karasek's (1979) Job Demands-Control model and Demerouti et al's (2001) Job Demands-

Resources model both describe how poor well-being at work can result from an imbalance between professional demands and amount of control. Similarly, Lee et al.'s (2011) meta-analysis of psychotherapists found lack of control to be strongly correlated with burnout. This finding also links to burnout being more prevalent in government practice settings where employees might have less control.

Personality type was found to relate to burnout in three studies that looked at school psychologists; generally those with less 'neurotic' characters were less burnt out. A similar finding in licensed psychologists was that higher levels of perfectionism were linked to higher burnout. This is consistent with results from a large meta-analysis which identified that burnout was significantly related to various personality types, one of which is 'Type A' personality, which comprises of neurotic and achievement-striving traits (Alarcon, Eschleman, & Bowling, 2009). This achievement-striving is linked to perfectionism, a trait that historically has been found to be evident in psychotherapists (Deutsch, 1984; Forney, Wallace-Schutzman, & Thorne-Wiggers, 1982). It can thus be reasoned that there is likely to be a personal component to burnout that is irrespective of the work environment; although this is less easily manipulated, this knowledge can be used to inform risk factors of burnout and self-awareness.

Finally, several studies found relationships between the level of resources psychologists have and their levels of burnout. It seems that engagement in leisure activities of a relaxational or physical nature are related to lower levels of experienced burnout. Practising mindfulness was also found to strongly correlate with reduced burnout. This links with research by Irving, Dobkin, and Park (2009) who conducted a systematic review of mindfulness based stress reduction (MBSR) in healthcare professionals and found that MBSR has benefits for clinicians in the domains of physical and mental health. More recently, Goodman and Schorling (2012) evaluated a continuing education course based on

mindfulness, which showed that stress reduction decreased burnout and improved mental well-being in healthcare professionals of a range of professions (N=93). Together, these collective resources found to influence levels of burnout can be linked to the Conservation of Resources model (Hobfoll & Freddy, 1993). This model suggests that resources such as objects, personal characteristics, or conditions that are of value to the individual, can help to reduce professional burnout in the context of work demands.

In terms of other resources, amount of social support was also consistently associated with burnout, both from peers and from a supervisor. Demerouti et al.'s (2001) Job Demands-Resources model again offers an explanation for this, as social support is considered a job resource that serves to buffer against the demands of work, and ameliorate poor well-being. Supervisor support was found to be more closely linked to reduced burnout than peer (outside work) support. Work-related resources are known to be more closely related to burnout than non-work resources because of their direct influence on work demands (Halbesleben, 2006). These findings link fittingly to the supervision that psychologists access routinely, one function of which is 'restoration', where focus is given to processing and reflecting on the emotional demands of work and/or relationships (Proctor, 1986; Wallbank, 2012).

Implications for practice

Some of the identified correlates of burnout such as age and gender are important to be aware of but obviously cannot be manipulated. The findings however can serve to inform practice, and to provide additional support to these individuals based on these characteristics where appropriate. For example, senior colleagues could provide support or mentoring to more junior employees. Mentoring has been described as a form of social support and has been found to negatively correlate with job-related stress (Sosik & Godshalk, 2000), suggesting it is capable of supporting well-being in the work place.

In terms of variables that can be more easily affected, because work environments themselves may be contributing to employee burnout, it may be necessary to alter certain factors in order to reduce or prevent the symptoms of burnout. For example, findings exploring the links between resources and reduced burnout could be used positively as a way of ameliorating well-being. Increasing levels of autonomy (type of job resources) which is known to reduce the chances of burnout in a demanding work situation (Bakker, Demerouti, & Euwema, 2005; Demerouti et al., 2001) would be an effective strategy. For example, an intervention built around enhancing control over physicians' work environments designed to increase well-being was found to be successful in decreasing burnout over a five-year period (Dunn, Arnetz, Christensen, & Homer, 2007).

Furthermore, supervision as a resource has also been found to be influential in demanding work situations. Psychologists are in a rather unique position whereby they access this resource as an integral part of their job role, and this review has highlighted its value in helping to reduce burnout and therefore in fostering well-being. More research would be helpful to understand more clearly how supervision may reduce impact of stressors and/or reduce burnout. Likewise, increasing the amount of social support at work and encouraging uptake of leisure or relaxational activities may help to reduce burnout for psychologists. Peer supervision groups could help to increase social support for employees (e.g., Coster & Schwebel, 1997), as would meeting regularly with a supervisor. Setting up mindfulness groups in work settings might too be helpful, and additionally, psychologists could offer these kinds of groups to other professionals to disseminate knowledge and hopefully improve well-being across organisations. By increasing supportive resources for professionals, it would be expected that the demands of work could be better managed and hence susceptibility to burnout reduced (Hobfoll & Freddy, 1993).

Practitioner psychology training courses could learn from the findings of this review and build these into training programmes in order to prepare trainees for professional life and educate them about possible risks and mitigation strategies. It has been suggested that providing education related to the possible predisposition or role characteristics that may impact clinicians is important because it acts as preparation and mitigation where it might be more difficult to make changes later on in the qualified context (O'Connor, 2001).

Limitations

This review is not without its limitations. All of the studies included in the review were conducted in the U.S. or Australia, giving an entirely western focus. Additionally, all but one study used a cross-sectional design, so results should be interpreted cautiously and causality cannot be inferred (Levin, 2006; Mann, 2003). This is also the case for previous reviews that looked at burnout (Morse et al., 2012). Given the nature of the study focus, the most burnt out psychologists may have felt unable to participate in the original studies, or may have already left the profession, causing the sample to be skewed towards less burnout. Furthermore, standardised measures used to assess additional variables (for example stress, therapist beliefs, resources) were varied, making cross-comparison difficult; however, all but two measures were well-validated. Findings from two recent systematic reviews were that high quality-controlled studies are generally lacking in the burnout literature (Kaschka, Korczak, & Broich, 2011; Morse et al., 2012).

Research implications

This review has examined correlates of burnout in psychologists, and although several correlates are probably precursors, causality cannot be inferred. Further investigation of how variables affect burnout is needed; longitudinal studies are recommended to further understand how the phenomenon develops and evolves. Additionally, none of the studies looked at what happens to psychologists when they experience burnout, for example, it would

be useful to understand how psychologists experience burnout (quantitatively or qualitatively), or the impact on their clients or the organisation/profession. It would be prudent for further research to be conducted in this area across all areas of psychologist practitioner work.

Whilst this study has considered the results of previous studies exploring burnout in a range of psychologists and professional roles, more research is also required for the individual 'types' of psychologists, in order to begin to draw conclusions about specific groups; this has not been possible in the current review due to the number of studies. Additionally, the review aimed to provide a cross-cultural interpretation of burnout in psychologists, but all of the studies were western-focussed so this has not been achieved. Thus, more research is necessary across cultural contexts, including countries with different healthcare provisions.

Conclusion

In conclusion, this review provides evidence that many psychologists of varying occupations and/or specialisms experience moderate to high levels of burnout related to a mixture of job characteristics, individual characteristics and demographics. Some of these can be controlled to affect change, in order to help prevent or reduce burnout in the profession, and others may require the provision of additional support to work with the individual. Regardless, given the highly emotive and complex work that psychologists engage in, it is essential that current resources are optimised, and new measures are taken, to help them thrive in their professional environment and continue to practice healthily.

References

Acker, G. M. (2012). Burnout among mental health care providers. *Journal of social work*, *12*(5), 475-490. Doi: 10.1177/1468017310392418

*Ackerley, G. D., Burnell, J., Holder, D. C., & Kurdek, L. A. (1988). Burnout among licensed psychologists. *Professional Psychology: Research and Practice*, *19*(6), 624. Doi.org/10.1037/0735-7028.19.6.624

Alarcon, G., Eschleman, K. J., & Bowling, N. A. (2009). Relationships between personality variables and burnout: A meta-analysis. *Work & stress*, *23*(3), 244-263. dOI:10.1080/02678370903282600

American Psychological Association (APA). (2011). Careers in Psychology. Washington: APA. Retrieved from: http://www.apa.org/careers/resources/guides/careers.pdf

Australian Psychological Society (APS). (2007). *Better Access to Mental Health Care initiative: Orientation manual for clinical psychologists, social workers and occupational therapists.* APS: Melbourne.

Awa, W. L., Plaumann, M., Walter, U. (2010). Burnout prevention: a review of intervention programs. *Patient Educ Counsellin,g 78*(2), 184–190. Doi: 10.1016/j.pec.2009.04.008

Bakker, A. B., Demerouti, E., & Euwema, M. C. (2005). Job resources buffer the impact of job demands on burnout. Journal of occupational health psychology, 10(2), 170. Doi: org/10.1037/1076-8998.10.2.170

Bearse, J. L., McMinn, M. R., Seegobin, W., & Free, K. (2013). Barriers to psychologists seeking mental health care. *Professional Psychology: Research and Practice*, *44*(3), 150. Doi: 10.1037/a0031182

Brewer, E. W., & Shapard, L. (2004). Employee burnout: A meta-analysis of the relationship between age or years of experience. *Human Resource Development Review*, *3*(2), 102-123. Doi: 10.1177/1534484304263335

British Psychological Society (BPS) Division of Clinical Psychology (2015). Standards for Doctoral programmes in Clinical Psychology. Leicester: BPS.

Cooper, C. L., Dewe, P.J., & O'Driscoll, M.P. (2001). Organizational Stress: A Review and Critique of Theory, Research, and Applications. Sage Publications.

Coster, J. S., & Schwebel, M. (1997). Well-functioning in professional psychologists. *Professional Psychology: Research and Practice*, *28*(1), 5. Doi.org/10.1037/0735-7028.28.1.5

Craig, C. D., & Sprang, G. (2010). Compassion satisfaction, compassion fatigue, and burnout in a national sample of trauma treatment therapists. *Anxiety, Stress, & Coping*, *23*(3), 319-339. Doi: 10.1080/10615800903085818

Cushway, D., & Tyler, P. (1996). Stress in clinical psychologists. *International Journal of Social Psychiatry*, *42*(2), 141-149. Doi: 10.1177/002076409604200208

*D'Souza, F., Egan, S. J., & Rees, C. S. (2011). The relationship between perfectionism, stress and burnout in clinical psychologists. *Behaviour Change*, *28*(01), 17-28. Doi.org/10.1375/bech.28.1.17

Demerouti, E., Bakker, A. B., Nachreiner, F., & Schaufeli, W. B. (2001). The job demands-resources model of burnout. *Journal of Applied psychology*, *86*(3), 499. Doi: 10.1037//0021-9010.86.3.499

Department of Health (DoH; 2008). *Improving Access to Psychological Therapies implementation plan: National guidelines for regional delivery.* Retrieved from:

http://www.iapt.nhs.uk/silo/files/implementation-plan-national-guidelines-for-regional-delivery.pdf

Deutsch, C.J. (1984). Self-reported sources of stress among psychotherapists. *Professional Psychology: Research and Practice, 15,* 833–845. Doi.org/10.1037/0735-7028.15.6.833

*Di Benedetto, M., & Swadling, M. (2013). Burnout in Australian psychologists: Correlations with work-setting, mindfulness and self-care behaviours. *Psychology, health & medicine, 19*(6), 1-11. Doi: 10.1080/13548506.2013.861602

Dunn, P. M., Arnetz, B. B., Christensen, J.F., & Homer, L. (2007). Meeting the imperative to improve physician well-being: assessment of an innovative program. *Journal of General International Medicine, 22*(11), 1544-1552. Doi: 10.1007/s11606-007-0363-5

*Emery, S., Wade, T. D., & McLean, S. (2009). Associations among therapist beliefs, personal resources and burnout in clinical psychologists. *Behaviour Change*, *26*(02), 83-96. Doi.org/10.1375/bech.26.2.83

*Farber, B. A. (1985). Clinical psychologists' perceptions of psychotherapeutic work. *Clinical Psychologist*. Retrieved from EBSCO database.

Farber, B. A., & Heifetz, L. J. (1982). The process and dimensions of burnout in psychotherapists. *Professional psychology*, *13*(2), 293. Doi.org/10.1037/0735-7028.13.2.293

Figley, C. R. (2002). Compassion fatigue: Psychotherapists' chronic lack of self care. Psychotherapy in Practice, (58), 11, 1433–1441. Doi: 10.1002/jclp.10090

Forney, D.S., Wallace-Schutzman, F., & Thorne Wiggers, T. (1982). Burnout among career development professionals: Preliminary findings and implications. *The Personnel and Guidance Journal*, 432–439. Doi: 10.1002/j.2164-4918.1982.tb00793.x

Francis, R. (2013). The Mid Staffordshire NHS Foundation Trust Public Inquiry: Executive summary. London: The Stationery Office. Retrived from: http://webarchive.nationalarchives.gov.uk/20150407084003/http://www.midstaffspublicinquiry.com/sites/default/files/report/Executive%20summary.pdf

Freudenberger, H. J. (1974). Staff burn‐out. *Journal of social issues*, *30*(1), 159-165. Doi: 10.1111/j.1540-4560.1974.tb00706.x

Gleeson, J., & Brewer, W. (2008). A Changing Landscape? Implications of the Introduction of the Better Access Initiative for the Public Mental Health Psychology Workforce. *The Bulletin of the Australian Psychological Society (30)*3. Retrieved from: http://www.psychology.org.au/inpsych/changing_landscape/

Goodman, M. J., & Schorling, J. B. (2012). A mindfulness course decreases burnout and improves well-being among healthcare providers. *The International Journal of Psychiatry in Medicine*, *43*(2), 119-128. *Retrieved in hard copy from British Library.*

Halbesleben, J. R. (2006). Sources of social support and burnout: a meta-analytic test of the conservation of resources model. *Journal of applied Psychology*, *91*(5), 1134. Doi: 10.1037/0021-9010.91.5.1134

Hannigan, B., Edwards, D., & Burnard, P. (2004). Stress and stress management in clinical psychology: Findings from a systematic review. *Journal of Mental Health, 13*(3), 235-245. Doi:10.1080/09638230410001700871

Health and Safety Executive (HSE). (2001). *Tackling Work-related Stress: A Managers' Guide to Improving and Maintaining Employee Health and Well-Being.* Sudbury: HSE Books.

Hobfoll, S. E., & Freedy, J. (1993). Conservation of resources: a general stress theory applied to burnout. In W. Schaufeli, C. Malach, & T. Marek (Eds.), *Professional burnout:*

Developments in theory and research (pp. 115–129). Washington, DC: Taylor & Francis.

Hobfoll, S. E., & Shirom, A. (2000). Conservation of resources theory: Applications to stress and management in the workplace. In R.T. Golembiewski (Ed.) *Handbook of organization behavior: 2nd Revised Edition* (pp. 57-81). New York: Dekker.

*Hoeksma, J. H., Guy, J. D., Brown, C. K., & Brady, J. L. (1994). The relationship between psychotherapist burnout and satisfaction with leisure activities. *Psychotherapy in private practice*, *12*(4), 51-57. Doi:10.1300/J294v12n04_05

*Huberty, T. J., & Huebner, E. S. (1988). A national survey of burnout among school psychologists. *Psychology in the Schools*, *25*(1), 54-61. Doi: 10.1002/1520-6807(198801)

*Huebner, E. S. (1992). Burnout among school psychologists: An exploratory investigation into its nature, extent, and correlates. *School Psychology Quarterly*, *7*(2), 129. Doi.org/10.1037/h0088251

*Huebner, E. S. (1993). Burnout among School Psychologists in the USA: Further Data Related to its Prevalence and Correlates. *School Psychology International*, *14*(2), 99-109. Doi: 10.1177/0143034393142001

*Huebner, E. S. (1994). Relationships among demographics, social support, job satisfaction and burnout among school psychologists. *School Psychology International*, *15*(2), 181-186. Doi: 10.1177/0143034394152007

*Huebner, E. S., & Mills, L. B. (1994). Burnout in School Psychology: The Contribution of Personality Characteristics and Role Expectation. *Special Services in the Schools*, *8*(2), 53-67. Doi:10.1300/J008v08n02_04

Irving, J. A., Dobkin, P. L., & Park, J. (2009). Cultivating mindfulness in health care professionals: A review of empirical studies of mindfulness-based stress reduction (MBSR).

Complementary therapies in clinical practice, *15*(2), 61-66. Doi:10.1016/j.ctcp.2009.01.002.

Kahill, S. (1986). Relationship of burnout among professional psychologists to professional expectations and social support. *Psychological Reports, 59,* 1043–1051. Doi: 10.2466/pr0.1986.59.3.1043

Kahill, S. (1988). Symptoms of professional burnout: A review of the empirical evidence. *Canadian Psychology/Psychologie Canadienne*, *29*(3), 284. Doi: 10.1037/h0079772.

Karasek, R. A. (1979). Job demands, job decision latitude, and mental strain: Implications for job redesign. Administrative science quarterly, 24(2). Retrieved from EBSCO database.

Kaschka, W. P., Korczak, D., & Broich, K. (2011). Burnout: A fashionable diagnosis. *Deutsches Ärzteblatt International*, *108*(46), 781. Doi: 10.3238/arztebl.2011.0781

Katrak P., Bialocerkowski, A. E., Massy-Westropp, N., Kumar, V. S., & Grimmer, K. A. (2004). A systematic review of the content of critical appraisal tools. *BMC Medical Research Methodology*, *4*(1), 22. Doi:10.1186/1471-2288-4-22

Kristensen, T. S., Borritz, M., Villadsen, E., & Christensen, K. B. (2005). The Copenhagen Burnout Inventory: A new tool for the assessment of burnout. *Work & Stress*, *19*(3), 192-207. Doi: 10.1080/02678370500297720

Lee, J., Lim, N., Yang, E., & Lee, S. M. (2011). Antecedents and consequences of three dimensions of burnout in psychotherapists: A meta-analysis. *Professional Psychology: Research and Practice*, *42*(3), 252. Doi: 10.1037/a0023319

Lee, R. T., & Ashforth, B. E. (1996). A meta-analytic examination of the correlates of the three dimensions of job burnout. *Journal of applied Psychology*, *81*(2), 123. Doi.org/10.1037/0021-9010.81.2.123

Leiter MP, Schaufeli WB. Consistency of the burnout construct across occupations. Anxiety, Stress & Coping: An International Journal. 1996; 9(3): 229–243. Doi:10.1080/10615809608249404.

Leiter, M. P., & Harvie, P. L. (1996). Burnout among mental health workers: a review and a research agenda. *International Journal of Social Psychiatry*, *42*(2), 90-101. Doi: 10.1177/002076409604200203

Levin, K. A. (2006). Study design III: Cross-sectional studies. *Evidence-based dentistry*, *7*(1), 24-25. Doi:10.1038/sj.ebd.6400375

*Malinowski, A. J. (2013). Characteristics of job burnout and humor among psychotherapists. *Humor*, *26*(1), 117-133. Doi: 10.1515/humor-2013-0007

Mann, C. J. (2003). Observational research methods. Research design II: cohort, cross sectional, and case-control studies. *Emergency Medicine Journal*, *20*(1), 54-60. Doi:10.1136/emj.20.1.54

Martin, R. A., Puhlik-Doris, P., Larsen, G., Gray, J., & Weir, K. (2003). Individual differences in uses of humor and their relation to psychological well-being: Development of the Humor Styles Questionnaire. *Journal of research in personality*, *37*(1), 48-75. Doi: 10.1016/S0092-6566(02)00534-2

Maslach, C. (1976). 'Burned-out'. *Human Behavior,* 5(9), 16-22.

Maslach, C. (1982). *Burnout: The cost of caring.* Englewood Cliffs, NJ: Prentice Hall.

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

Maslach, C., & Jackson, S. E. (1986). *Maslach Burnout Inventory manual (2nd Edition).* Palo Alto, CA: Consulting Psychologists Press.

Maslach, C., & Schaufeli, W. B. (1993). Historical and conceptual development of burnout.

In W. B. Schaufeli, C. Maslach, & T. Marek (Eds.), *Professional burnout: Recent developments in theory and research* (pp. 1-18). Washington, DC: Taylor & Francis.

Maslach, C., Jackson, S. E., & Leiter, M. P. (1996). *Maslach Burnout Inventory manual* (3rd Edition). Palo Alto, CA: Consulting Psychologists Press.

Maslach, C., Schaufeli, W. B., & Leiter, M. P. (2001). Job burnout. *Annual review of psychology*, *52*(1), 397-422. Doi: 10.1146/annurev.psych.52.1.397

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

McCarthy, W. C., & Frieze, I. H. (1999). Negative aspects of therapy: Client perceptions of therapists' social influence, burnout, and quality of care. *Journal of Social Issues*, *55*(1), 33-50. Doi: 10.1111/0022-4537.00103

*Mills, L. B., & Huebner, E. S. (1998). A prospective study of personality characteristics, occupational stressors, and burnout among school psychology practitioners. *Journal of school psychology*, *36*(1), 103-120. Doi:10.1016/S0022-4405(97)00053-8

Milne, D. (2009). Evidence-based Clinical supervision; Principles and Practice. Chichester: Wiley-Blackwell.

Moher, D., Liberati, A., Tetzlaff, J., & Altman, D. G. (2009). Preferred Reporting Items for Systematic Reviews and Meta-Analyses: The PRISMA Statement. *Annals of internal medicine*, *151*(4), 264-269. Doi: 10.7326/0003-4819-151-4-200908180-00135

Morse, G., Salyers, M. P., Rollins, A. L., Monroe-DeVita, M., & Pfahler, C. (2012). Burnout in mental health services: a review of the problem and its remediation. *Administration and Policy in Mental Health and Mental Health Services Research*, *39*(5), 341-352. Doi: 10.1007/s10488-011-0352-1

Negash, S., & Sahin, S. (2011). Compassion fatigue in marriage and family therapy: Implications for therapists and clients. *Journal of marital and family therapy*, *37*(1), 1-13. Doi: 10.1111/j.1752-0606.2009.00147.x

Numerof, R. E., Abrams, M. N., & Shank, G. S. (2002). Retention of highly productive personnel now at crisis proportions. *Health Care Strategic Management, 20(3),* 10-12. Retrieved from OneSearch 9.12.14.

O'Connor, M. F. (2001). On the etiology and effective management of professional distress and impairment among psychologists. *Professional Psychology: Research and Practice*, *32*(4), 345. Doi.org/10.1037/0735-7028.32.4.345.

*Pierson-Hubeny, D., & Archambault, F. X. (1987). Role stress and perceived intensity of burnout among school psychologists. *Psychology in the Schools*, *24*(3), 244-253. Doi: 10.1002/1520-6807(198707)

Pines, A. M. (2000). Nurses' burnout: an existential psychodynamic perspective. Journal of Psychosocial Nursing, *38*(2), 23-31. Doi: 10.1177/1534650102001002005.

Pines, A. M. (2002). Teacher burnout: A psychodynamic existential perspective. *Teachers and Teaching: theory and practice*, *8*(2), 121-140. Doi: 10.1080/13540600220127331

Pines, A. M., & Keinan, G. (2005). Stress and burnout: The significant difference. *Personality and individual differences*, *39*(3), 625-635. Doi:10.1016/j.paid.2005.02.009

Poghosyan, L., Aiken, L. H., & Sloane, D. M. (2009). Factor structure of the Maslach burnout inventory: an analysis of data from large scale cross-sectional surveys of nurses from eight countries. *International journal of nursing studies*, *46*(7), 894-902. Doi: 10.1016/j.ijnurstu.2009.03.004.

Proctor, B. (1986). Supervision: A Co-operative Exercise in Accountability. In M. Marken & M. Payne (Eds.), *Enabling and Ensuring - supervision in practice* (pp. 21-23). Na-

tional Youth Bureau, Council for Education and Training in Youth and Community Work: Leicester.

Purvanova, R. K., & Muros, J. P. (2010). Gender differences in burnout: A meta-analysis. *Journal of Vocational Behavior*, *77*(2), 168-185. Doi: 10.1016/j.jvb.2010.04.006

Raquepaw, J. M., & Miller, R. S. (1989). Psychotherapist burnout: A componential analysis. *Professional Psychology: Research and Practice*, *20*(1), 32. Doi.org/10.1037/0735-7028.20.1.32

*Rupert, P. A., & Kent, J. S. (2007). Gender and work setting differences in career-sustaining behaviors and burnout among professional psychologists. *Professional Psychology: Research and Practice*, *38*(1), 88. Doi.org/10.1037/0735-7028.38.1.88

*Rupert, P. A., & Morgan, D. J. (2005). Work Setting and Burnout Among Professional Psychologists. *Professional Psychology: Research and Practice*, *36*(5), 544. Doi.org/10.1037/0735-7028.36.5.544

*Rupert, P. A., Stevanovic, P., & Hunley, H. A. (2009). Work-family conflict and burnout among practicing psychologists. *Professional Psychology: Research and Practice*, *40*(1), 54. Doi.org/10.1037/a0012538

Sanderson, S., Tatt, I. D., & Higgins, J. P. (2007). Tools for assessing quality and susceptibility to bias in observational studies in epidemiology: a systematic review and annotated bibliography. *International journal of epidemiology*, *36*(3), 666-676. Doi: 10.1093/ije/dym018

*Sandoval, J. (1993). Personality and burnout among school psychologists. *Psychology in the Schools*, *30*(4), 321-326. Doi: 10.1002/1520-6807(199310)

Schaufeli, W. B., & Enzmann, D. (1998). *The burnout companion to study and practice: A critical analysis*. London: Taylor & Francis.

Schaufeli, W. B., & Greenglass, E. R. (2001). Introduction to special issue on burnout and health. *Psychology & Health*, *16*(5), 501-510. Doi: 10.1080/08870440108405523

*Senter, A., Morgan, R. D., Serna-McDonald, C., & Bewley, M. (2010). Correctional psychologist burnout, job satisfaction, and life satisfaction. *Psychological Services*, *7*(3), 190. Doi.org/10.1037/a0020433

Shanafelt, T. D., Boone, S., Tan, T., Dyrbye, L. N., Sotile, W., & Oreskovich, M. R. (2012). Burnout and satisfaction with work-life balance among US physicians relative to the general US population. Archives of Internal Medicine, 172, 1377–1385. Doi.org/10.1001/archinternmed.2012.3199

*Skorupa, J., & Agresti, A. A. (1993). Ethical beliefs about burnout and continued professional practice. *Professional Psychology: Research and Practice*, *24*(3), 281. Doi.org/10.1037/0735-7028.24.3.281

Sosik, J. J., & Godshalk, V. M. (2000). Leadership styles, mentoring functions received, and job-related stress: A conceptual model and preliminary study. Journal of Organizational Behaviour, 21, 365390. Doi: 10.1002/(SICI)1099-1379(200006)21:4<365::AID-JOB14>3.0.CO;2-H

Stevanovic, P., & Rupert, P. A. (2004). Career-Sustaining Behaviors, Satisfactions, and Stresses of Professional Psychologists. *Psychotherapy: Theory, Research, Practice, Training*, *41*(3), 301. Doi: org/10.1037/0033-3204.41.3.301

*Tamura, L. J., Guy, J. D., Brady, J. L., & Grace, C. (1995). Psychotherapists' management of confidentiality, burnout and affiliation needs: A national survey. *Psychotherapy in private practice*, *13*(2), 1-17. Doi:10.1300/J294v13n02_01

Van der Ploeg, H. M., Van Leeuwen, J. J., & Kwee, M. G. (1990). Burnout among Dutch psychotherapists. *Psychological reports*, *67*(1), 107-112. Doi: 10.2466/pr0.1990.67.1.107. Retrieved from British Library.

Vandenbroucke, J. P., Von Elm, E., Altman, D. G., Gøtzsche, P. C., Mulrow, C. D., Pocock, S. J., & Egger, M. (2007). Strengthening the Reporting of Observational Studies in Epidemiology (STROBE): explanation and elaboration. *Annals of Internal Medicine*, *147*(8), 163-194. Doi:10.7326/0003-4819-147-8-200710160-00010-w1

*Vredenburgh, L. D., Carlozzi, A. F., & Stein, L. B. (1999). Burnout in counseling psychologists: Type of practice setting and pertinent demographics. *Counselling Psychology Quarterly*, *12*(3), 293-302. Doi: 10.1080/09515079908254099

Wallbank, S. (2012). Health Visitor Needs: National Perspectives from the Restorative Clinical Supervision Programme. Community Practitioner, 85, 4. Retrieved from British Library.

Wu, S., Zhu, W., Wang, Z., Wang, M., & Lan, Y. (2007). Relationship between burnout and occupational stress among nurses in China. *Journal of advanced nursing*, *59*(3), 233-239. Doi: 10.1111/j.1365-2648.2007.04301.x

*References marked with an asterisk denote papers included in the systematic review

Table 1
Characteristics of studies included in the review

Study I.D.	Authors / Year / Country	% female	Type of Psychologist	N	Age	Focus of Study	Design	Burnout Measure	Demographic / Objective work characteristics	Additional variables of interest and forms of measurement	Statistical Analysis
1	Ackerley, Burnell, J., Holder, & Kurdek (1988) U.S.	27	Licensed	562	μ = 44.15 (Range 31-72)	Examined the extent of burnout and its correlates	Cross-sectional	MBI	Age, Gender, Ethnicity, Relationship status, Primary work setting, Position, Hours per week, Time in job, Income, Professional orientation, Work activities, Types of cases, Involvement in personal therapy	Factors within the therapy setting: Psychologist Burnout Inventory (PBI; measured control, over-involvement, support & negative clientele)	Correlations ANOVAs Multiple hierarchical regression
2	Di Benedetto & Swadling (2014) Australia	86.8	Licensed	167	μ =42.47 (range 24-68)	Investigated the relationship between burnout, work setting, years of experience, mindfulness and career-sustaining behaviours	Cross-sectional	CBI	Age, Gender, Work setting, Years of experience	Mindfulness activities (Five Facet Mindfulness Questionnaire; FFMQ) Career sustaining behaviours (CSBs; rated on how important each of them are to the participant)	ANOVAs Correlations
3	D'Souza, Egan, & Rees (2011) Australia	86	Clinical	87	Modal age bracket = 31-40 years	Examined relationship between perfectionism, stress and burnout	Cross-sectional	CBI	Age, Gender, Years experience, Workload, Hours spent in practice consultation or S/V, Client problems, Theoretical orientation	Perfectionism scale Stress - DASS-21 (stress subscale only)	Correlations Regression Mediation
4	Emery, Wade, & McLean (2008) Australia	71	Clinical	190	Mean ages range 30-39 years	Examine relative contribution of demographics, workplace variables and individual factors to burnout	Cross-sectional	MBI	Age, Gender, Professional training, Years of experience, Work status (full-time etc.), Client type, Work setting, Annual income, Living arrangement	Therapist beliefs (e.g. about therapy, clients etc.) measured by the Therapist Belief Scale (TBS) Personal resources (self care, recreation, social support & coping), measured by the Personal Resources Questionnaire (PRQ) from the Occupational Stress Inventory-Revised (OSI-R)	Correlations Multiple regressions

Study I.D.	Authors / Year / Country	% female	Type of Psychologist	N	Age	Focus of Study	Design	Burnout Measure	Demographic / Objective work characteristics	Additional variables of interest and forms of measurement	Statistical Analysis
5	Farber (1985) U.S.	37	Clinical	214	M= 50.9	Investigate CPs' perceptions of psychotherapeutic work	Cross-sectional	MBI	Age, Gender, Ethnicity, Marital status, Theoretical orientations, Practice setting, Hours worked per week, Years of exp.	Attitudes towards therapy, measured by the Psychotherapist Attitudes Scale (PAS)	ANOVAs Correlations.
6	Hoeksma, Guy, Brown, & Brady (1994) U.S.	25.4	Practising	404	M= 44.9	Investigated the relationship between involvement in leisure activities and psychotherapist burnout	Cross-sectional	MBI	Age, Gender Hours/week, Years exp., Having children between 0-5, Involvement in prof.-related activities/week, No. of hours of leisure activities/week, Involvement in leisure activities per week, Other demographics including job content	Satisfaction with leisure activities (incl. Psychological, educational, social-leisure, relaxational, physiological, aesthetic)	Correlations Stepwise multiple regression
7	Huberty & Huebner (1988) U.S.	No info	School	234	M= 38.72	Investigated the correlates of burnout in a sample of school psychologists	Cross-sectional	MBI	Age, Gender, Years of experience, Level of training, Salary, Hours spent per week in various activities, Ratio of psychologist to students	Perceptions of job-related stressors, measured by agreement with a set of 14 statements	Correlations Regression
8	Huebner (1992) U.S.	69	School	139	M= 43.4	Explored nature, extent and correlates of burnout	Cross-sectional	MBI	Age, Gender, Urbanicity, Years of experience, Level of training	Specific stressors that affect school psychologists, measured by the School Psychologists and Stress Inventory (SPSI) Job satisfaction questionnaire (non-standardised), including job, supervision, caseload and turnover intentions)	Correlations

Study I.D.	Authors / Year / Country	% female	Type of Psychologist	N	Age	Focus of Study	Design	Burnout Measure	Demographic / Objective work characteristics	Additional variables of interest and forms of measurement	Statistical Analysis
9	Huebner (1993) U.S.	68	School	179	M= 43.68	Aimed to cross-validate findings from a previous study of same nature, and also further investigate correlates of burnout	Cross-sectional	MBI	Age, Gender, Urbanicity Years of experience, Level of training, Psychologist to student ratio	Job activities measured by the Job Function Scale (what they do within their job); how important they deem each of the 6 aspects to be and their perceived competence) Career satisfaction, measured by desire to leave the profession	Correlations
10	Huebner (1994) U.S.	80	School	114	M= 41.13	Examined the relationship among demographic variables, social support levels, global job satisfaction and burnout	Cross-sectional	MBI	Age, Gender, Level of training, Urbanicity, Student to psychologist ratio	Social support, measured by the Perceived Social Support Scale (PSSS); e.g. supervisor, co-worker, spouse and friend Overall job satisfaction (measured by non-standardised scale)	Correlations Hierarchical multiple regression
11	Huebner & Mills (1994) U.S.	78.2	School	135	M= 42.5	Examined levels of burnout and relationships between burnout and selected personality characteristics and role expectations	Cross-sectional	MBI	Age, Gender, Years of experience, Level of training, Psychologist to student ratio, Salary, Urbanicity	Personality measure of neuroticism, extraversion, openness to experience, agreeableness and conscientiousness; measured by the Neo Five-Factor Inventory (NEO-FFI) Job variables questionnaire (non-standardised), measuring job satisfaction and roles.	Multiple regression
12	Malinowski (2013) U.S.	91	Professional	133	M= 53.5	Examined the relationship between different types of humour and characteristics of job burnout	Cross-sectional	MBI	Age, Gender, Practice setting, Years of experience, Average hours per week	Humour Styles Questionnaire (HSQ) used to collect information on 'humour'; measures affiliative humour, self-enhancing humour, aggressive humour and self-defeating humour.	Correlations Stepwise regression

Study I.D.	Authors / Year / Country	% female	Type of Psychologist	N	Age	Focus of Study	Design	Burnout Measure	Demographic / Objective work characteristics	Additional variables of interest and forms of measurement	Statistical Analysis
13	Mills & Huebner (1998) U.S.	73.4	School	225	M= 40.3	Investigated the prevalence and antecedents of burnout	Cross-sectional	MBI	Age, Gender, Years of experience, Level of training, Psychologist to student ratio, Number of schools served, Urbanicity	Occupational stressors, measured by the School Psychologists and Stress Inventory (SPSI); scale containing list of stressful events e.g. interpersonal conflict, high risk to self and others, time management, legal issues. Rate how much these have been a problem in the last year. Neo Five-Factor Inventory (NEO-FFI)	Correlations Hierarchical multiple regression
14	Pierson-Hubeny & Archambault (1987) U.S.	75	School	209	M= 41.00	Investigated relationship between role stress and perceived intensity of burnout	Cross-sectional	MBI	Age, Gender, Marital status, No. of schools, Years in position, Urbanicity, Assignment level	Role stress; assessed by the Role Questionnaire (RQ); includes subscales of role conflict and role ambiguity.	Regression
15	Rupert & Scaletta Kent (2007) U.S.	58.3	Clinical / counselling	595	M= 51.98	Factors (including work setting, gender, career-sustaining behaviours) that relate to burnout in male and female psychologists	Cross-sectional	MBI	Age, Gender, Ethnicity, Marital status, Professional qualifications, Theoretical orientation, Years of experience, Hours worked per week, Work setting (sole independent practice, group independent practice & agency, i.e. public sector)	Satisfaction with professional lives (e.g. workload, income etc.) Psychologist burnout inventory (control, over-involvement, support & negative clientele) Career sustaining behaviours (function effectively and maintain positive attitude towards work)	ANOVAs ANCOVAs Correlations
16	Rupert & Morgan (2005) U.S.	52.7	Clinical / counselling	481	M= 51.61	How work settings relates to burnout	Cross-sectional	MBI	Age, Gender, years of experience, Hours worked, Attitudes towards workload, Satisfaction with income, Work setting, Degree, Theoretical orientation, Professional activities	Sources of professional satisfaction Sources of professional stress Psychologist burnout inventory (control, over-involvement, support & negative clientele)	ANOVAs ANCOVAs Correlations

Study I.D.	Authors / Year / Country	% female	Type of Psychologist	N	Age	Focus of Study	Design	Burnout Measure	Demographic / Objective work characteristics	Additional variables of interest and forms of measurement	Statistical Analysis
17	Rupert, Stevanovic, & Hunley (2009) U.S.	57.9	Licensed	487	M= 54.1	Investigated the gender differences in experiences of burnout, and the role of work-family conflict	Cross-sectional	MBI	Age, Gender, Work setting, Years of experience, Weekly activities, Hours worked per week	Psychologist burnout inventory (control, over-involvement, support & negative clientele) Work-family conflict and family-work conflict scales Support from family scale Household and childcare responsibilities	Correlations ANOVAs Mediation
18	Sandoval (1993) U.S.	62	School	50	M= 44.5	Validated the relationship of personality characteristics and burnout	Cross-sectional	MBI	Age, Gender, Ethnicity, Years of experience	A measure of personality traits; California Psychological Inventory (CPI).	Correlations
19	Senter, Morgan, Serna-McDonald, & Bewley (2010) U.S.	44.8	Correctional	203	CR: M= 52.05 VA: M= 53.49 CC: M= 50.65 PPH: M= 53.94	Examined effects of correctional work on psychologists' job and life satisfaction, related to burnout	Cross-sectional	MBI	Age, Gender, Ethnicity, Marital status, Job tenure, Professional identity (how they professionally identify with their role), Extracurricular activities (e.g. research)	Job satisfaction (extrinsic, intrinsic and general satisfaction); measured by the Minnesota Satisfaction Questionnaire-Short Form (MSQ-SF) Life satisfaction; measured by the Satisfaction With Life Scale (SWLS)	Correlations MANCOVAs
20	Skorupa & Agresti (1993) U.S.	No info	Practicing	94	Not given	Investigated ethical beliefs about continual professional practice in psychology when the practitioner is experiencing burnout	Cross-sectional	MBI	Age, Gender, Years of practice	Attitude survey; assessed respondents' beliefs regarding ethics of a psychologists continuing to practice if they are experiencing burnout.	Correlations

Study I.D.	Authors / Year / Country	% female	Type of Psychologist	N	Age	Focus of Study	Design	Burnout Measure	Demographic / Objective work characteristics	Additional variables of interest and forms of measurement	Statistical Analysis
21	Tamura, Guy, Brady, & Grace (1995) U.S.	31.2	Clinical	140	M= 43.9	Investigated relationship between burnout, maintenance of confidentiality between psychotherapists and spouses and therapists' need for inclusion	Cross-sectional	MBI	Age, Gender, Marital status, Hours per week, Years of exp., Theoretical orientation, Practice setting	Questions about confidentiality (maintenance of confidentiality between psychotherapists and their spouses) Fundamental Interpersonal Relations Orientation-Behaviour scale (psychotherapists need for inclusion)	Multiple regression
22	Vredenburgh, Carlozzi, & Stein (1999) U.S.	64	Counselling	521	M= 47.5	Investigated extent of burnout and relationship between of burnout and practice settings, demographics and work-related variables	Cross-sectional	MBI	Gender, Age, Marital status, Year in current position, Work setting, Hours of client contact per week, Secondary work setting, Years in current organisation	n/a	Multiple hierarchical regression Correlations

Note: M = mean; MBI = Maslach Burnout Inventory (Maslach & Jackson, 1981; Maslach & Jackson, 1986; Maslach, Jackson, & Leiter, 1996); CBI = Copenhagen Burnout Inventory; (Kristensen et al., 2005); Urbanicity (term used by authors) refers to whether school is in a rural, urban, or suburban area.

Table 2

Type of psychologists sampled across the studies

	Frequencies (total 22)	Study #
Type of Psychologist		
Licensed/ Professional/ Practising	6	1, 2, 6, 12, 17, 20
Clinical	5	3, 4, 5, 15, 16, 21
Correctional	1	19
Counselling	2	15, 16, 22
School	8	7, 8, 9, 10, 11, 13, 14, 18

Table 3
Checklist for assessing the quality of cross-sectional studies, adapted from Quality Assessment checklist (Kmet, Lee & Cook, 2004)

Criteria	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	**Total (66)**
(1a) Indicate the study's design with a commonly used term in the title or the abstract	2	2	2	2	1	2	2	2	2	2	3	2	3	2	2	3	2	2	2	2	3	2	34
(1b) Provide in the abstract an informative and balanced summary of what was done and what was found	3	3	3	3	0	3	3	3	3	3	3	3	3	3	3	3	3	2	3	2	3	3	43
(2) Explain the scientific background and rationale for the investigation being reported	3	3	3	3	2	3	3	3	3	3	3	3	3	3	3	3	3	2	3	3	3	3	44
(3) State specific objectives, including any pre-specified hypotheses	2	3	3	3	2	3	3	3	2	3	3	3	3	3	2	2	3	2	3	3	3	3	41
(4) Present key elements of study design early in the paper	1	1	1	1	1	1	2	2	2	2	3	3	3	2	3	3	3	2	2	2	3	2	38
(5) Describe the setting, locations, and relevant dates, including periods of recruitment, exposure, follow-up, and data collection	2	2	2	3	2	2	2	2	2	2	2	3	2	2	2	3	3	2	2	2	2	2	34
(6) Give the eligibility criteria, and the sources and methods of selection of participants	3	1	2	2	2	2	2	2	2	2	3	3	3	2	3	3	3	1	2	2	2	3	35
(7) Clearly define all outcomes, exposures, predictors, potential confounders, and effect modifiers. Give diagnostic criteria, if applicable	2	2	2	3	2	2	2	2	2	3	2	3	3	3	3	3	3	3	3	3	3	3	42
(8) For each variable of interest, give sources of data and details of methods of assessment (measurement). Describe comparability of assessment methods if there is more than one group	3	3	3	3	3	3	2	3	3	3	3	3	3	3	3	3	3	3	3	2	3	3	44
(9) Describe any efforts to address potential sources of bias	1	1	1	2	1	1	1	1	1	1	1	2	2	1	1	1	1	1	2	1	1	1	18
(10) Explain how the study size was arrived at	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	15
(11) Explain how quantitative variables were handled in the analyses. If applicable, describe which groupings were chosen and why	3	3	3	3	2	3	3	3	2	2	3	3	3	3	3	3	3	3	3	3	3	3	43
(12a) Describe all statistical methods, including those used to control for confounding	2	3	2	3	2	2	3	2	3	2	3	3	3	3	3	3	3	3	3	3	3	3	44
(12c) Explain how missing data were addressed	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	1	1	1	17
(13a) Report numbers of individuals at each stage of study; e.g. numbers potentially eligible, examined for eligibility, confirmed eligible, included in the study, completing follow-up, and analysed	3	1	3	3	2	1	2	1	1	1	2	3	3	1	3	3	2	1	3	2	3	1	30
(13b) Give reasons for non-participation at each stage	1	1	3	3	2	1	1	1	1	1	1	2	2	1	3	2	2	1	3	2	2	1	25
(13c) Consider use of a flow diagram	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	15

Criteria	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	**Total (66)**
(14a) Give characteristics of study participants (e.g. demographic, clinical, social) and information on exposures and potential confounders	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	1	3	3	43
(14b) Indicate number of participants with missing data for each variable of interest	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	16
(15) Report numbers of outcome events or summary measures	3	3	3	3	2	2	3	3	3	3	3	3	3	3	3	3	2	2	3	2	2	3	41
(18) Summarise key results with reference to study objectives	3	2	3	3	2	3	3	3	3	2	3	3	3	3	3	3	3	3	3	3	3	3	44
(19) Discuss limitations of the study, taking into account sources of potential bias or imprecision. Discuss both direction and magnitude of any potential bias	3	3	2	3	1	1	1	2	3	1	3	3	3	1	1	1	1	3	3	3	2	1	32
(20) Give a cautious overall interpretation of results considering objectives, limitations, multiplicity of analyses, results from similar studies, and other relevant evidence	3	3	3	3	2	2	2	3	3	2	3	3	3	2	3	3	3	3	3	3	3	2	42
(21) Discuss the generalisability (external validity) of the study results	3	3	2	3	1	1	1	3	3	1	3	3	3	1	2	1	2	3	3	3	2	2	33
Total (72)	**53**	**50**	**53**	**60**	**39**	**45**	**48**	**51**	**51**	**46**	**57**	**61**	**61**	**49**	**56**	**56**	**55**	**49**	**62**	**51**	**56**	**51**	**54**

Note: Yes (3) Partial (2) No (1) N/A (0)

Table 4
Prevalence of burnout across studies including comparisons with normative data

Study #	Burnout measure	M EE	M DP	M PA	Normative sample compared to	Quantitative conclusions	Qualitative conclusions	Concerns about burnout within the sample
Licenced/ Professional/ Practicing psychologists								
1	MBI 1986	19.44	6.31	42.27	1986 MH workers (N=730)	39.9% high EE, 32.7% moderate 34.3% high DP, 24.7% moderate 0.9% low PS, 3.8% moderate	Higher burnout for sample than normative sample	✓
2	CBI	-	-	-	-	14.4% met criteria for overall burnout (35.3% personal burnout)	Mean burnout in sample higher than other HS workers but comparable to health industry workers	✓
12	MBI 1996	15.99	3.02	42.66	n/a	-	Overall, EE was low-moderate, DP was low and PA was in the high range in this sample	✗
17	MBI 1996	16.41	4.42	42.59	n/a	-	-	n/a
20	MBI 1986	16.00	5.58	30.87	1986 MH workers (N=730)	15% high EE, 25% moderate 9% high DP, 23% moderate 4% low PA, 8% moderate	Generally lower level of burnout in this sample compared to normative sample	✗
Clinical/ Counselling psychologists								
3	CBI	-	-	-	-	8% met criteria for overall burnout	On average, this sample were in the normal range	✗
4	MBI 1986	19.20	4.30	38.90	1986 drs/ nurses (N=10067)	-	Higher EE than normative sample, lower DP and higher PA. Sample represented lower experienced burnout than other helping professions	✓
5	MBI 1981	18.00	4.57	42.00	1981 HS profs	-	Clinical psychologists are generally less vulnerable to burnout than other HS professionals	✗
15	MBI 1996	17.75	4.81	41.56	1996 class.	-	Sample was in the moderate range for EE and DP and low range for PA	✓
16	MBI 1996	19.99	5.21	41.64	1996 class.	-	EE and DP were in the moderate range, PA was in the low range	✓

Study #	Burnout measure	M EE	M DP	M PA	Normative sample compared to	Quantitative conclusions	Qualitative conclusions	Concerns about burnout within the sample
22	MBI 1986	17.83	8.90	42.09	n/a	-	This sample reported low to moderate levels of burnout overall	✓
Correctional psychologists								
19	MBI 1996				n/a	-	Significant differences between some of the groups within the sample, but no comparisons made externally.	n/a
Correctional Settings (CR)		21.00	7.41	40.10				
Veteran's Affairs (VA)		17.17	5.16	41.50				
Counselling Centres (CC)		16.84	4.26	42.95				
Psychiatric Hospitals (PPH)		20.00	5.39	39.96				
School psychologists								
7	MBI 1981	20.00	5.17	37.70	n/a	-	-	n/a
8	MBI 1986	23.14	6.00	35.07	1986 HS (N=11067)	36% high EE, 9.8% high DP, 27.9% low PA	Authors concluded this level of burnout was 'worrying'	✓
9	MBI 1986	20.80	4.57	38.50	n/a	25% high EE, 3% high DP, 12% low PA	-	n/a
10	MBI 1986	24.95	6.18	34.61	n/a	-	-	n/a
11	MBI 1986	23.01	6.10	34.80	n/a	32% high EE, 12.9% high DP, 25.9% low PA	-	n/a
13 (Time 1)	MBI 1986	24.25	5.72	37.33	1986 HS (N=11067)	40% high EE, 10.2% high DP, 18.7% low PA	Overall burnout high No significant differences in burnout over time indicating stability of burnout	✓
13 (Time 2)		23.02	6.14	37.40		37.6% high EE, 9.8% high DP, 17.3% low PA		
18	MBI 1986	20.62	5.94	38.14	1996 class.	-	Burnout in this sample was in the moderate range overall	✓

Note: MBI=Maslach Burnout Inventory; CBI=Copenhagen Burnout Inventory; HS=Human Services; EE=Emotional Exhaustion, DP=Depersonalisation, PA=Personal Accomplishment as measured by the MBI; class.=classification; MH=mental health.

Table 5
Psychosocial variables measures across studies, grouped into categories based on similarity

Categories/Variables	Study #
Subjective Job Characteristics	
Job-related stressors	7, 8, 13, 14, 16
Job/career satisfaction	8, 9, 10, 11, 15, 16, 19
Job activities and related importance	9, 11
Stress in general	3
Beliefs about Therapy/Practice	
Factors in the therapy setting	1, 15, 16, 17
Therapist beliefs about therapy	4
Attitudes towards therapy	5
Ethical beliefs about practicing whilst burnout	20
Ethical beliefs about maintaining confidentiality	21
Individual Characteristics	
Personality style	11, 13, 8
Perfectionism	3
Humour style	12
Resources	
Mindfulness	2
Career sustaining behaviours (CSBs)	2, 15
Personal resources	4
Involvement in leisure activities	6
Social support	10, 17
Work-family conflict	17
Household responsibilities	17

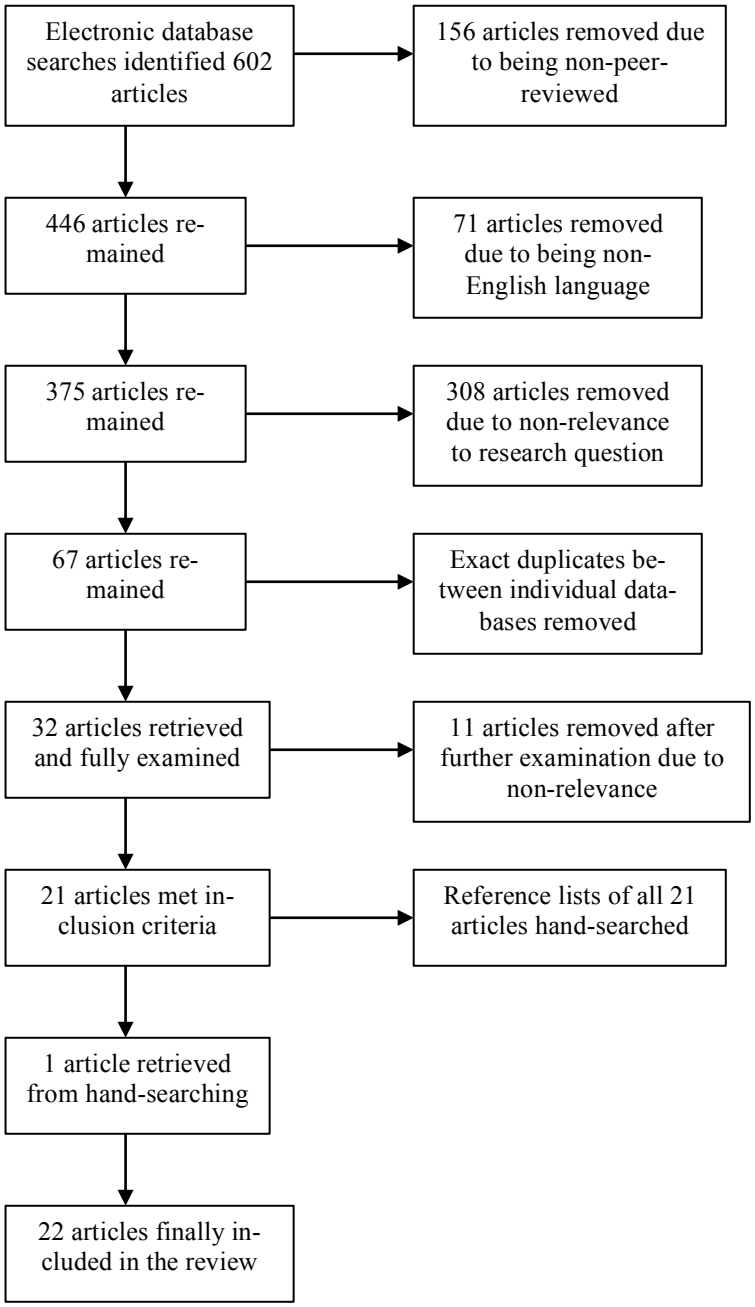

Figure 1: Flow diagram to show search strategy, as recommended in PRISMA guidelines by Moher et al. (2009).

Appendix 1-A

Target journal for publication: Professional Psychology: Research and Practice

Taken from: http://www.apa.org/pubs/journals/pro/writing.aspx

Writing Guidelines

General Guidelines

Professional Psychology ® (*PP*) is devoted to providing its readers with practical and usable information. The primary readership of *PP* is the typical practicing professional psychologist or graduate student in training to become a psychological practitioner, with a smaller secondary readership of trainers of practitioners.

PP seeks manuscripts that either describe current scientific and clinical/theoretical knowledge or present new empirical data and draw out the practice implications and concrete applications of that information. *PP* expects manuscripts to be written in a manner such that the introduction makes clear the potential relevance of the article to the reader practitioner and the closing section of the article provides concrete and practical suggestions, guidance, and advice.

In order to get the best sense of the type of articles *PP* is seeking and the style of writing that is the most effective in communicating useful and practical information to the typical *PP* reader, it is important that you read the articles appearing in several recent issues of *PP*. The material that appears on the following pages also provides further information on how best to craft a manuscript for *PP*.

Abstracts

PP prefers abstracts that open with a "reader-oriented sentence" that anchors the topic of the article in the experiential world of the reader's everyday professional practice. In creating this sentence, one might ask, What would the average practicing professional psychologist have experienced in professional practice yesterday that led him or her to *PP* for information and advice today? The opening sentence then is written from the perspective of what the reader just experienced or the knowledge that he or she seeks (and not "the issue," "the literature," or "previous research").

PP also prefers abstracts that end with a reader-oriented sentence that explicitly names practical and usable implications and applications of the information presented in the article, and it gives the abstract reader a rich sense of "the news I can use" for reading the article.

The middle portion of the abstract should provide whatever description of the material in the article that the author believes will be most useful to the potential user in deciding whether to get and read the article. *PP* prefers to limit abstracts to 250 words.

Here are some examples of effective *PP* abstracts:

> The confidentiality of the client–therapist relationship has been seriously challenged by managed care oversight and reporting requirements. The impact of such requirements on psychotherapy clients' willingness to disclose was explored. Three descriptions of confidentiality limits were presented: standard limits of therapeutic confidentiality, a rationale for client acceptance of limited confidentiality, and the typical informational requirements of managed care. Clients and potential clients showed less

willingness to self-disclose under managed care conditions than standard confidentiality limits. Psychologists must increase awareness of confidentiality issues and advocate strongly for changes in managed care requirements that inhibit disclosure and interfere with psychotherapy.

Professional psychologists often have a need for information on the patterns of service accessing and service use by ethnic groups. Demographic characteristics and psychotherapy use of 229 Chinese American clients, seen in a Southern California private practice between 1989 and 1996, are described. Diagnostic evaluations of 27 assessment requests, 77 consultations, and 125 psychotherapy cases indicated that depressive disorders, adjustment disorders, anxiety disorders, and relational problems were the most frequently presented problems. For the 125 treated cases, length of treatment ranged from 1-38 sessions with a median of 4 and mean of 5.98 sessions.

Opening Paragraphs

The first paragraph of a potential manuscript should also be written from the perspective of the average reader. This opening paragraph should not repeat the opening sentence of the abstract, as *PP* tries to avoid redundant presentation of statements and information. This opening paragraph should provide the experiential hook for the reader that interests them enough to read the article. This opening paragraph should also relate to or foreshadow the implications and applications that will be discussed at the end of the manuscript.

Some recent examples of opening paragraphs include the following:

"Just how long does it take to do a psychoeducational evaluation?" This question, when asked by cost-conscious administrators, tends to evoke uneasy and evasive responses from school psychologists—and with good reason. The school psychologist who provides a seemingly high figure is likely to elicit a surprised or dubious response (e.g., "What could possibly take all that time?"). A low figure, on the other hand, may serve as justification for increasing assessment caseloads. Even a reasonable figure can be cause for concern if it becomes a parameter in a cost–benefit equation on the feasibility of contracting out evaluation services—an equation that, in all probability, regards an evaluation as a fixed commodity with a fixed value that is unrelated to time invested. Thus, it is not surprising that school psychologists shy away from the loaded question of how long a psychoeducational evaluation takes, perhaps responding in noncommittal fashion (as befits a psychologist) with, "It depends."

Clinical practitioners sometimes wonder what keeps them going. On any given day, they try to serve client needs, maintain an ethical practice, manage increasing paperwork and bureaucracy, stay informed about new interventions and specialties, foresee how emerging changes in the health care environment will affect them, market their services, and defend the efficacy of their interventions (Coster & Schwebel, 1997). Juggling the ups and downs of these responsibilities can be likened to rafting the rapids; sometimes it's exhilarating, other times it's frightening—with survival linked to appropriate responses to and knowledge of the river. Clinicians muse, Can I cope with the increasing demands of my job? How well am I coping? Do I still look forward to going to work most days? What should I do differently to feel better about my job?

Introduction Section

The introduction for *PP* articles should establish the relevance of the topic of the article to the average practicing professional psychologist. The total length of the introduction might be as short as one or two paragraphs or as long as three to four manuscript pages. However, the focus should be on relevance to practice, and the intro-

ductory presentation should be limited to presenting usable information from previously published material (but only in those cases in which the background is not well known or easily accessible).

It is not necessary (or desired by *PP*) that an introduction build a case or justify the need for the research project or the literature review being presented.

Notes on Empirical Manuscripts

PP is primarily interested in empirically informed articles, which draw out practical implications. *PP* is not a research journal per se.

PP articles may draw on and summarize empirical work or present new empirical findings. When new data are presented, the focus of the discussion section should be on implications and applications. One difference between a traditional research report and an implications-oriented article is that a research report often focuses its discussion section on the results themselves (often comparing and contrasting them with the findings of other research reports and then focusing on needed future research), whereas an implications-oriented article often focuses its discussion section on "what to do when" or "six factors to consider when …and how to assess them."

The discussion section of an implications article does not discuss the research per se or the research findings themselves; rather, it discusses the implications and applications of everything that is known about the topic and how it informs general practice and suggests specific professional practices. For example, articles on ethics or training should focus on the implications of the findings, not how many people do what.

PP rarely uses the standard "method, results, discussion of results" format for empirical articles. Rather, when a survey or research project is presented, this may be done in a middle section labeled "The Survey" or "The Exploration" or "The Evaluation." Brief presentations of the most critical aspects of method and the major or unexpected findings are made, along with discussion of the findings that actually warrant discussion. This is done with relevant side headings (e.g., "Method" or "Discussion" would rarely be needed as a side heading). For survey reports, the representation of the sample to the population under study should be concisely but clearly noted. Surveys with small response rates (e.g., below 50%) on a clearly biased sample will rarely be published.

Likewise, the introduction should establish, generally in the opening paragraph, the relevance of the topic of the article (and research) to the average practicing professional psychologist. This is in contrast to a research report that often reviews previously published articles in order to establish that the reported research needed to be done. The introduction might be as short as one or two paragraphs or as long as three or four pages. However, the focus should be on relevance to practice and the presentation of practical, usable information.

Appendix 1-B

Distinction between psychologist and psychotherapist

The term psychotherapist was used in addition to psychologist, as some literature uses the term ‘psychotherapist’ to include psychologists, or the terms are sometimes used interchangeably. The term ‘psychologist’ is a protected title in the UK, U.S. and Australia. In the UK and U.S., psychologists are required to be qualified to doctoral level, and to Masters level in Australia (www.counselling-directory.org.uk). However, throughout the UK, U.S. and Australia, the term ‘psychotherapist’ can include psychologists, psychiatrists or any other mental health professional who has had further training in a particular psychotherapy. This means that psychologists can offer a type of psychotherapy and call themselves psychotherapists, but still be psychologists in nature. Equally, however, non-psychologists can offer a type of psychotherapy and call themselves psychotherapists. Because the psychotherapist title is not currently protected, there are no restrictions on who can call himself or herself a psychotherapist at present, so it is important to explore the background of therapists in studies to ascertain their qualification.

Appendix 1-C

Table to show how papers were filtered for each database and final total of papers included in review.

Filter Criteria	Databases					Hand Searching
	Psyc-INFO	CIN-AHL	MED-LINE	Web of Science	Social Care Online	
No. of articles retrieved:	350	19	48	172	13	1
Non-peer-reviewed articles removed:	194	19	48	172	13	1
Non-English language articles removed:	156	18	39	149	13	1
Articles not relevant to research questions removed:	123	15	31	126	13	1
No. of articles acquired and fully examined:	33	3	8	23	0	1
Final no. of articles:	21	2	1	15	0	1
No. of articles left once duplicates between databases removed:	21	0	0	0	0	1
Total no. of unique papers = 22						

Appendix 1-D

Table to show cross-referencing of papers retrieved from each database, highlighting duplicates.

Study I.D.	Authors	Databases					**TOTALS**
		Psyc-INFO	MED-LINE	CIN-AHL	Social Care Online	Web of Science	
1	Ackerley, Burnell, Holder, & Kurdek (1988)	Y	-	-	-	Y	**2**
2	Di Benedetto & Swadling (2014)	Y	Y	Y	-	Y	**4**
3	D'Souza, Egan, & Rees (2011)	Y	-	-	-	Y	**2**
4	Emery, Wade, & McLean (2009)	Y	-	-	-	Y	**2**
5	Farber (1985)	-	-	-	-	-	**-**
6	Hoeksma, Guy, Brown, & Brady (1993)	Y	-	-	-	-	**1**
7	Huberty & Huenber (1988)	Y	-	-	-	Y	**2**
8	Huebner (1992)	Y	-	-	-	-	**1**
9	Huebner (1993)	Y	-	-	-	-	**1**
10	Huebner (1994)	Y	-	-	-	-	**1**
11	Huebner & Mills (1994)	Y	-	-	-	Y	**2**
12	Malinowski (2013)	Y	-	-	-	Y	**2**
13	Mills & Huebner (1998)	Y	-	-	-	Y	**2**
14	Pierson-Hubeny & Archambault (1987)	Y	-	-	-	Y	**2**
15	Rupert & Scaletta Kent (2007)	Y	-	-	-	Y	**2**
16	Rupert & Morgan (2005)	Y	-	-	-	Y	**2**
17	Rupert, Stevanovic, & Hunley (2009)	Y	-	-	-	Y	**2**
18	Sandoval (1993)	Y	-	-	-	Y	**2**
19	Senter, Morgan, Serna-McDonald, & Bewley (2010)	Y	-	-	-	Y	**2**
20	Skorupa & Agresti (1993)	Y	-	-	-	Y	**2**
21	Tamura, Guy, Brady, & Grace (1994)	Y	-	-	-	-	**1**
22	Vredenberg, Carlozzi, & Stein (1999)	Y	-	Y	-	-	**2**
TOTALS		**21**	**1**	**2**	**0**	**15**	**-**

Note: Y=retrieved from respective database

Appendix 1-E

STROBE Statement—Checklist of items that should be included in reports of ***cross-sectional studies***

	Item No	Recommendation
Title and abstract	1	(*a*) Indicate the study's design with a commonly used term in the title or the abstract
		(*b*) Provide in the abstract an informative and balanced summary of what was done and what was found
Introduction		
Background/rationale	2	Explain the scientific background and rationale for the investigation being reported
Objectives	3	State specific objectives, including any pre-specified hypotheses
Methods		
Study design	4	Present key elements of study design early in the paper
Setting	5	Describe the setting, locations, and relevant dates, including periods of recruitment, exposure, follow-up, and data collection
Participants	6	(*a*) Give the eligibility criteria, and the sources and methods of selection of participants
Variables	7	Clearly define all outcomes, exposures, predictors, potential confounders, and effect modifiers. Give diagnostic criteria, if applicable
Data sources/ measurement	8*	For each variable of interest, give sources of data and details of methods of assessment (measurement). Describe comparability of assessment methods if there is more than one group
Bias	9	Describe any efforts to address potential sources of bias
Study size	10	Explain how the study size was arrived at
Quantitative variables	11	Explain how quantitative variables were handled in the analyses. If applicable, describe which groupings were chosen and why
Statistical methods	12	(*a*) Describe all statistical methods, including those used to control for confounding
		(*b*) Describe any methods used to examine subgroups and interactions
		(*c*) Explain how missing data were addressed
		(*d*) If applicable, describe analytical methods taking account of sampling strategy
		(*e*) Describe any sensitivity analyses
Results		

Participants	13*	(a) Report numbers of individuals at each stage of study—e.g. numbers potentially eligible, examined for eligibility, confirmed eligible, included in the study, completing follow-up, and analysed
		(b) Give reasons for non-participation at each stage
		(c) Consider use of a flow diagram
Descriptive data	14*	(a) Give characteristics of study participants (eg demographic, clinical, social) and information on exposures and potential confounders
		(b) Indicate number of participants with missing data for each variable of interest
Outcome data	15*	Report numbers of outcome events or summary measures
Main results	16	(*a*) Give unadjusted estimates and, if applicable, confounder-adjusted estimates and their precision (e.g, 95% confidence interval). Make clear which confounders were adjusted for and why they were included
		(*b*) Report category boundaries when continuous variables were categorized
		(*c*) If relevant, consider translating estimates of relative risk into absolute risk for a meaningful time period
Other analyses	17	Report other analyses done—e.g. analyses of subgroups and interactions, and sensitivity analyses
Discussion		
Key results	18	Summarise key results with reference to study objectives
Limitations	19	Discuss limitations of the study, taking into account sources of potential bias or imprecision. Discuss both direction and magnitude of any potential bias
Interpretation	20	Give a cautious overall interpretation of results considering objectives, limitations, multiplicity of analyses, results from similar studies, and other relevant evidence
Generalisability	21	Discuss the generalisability (external validity) of the study results
Other information		
Funding	22	Give the source of funding and the role of the funders for the present study and, if applicable, for the original study on which the present article is based

*Give information separately for exposed and unexposed groups.

Note: An Explanation and Elaboration article discusses each checklist item and gives methodological background and published examples of transparent reporting. The STROBE checklist is best used in conjunction with this article (freely available on the Web sites of PLoS Medicine at http://www.plosmedicine.org/, Annals of Internal Medicine at http://www.annals.org/, and Epidemiology at http://www.epidem.com/). Information on the STROBE Initiative is available at www.strobe-statement.org.

Does supervision moderate the relationship between job demands and psychological well-being for clinical psychologists?

Prepared in accordance with guidance for authors for:

Journal of Mental Health

Total word count: 7946

(Excluding footnotes, figures, tables, references and appendices)

Doctorate in Clinical Psychology

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Submitted May 2015

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Abstract

Background: High levels of job demands and low levels of job resources are known to impact on psychological well-being (PWB) in a work context. Clinical psychologists' (CPs) work with individuals with complex emotional difficulties is highly demanding, but they also receive rigorous training and supervision to help manage the emotional demands of their work which may lessen the impact on PWB.

Aims: The study investigated the relationship between job demands and PWB in CPs and whether the strength of the supervisory relationship moderated this relationship.

Methods: A quantitative online study including five standardised self-report measures was used. A total of 194 CPs from private and public practice settings participated. Regression analyses were carried out to establish whether job demands predicted PWB and whether the supervisory relationship moderated this relationship.

Results: Job demands were higher in this sample than established norms, but PWB levels were similar. Job demands predicted a significant amount of the variance in PWB: greater demands led to poorer PWB and higher burnout. The supervisory relationship was not found to moderate this relationship.

Conclusions: This study suggests a negative relationship between job demands and PWB, whereas the impact of the supervisory relationship in moderating these demands is not apparent. Possible reasons for this are discussed. Further research is required to investigate the individual components of supervision more specifically, and to establish how supervision is used by CPs of varying experience.

Declaration of interest: There are no known competing interests within this study.

KEYWORDS: well-being, supervision, supervisory relationship job demands, clinical psychologist

Psychological Well-Being

Research into the concept of psychological well-being (PWB) has flourished over the last 50 years. Multiple definitions of PWB have been offered and theories about the components, predictors and impact of good and bad PWB are numerous. One of the earliest comprehensive reviews of PWB was carried out by Diener (1984) where it was suggested that PWB refers to happiness, life satisfaction, and the experience of positive emotions (affect). A more recent and simplified conceptualisation was offered by Huppert (2009): "a combination of feeling good and functioning effectively" (p. 137). This definition will be used for the purpose of this research although it is acknowledged that many other definitions exist (e.g., Diener, 2000; Dodge, Daly, Huyton, & Sander, 2012; Robertson & Cooper, 2011; Ryan & Deci, 2001).

Psychological well-being within the health profession

The current research is interested in the PWB of clinical psychologists (CPs), in the work environment. Medical practice has long been classified as placing high demand upon employees (Karasek, 1979) and psychological problems are frequently reported among health care professionals (Agarwal & Sharma, 2011). Factors found to affect PWB in these professionals include autonomy (Johnson et al., 2012; McCann, 2010), job satisfaction (Agarwal & Sharma, 2011; Maslach, Schaufeli, & Leiter**,** 2001), job insecurity (Loretto et al., 2010), work demands, including long hours, high pressures, and large workload (Johnson et al., 2012; Leiter & Harvie, 1996; Loretto et al., 2010), number of hours worked (Burke, Oberklaid, & Burgess**,** 2005; Kirkcaldy et al., 2002), and social support from managers and colleagues (Johnson et al., 2012; Morse, Salyers, Rollins, Monroe-DeVita, & Pfahler, 2012).

When focussing on psychology professionals particularly, the literature is relatively sparse, although the findings are similar to those in other health professions. Cushway and Tyler's (1996) review of stress in CPs in the UK suggested important factors included job

satisfaction, coping strategies, threat to other roles and relationships, experience in the job, quality of relationship with partner and gender. A later review by Hannigan, Edwards and Burnard (2004) also explored stress (operationalised as well-being) in CPs in the UK. The review of seven studies found that 40% of CPs scored above the clinical threshold on the General Health Questionnaire (GHQ; Goldberg & Williams, 1988), which is used to measure psychological well-being and distress, and women scored significantly higher than men. The identified causes of stress were excessive workloads, professional self-doubt, poor management and lack of resources (these were not further defined, however).

Burke, Oberklaid and Burgess (2005) similarly found for Australian psychologists that those working in organisations that encouraged a good work-life balance reported better PWB and less occupational stress, with a stronger effect for women. Long hours and high pressures were also perceived to contribute to clinical psychologists' distress in a smaller qualitative study (Charlemagne-Odle, Harmon, & Maltby, 2014). However, diversity within the sample (such as length of time qualified, or work context) was not investigated, which is likely to have influenced participants' experiences.

Together, these studies suggest the factors contributing to psychological distress in CPs are predominantly related to work demands and pressures, but aspects such as maintaining a work-life balance, or having a supportive partner are helpful resources. However, as previously stated, there is only a small amount of research in this area for CPs at present.

Models of psychological well-being at work

Various models have been developed to understand PWB at work. One of the earliest was Karasek's Job Demands-Control (JDC) model of occupational strain (Karasek, 1979; see

figure 1). This context-specific model proposes that 'mental strain[1]' at work results from 'job-related stress', which is a combination of high psychological demands (such as having to work hard and fast) and little control or freedom to make decisions affecting work (known as decision latitude). Because the original model overlooked the impact of social relationships at work on PWB, it was developed to include a social support mechanism for coping with stress (Karasek, Triantis, & Chaudhry, 1982).

[insert Figure 1]

Demerouti, Bakker, Nachreiner, and Schaufeli (2001) went on to develop the Job Demands-Resources (JD-R) model (see figure 2). This similarly assumes that poor PWB at work is related to an imbalance between job demands for the individual (such as workload, time pressure and physical environment) and the resources (such as job control, autonomy, task variety, feedback, rewards, and social support) that they have to cope with such demands. Low resources can lead to disengagement and high demands can lead to exhaustion. The overall resulting effect is reduced PWB. Later studies have positively supported the model (Bakker, Demerouti, & Euwema, 2005; O'Driscoll & Brough, 2010) and it is considered applicable to a range of occupations (Bakker & Demerouti, 2006).

[Insert Figure 2]

Clinical supervision

Social support in various forms has been identified most frequently as a potential moderator of PWB at work, compared to other resources (Haines, Hurlbert, & Zimmer, 1991). For example, it has been suggested that a good relationship with a supervisor may help to ease the effects of job demands by providing support, understanding and alternative perspectives (Bakker & Demerouti, 2006). A study of employees from various professions

[1] Karasek's term 'mental strain' is synonymous with mental well-being (measured by factors such as depression, anxiety, nervousness, sleep problems and exhaustion).

found that supervisor behaviour made a significant contribution to employee well-being, over and above other predictive factors such as stressful events, home support and health (Gilbreath & Benson, 2004).

Clinical supervision[2] plays a significant role in the clinical psychology profession. The British Psychological Society (BPS) specifies that supervision is an essential component of professional development for CPs at all stages of their career, working in a variety of contexts (BPS, 2008). Its function is to discuss work-related issues for purposes of reflection and monitoring (BPS, 2008) and is considered the major influence on clinical practice for both qualified and trainee CPs (Lucock, Hall, & Noble, 2006). One of the roles of supervision is to facilitate supervisees in managing the emotional demands of their work. This aspect is represented in Proctor's (1986) model, which describes the three functions of supervision as:

1. Formative; to educate and guide professional practice.
2. Normative; to monitor and ensure client well-being.
3. Restorative; to support the supervisees' personal and professional well-being.

For these aspects to be successful, Proctor (1986) states that supervision has to be a two-way, collaborative process.

Bernard and Goodyear (2014) emphasise that supervision has the potential to have positive effects on supervisees. In terms of supervisees' experience, perceived good supervision has been found to increase self and therapeutic awareness (Bernard & Goodyear, 1992) and reduce supervisee anxiety (Friedlander, Keller, Peca-Baker, & Olk, 1986). In a large qualitative study, McMahon and Patton (2000) found that when supervisees (qualified counsellors) perceived their supervisory relationship as helpful and supportive, they reported

[2] The terms clinical supervision and supervision will be used interchangeably throughout the report.

better emotional well-being, reduced stress and were less burnt out. In addition, support from supervisors was found to be the most influential contributor to well-being in a study of school psychologists (Huebner, 1994). This supports Demerouti et al.'s (2001) JD-R model, which considers supervisor support as a job resource that can buffer against occupational stress and enhance PWB at work.

Conversely, negative supervisory experiences have been found to be detrimental to supervisees' development. Ramos-Sanchez et al. (2002) conducted a large-scale study with trainee CPs in America and found that negative supervisory experiences such as difficulties relating to interpersonal relationship and style, supervision tasks and responsibilities, and theoretical orientation impacted globally on supervisee development (e.g., loss of confidence in dealing with clients).

This research is interested specifically in the supervisory relationship an individual has with their supervisor. The BPS (2008) states that supervision requires "a relationship of mutual trust, respect and integrity which models best practice and sensitivity to the learning needs of the supervisee" (BPS, 2008, p.16). The supervisory relationship is seen as a critical component in the supervision process (Ladany, Ellis, & Friedlander, 1999; Ladany, Mori, & Mehr, 2012; Worthen & McNeil, 1996), and something that develops over time (Effstation, Patton, & Kardesh, 1990). Beinart (2004) suggests there is a need for a supervisee to feel supported by their supervisor, have good rapport, and feel satisfied with the supervision they are receiving. Important factors in the supervisory relationship have been established including the need for a safe base, structure, commitment, reflective education, a role model, and formative feedback (Palomo, Beinart, & Cooper, 2010). **The current research**

This study will investigate the relationship between job demands and CPs' PWB at work. As highlighted above, although a large body of research currently exists to show clear relationships between job stresses and individuals' PWB at work (e.g., Demerouti et al., 2001;

Karasek, 1979; Robertson & Cooper, 2011; Warr, 2007), a relatively small amount of research has been conducted within the profession of clinical psychology. In addition, given the importance of supervision within CPs' professional roles, and the impact that good and bad supervision can have on their work-related experiences and PWB, this research will also focus on whether the supervisory relationship can affect the relationship between job demands and PWB in this population. It would be expected that those with a stronger supervisory relationship would experience a weaker association between job demands and PWB.

There is a paucity of literature around predictors of PWB in qualified CPs in a work context, and around the role that clinical supervision serves in this. Furthermore, the research is timely given the current austerity measures in the UK, causing an increase in poor public mental health which is putting increased pressure on services (McGrath, Griffin & Mundy, 2015) and on the staff within them. It is, therefore, important to explore PWB which might then indicate how it could be improved.

In addition, as seen above, supervision is considered essential to the practice of clinical psychology and its value is well-documented and widely-recognised. However, it is unclear what *aspect* of supervision is important. Additional exploration of the impact of the supervisory relationship on supervisees may help to further demonstrate its valuable role.

Aims

This research will first investigate whether job demands affect PWB at work in CPs, and secondly investigate the role of the supervisory relationship in moderating the relationship between job demands and PWB in this population. It is hypothesised that higher job demands will negatively affect PWB, and that the strength of the supervisory relationship will act as a buffer between these job demands and PWB and thus moderate this relationship.

Method

Design

A quantitative online survey was used to look at the relationship between job demands and PWB and whether this was moderated by the strength of the supervisory relationship. The survey required CPs to complete five standardised self-report measures and included a brief questionnaire gathering information about demographics and job characteristics. The survey was piloted on a small sample of CPs to check relevance, length and readability.

Participants

Participants could be fully qualified CPs of any age, gender and ethnicity working in the UK NHS or private sector, and working at any grade. Participants had to have received at least four sessions of supervision as it has been suggested that the bond between supervisee and supervisor begins to form after three sessions of supervision (Ladany, Ellis, & Friedlander, 1999). This supervision must have been delivered by a CP to maintain consistency.

Three hundred and three clinical psychologists accessed the online survey (details of which are below), however, 105 participants ceased participation before completing any of the measures. In addition, four participants had a high proportion of their data missing, so were excluded from the analysis; the final number of participants was 194.

Table 1 provides demographic details of the sample. One hundred and sixty three participants were female (84%) and 31 were male (16%). This is reflective of previous CP data (BPS, 2004; Clearing House, 2015). In terms of ethnicity, the majority of participants (93%) described themselves as White; again, reflective of the CP population (BPS, 2004; Clearing House, 2015). Mean age of the sample was 38.26 years (range 26-60, SD 7.63). Geographically, there was representation from across the UK, although the vast majority of participants were from the northwest of England.

[insert Table 1]

Procedure

The survey was made available as an online questionnaire using Qualtrics - a computer package designed to collect data (http://www.qualtrics.com).

The recruitment strategy was twofold:

1) Invitation to participate in the online study was sent via email to all stakeholders on the mailing list of the Doctorate in Clinical Psychology (DClinPsy) Programme at the principal investigator's host academic institution (see ethics section appendix 4-G for email). The mailing list contained approximately 700 contacts, largely made up of practising CPs. It was clearly stated on the accompanying information that there was no obligation to participate. A reminder email was sent to prompt participation after one month (see ethics section appendix 4-H).
2) Electronic social media was also used to recruit participants, namely Facebook (https://www.facebook.com) and Twitter (https://www.twitter.com). The Division of Clinical Psychology (DCP), a branch of the BPS, shared a link to the research on their social media sites. Repeated postings were made to prompt participation. See ethics section appendix 4-I for text.

The email to potential participants and social media postings contained brief information about the research and an electronic link to the study. By clicking on this link, participants were taken to the online study page, where they could view a downloadable participant information sheet (see ethics section appendix 4-J) and a consent form (see ethics section appendix 4-K). Participants were able to cease participation in the study at any point during questionnaire completion, but were advised that their responses so far would be submitted, in order to capture as much data as possible. On completion of the survey,

participants could view a downloadable participant debriefing sheet (ethics section appendix 4-L) and were given an option to later receive a summary of the research. A snowball sampling technique was employed to maximise recruitment opportunities; participants were able to share the link to the study with fellow CPs if they wished.

The data collected were anonymous; participants were identified by a unique reference number assigned to them when completing the questionnaires on Qualtrics. Due to this anonymity, it was not possible for participants to withdraw their data once they had completed the questionnaires. Data were stored on the Qualtrics software, which is accessed via the Internet; access to this was password-protected with only the principal investigator and study supervisors having access. Results were later exported to IBM SPSS Statistics for Macintosh, Version 22.0, a software package for statistical analysis.

Measures

Figure 3 shows the model that was tested including the measures used.

[Insert Figure 3]

Measure of Job Demands (Predictor Variable)

The Job Content Questionnaire (JCQ; Karasek et al., 1998) is a widely-utilised self-report questionnaire used to provide an overall measure of the psychological and social demands of a job. It has been used to predict job-related stress in the US and has a strong theoretical background based on Karasek's (1979) Job Demands-Control (JDC) model. The JCQ's six subscales may be selected and combined according to individual use of the scale (Karasek et al., 1998). For the purposes of this study, it was intended that the following subscales would be used:

- *Decision Latitude*, consisting of *Skill Discretion* (6 items) and *Decision Authority* (3 items)

- *Psychological Job Demands* (5 items)
- *Co-worker Social Support* (6 items)
- *Job Insecurity* (6 items)

See appendix 4-C of the ethics section for the specific questions used. Items are scored using a Likert scale in which 1= *strongly disagree* and 4 = *strongly agree*, with some items needing reverse scoring. Sum scores were calculated for each of the scales according to existing recommendations (Karasek et al., 1998). High scores represent a high level of the respective variable.

Cronbach's alpha reliability coefficients of the individual sub-scales have been calculated in several countries (U.S., Canada, Netherlands and Japan) across a range of professions: Decision Latitude: α=0.81, Psychological Job Demands: α=0.63, Job Insecurity: α=0.61, and Co-worker Social Support: α=0.75 (Karasek et al., 1998). Internal consistencies within the present study were of similar levels: Decision Latitude: α=0.75, Psychological Job Demands: α=0.76, Job Insecurity: α=0.53, and Co-worker Social Support: α=0.83. However, alpha levels <0.70 are not considered acceptable (Nunnally & Bernstein, 1994; Streiner, 2003), therefore the Job Insecurity sub-scale was not included in further analysis.

Measure of the Supervisory Relationship (Moderator Variable)

The Supervisory Relationship Questionnaire (SRQ; Palomo, Beinart, & Cooper, 2010) is a self-report measure of the supervisory relationship from the perspective of the supervisee, originally tested on trainee CPs (n=284; Palomo, Beinart, & Cooper, 2010). The scale consists of 67 items from six subscales:

- *Safe base* (15 items)
- *Structure* (8 items)
- *Commitment* (10 items)

- *Reflective Education* (11 items)
- *Role model* (12 items)
- *Formative feedback* (11 items)

It is scored from 1 to 7 using a Likert scale, where 1 = *strongly disagree* and 7 = *strongly agree*. A total SRQ can be gained by totalling scores for all items and a high score is considered reflective of a good supervisory relationship. The internal consistency of the SRQ is reported to be high (α=0.98), item total correlation for each subscale is high, and the scale has been found to have good test-retest reliability and good construct (divergent and convergent) validity (Palomo, Beinart, & Cooper, 2010). Appendix 4-D in the ethics section provides full details of the scale. Internal consistency reliability within the present sample was also excellent: α=0.98. In this project only the SRQ total will be used for analysis purposes.

This scale has previously only been validated on trainee CPs. An exploratory factor analysis specifying six factors resulted in a factor structure which was broadly similar to that reported by Palomo, Beinart and Cooper (2010). Thus it was deemed valid for the current population. Mean scores were also similar to the original sample (see below).

Measures of PWB (Dependent Variables)

The Job-related Affective Well-being Scale (JAWS; Van Katwyk, Fox, Spector, & Kelloway, 2000) is a context-specific measure of PWB. It is a self-report scale containing 20 items which measures affective well-being in relation a person's job. Response choices range from 1 = *almost never* to 5 = *extremely often or always*. The scale includes a wide variety of emotional experiences, both negative (10 items) and positive (10 items). Total positive and total negative scores were calculated, with high scores indicating a high level of positive or negative affect. The overall internal consistency of the JAWS is reported to be high for both

positive affect (α=0.90) and negative affect (α=0.88). The present study found similar reliability values (positive affect α=0.87 and negative affect α=0.86). A copy of the measure is provided in the ethics section, appendix 4-E.

The General Health Questionnaire-12 (GHQ-12; Goldberg & Williams, 1988) was also used to gain a context-free measure of well-being. The GHQ-12 is an extensively used short screening instrument used to measure well-being in the general population by assessing the respondent's current state and asks if that differs from his or her usual state. It has good validity and reliability across cultures (ranging from α=0.82 to α=0.86). The 12-item measure is scored using a Likert Scale of 0, 1, 2, 3 with 0 = *not at all* and 3 = *more than usual*. A copy of this measure cannot be reproduced due to copyright laws, but information can be found on the publisher's website (http://www.gl-assessment.co.uk). Internal consistency reliability in the present study was good at α=0.89.

The Maslach Burnout Inventory–General Survey (MBI-GS; Schaufeli, Leiter, Maslach, & Jackson, 1996) is a context-specific measure of PWB at work, measuring burnout that captures three dimensions: exhaustion (EX), cynicism (CY), and professional efficacy (PE) (occupational achievements). It has been found to have good psychometric properties and reliability coefficients of α=0.89 (EX), α=0.76 (PE) and α=0.80 (CY) (Maslach, Jackson, & Leiter, 1996). The 16 items in the scale ask respondents to describe their feelings on a 7-point Likert scale ranging from 'never had those feelings' to 'having those feelings a few times a week'. A copy of this scale cannot be reproduced due to copyright laws but information can be found on the publisher's website (http://www.mindgarden.com). Internal consistency reliability in the present study was good at α=0.91 (EX), α=0.82 (PE) and α=0.88 (CY).

Additional information

Participants were asked to provide brief demographic details, along with where they worked, their role, length of service, qualifications and brief details about supervision (see appendix 4-F, ethics section). Participants who worked in more than one job or had more than one supervisor were asked to specify this and choose one.

Analysis

As part of the exploratory analysis, one-way analysis of variance (ANOVA) was used to look at differences on outcome measures across categorical variables. One-sample t-tests were conducted to compare the current sample to other samples. Pearson correlations were calculated between all continuous variables to look for significant relationships. Multiple regressions with three job stresses as predictors and each of PWB measures as outcomes were calculated. Checks indicated that assumptions for regression were not violated and co-linearity was not found to be significant.

Moderation analysis (Baron & Kenny, 1986; Field, 2013) was conducted to examine relationships between each of the predictor variables (job demands) and outcome variables (PWB measures), and discover whether the supervisory relationship moderated this relationship (see Figure 3). Multiple regressions can be used to examine moderator effects (Baron & Kenny, 1986) and thus several regressions were conducted with each measure of PWB acting as an outcome variable. Predictors were job stresses (psychological job demands, decision latitude and co-worker social support), supervisory relationship and an interaction term (to explore the moderating effect). Moderation was calculated using the Hayes (2013) PROCESS macro from http://www.afhayes.com.

Sample size

No previous research has directly examined this model in order to provide an estimate of effect size (although effect sizes for the direct relationships between supervision and well-being, and job demands and well-being, are moderate to large: Bakker, Demerouti, &

Euwema; 2005; Gilbreath & Benson, 2004). However, as moderation effect sizes are usually small in comparison to main effects, for this study to be powered to find a large effect size (suggested as $f^2 = 0.025$; Kenny, 2013) the power analysis suggested that approximately 300 participants would be required (Kenny, 2013).

Data Cleaning

Subscale and overall scale scores were calculated where necessary. A small proportion of participants had random missing data points (0.1%) throughout their data set. This was dealt with according to the authors' guidelines for the measures (Goldberg & Williams, 1988). When such guidance was not given, mean values were assigned, based on the individual participants' existing scores for each subscale within a measure (Cohen & Cohen, 1985). This maximised all available information rather than excluding data points, and although this can be known to affect variance in large samples (Howell, 2007), it is not considered a problem in the current study due to the very small amount of missing data.

Skewness and kurtosis values (Cramer, 1998; Cramer & Howit, 2004; Doane & Seward, 2011) were calculated and visual exploration of histograms, box plots and normal Q-Q plots was carried out to check normality of the data. Three outliers were identified (defined as >2.5SD above or below the mean; Ratcliffe, 1993) and were recalculated using the Windsorizing technique: replacing outliers with the next highest or lowest score that is not an outlier (Field, 2013).

Data that were not normally distributed were transformed using standard square root transformations (general well-being from the GHQ and cynicism from the MBI). The SRQ variable and professional efficacy (PE) variable of the MBI remained skewed despite these transformations, however it has been suggested that normality is not critical for a valid regression to be calculated (Lumley, Diehr, Emerson, & Chen, 2003) so the untransformed data were used for these measures.

Results

Descriptive statistics

Table 2 displays results for the categorical variables. The majority of the sample worked within the public sector for the NHS (n=157; 80.9%). One hundred and eighty six participants answered the survey in relation to their NHS job, and eight answered in relation to their private job. For those working in the NHS, the greatest number of participants were at pay band 8a (41.8%). Seven participants did not provide this information. In terms of role, the majority of participants (63.9%) spent their time predominantly doing clinical work.

[Insert Table 2]

Continuous demographic and job characteristics variables are displayed in Table 3. The average number of hours worked per week was 33.34 (range=2–50, *SD*=8.05). The mean number of years qualified was 8.72 (*SD*=7.14, range 1–30), and the average length of time in the current role was 4.17 years (range=0.25 – 15.5, *SD*=3.67). Participants received an average of 2.16 hours of supervision per month (range=0.25–12.5, *SD*=1.51). Duration of current supervisory relationships ranged from 0.13 years to 11 years (*M*=2.66, *SD*=2.44).

[Insert Table 3]

Mean values of predictor, moderator and outcome variables are presented in Table 4, along with comparative scores from previous studies. Compared to a U.S. and Quebec general population sample (Karasek et al., 1998), job demands were higher in the current sample; one sample t-tests showed significant differences for all three subscales of the JCQ: decision latitude $t(193)=-24.23$, $p<.001$, psychological job demands $t(193)=12.60$, $p<.001$, and co-worker social support $t(193)=-2.52$, $p<.01$.

For the SRQ, the current sample perceived the relationship to be slightly better than the original sample (Palomo, Beinart, & Cooper, 2010; $t(193)=2.68$, $p<.01$). See appendix 2-B for t-test SPSS outputs.

In terms of PWB, differences were not significant: results for the JAWS showed the current sample had very similar levels of positive and negative affect towards their jobs as those in the original sample from which normative data has been taken (Van Katwyk, Fox, Spector, & Kelloway, 2000). Levels of burnout in the current study were also very similar to those found in other studies (Maslach, Jackson, & Leiter, 1996). Finally, in terms of general well-being, mean scores for the GHQ-12 were similar but slightly higher (meaning poorer PWB) than those found in a sample of UK clinical mental health staff (Prosser et al., 1996). A cut-off of 14+ has been suggested for assessing for depression (Shelton & Herrick, 2006), which the sample mean does not exceed.

[insert Table 4]

Categorical variables

Next it was checked whether the above variables (predictor, moderator and outcome) varied according to demographics or job characteristics. There were no significant differences between gender and ethnicity (the sample was highly skewed towards females; 84%, and 'White British'; 82%) so the sample was henceforth regarded as a whole.

There were no significant differences on the predictor, moderator and outcomes variables when comparing participants' banding, work setting, role and contract status, with two exceptions: as expected, those participants whose role primarily consisted of managerial work or a combination of managerial and clinical work had higher levels of decision latitude (M=64.67 and M=61.36, respectively) than those carrying out mainly clinical work (M=28.71; $F(2,191) = 4.76$, $p < .01$). Additionally, there was a small significant difference between the amount of positive and negative emotion participants felt about their jobs

according to practice setting (as measured by the JAWS); those working in private practice or a combination of private and in the NHS experienced higher amounts of positive emotion in relation to their job ($F(2,191) = 3.62$, $p < .05$) and lower amounts of negative emotion in relation to their job ($F(2,191) = 3.25$, $p < .05$). However, these differences were small and since they were not found on the other measures of PWB (MBI-GS or GHQ-12), the sample was treated as a whole. See appendix 2-C for SPSS output of ANOVA results.

Correlational analysis

Pearson correlations were conducted to look for significant relationships between predictor, moderator and outcome variables and demographics and job characteristics that were measured on a continuous scale (see Table 5). Although some significant correlations with demographics and job characteristics were found, these were generally weak, but most notably, time in current job role was significantly related to all measures of psychological well-being: the strongest relationship was with positive emotion (JAWS) felt towards job ($r = -.29$, $p < .01$), showing that the longer CPs had been working in their current job role, the less positively they felt about it.

[Insert Table 5]

Pearson correlations were then conducted between predictor variables (job demands: decision latitude, psychological job demands, and co-worker social support), the moderator variable (supervisory relationship) and outcome variables (PWB: overall well-being, burnout, and negative/positive emotion about job). These are presented in Table 6 with significant correlations highlighted.

[Insert Table 6]

As can be seen from Table 6, the job demands were significantly related to all PWB variables. Broadly speaking, this indicates that increased job stress is related to poorer PWB.

Most notably, one of the strongest correlations was between psychological job demands and the burnout dimension exhaustion, (r = .42, p < .01), showing that as psychological job demands increase, level of exhaustion increases. Psychological job demands also correlated quite strongly with the amount of negative emotion felt towards a job, (r =.37, p < .01) and with overall well-being as measured by the GHQ, (r =.36, p < .01). A fairly strong relationship was also found between decision latitude and burnout dimension cynicism, (r = -.36, p < .01) showing that cynicism about job increases as amount of decision latitude decreases.

The quality of the supervisory relationship was also significantly related to all PWB variables, meaning that PWB was better when supervisory relationships were perceived as stronger. Although these relationships were all significant at the p < .01 level, correlations were generally quite weak. Strongest relationships existed between the SRQ and the cynicism dimension of burnout (r = -.28, p < .01) showing that amount of cynicism decreased as quality of supervisory relationship increased, and between SRQ and JAWS-negative, (r = -.27, p < .01) showing that amount of negative emotion towards job decreased as quality of supervisory relationship increased.

Regression analysis

To test the first hypothesis, and establish whether job demands significantly predicted psychological well-being, multiple regression analyses were carried out. Predictor variables of decision latitude, psychological job demands, and co-worker social support were entered based on the theoretical model outlined above[3]. All six variables of PWB were tested separately (model 1=general well-being, model 2=exhaustion dimension of burnout, model 3=cynicism dimension of burnout, model 4=professional efficacy dimension of burnout,

[3] As time in current job was significantly related to all the PWB variables, the models were also run with this as an additional predictor, but this addition made almost no difference to the results so the current models are presented for simplicity.

model 5=positive emotion associated with job, model 6=negative emotion associated with job). Table 7 presents the results of the regression analysis.

[*insert Table 7*]

For all measures of PWB, the job demands significantly predicted PWB, with models accounting for 16% to 27% of the variance. Model 6 was the most significant, where job demands were able to account for 27% of the variance in negative affect felt towards the job as measured by the JAWS, $F(3, 190) = 24.34$, $p < .001$, $R^2_{adj} = .27$. In the model, decision latitude ($\beta = -.25$, $p < .01$), psychological job demands ($\beta = .35$, $p < .01$), and co-worker social support ($\beta = -.24$, $p < .01$) were all strong predictors of negative emotion felt towards the job. For all PWB measures, decision latitude and psychological job demands were stronger predictors than co-worker social support.

Moderation analysis

To test the second hypothesis of whether the supervisory relationship moderates this relationship between job demands and PWB in CPs, a moderation term (SRQ total) was then added to the models. Each predictor variable (decision latitude, psychological job demands, and co-worker social support) was moderated individually, for each separate measure of PWB. None of the interaction terms for any of the moderated models were significant.

Table 8 displays the results of the moderation analysis for one of the outcome variables for illustrative purposes (positive emotion associated with job; JAWS+). The same process was carried out for all measures of PWB (JAWS-, GHQ-12, and burnout dimensions EX, CY, PE). The moderation term was not significant in any of the moderated models.

[*Insert Table 8*]

Discussion

Main findings

The aims of the current study were twofold: first, to investigate whether a relationship existed between job demands and PWB in qualified CPs and second, to examine whether the supervisory relationship moderated this relationship, i.e. buffered against the effects job demands can have on PWB. To date, much of the literature on clinical supervision in CPs has been conducted in the U.S. (Cushway & Knibbs, 2004), and a large proportion has been conducted on trainees rather than qualified CPs (Stolenberg, McNeill, & Crethar, 1994). The current study is thus a valuable contribution to the evidence base.

Hypothesis one was supported: job demands as measured by the JCQ (decision latitude, psychological job demands, and co-worker social support) were significantly related to all measures of PWB and predicted significant amounts of variance in PWB outcome variables. This is consistent with previous literature both generally (e.g., Demerouti et al., 2001; Karasek, 1979; Robertson & Cooper, 2011; Warr, 2007),within CPs (Cushway & Tyler, 1996; Hannigan, Edwards, & Burnard, 2004), and with Karasek's Job Demands-Control (JDC) model (Karasek, 1979). In the current study, greater PWB was predicted by higher decision latitude and lower psychological job demands.

Job demands were found to be higher for CPs in this sample than other population norms. However, levels of PWB in the current sample were comparable to those found in previous samples, showing that CPs are no more burnt out (on all three dimensions of burnout), no more psychologically distressed (as measured by the GHQ-12), and have similar levels of positive and negative affect towards their jobs as other populations (Maslach, Jackson, & Leiter, 1996; Prosser et al., 1996; Van Katwyk, Fox, Spector, & Kelloway, 2000). Given the results surrounding their higher job demands, the high level of emotionally-laiden work CPs are known to deal with (Howard, 2008) and current service pressures in the UK, this is surprising. It would be reasonable to expect CPs to be experiencing poorer levels of

PWB as a combined result of the above. However, CPs are trained to manage high levels of distress and they receive clinical supervision which is known to serve a restorative function (amongst others) (Proctor, 1986); it could be that these help CPs to manage the emotional demands of work and contain anxieties (Friedlander et al., 1986).

The results did also show that the quality of the supervisory relationship significantly correlated with PWB, in that the better the supervisory relationship was perceived to be, the greater the PWB. This supports Bernard and Goodyear's (2014) claim that clinical supervision has positive effects on supervisees. Previous research has also found this to be the case (Cushway, Tyler, & Nolan, 1996; Huebner, 1994; McMahon & Patton, 2000; Sterner, 2009). Social support (both from a supervisor or from co-workers) is termed a job 'resource' which can contribute to PWB in additional to job demands and other resources (Demerouti et al., 2001).

The second hypothesis tested whether the supervisory relationship had the ability to moderate the effects job demands can have on PWB. However, no effect was found, showing that the supervisory relationship did not buffer the effects of job demands on PWB in this sample of qualified CPs. This was the case for all job demands and all measures of PWB. Given the existing literature the results are surprising. For example, Bakker and Demerouti (2006) suggested that a good relationship with a supervisor can ease the effects of job demands by providing support, understanding and alternative perspectives. Gilbreath and Benson (2004) also found that supervisor behaviour made a statistically significant contribution to PWB in employees in a variety of occupations (e.g., nurses, social workers, nutritionists and clerks), over and above several other variables, demonstrating the substantial influence supervisors can have on employees' well-being.

There are a number of possible reasons why the supervisory relationship was not found to moderate the relationship between job demands and PWB in this sample. While it

has been suggested that effective supervision has the potential to help the supervisee utilise resources, manage workload and stress, facilitate coping, and consequently lessen the effects of stress and potential burnout (Hawkins & Shohet, 2000; Scaife & Walsh, 2001; Spence et al., 2001), it is unclear what aspects of supervision might be important (Spence et al., 2001). The supervisory relationship was originally investigated because models that have overlooked the relationship have been criticised for being over-simplistic (Holloway, 1995) and because of the importance placed on the therapeutic relationship in clinical literature (Norcross, 2011). However, it is possible that other aspects of supervision may be more important, for example the theoretical supervision model used, the content, or the supervisor's theoretical orientation.

It is known that supervision serves three functions according to Proctor (1986): formative, normative, and restorative. Restorative supervision is described as the supportive function where the supervisor attends to the emotional effects of the work for the supervisee (Inskipp & Proctor, 1993). Restorative supervision is known to help supervisees manage work stresses and act as a form of containment. Although one of the main functions of supervision is to be restorative, there is consensus in the literature that the predominant purpose of supervision is to protect client welfare (Cushway & Knibbs, 2004; Scaife & Walsh, 2001). It is possible that the current research has overly emphasised the restorative aspect of supervision, and exaggerated the influence supervision can have on helping supervisees manage work demands. This may explain the lack of effect found in the moderation analysis.

Second, CPs may be fearful of disclosing experiences of stress in a work context and may thus not use supervision to manage this. It is notoriously competitive to get onto training courses in the first place, which seems to foster a tendency to strive. It is also known that CPs often display 'perfectionist' qualities (Deutsch, 1984; Freudenberger, 1974), and this can correlate with greater stress levels (D'Souza, Egan, & Rees, 2011). To compound this, CPs

have described a culture of high workloads, hard-working levels and limited breaks, which is tolerated unconditionally (Charlemagne-Odle, Harmon, & Maltby, 2014). Charlemagne-Odle, Harmon, & Maltby (2014) looked at qualified UK CPs' experiences of personal distress in a recent qualitative study. One of the main themes to emerge was a reticence to disclose distress to colleagues (including supervisors) through fear of being compared unfavourably with fellow CPs or being viewed as weak. There was a theme of wanting to maintain the identity of 'a good psychologist', and of the 18 subthemes generated, use of supervision was not referred to at all in the experience and management of distress for CPs.

In addition, it is possible a moderation effect was not found in the current study due to the sample size or methodology. For moderation analysis (but not regression), the sample was underpowered; however, given the consistent null results for all outcome variables and all job demands, it seems unlikely that a larger sample would have resulted in very different findings.

The model may have been significant if tested in another population. For example, qualified CPs may use supervision differently to trainee or newly qualified CPs. The supervisory relationship may thus have a variable amount of influence depending on developmental status (e.g., trainees or newly qualified CPs might see it as more of a resource). It has been found that supervision is ranked as one of the top five coping strategies for trainee CPs, fulfilling both a sustaining and learning function (Cushway, 1992). Furthermore, whilst trainees are developing their experience, they use supervision to nurture them and help guide their emotional development (Kaslow & Rice, 1985), perhaps to a greater extent than would a qualified CP.

Findings from a systematic review do indeed suggest that experience of supervision changes as CPs move from trainee to qualified levels (Stolenberg, McNeill, & Crethar, 1994). For example, as trainees progressed, their needs for structure and feedback reduced (McNeill,

Stolenberg, & Pierce, 1985; Tracey, Ellickson, & Sherry, 1989), they advanced from dependency on supervisor towards autonomy (Rabinowitz et al., 1986), and feelings of ambiguity in their job role gradually reduced (Olk & Friedlander, 1992). Ladany, Ellis and Friedlander (1999) also note an increase in self-efficacy. Given the evidence on the changing needs of therapists, and the shift in how they use supervision, it would be interesting to repeat the current study with trainees or newly qualified staff where a different result may be found.

However, although the function of supervision changes as experience develops, this does not mean that its importance decreases. Supervision is considered the major influence on clinical practice for both qualified and trainee CPs (Lucock, Hall, & Noble, 2006), hence why CPs at all levels were included in the study. Studies have shown that more experienced therapists still value supervision highly, but use it differently, for example: Stolenberg, McNeill and Delworth's (1998) developmental model shows that supervisees' needs change as experience develops, but that supervision remains important in facilitating development and supervisors should adapt their approach to support this (Beinart & Clohessy, 2009).

Clinical implications

This study has found that job demands have a significant relationship to PWB. Although this is not a unique relationship for CPs, it is important to know this is the case both for CPs themselves, and for organisations at a wider level. Since increased decision latitude and reduced psychological job demands have been found to lead to increased well-being in this population, it would be beneficial to the workforce of CPs if autonomy and control were increased where possible, and additional support was given to manage psychological job demands.

Furthermore, a good supervisory relationship has been found to have a positive association with PWB for CPs. This indicates the important role supervision can play in facilitating PWB in the work environment, irrespective of experience level. Social support

from colleagues was also found to contribute to PWB, further highlighting the importance of social factors in work-related PWB.

However, the supervisory relationship was not found to be capable of moderating the relationship between job demands and PWB in this sample. It is possible that when qualified, CPs use supervision less for emotional containment because they are more experienced, unlike trainees (Kaslow & Rice, 1985). The positive relationship between the supervisory relationship and PWB shows that supervision is helpful, but perhaps not to the extent originally hypothesised, or perhaps that other aspects of supervision are important, which have not been measured in this study. It is also possible that qualified CPs are not using supervision to disclose experiences of stress, thus not giving it the opportunity to help moderate these effects. If this is the case, a change in culture needs to occur to help CPs feel more able to share distress and not be judged negatively as a result.

Limitations and further research

The current research was not without its limitations. In terms of participants, it is possible that people may have disregarded the survey if they had recently had a bad experience at work, as they may have been unwilling to give up their time to complete such a survey. This means there could be a bias in the type of participants who chose to respond.

Additionally, participants may have had lots of different supervision experiences but for this study could only focus on one relationship. During CP training in the UK, over half of the three-year training is spent in supervised clinical practice (BPS, 2013), however, once qualified, frequency of supervision decreases, duration of sessions may reduce, and structures change whereby supervision becomes less hierarchical and peer supervision is more common (Beinart & Clohessy, 2009). These changes are more marked the greater the level of CP's experience (corresponding with UK NHS banding). Psychologists who received peer supervision at a non-hierarchical level, or in small groups, would have had a very different

supervision experience to one-to-one, hierarchical supervision (which the study was aiming to capture), but may have still filled in the survey. Although the current study included all levels of CPs, there were not enough at each banding to be able to compare results. Since the majority of CPs who took part in the current study were working at band 8a level, this could provide another explanation for the lack of findings regarding the moderating effects of supervision. Future research could compare peer and hierarchical supervision (conducted in groups or on a one-to-one basis) to look for differences that are likely to exist.

In terms of measures used, all were based on self-report from the perspective of the supervisee, possibly subjecting the results to bias. For example, a recent positive or negative experience at work may have falsely skewed how participants responded to the measures and be unrepresentative of their normal perceptions. Also, different people are likely to have different thresholds for what they consider to be stressful at work, or have different coping mechanisms to manage the occupational adversities, thus indicating the complexity of measurement in this area. An interesting follow-up study would be to compare views of supervisees and supervisors and look for similarities and discrepancies in their perceptions. This would provide some indication of how effective supervision measures are in capturing the quality of the supervisory relationship.

Furthermore, it is not clear how supervision is currently being used or delivered. Since the BPS does not suggest a particular supervision model, nor align with any particular definition (BPS, 2003), it is likely that supervision varies hugely from one CP to another. Although the current research has placed a strong focus on the supervisory relationship and the restorative aspect of supervision, it is possible that different CPs have a different focus, perhaps more on the normative or formative aspects. To further test what aspects of supervision are important, it would be useful to use additional measures to more holistically capture the concept of supervision including supervisee satisfaction, adherence to

supervisee's goals, perceived efficacy of supervision, impact on client and/or supervisee, and also those listed above (p 2-24).

Conclusions

This study has shown that CPs have higher job demands than the normal population, but similar levels of PWB. It provides evidence for the negative relationship between job demands and PWB, and the positive relationship between the quality of the supervisory relationship and PWB in CPs. However, the supervisory relationship was not able to buffer the effects of job demands, so further research is required to explore how supervision is used by CPs of varying experience, and more closely examine what factors are important for maintaining PWB in this population.

References

Agarwal, M., & Sharma, A. (2011). Effects of Hospital Workplace Factors on the Psychological Well-being and Job Satisfaction of Health Care Employees. *Journal of Health Management*, *13*(4), 439-461. Doi: 10.1177/097206341101300405

Bakker, A. B., & Demerouti, E. (2006). The job demands-resources model: State of the art. *Journal of managerial psychology*, *22*(3), 309-328. Doi:10.1108/02683940710733115

Bakker, A. B., Demerouti, E., & Euwema, M. C. (2005). Job resources buffer the impact of job demands on burnout. Journal of occupational health psychology, 10(2), 170. Doi: org/10.1037/1076-8998.10.2.170

Baron, R. M., & Kenny, D. A. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of personality and social psychology*, *51*(6), 1173. Doi: 10.1037/0022-3514.51.6.1173

Beinart, H. (2004). Models of supervision and the supervisory relationship and their evidence base. In I. Fleming & L. Steen (Eds.), *Supervision and clinical psychology: Theory, practice and perspectives* (pp. 36–50). Hove: Brunner-Routledge.

Beinart, H., & Clohessy, S. (2009). Supervision. In H. Beinart, P. Kennedy, & S. Llewelyn (Eds.), *Clinical psychology in practice* (pp. 319-335). Chichester: John Wiley & Sons.

Bernard, J. M., Goodyear, R. K., & Bernard, J. M. (1992). *Fundamentals of clinical supervision.* New Jersey: Pearson Education, Inc.

Bernard, J. M., Goodyear, R. K., & Bernard, J. M. (2014). *Fundamentals of clinical supervision, 5th Edition.* New Jersey: Pearson Education, Inc

British Psychological Society (BPS) Division of Clinical Psychology (2003). *Policy Guidelines on Supervision in the practice of Clinical Psychology.* Leicester: BPS. Retrieved from:

http://www.conatus.co.uk/assets/uploaded/downloads/policy_and_guidelines_on_supervision.pdf

British Psychological Society (BPS). (2004). *Widening access within undergraduate psychology education and its implications for professional psychology: Gender, disability and ethnic diversity.* Leicester: BPS. Retrieved from: http://dcp.bps.org.uk/document-download-area/document-download$.cfm?file_uuid=1B299121-7E96-C67F-D2C54425655A6BE8

British Psychological Society (BPS). (2008). *Generic Professional Practice Guidelines: 2nd Edition.* Leicester: BPS. Retrieved from: http://www.bps.org.uk/sites/default/files/documents/generic_professional_practice_guidelines.pdf

British Psychological Society (BPS). (2013). *Accreditation through partnership handbook Guidance for clinical psychology programmes.* Leicester: BPS. Retrieved from: https://www.ucl.ac.uk/dclinpsy/training-handbook/chapters/handbook-pdf/Appendix4r2010

Burke, R. J., Oberklaid, F., & Burgess, Z. (2005). Organizational values, job experiences and satisfactions among female and male psychologists 1. *Community, Work and Family*, *8*(1), 53-68. Doi: 10.1080/1366880052000324002

Charlemagne‐Odle, S., Harmon, G., & Maltby, M. (2012). Clinical psychologists' experiences of personal significant distress. *Psychology and Psychotherapy: Theory, Research and Practice*. Doi: 10.1111/j.2044-8341.2012.02070.x

Clearing House (2015). Clearing House for Postdoctorate Courses in Clinical Psychology. http://www.leeds.ac.uk/chpccp/

Cohen, J., & Cohen, P. (1985). *Applied Multiple Regression and Correlation Analysis for the Behavioral Sciences (2nd edition.).* Mahwah, NJ: Lawrence Erlbaum Associates.

Cramer, D. (1998). *Fundamental statistics for social research.* London: Routledge.

Cramer, D., & Howitt, D. (2004). *The SAGE dictionary of statistics.* London: SAGE.

Cushway, D. (1992). Stress in clinical psychology trainees. *British journal of clinical psychology*, *31*(2), 169-179. Doi: 10.1111/j.2044-8260.1992.tb00981.x

Cushway, D., & Knibbs, J. (2004). Trainees' and supervisors' perceptions of supervision. In I. Fleming & L. Steen (Eds.), Supervision and clinical psychology: Theory, practice and perspectives (pp. 162–185). Hove: Brunner-Routledge.

Cushway, D., & Tyler, P. (1996). Stress in clinical psychologists. *International Journal of Social Psychiatry*, *42*(2), 141-149. Doi: 10.1177/002076409604200208

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

D'Souza, F., Egan, S. J., & Rees, C. S. (2011). The relationship between perfectionism, stress and burnout in clinical psychologists. *Behaviour Change*, *28*(01), 17-28. Doi: 10.1375/bech.28.1.17

Demerouti, E., Bakker, A. B., Nachreiner, F., & Schaufeli, W. B. (2001). The job demands-resources model of burnout. *Journal of Applied psychology*, *86*(3), 499. Doi: 10.1037/0021-9010.86.3.499

Deutsch, C.J. (1984). Self-reported sources of stress among psychotherapists. *Professional Psychology: Research and Practice, 15,* 833–845. Doi.org/10.1037/0735-7028.15.6.833

Diener, E. (1984). Subjective Well-Being. *Psychological Bulletin, 95(3),* 542-575.

Doi:10.1037/0033-2909.95.3.542

Diener, E. (2000). Subjective well-being: The science of happiness and a proposal for a national index. *American psychologist, 55*(1), 34-43. Doi.org/10.1037/0003-066X.55.1.34

Doane, D. P., & Seward, L. E. (2011). Measuring Skewness: A forgotten statistic. *Journal of Statistics Education, 19*(2), 1-18. Retrieved from: www.amstat.org/publications/jse/v19n2/doane.pdf

Dodge, R., Daly, A. P., Huyton, J., & Sanders, L. D. (2012). The challenge of defining well-being. *International Journal of Well-being*, *2*(3). Doi:10.5502/ijw.v2i3.4

Efstation, J. F., Patton, M. J., & Kardash, C. M. (1990). Measuring the working alliance in counselor supervision. *Journal of Counseling Psychology*, *37*(3), 322. Doi.org/10.1037/0022-0167.37.3.322

Field, A. (2013). *Discovering statistics using IBM SPSS statistics*. Sage: London.

Freudenberger, H. J. (1974). Staff burn‐out. *Journal of social issues*, *30*(1), 159-165. Doi: 10.1111/j.1540-4560.1974.tb00706.x

Friedlander, M. L., Keller, K. E., Peca-Baker, T. A., & Olk, M. E. (1986). Effects of role conflict on counsellor trainees' self-statements, anxiety level, and performance. *Journal of Counseling Psychology*, *33*, 73–77. Doi.org/10.1037/0022-0167.33.1.73

Gilbreath, B., & Benson, P. G. (2004). The contribution of supervisor behaviour to employee psychological well-being. *Work & Stress*, *18*(3), 255-266. Doi: 10.1080/02678370412331317499

Goldberg, D., & Williams, P. (1988). *A User's Guide to the GHQ.* NFER-Nelson: Windsor.

Haines, V. A., Hurlbert, J.S., & Zimmer, C. (1991). Occupational stress, social support, and the buffer hypothesis. *Work and Occupations, 18*(2)*,* 212-235. Doi:

10.1177/0730888491018002005

Hannigan, B., Edwards, D., & Burnard, P. (2004). Stress and stress management in clinical psychology: Findings from a systematic review. *Journal of Mental Health*, *13*(3), 235-245. Doi:10.1080/09638230410001700871

Hawkins, P., & Shohet, R. (2000). *Supervision in the helping professions. An individual, group and organisational approach (2nd Edition.).* UK: Open University Press.

Hayes, A. F. (2013). *An introduction to mediation, moderation, and conditional process analysis: A regression-based approach.* New York: Guilford Press. Retrieved from: http://www.afhayes.com.

Howard, F. (2008). Managing stress or enhancing well-being? Positive psychology's contributions to clinical supervision. *Australian Psychologist*, *43*(2), 105-113. Doi:10.1080/00050060801978647

Howell, D. C. (2007). The treatment of missing data. In W. Outhwaite & S. Turner (Eds.), *Handbook of Social Science Methodology* (pp. 208-217). London: Sage.

Huebner, E. S. (1994). Relationships among demographics, social support, job satisfaction and burnout among school psychologists. *School Psychology International*, *15*(2), 181-186. Doi: 10.1177/0143034394152007

Huppert, F. A. (2009). Psychological Well‐being: Evidence Regarding its Causes and Consequences. *Applied Psychology: Health and Well‐Being*, *1*(2), 137-164. Doi: 10.1111/j.1758-0854.2009.01008.x

IBM Corp. Released 2013. IBM SPSS Statistics for Windows, Version 22.0. Armonk, NY: IBM Corp.

Inskipp, F., & Proctor, B. (1993). *Making the most of supervision Part 1.* Middlesex, UK: Cascade Publications.

Johnson, S., Osborn, D. P., Araya, R., Wearn, E., Paul, M., Stafford, M., Wellman, N., Nolan, F., Killaspy, H., Lloyd-Evans, B., Anderson, E., & Wood, S. J. (2012). Morale in the English mental health workforce: questionnaire survey. *The British Journal of Psychiatry*, *201*(3), 239-246. Doi: 10.1192/bjp.bp.111.098970

Karasek, R. A. (1979). Job demands, job decision latitude, and mental strain: Implications for job redesign. *Administrative science quarterly*, *24*(2), 285-308. Retrieved from EBSCO database.

Karasek, R. A., Triantis, K., & Chaudhry, S. (1982). Co-worker and supervisor support as moderators of associations between task characteristics and mental strain. *Journal of Occupational Behavior, 3,*147-160. Doi: 10.1002/job.4030030205

Karasek, R., Brisson, C., Kawakami, N., Houtman, I., Bongers, P., & Amick, B. (1998). The Job Content Questionnaire (JCQ): an instrument for internationally comparative assessments of psychosocial job characteristics. *Journal of occupational health psychology*, *3*(4), 322. Doi.org/10.1037/1076-8998.3.4.322

Kaslow, N. J., & Rice, D. G. (1985). Developmental stresses of psychology internship training: What training staff can do to help. *Professional Psychology: Research and Practice*, *16*(2), 253. Doi.org/10.1037/0735-7028.16.2.253

Kenny, D. A. (2013). Moderator variables: An introduction. Retrieved from: http://davidakenny.net/cm/moderation.htm.

Kirkcaldy, B., Trimpop, R., & Levine, R. (2002). The impact of work hours and schedules on the physical and psychological well-being in medical practices. *European psychologist*, *7*(2), 116. Doi: 10.1027//1016-9040.7.2.116

Ladany, N., Ellis, M. V., & Friedlander, M. L. (1999). The supervisory working alliance, trainee self‐efficacy, and satisfaction. *Journal of Counseling & Development*, *77*(4), 447-455. Doi: 10.1002/j.1556-6676.1999.tb02472.x

Ladany, N., Mori, Y., & Mehr, K. E. (2013). Effective and ineffective supervision. *The Counseling Psychologist*, *41*(1), 28-47. Doi: 10.1177/0011000012442648

Leiter, M. P., & Harvie, P. L. (1996). Burnout among mental health workers: a review and a research agenda. *International Journal of Social Psychiatry*, *42*(2), 90-101. Doi: 10.1177/002076409604200203

Loretto, W., Platt, S., & Popham, F. (2010). Workplace change and employee mental health: results from a longitudinal study. *British Journal of Management*, *21*(2), 526-540. Doi: 10.1111/j.1467-8551.2009.00658.x

Lucock, M. P., Hall, P., & Noble, R. (2006). A survey of influences on the practice of psychotherapists and clinical psychologists in training in the UK. *Clinical Psychology & Psychotherapy*, *13*(2), 123-130. Doi: 10.1002/cpp.483

Lumley, T., Diehr, P., Emerson, S., & Chen, L. (2002). The importance of the normality assumption in large public health data sets. *Annual Review of Public Health, 23*, 151–169. Doi: 10.1146/annurev.publhealth.23.100901.140546

Maslach, C., Jackson, S. E., & Leiter, M. P. (1996). *Maslach Burnout Inventory manual (3rd Edition).* Palo Alto, CA: Consulting Psychologists Press.

Maslach, C., Schaufeli, W. B., & Leiter, M. P. (2001). Job burnout. *Annual review of psychology*, *52*(1), 397-422. Doi: 10.1146/annurev.psych.52.1.397

McCann, P. F. (2010). *Motivational Factors and Frameworks for Counsellors and Psychotherapists* (Doctoral dissertation, University of Toronto).

McGrath, L., Griffin, V., & Mundy, E. Psychologists Against Austerity (2015). *The*

Psychological Impact of Austerity: A Briefing Paper. Retrieved from: https://psychagainstausterity.files.wordpress.com/2015/03/psychological-costs-of-austerity-briefing-paper-compressed.pdf

McMahon, M., & Patton, W. (2000). Conversations on clinical supervision: Benefits perceived by school counsellors. *British Journal of Guidance and Counselling*, *28*(3), 339-351. Doi: 10.1080/713652301

McNeill, B. W., Stoltenberg, C. D., & Pierce, R. A. (1985). Supervisees' perceptions of their development: A test of the counselor complexity model. *Journal of Counseling Psychology*, *32*(4), 630. Doi.org/10.1037/0022-0167.32.4.630

Morse, G., Salyers, M. P., Rollins, A. L., Monroe-DeVita, M., & Pfahler, C. (2012). Burnout in mental health services: a review of the problem and its remediation. *Administration and Policy in Mental Health and Mental Health Services Research*, *39*(5), 341-352. Doi: 10.1007/s10488-011-0352-1

Nunnally, J. C., & Bernstein, I. H. (1994). *Psychometric theory (3rd Edition)*. New York: McGraw-Hill.

O'Driscoll, M. P., & Beehr, T. A. (1994). Supervisor behaviors, role stressors and uncertainty as predictors of personal outcomes for subordinates. *Journal of organizational Behavior*, *15*(2), 141-155. Doi: 10.1002/job.4030150204

Olk, M. E., & Friedlander, M. L. (1992). Trainees' experiences of role conflict and role ambiguity in supervisory relationships. *Journal of Counseling Psychology*, *39*(3), 389. Doi.org/10.1037/0022-0167.39.3.389

Palomo, M., Beinart, H., & Cooper, M. J. (2010). Development and validation of the Supervisory Relationship Questionnaire (SRQ) in UK trainee clinical psychologists.

British Journal of Clinical Psychology, *49*(2), 131-149. Doi: 10.1348/014466509X441033

Proctor, B. (1986). Supervision: A Co-operative Exercise in Accountability. In M. Marken & M. Payne (Eds.), *Enabling and Ensuring - supervision in practice* (pp. 21-23). National Youth Bureau, Council for Education and Training in Youth and Community Work: Leicester.

Prosser, D., Johnson, S., Kuipers, E., Szmukler, G, Bebbington, P., & Thornicroft, G. (1996). Mental health, 'burnout' and job satisfaction among hospital and community-based mental health. *British Journal of Psychiatry*, 169, 334 -337. Doi: 10.1192/bjp.169.3.334

Rabinowitz, F. E., Heppner, P. P., & Roehlke, H. J. (1986). Descriptive study of process and outcome variables of supervision over time. *Journal of Counseling Psychology*, *33*(3), 292. Doi.org/10.1037/0022-0167.33.3.292

Ramos-Sánchez, L., Esnil, E., Goodwin, A., Riggs, S., Touster, L. O., Osachy, L., Wright, L. K., Ratanasiripong, P., & Rodolfa, E. (2002). Negative supervisory events: Effects on supervision and supervisory alliance. *Professional Psychology: Research and Practice*, *33*(2), 197-202. Doi: 10.1037//0735-7028.33.2.197

Ratcliff, R. (1993). Methods for dealing with reaction time outliers. *Psychological bulletin*, *114*(3), 510. Doi.org/10.1037/0033-2909.114.3.510

Robertson, I., & Cooper, C. (2011). *Well-Being, Productivity and Happiness at Work*. Basingstoke: Palgrave Macmillan.

Ryan, R.M., & Deci, E.L. (2001). On happiness and human potentials: A review of research on hedonic and eudaimonic well-being. *Annual Review of Psychology, 52,* 141–166. Doi: 10.1146/annurev.psych.52.1.141

Scaife, J., & Walsh, S. (2001). The emotional climate of work and the development of self. In J. Scaife (Ed.), *Supervision in the mental health professions. A practitioner's guide* (pp. 30-51). East Sussex, UK: Bruner-Routledge.

Schaufeli, W. B., Leiter, M. P., Maslach, C., & Jackson, S. E. (1996). The Maslach Burnout Inventory-General Survey. In C. Maslach, S. E. Jackson, & M. P. Leiter (Eds.), *Maslach Burnout Inventory Manual, 3rd edition.* California: Consulting Psychologists Press.

Shelton, N. J., & Herrick, K. G. (2009). Comparison of scoring methods and thresholds of the General Health Questionnaire-12 with the Edinburgh Postnatal Depression Scale in English women. *Public Health*, *123*(12), 789-793. Doi:10.1016/j.puhe.2009.09.012

Spence, S. H., Wilson, J., Kavanagh, D., Strong, J., & Worrall, L. (2001). Clinical supervision in four mental health professions: A review of the evidence. *Behaviour change*, *18*(03), 135-155. Doi: http://dx.doi.org/10.1375/bech.18.3.135

Sterner, W. R. (2009). Influence of the supervisory working alliance on supervisee work satisfaction and work-related stress. *Journal of Mental Health Counseling*, *31*(3), 249-263. Retrieved from EBSCO database.

Stoltenberg, C. D., McNeill, B. W., & Crethar, H. C. (1994). Changes in supervision as counselors and therapists gain experience: A review. *Professional Psychology: Research and Practice*, *25*(4), 416. Doi.org/10.1037/0735-7028.25.4.416

Stoltenberg, C. D., McNeill, B. W., & Delworth, U. (1998). *IDM supervision: An integrative developmental model for supervising counselors and therapists*. San Francisco: Jossey-Bass.

Streiner, D. L. (2003). Starting at the beginning: an introduction to coefficient alpha and internal consistency. *Journal of personality assessment*, *80*(1), 99-103. Doi:10.1207/S15327752JPA8001_18

Tracey, T. J., Ellickson, J. L., & Sherry, P. (1989). Reactance in relation to different supervisory environments and counselor development. *Journal of Counseling Psychology*, *36*(3), 336. Doi.org/10.1037/0022-0167.36.3.336

Van Katwyk, P. T., Fox, S., Spector, P. E., & Kelloway, E. K. (2000). Using the Job-Related Affective Well-Being Scale (JAWS) to investigate affective responses to work stressors. *Journal of occupational health psychology*, *5*(2), 219. Doi.org/10.1037/1076-8998.5.2.219

Warr, P. (2007). *Work, Happiness and Unhappiness.* London: Lawrence Erlbaum Associates.

Worthen, V., & McNeill, B. W. (1996). A phenomenological investigation of 'good' supervision events. Journal of Counseling Psychology, 43, 25–34. Doi.org/10.1037/0022-0167.43.1.25

Tables and Figures

Table 1
Demographic characteristics of sample

Variable	Frequency
Gender	
Male	31 (16%)
Female	163 (84%)
Ethnicity	
White British	159 (82%)
White Irish	9 (4.6%)
White other	10 (5.2%)
Indian	1 (0.5%)
Pakistani	7 (3.6%)
Asian other	1 (0.5%)
White Asian	4 (2.1%)
Mixed other	1 (0.5%)
Not given	2 (1%)
UK Region	
England	176 (91%)
Wales	6 (3.1%)
Scotland	8 (4.1%)
Northern Ireland	3 (1.5%)

Table 2

Categorical variables and associated frequencies in the current sample

Variable	Frequency
Work setting	
NHS	157 (80.9%)
Private	7 (3.6%)
Both	30 (15.5%)
NHS pay banding	
Band 7	37 (19.1%)
Band 8a	81 (41.8%)
Band 8b	35 (18%)
Band 8c	17 (8.8%)
Other	17 (8.8%)
Not given	7 (3.6%)
Predominant role	
Clinical work	124 (63.9%)
Managerial work	3 (1.5%)
Both	67 (34.5%)

Table 3

Descriptive statistics for continuous demographics and job characteristic variables measured in the study

Variable	Mean	Range	SD
Age	38.26	26 - 60	7.63
Hours worked per week	33.34	2 - 50	8.05
Number of years qualified	8.72	1 - 30	7.14
Length of time in job role (years)	4.17	0.25 - 15.5	3.69
Amount of supervision received per month (hours)	2.16	0.25 - 12.5	1.51
Duration of current supervisory relationship (years)	2.67	0.13-11	2.44

Note: used midpoint of range to calculate mean.

Table 4
Descriptive statistics for predictor, moderator and outcome variables in the study. Respective comparison data from previous studies is also presented.

	Current study				Previous research		
	N	Mean	SD	Range	N	Mean	SD
JCQ							
Decision latitude**	194	59.71	6.03	46 – 72	4343	70.20	15.87
Psychological job demands**	194	36.36	6.75	15 – 48	4269	30.25	7.17
Co-worker social support*	194	12.92	1.78	8 – 16	4340	13.24	2.77
SRQ							
SRQ Total*	194	375.24	56.87	202 – 462	284	364.30	69.90
JAWS							
Positive affect	194	30.96	5.28	18– 46	166	30.20	9.30
Negative affect	194	23.70	5.73	11 – 40	166	23.00	7.70
GHQ-12							
Total	194	12.42	5.22	2 – 30	121	11.8	5.00
MBI-GS							
Exhaustion	194	2.89	1.43	0.2 – 6	415	2.54	1.53
Cynicism	194	1.87	1.42	0 – 5.2	415	1.88	1.44
Professional efficacy	194	4.29	0.94	1.67 – 6	415	4.29	1.01

Note: JCQ=Job Content Questionnaire, comparison data taken from US national random population sample US (Karasek et al., 1998); SRQ=Supervisory Relationship Questionnaire, comparison data taken from original study of trainee CPs (Palomo, Beinart, & Cooper, 2010); JAWS=Job Affective Well-being Scale, comparison data taken from normative data in original sample (Van Katwyk, Fox, Spector, & Kelloway, 2000); GHQ-12=General Health Questionnaire 12 item, comparison data taken from a sample of UK clinical mental health staff (Prosser et al., 1996); MBI-GS=Maslcah Burnout Inventory-General Services, comparison data taken from Canadian psychiatric workers in validation study (Maslach, Jackson, & Leiter, 1996); SD=Standard deviation. *Significant difference between current sample and previous research $p<.01$, ** Significant difference between current sample and previous research $p<.001$.

Table 5

Correlation matrix to show relationships between continuous job characteristic, demographic, and predictor, moderator and outcome variables

	DL	PJD	CSS	SRQ	JAWS +	JAWS -	GHQ	EX	CY	PE
Age	.050	.085	-.101	.031	-.127	.103	.060	.040	-.031	.005
No. of years qualified	.037	.084	-.132	.024	-.159*	.128	.060	.037	.039	-.019
Hours worked per week	.077	-.030	.054	.065	.084	.129	.030	.159*	.084	.172*
Hours of supervision per month	-.091	-.183*	.056	.084	.162*	-.103	-.120	-.076	-.004	-.028
Duration of SV relationship	.013	.184*	.077	.033	-.104	.018	.062	-.030	.004	.005
Time in current role	-.100	.238**	-.110	-.005	-.287**	.215**	.215**	.164*	.200**	-.176*

Note: **. Correlation is significant at the 0.01 level (2-tailed); *. Correlation is significant at the 0.05 level (2-tailed).
DL = Decision latitude; PJD = Psychological job demands; CSS = Co-worker social support; SRQ = quality of supervisory relationship; JAWS + = Positive emotion about job; JAWS - = Negative emotion about job; GHQ = overall well-being; EX, CY and PE = levels of exhaustion, cynicism and professional efficacy as measured by the MBI-GS; SV=current supervisory.

Table 6

Correlation matrix to show significant relationships between predictor, moderator and outcome variables

	DL	PJD	CSS	GHQ	EX	PE	CY	JAWS +	JAWS -	SRQ
DL	1	.037	.203**	-.315**	-.218**	.282**	-.362**	.330**	-.280**	.257**
PJD		1	-.129	.361**	.423**	-.262**	.291**	-.350**	.373**	-.193**
CSS			1	-.271**	-.228**	.241**	-.288**	.299**	-.330**	.313**
GHQ				1	.635**	-.531**	.592**	-.543**	.664**	-.187**
EX					1	-.323**	.666**	-.535**	.718**	-.145*
PE						1	-.367**	.473**	-.441**	.227**
CY							1	-.493**	.641**	-.281**
JAWS +								1	-.548**	.237**
JAWS -									1	-.272**
SRQ										1

Note: **. Correlation is significant at the 0.01 level (2-tailed); *. Correlation is significant at the 0.05 level (2-tailed).
DL = Decision latitude; PJD = Psychological job demands; JI = Job insecurity; CSS = Co-worker social support; GHQ = overall well-being; EX, CY and PE = levels of exhaustion, cynicism and professional efficacy as measured by the MBI-GS; JAWS + = positive emotion about job; JAWS - = negative emotion about job; SRQ = quality of supervisory relationship.

Table 7

Regression analysis for six models tested that looked at whether job demands predicted PWB in the current sample for all measures of PWB

Variable	R^2_{adj}	B	SE B	95% CI lower	95% CI higher	β	t
Model 1 (GHQ-12)	.25						
DL	-	-.036	.008	-.051	.021	-.294	-4.617**
PJD	-	.038	.007	.025	.052	.350	5.570**
CSS	-	-.069	.027	-.121	-.016	-.166	-2.590**
Model 2 (Burnout-EX)	.24						
DL	-	-.049	.015	-.079	-.019	-.206	-3.211**
PJD	-	.088	.013	.061	.114	.414	6.516**
CSS	-	-.106	.052	-.208	-.004	-.132	-2.041*
Model 3 (Burnout-CY)	.24						
DL	-	-.033	.006	-.046	-.021	-.335	-5.230**
PJD	-	.025	.006	.014	.036	.279	4.417**
CSS	-	-.061	.022	-.104	-.019	-.183	-2.839**
Model 4 (Burnout PE)	.16						
DL	-	.040	.010	.020	.061	.260	3.859**
PJD	-	-.035	.009	-.053	-.017	-.252	-3.782**
CSS	-	.082	.036	.011	.152	.155	2.287*
Model 5 (JAWS+)	.25						
DL	-	.265	.055	.156	.374	.302	4.784**
PJD	-	-.263	.049	-.360	-.167	-.336	-5.388**
CSS	-	.576	.189	.203	.948	.194	3.050**
Model 6 (JAWS-)	.27						
DL	-	-.233	.060	-.351	-.114	-.245	-3.876**
PJD	-	.299	.053	.195	.403	.352	5.649**
CSS	-	-.756	.205	-1.160	-.353	-.235	-3.698**

Note: **p<0.01, *p<0.05; GHQ=General Health Questionnaire; EX=exhaustion dimension of burnout; CY=cynicism dimension of burnout; PE=professional efficacy dimension of burnout; JAWS-=Job Affective Well-being Scale positive affect; JAWS-+Job Affective Well-being Scale negative affect; DL=Decision Latitude; PJD=Psychological Job Demands; CSS=Co-worker Social Support.

Table 8

Moderation model for the JAWS+ to test whether the SRQ moderated the effects of the three different job demands on the amount of positive emotion felt towards job

Variable	(B) Coeff.	SE	t	p	95% CI lower	95% CI higher
Decision latitude						
Constant	33.26	3.27	10.17	<.001	26.81	39.71
SRQ	.01	.01	.60	.55	-.01	.02
Decision Latitude	.26	.06	4.51	<.001	.14	.37
SRQ x Decision Latitude	.0001	.001	.065	.9480	-.001	.002
PJD	-.26	.05	-5.13	<.001	-.36	-.16
Co-worker SS	.55	.20	2.79	.0059	.16	.93
PJD						
Constant	8.91	4.15	2.15	.0330	.73	17.10
SRQ	.01	.01	.67	.5038	-.01	.02
PJD	-.26	.05	-5.09	<.001	-.36	-.16
SRQ x PJD	-.0003	.0010	-.31	.7579	-.0023	.0017
Decision Latitude	.25	.06	4.36	<.001	.14	.37
Co-worker SS	.53	.20	2.63	.0092	.13	.93
Co-worker SS						
Constant	25.20	3.71	6.80	<.001	17.89	32.51
SRQ	.0021	.01	.33	.7426	-.01	.02
Co-worker SS	.57	.20	2.88	.0044	.18	.96
SRQ x Co-worker SS	-.003	.004	-.97	.3347	-.0103	.0035
Decision Latitude	.26	.06	4.57	<.001	.15	.37
PJD	-.27	.05	-5.27	<.001	-.37	-.17

Note: SRQ=Supervisory Relationship Questionnaire; PJD=psychological job demands; SS=social support; CI=confidence interval; SE=standard error; coeff.=coefficient.

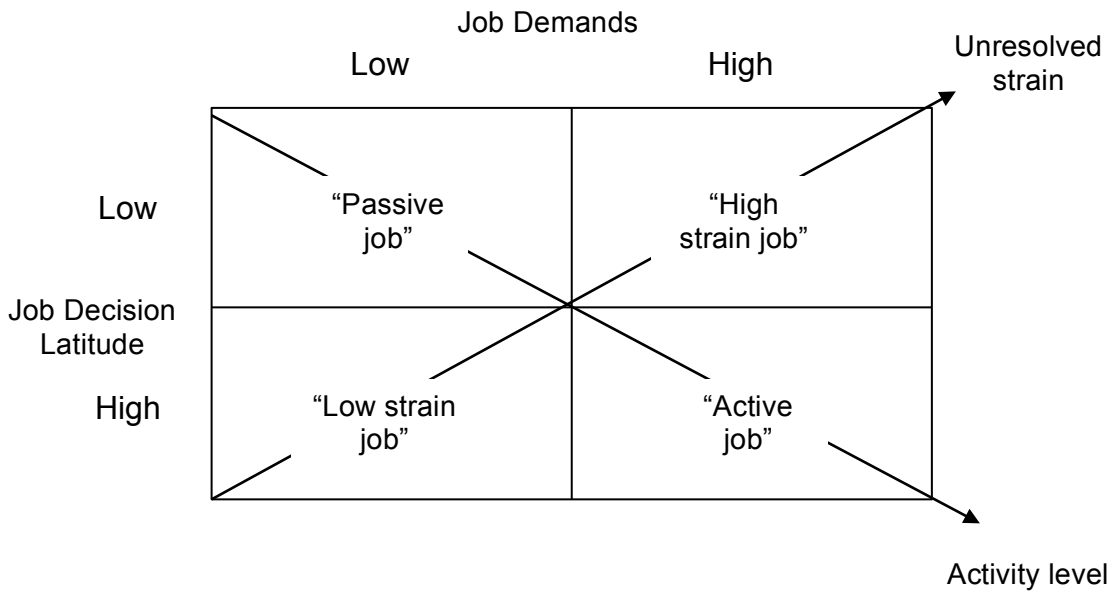

Figure 1. Karasek's Job Demands Control (JDC) Model showing the combination of job demands and decision latitude and the resulting effects on well-being; taken from Karasek (1979).

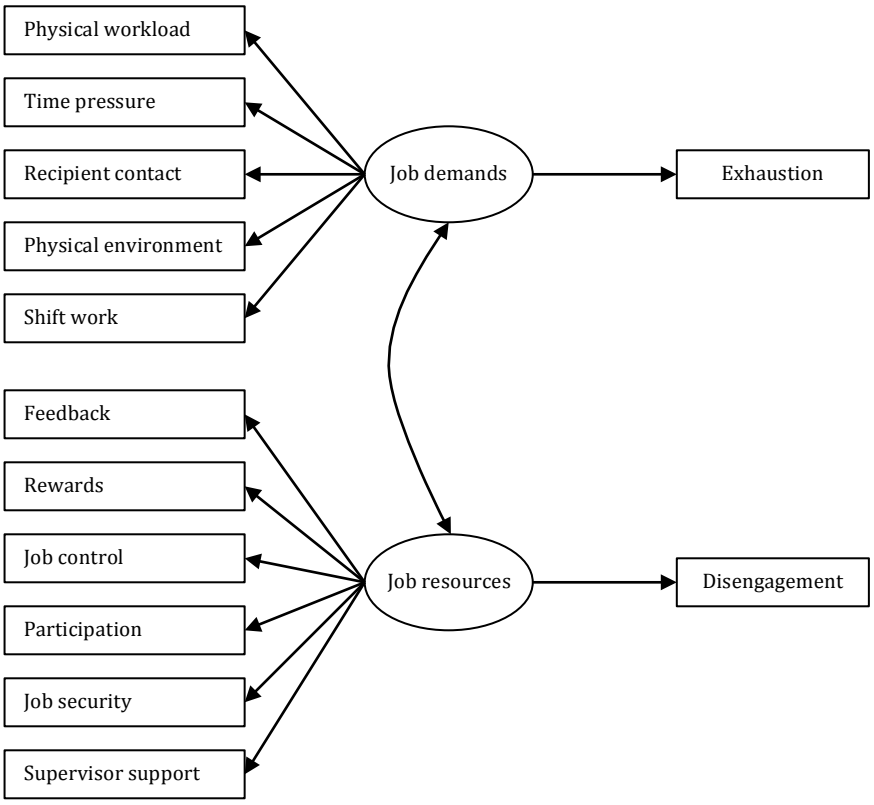

Figure 2. The Job Demands-Resources (JDR) model taken from Demerouti et al., (2001), indicating the relationship between job demands and job resources and how this impacts on well-being.

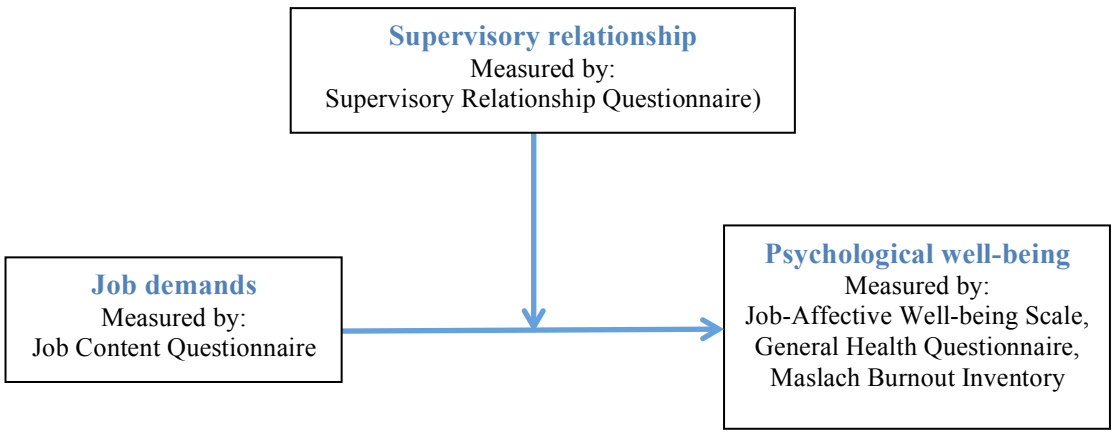

Figure 3. Moderator model that was tested in the current study. Shows predictor, outcome and moderator variables and the associated questionnaires used to measure these.

Appendix 2-A

Journal of Mental Heath Instructions for Authors

Aims and Scope

The Journal of Mental Health is an international forum for the latest research in the mental health field. Reaching over 65 countries, the journal reports on the best in evidence-based practice around the world and provides a channel of communication between the many disciplines involved in mental health research and practice.

The journal encourages multi-disciplinary research and welcomes contributions that have involved the users of mental health services.

The international editorial team are committed to seeking out excellent work from a range of sources and theoretical perspectives. The journal not only reflects current good practice but also aims to influence policy by reporting on innovations that challenge traditional ways of working. We are committed to publishing high-quality, thought-provoking work that will have a direct impact on service provision and clinical practice.

The Journal of Mental Health features original research papers on important developments in the treatment and care in the field of mental health. Theoretical papers, reviews and commentaries are also accepted if they contribute substantially to current knowledge.

Submissions

All submissions, including book reviews, should be made online at Journal of Mental Health's Manuscript Central site at http://mc.manuscriptcentral.com/cjmh

New users should first create an account. Once a user is logged onto the site submissions should be made via the Author Centre. Please note that submissions missing reviewer suggestions are likely to be un-submitted and authors asked to add this information before resubmitting. Authors will be asked to add this information in section 4 of the on-line submission process.

Manuscripts will be dealt with by the Executive Editor. It is essential that authors pay attention to the guidelines to avoid unnecessary delays in the evaluation process.

The names of authors should not be displayed on figures, tables or footnotes to facilitate blind reviewing.

Word Count

The total word count for review articles should be no more than 6000 words. Original articles should be no more than a total of 4000 words. We do not include the abstract, tables and references in this word count. However manuscripts are limited to a maximum of 4 tables and 2 figures.

Book Reviews

All books for reviewing should be sent directly to Martin Guha, Book Reviews Editor, Information Services & Systems, Institute of Psychiatry, KCL, De Crespigny Park, PO Box 18, London, SE5 8AF.

Manuscript Style

Manuscripts should be typed double-spaced (including references), with margins of at least 2.5cm (1 inch). The cover page (uploaded separately from the main manuscript) should show the full title of the paper, a short title not exceeding 45 characters (to be used as a running title at the head of each page), the full names, the exact word length of the paper and affiliations of authors and the address where the work was carried out. The corresponding author should be identified, giving full postal address, telephone, fax number and email address if available. To expedite blind reviewing, no other pages in the manuscript should identify the authors. All pages should be numbered.

Abstracts: The first page of the main manuscript should also show the title, together with a structured abstract of no more than 200 words, using the following headings: Background, Aims, Method, Results, Conclusions, Declaration of interest. The declaration of interest should acknowledge all financial support and any financial relationship that may pose a conflict of interest. Acknowledgement of individuals should be confined to those who contributed to the article's intellectual or technical content. Keywords: Authors will be asked to submit key words with their article, one taken from the pick-list provided to specify subject of study, and at least one other of their own choice. Text: Follow this order when typing manuscripts: Title, Authors, Affiliations, Abstract, Keywords, Main text, Appendix, References, Figures, Tables. Footnotes should be avoided where possible. The total word count for review articles should be no more than 6000 words. Original articles should be no more than a total of 4000 words. We do not include the abstract, tables and references in this word count. Language should be in the style of the APA (see Publication Manual of the American Psychological Association, Fifth Edition, 2001). Style and References: Manuscripts should be carefully prepared using the aforementioned Publication Manual of the American Psychological Association, and all references listed must be mentioned in the text. Within the text references should be indicated by the author’s name and year of publication in parentheses, e.g. (Hodgson, 1992) or (Grey & Mathews 2000), or if there are more than two authors (Wykes et al ., 1997). Where several references are quoted consecutively, or within a single year, the order should be alphabetical within the text, e.g. (Craig, 1999; Mawson, 1992; Parry & Watts, 1989; Rachman, 1998). If more than one paper from the same author(s) a year are listed, the date should be followed by (a), (b), etc., e.g. (Marks, 1991a).

The reference list should begin on a separate page, in alphabetical order by author (showing the names of all authors), in the following standard forms, capitalisation and punctuation: a) For journal articles (titles of journals should not be abbreviated):

Grey, S.J., Price, G. & Mathews, A. (2000). Reduction of anxiety during MR imaging: A

controlled trial. Magnetic Resonance Imaging, 18, 351–355. b) For books:

Powell, T.J. & Enright, S.J. (1990) Anxiety and Stress management. London: Routledge c) For chapters within multi-authored books:

Hodgson, R.J. & Rollnick, S. (1989) More fun less stress: How to survive in research. In G.Parry & F. Watts (Eds.), A Handbook of Skills and Methods in Mental Health

Research (pp. 75–89). London:Lawrence Erlbaum.

Illustrations: should not be inserted in the text. All photographs, graphs and diagrams should be referred to as 'Figures' and should be numbered consecutively in the text in Arabic numerals (e.g. Figure 3). The appropriate position of each illustration should be indicated in the text. A list of captions for the figures should be submitted on a separate page, or caption should be entered where prompted on submission, and should make interpretation possible without reference to the text. Captions should include keys to symbols. It would help ensure greater accuracy in the reproduction of figures if the values used to generate them were supplied.

Tables: should be typed on separate pages and their approximate position in the text should be indicated. Units should appear in parentheses in the column heading but not in the body of the table. Words and numerals should be repeated on successive lines; 'ditto' or 'do' should not be used.

Proofs

Page proofs are sent to the designated corresponding author. They must be carefully checked and returned within 48 hours of receipt. Please note that in the proof stage, only typographical errors, printer's errors and errors of scientific fact can be corrected. No substantial author's changes will be made.

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Appendix 2-B

SPSS output for t-tests that compared current sample means on predictor and outcome variables with normative sample data.

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
DEC_LAT	194	59.7165	6.02646	.43267

One-Sample Test

	Test Value = 70.20					
					95% Confidence Interval of the Difference	
	t	df	Sig. (2-tailed)	Mean Difference	Lower	Upper
DEC_LAT	-24.230	193	.000	-10.48351	-11.3369	-9.6301

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
PSY_JD	194	36.3557	6.74727	.48443

One-Sample Test

	Test Value = 30.25					
					95% Confidence Interval of the Difference	
	t	df	Sig. (2-tailed)	Mean Difference	Lower	Upper
PSY_JD	12.604	193	.000	6.10567	5.1502	7.0611

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
COW_SUP	194	12.9171	1.78171	.12792

One-Sample Test

	Test Value = 13.24					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
COW_SUP	-2.524	193	.012	-.32289	-.5752	-.0706

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
SRQ_TOT	194	375.2425	56.86535	4.08269

One-Sample Test

	Test Value = 364.30					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
SRQ_TOT	2.680	193	.008	10.94247	2.8900	18.9949

Appendix 2-C

SPSS outputs for one-way ANOVA to show non-significant differences on variables by gender

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
SRQ_TOT	Between Groups	3129.060	1	3129.060	.967	.327
	Within Groups	620968.936	192	3234.213		
	Total	624097.996	193			
DEC_LAT	Between Groups	.880	1	.880	.024	.877
	Within Groups	7008.527	192	36.503		
	Total	7009.407	193			
PSY_JD	Between Groups	30.045	1	30.045	.659	.418
	Within Groups	8756.414	192	45.606		
	Total	8786.459	193			
COW_SUP	Between Groups	13.041	1	13.041	4.176	.042
	Within Groups	599.632	192	3.123		
	Total	612.674	193			
Square root GHQ	Between Groups	.152	1	.152	.279	.598
	Within Groups	105.014	192	.547		
	Total	105.166	193			
EX_MEAN	Between Groups	1.892	1	1.892	.927	.337
	Within Groups	391.913	192	2.041		
	Total	393.804	193			
PE_MEAN	Between Groups	1.578	1	1.578	1.798	.182
	Within Groups	168.500	192	.878		
	Total	170.077	193			
MBI CY sq rt	Between Groups	.779	1	.779	2.201	.140
	Within Groups	67.954	192	.354		
	Total	68.733	193			
JAWS_POS	Between Groups	.003	1	.003	.000	.992
	Within Groups	5383.667	192	28.040		
	Total	5383.670	193			
JAWS_NEG	Between Groups	.062	1	.062	.002	.966
	Within Groups	6336.598	192	33.003		
	Total	6336.660	193			

SPSS output to show non-significant differences between ethnicity of participants on all PWB variables

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
EX_MEAN	Between Groups	4.813	7	.688	.327	.941
	Within Groups	386.672	184	2.101		
	Total	391.485	191			
PE_MEAN	Between Groups	3.927	7	.561	.626	.734
	Within Groups	164.993	184	.897		
	Total	168.920	191			
MBI CY sq rt	Between Groups	2.412	7	.345	.958	.463
	Within Groups	66.151	184	.360		
	Total	68.563	191			
JAWS_POS	Between Groups	204.091	7	29.156	1.036	.408
	Within Groups	5178.487	184	28.144		
	Total	5382.578	191			
JAWS_NEG	Between Groups	125.821	7	17.974	.533	.808
	Within Groups	6200.549	184	33.699		
	Total	6326.370	191			
Square root GHQ	Between Groups	1.718	7	.245	.439	.877
	Within Groups	102.860	184	.559		
	Total	104.578	191			

SPSS output to show non-significant differences between ethnicity of participants on all job demands (JCQ) variables

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
DEC_LAT	Between Groups	149.661	7	21.380	.578	.773
	Within Groups	6806.417	184	36.991		
	Total	6956.078	191			
PSY_JD	Between Groups	301.531	7	43.076	.939	.478
	Within Groups	8444.172	184	45.892		
	Total	8745.703	191			
COW_SUP	Between Groups	42.828	7	6.118	1.979	.060
	Within Groups	568.994	184	3.092		
	Total	611.822	191			

SPSS output to show non-significant differences between ethnicity of participants on SRQ variable

ANOVA

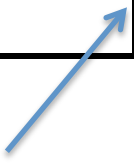
SRQ_TOT

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	16858.986	7	2408.427	.731	.646
Within Groups	606181.331	184	3294.464		
Total	623040.317	191			

SPSS output to show differences on all variables (predictor, moderator and outcome) according to practice setting

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
SRQ_TOT	Between Groups	3853.271	2	1926.636	.593	.554
	Within Groups	620244.724	191	3247.355		
	Total	624097.996	193			
DEC_LAT	Between Groups	58.858	2	29.429	.809	.447
	Within Groups	6950.550	191	36.390		
	Total	7009.407	193			
PSY_JD	Between Groups	49.732	2	24.866	.544	.582
	Within Groups	8736.727	191	45.742		
	Total	8786.459	193			
COW_SUP	Between Groups	3.415	2	1.707	.535	.586
	Within Groups	609.259	191	3.190		
	Total	612.674	193			
Square root GHQ	Between Groups	2.564	2	1.282	2.386	.095
	Within Groups	102.602	191	.537		
	Total	105.166	193			
EX_MEAN	Between Groups	6.410	2	3.205	1.580	.209
	Within Groups	387.395	191	2.028		
	Total	393.804	193			
PE_MEAN	Between Groups	5.083	2	2.541	2.942	.055
	Within Groups	164.995	191	.864		
	Total	170.077	193			
MBI CY sq rt	Between Groups	.782	2	.391	1.098	.335
	Within Groups	67.951	191	.356		
	Total	68.733	193			
JAWS_POS	Between Groups	196.853	2	98.427	3.624	.029
	Within Groups	5186.817	191	27.156		
	Total	5383.670	193			
JAWS_NEG	Between Groups	208.787	2	104.393	3.254	.041
	Within Groups	6127.873	191	32.083		
	Total	6336.660	193			



Significant differences

SPSS output to show differences on all variables (predictor, moderator and outcome) according to banding

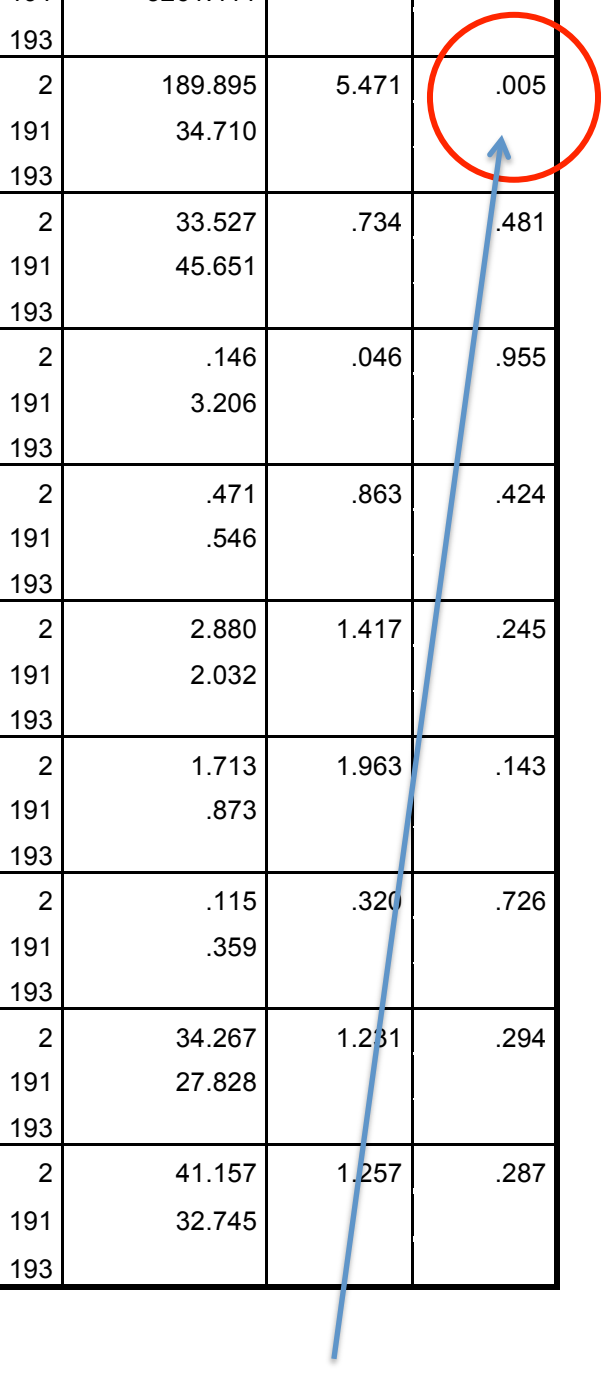
ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
SRQ_TOT	Between Groups	5744.211	3	1914.737	.568	.637
	Within Groups	559232.312	166	3368.869		
	Total	564976.524	169			
DEC_LAT	Between Groups	238.549	3	79.516	2.226	.087
	Within Groups	5930.957	166	35.729		
	Total	6169.506	169			
PSY_JD	Between Groups	307.795	3	102.598	2.282	.081
	Within Groups	7462.117	166	44.953		
	Total	7769.912	169			
COW_SUP	Between Groups	6.175	3	2.058	.653	.582
	Within Groups	523.115	166	3.151		
	Total	529.290	169			
Square root GHQ	Between Groups	1.234	3	.411	.773	.511
	Within Groups	88.356	166	.532		
	Total	89.590	169			
EX_MEAN	Between Groups	5.822	3	1.941	.935	.425
	Within Groups	344.694	166	2.076		
	Total	350.516	169			
PE_MEAN	Between Groups	.484	3	.161	.179	.910
	Within Groups	149.352	166	.900		
	Total	149.836	169			
MBI CY sq rt	Between Groups	1.290	3	.430	1.193	.314
	Within Groups	59.807	166	.360		
	Total	61.096	169			
JAWS_POS	Between Groups	45.769	3	15.256	.520	.669
	Within Groups	4874.325	166	29.363		
	Total	4920.094	169			
JAWS_NEG	Between Groups	130.042	3	43.347	1.285	.281
	Within Groups	5600.570	166	33.738		
	Total	5730.612	169			

SPSS output to show differences on all variables (predictor, moderator and outcome) according to role type

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
SRQ_TOT	Between Groups	1168.576	2	584.288	.179	.836
	Within Groups	622929.420	191	3261.411		
	Total	624097.996	193			
DEC_LAT	Between Groups	379.789	2	189.895	5.471	.005
	Within Groups	6629.618	191	34.710		
	Total	7009.407	193			
PSY_JD	Between Groups	67.054	2	33.527	.734	.481
	Within Groups	8719.405	191	45.651		
	Total	8786.459	193			
COW_SUP	Between Groups	.293	2	.146	.046	.955
	Within Groups	612.381	191	3.206		
	Total	612.674	193			
Square root GHQ	Between Groups	.942	2	.471	.863	.424
	Within Groups	104.225	191	.546		
	Total	105.166	193			
EX_MEAN	Between Groups	5.760	2	2.880	1.417	.245
	Within Groups	388.045	191	2.032		
	Total	393.804	193			
PE_MEAN	Between Groups	3.426	2	1.713	1.963	.143
	Within Groups	166.652	191	.873		
	Total	170.077	193			
MBI CY sq rt	Between Groups	.230	2	.115	.320	.726
	Within Groups	68.503	191	.359		
	Total	68.733	193			
JAWS_POS	Between Groups	68.533	2	34.267	1.231	.294
	Within Groups	5315.137	191	27.828		
	Total	5383.670	193			
JAWS_NEG	Between Groups	82.315	2	41.157	1.257	.287
	Within Groups	6254.345	191	32.745		
	Total	6336.660	193			



Significant difference

SPSS output to show differences on all variables (predictor, moderator and outcome) according to contract status

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
SRQ_TOT	Between Groups	5705.832	4	1426.458	.436	.783
	Within Groups	618392.163	189	3271.916		
	Total	624097.996	193			
DEC_LAT	Between Groups	87.677	4	21.919	.599	.664
	Within Groups	6921.730	189	36.623		
	Total	7009.407	193			
PSY_JD	Between Groups	227.895	4	56.974	1.258	.288
	Within Groups	8558.563	189	45.283		
	Total	8786.459	193			
COW_SUP	Between Groups	8.705	4	2.176	.681	.606
	Within Groups	603.969	189	3.196		
	Total	612.674	193			
Square root GHQ	Between Groups	2.122	4	.531	.973	.423
	Within Groups	103.044	189	.545		
	Total	105.166	193			
EX_MEAN	Between Groups	4.813	4	1.203	.585	.674
	Within Groups	388.992	189	2.058		
	Total	393.804	193			
PE_MEAN	Between Groups	3.683	4	.921	1.046	.385
	Within Groups	166.395	189	.880		
	Total	170.077	193			
MBI CY sq rt	Between Groups	.939	4	.235	.654	.625
	Within Groups	67.794	189	.359		
	Total	68.733	193			
JAWS_POS	Between Groups	45.232	4	11.308	.400	.808
	Within Groups	5338.438	189	28.246		
	Total	5383.670	193			
JAWS_NEG	Between Groups	156.619	4	39.155	1.197	.313
	Within Groups	6180.041	189	32.699		
	Total	6336.660	193			

A critical appraisal

Total word count: 4000

(Excluding references)

Doctorate in Clinical Psychology

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This thesis has examined the psychological well-being (PWB) of practising psychologists from a range of disciplines. The systematic literature review looked at the concept of burnout and established some common correlates for burnout in psychologists. Prevalence of burnout was moderate to high in at least half of the 22 studies reviewed. Several job demands and stressors were found to increase burnout, whilst various resources were found to help alleviate it. The research paper investigated whether job demands affect PWB in clinical psychologists (CPs), and further, whether the quality of the supervisory relationship moderates this association and thus buffers the effects of job demands. A total of 194 CPs took part in the research and job demands were found to have a significant relationship with PWB in this sample that is, high demands were associated with poorer PWB. The quality of the supervisory relationship was also found to significantly relate to their PWB, but was not found to be significant in moderating the relationship between job demands and PWB in the final model. The aim of this critical review is to discuss the findings of the research study, critique the methodology highlighting strengths and limitations, and reflect on the research process.

Main findings

In the research study, job demands included: decision latitude (the degree of autonomy and control people have over their work), psychological job demands (the extent to which people work hard and fast), and co-worker social support. Co-worker social support is distinct from supervisor support as it focuses on colleagues rather than supervisors and although not a demand per se, a lack of co-worker support is regarded as a stressor. The significant findings about the relationship between high job demands and lower PWB were not surprising. There is a substantial amount of research that indicates this to be the case in numerous professions (e.g., Demerouti, Bakker, Nachreiner, & Schaufeli, 2001; Karasek, 1979**;** Karasek, Triantis, & Chaudhry, 1982**).** Although there is empirical literature in this

area that looks at mental health professionals (e.g., Johnson et al., 2012; Loretto et al., 2010; Morse, Salyers, Rollins, Monroe-DeVita, & Pfahler, 2012), less research exists for the population of CPs, much of which has methodological shortfalls such as small sample sizes or use of non-standardised measures (Hannigan, Edwards, & Burnard, 2004). Therefore, the current research study is unique in its sample choice and thus in its findings.

Extensive literature also indicates that certain resources are capable of buffering the effects of job demands on PWB in a work context (Bakker, Demerouti, & Euwema, 2005; Demerouti et al., 2001; O'Driscoll & Brough, 2010). One kind of resource known to do this is supervisor support (Demerouti et al., 2001; McMahon and Patton, 2000). Since supervision plays such an important role in CPs' training and practice (British Psychological Society; BPS, 2008) the second part of the research aimed to investigate whether it is able to buffer the effects of job demands on the PWB of CPs, inline with exiting literature. However, this was not found to be the case. Possible reasons for this that are discussed in more detail in the research paper include: delivery of supervision may be inconsistent between different supervisors, and different CPs of ranging experience and abilities may utilise supervision in varying ways; also, CPs may be fearful of disclosing their stresses to their supervisors through fear of being judged negatively, and thus may not be using supervision to manage their job stresses.

Methodology critique

Recruitment

The sample lacked equal representation from across the UK, with the majority of participants located in the northwest of England. This is likely due to the fact that recruitment was done via a distribution list associated with the chief investigator's academic institution located in this region. However, social media posts were designed to extend the reach across the UK, as was the use of a snowball sampling technique. Snowball sampling

means “identifying respondents who are then used to refer researchers on to other respondents” (Atkinson & Flint, 2001, p. 1). In explorative research, snowball sampling offers practical advantages (Hendricks, Blanken, & Adriaans, 1992), and endorsement of research by a peer is likely to increase chances of participation (Atkinson & Flint, 2001). This indeed did appear to increase recruitment opportunities for the sample, as there was some, albeit small, representation from Wales, Scotland and Northern Ireland, as well as other regions of England. Furthermore, the sample was representative in terms of gender and ethnicity (BPS, 2004; Clearing House, 2015).

The use of the Internet for recruitment worked well in the research study. Utilising email and social media to recruit participants allowed for quick and cost-efficient distribution of the questionnaire. Reminders were easily sent via these methods too; sending reminders during the recruitment phase has been found to increase response rates in online and mail surveys (Vaux & Briggs, 2006). It is believed that this facilitated recruitment hugely in the research study, as there was a surge in response rates each time a reminder was sent.

Inclusion criteria

The total number of participants included in the data analysis was 194, but over 300 initially began to complete the online survey, suggesting a high level of interest from the profession. Correspondence from several potential participants indicated there was some uncertainty around their eligibility to participate, based on the type of supervision they were currently receiving (although this was clearly stated in the participant information sheet; ethics section appendix 4-J). The research required the participants to focus on a one-to-one supervisory relationship, as the questions in the Supervisory Relationship Questionnaire (SRQ; Palomo, Beinart, & Cooper, 2010) used to measure the quality of the supervisory relationship are more applicable to a one-to-one relationship. Where participants engaged in

more than one type of supervision, they were asked to focus on the one-to-one relationship they had.

There are two potential issues with this: first, CPs who do not engage in one-to-one supervision were excluded from the research, but their experiences are considered no less important to understand. As CPs progress and develop their experience, they generally move up bandings in the UK National Health Service (NHS), signifying a change in role and responsibilities. With this, they also experience a change in supervision; many CPs will see a decrease in regular one-to-one supervision sessions, and increasingly engage in peer supervision (group or one-to-one; Beinart & Clohessy, 2009). Thus, CPs at higher levels may have been excluded from the research due to the nature of their supervision.

Second, CPs who did participate, under the assumption they were focusing on a one-to-one supervisory relationship, may well have been receiving different types of supervision from a number of different CPs. The effects that were found in the research study may therefore have been a result of these other supervision experiences participants might have been having, but these were not measured in any way.

On reflection, it might have been useful to explicitly include CPs who receive peer supervision in the research, and ask them to indicate in the initial demographic information whether they were going to focus on one-to-one or peer supervision when answering the questionnaire. Since a large proportion of the CPs who took part were band 8a level, it is likely the above issues are particularly salient in the research study. However, the SRQ has been developed based on a one-to-one supervisory relationship (initially validated on trainees), so a different measure would be needed to capture peer supervision appropriately.

Measures

There were some initial queries around the length of the online survey in the development stages of the project. In order to maximize recruitment, it was important to

make the questionnaire as easy to complete as possible so length of time to complete was important. There were five standardised measures in addition to information required about demographics and job characteristics, resulting in 149 questions in total. However, the questionnaire was piloted on several CPs before recruitment begun, and its length was deemed acceptable, taking roughly 15 minutes to complete. A large amount of valuable information was thus collected in the research study, with hopefully minimal burden on participants.

The choice of measures seemed applicable and relevant to the population, reflected in the Cronbach's reliability coefficients found in the current study in comparison with original validity studies. This is particularly relevant to the SRQ that was originally validated on trainee CPs, while the current study was interested in qualified CPs. Factor analysis and reliability coefficients indicated the measure was suitable for qualified CPs (similar means and standard deviations for all subscales of the SRQ were also found) and thus it was a suitable form of measurement to capture the quality of the one-to-one supervisory relationship in this population.

The Job Content Questionnaire (JCQ; Karasek et al., 1998) was chosen to measure job demands, developed from Karasek's Job Demands-Control (JDC) model of occupational strain (1979). It has been used internationally in a large number of studies and is flexible in what it can measure in terms of job demands. However, there were some issues with the measure, which caused additional complexity in the research process. First, the publisher was difficult to reach; correspondence via the website was slow and unhelpful, meaning that clarification needed about the utility of the measure was not gained easily. There was some ambiguity around which subscales of the measure could be used together, although it was eventually deduced that a combination of subscales according to the individual needs of the study could be used reliably together (Karasek et al., 1998). Scoring was particularly

complicated, with complex formulae to calculate subscale scores. It was not possible to gain a total overall score for 'job demands' as a whole, which would have been helpful in the current study, given the large number of variables. In addition, the job insecurity subscale was later found to be unreliable given the low Cronbach's alpha score. If the research was repeated or replicated, it would be advised that a simpler measure be used to capture job demands, and one that could yield a total score to make analysis easier.

A strength of the research was the holistic measurement of PWB successfully captured by the use of three carefully-chosen PWB measures. It is suggested that a combination of measures are used to measure PWB (Diener, 2000; Warr, 2012). Warr (2012) also specifies that measures must be technically sound if they are to measure well-being effectively, and it must be clear from the outset what type of PWB is to be measured. All measures used in the research had good psychometric properties and have been tested on multiple populations. Regarding 'type of PWB', it was clear that the research was focussing on 'psychological' well-being rather than physiological or social well-being, for example, and a clear and simple definition was given (Huppert, 2009) as reference.

PWB can be context-specific or context-free. Context-specific PWB could encompass one's PWB at work, for example, whereas context-free PWB is considered more general, regardless of the environment. This research covered both of these aspects. When measuring PWB robustly, it is also important to measure both 'affective' well-being (feelings) and cognitive-affective syndromes (thoughts as well) (Diener, 2000; Warr, 2012) to gain reliable measurement. Affective PWB includes emotions, moods, values, attitudes, and can range from good to bad. This is why the General Health Questionnaire-12 (GHQ-12; Goldberg & Williams, 1988) and the Job-related Affective Well-being Scale (JAWS; Van Katwyk, Fox, Spector, & Kelloway, 2000) were chosen. Cognitive-affective syndromes additionally include thoughts or memories, and may be organised around a theme such as job

satisfaction or burnout; the The Maslach Burnout Inventory–General Survey (MBI-GS; Schaufeli, Leiter, Maslach, & Jackson, 1996) was a suitable measure to do this. The research study thus incorporated a mixture of context-free and context-specific measures, which focused on cognitive-affective and affective aspects of well-being, indicating robust measurement of PWB.

Interestingly, the results were the same for all measures of PWB in the study, perhaps suggesting there might be less distinction between different types of PWB in the population of CPs. Given the emotional investment they have in their work and the emotionally-charged situations they work within, their PWB may be affected globally rather than specific to a work context. All measures of PWB were affected fairly consistently by job demands, with little difference between the strength of the correlations. The supervisory relationship, as measured by the SRQ did not manage to moderate job demands' influence on any of the PWB measures either, further highlighting their similarity in this population.

In terms of measuring burnout, the Maslach Burnout Inventory (MBI) has three distinct versions in use and is considered the standard measuring instrument for burnout (Schaufeli & Buunk, 2003). Because early research conceptualised it as a three-dimensional syndrome existing in professions that encounter challenging interpersonal interactions (Maslach, Schaufeli, & Leiter, 2001), the first two versions were designed specifically for healthcare professionals (Human Services Survey; MBI-HSS, Maslach & Jackson, 1981) and teachers (Educators Survey; MBI-ES, Maslach, Jackson, & Schwab, 1986). The Maslach Burnout Inventory-General Survey (MBI-GS; Schaufeli, Leiter, Maslach, & Jackson, 1996) was later developed, firstly so it could be utilised with other professions, and also so that it could be applied to professional roles (humans services or otherwise) that did not necessarily involve demanding social interactions. Since psychologists' roles have changed considerably in the last decade, i.e. a reduction in direct therapy and an increase in consultation,

managerial tasks, and service development (Australian Psychological Society, 2007; American Psychological Association, 2011; DoH, 2008; National Institute for Mental Health in England; NIMHE, 2010), this is a useful adaption of the original scale and thus the preferred choice of scale for the research study. Furthermore, it is also slightly shorter in length which was useful for the current study given the number of questionnaires used.

Research Process

The research topic was prompted by a personal interest in the area that developed over the course of training. As I experienced different placements, I was required to draw on different skills and develop my abilities, which supervision helped me to do effectively. In addition, supervision helped me manage my emotional responses to my work placements and course demands, and I noticed that the relationship I had with my supervisors differentially contributed to my well-being throughout the course. For example, more positive relationships with supervisors seemed to enhance my working experiences; in one placement where the workload was particularly high, the positive relationship I had with my supervisor seemed to help manage the demands of work without seeing a decrease in my overall well-being. I therefore began to investigate the literature to deduce whether this would be a viable topic for my doctoral thesis, which revealed an abundance of research in the area.

On reflection, I have since acknowledged that although my own experiences of supervision may not be unique, they may not be applicable to all; it is highly likely that different CPs (trainee or qualified) place different amounts of importance on supervision, and this may be dependent on a multitude of factors (e.g., experience level, role, personal characterises, coping style, external life events, attributions about work and supervision, other forms of social support they receive etc.). Given the rejection of the second hypothesis in the study (that supervision would moderate the effects job demand have on PWB), it is possible

that the current research, although grounded in literature, was influenced by personal experiences that were perhaps not generalisable across the population of CPs.

It might also be possible that CPs of varying experience levels use supervision differently to one another. However, the research study wanted to include a *range* of qualified CPs, so did not differentiate this in inclusion criteria. Within the UK NHS specifically, CPs working at band 7 and 8a engage in more client work (direct and indirect) and receive regular supervision whereas higher banded staff are likely to be involved in more managerial roles and service-level work (and less therapy). It was important to include psychologists at a range of bandings, which the research did, but this has not allowed for more subtle distinctions between CP banding levels to be made in the current study. Furthermore, there were not sufficient numbers of individual groups (e.g., band 7s) to examine them separately.

In terms of analysis, the online survey facilitated an efficient and speedier data analysis than would have occurred if the questionnaire had been paper-based. Prompts for incomplete or missing answers reduce the amount of missing data likely to occur, and errors in data inputting are reduced due to data being inputted electronically and then automatically transferred to data analysis programmes (Van Gelder, Bretveld, & Roeleveld, 2010). Online questionnaires are generally returned more quickly then postal surveys (Kroth et al., 2009), although this could not be measured in the current study. They are also more easily adapted if adjustments are required (Van Gelder, Bretveld, & Roeleveld, 2010), but no adjustments were necessary in the study.

The context of the research

The findings of both the research study and the literature review are of relevance given the pressures on mental health services both in the UK and worldwide. Financial austerity, particularly in the UK, has resulted in staff and service cuts that have undoubtedly

caused professionals to feel an increased level of stress. Success is measured by throughput and performance outcomes, demonstrated by the Payment by Results model that has emerged in recent years (Department of Health; DoH, 2013). This is likely to have implications for PWB and possible burnout experienced by professionals in these settings, so increasing our understanding of what contributes to or helps moderate this it is important.

The literature review showed moderate to high levels of burnout in a range of psychologists, however, the sample of CPs included in the research study were no more burnt out than comparative or general population samples, nor were there significant differences between their general well-being (as measured by the GHQ-12) or their negative/positive emotion towards their job (as measured by the JAWS).

Furthermore, the role of a psychologist has evolved over the last decade. This is linked to an increase in other highly-experienced mental health professionals (e.g. cognitive-behavioural therapists) offering therapy, meaning that psychologists have had to broaden their role to demonstrate their added value in the field of mental health (NIMHE, 2010). The literature review showed that psychologists (not specific to CPs) were more burnt out the less therapy they did, because it directly affected their feelings of personal accomplishment. This suggests that engaging in less client work may contribute to burnout in this population, and thus has implications for the reduction in direct therapy and increase in consultation and service management that CPs are now being expected to do.

Within the research project, although banding of CPs is more relevant to the UK NHS and the research study sampled UK CPs, it has international relevance. Whilst the reference to austerity measures is particularly salient to the UK at this time, it is acknowledged that financial cuts are affecting mental health services internationally too (McGrath, Griffin, & Mundy, 2015; National Alliance on Mental Illness, 2011). Furthermore, the changing role of the CP is relevant in other countries as well as the UK (American Psychological Association,

2011; Australian Psychological Society, 2007; DoH, 2008). In addition, the literature review included studies from several countries, although these had a largely western focus.

Implications for further research

A number of possible future research opportunities have arisen from the research study. Although the SRQ was deemed an appropriate measure for the current sample of qualified CPs, a moderation effect was not found. It is possible that qualified CPs use supervision differently to trainees. It could be the case that there are additional elements to the supervision process as level of experience increases, which may not be captured by the SRQ. It is known that this is the case as trainees advance through their training (Stolenberg, McNeill, & Crethar, 1994), so it is likely that changes continue post-qualification too. It would be interesting to compare a larger sample of CPs (trainee and qualified) at different levels of experience and establish whether there were differences on the individual subscales of the SRQ (these include safe base, structure, commitment, reflective education, role model and formative feedback). Since it is possible that trainee and qualified CPs use supervision differently, further research could develop the SRQ to make it more applicable to Band 8a CPs onwards, to reflect all supervision experiences and focus less on areas such as safe base and reflective education, which less experienced trainees are likely to need more.

In addition, it has been suggested that there is a lack of clarity about which type or aspect of supervision enhances job satisfaction and prevents burnout (Spence et al., 2001). It is also possible that different functions of supervision are more or less useful in buffering job stresses and their impact on well-being. The individual subscales could potentially give some indication of this, however, examination of the data during analysis did not reveal anything more specific in the current sample.

Further research could also replicate the research study on trainee CPs, to find out if a moderation effect of supervision exists in this population instead. As discussed, it is possible

that trainee CPs use supervision differently from qualified CPs, and rely on it more heavily whilst developing their skills and professional identities. It is well-known that the training courses for CPs are demanding and rigorous, suggesting a high emotional burden on trainees during this time (Kuyken, Peters, Power, & Lavender, 2003; Schwebel & Coster, 1998). Additionally, training involves a large amount of evaluation and feedback, further contributing to the emotional load. It is fair to assume, therefore, that supervision may serve a really valuable function in helping trainees manage this, and that perhaps they are using it for its restorative function (Inskipp & Proctor, 1993; Proctor, 1986; Wallbank, 2012) more so than they might when they are experienced clinicians.

Indeed, literature shows that chances of burnout decrease as psychologists gain experience (Di Benedetto & Swadling, 2014; Rupert & Kent, 2007; Tamura, Guy, Brady, & Grace, 1995), thus indicating that they become better at managing the emotional and physical demands of work as they progress through their careers. Notably, however, the research study showed that the time psychologists had been in their current job role was related to poorer PWB, suggesting there is a subtle difference between experience and duration in one particular role. It would be expected that supervision has more influence over a supervisee's PWB at earlier stages of their career than later on, particularly given the change in frequency and method.

In addition, the research could also be replicated with band 7 CPs, who, being newly qualified, may be more heavily reliant on supervision, in a similar way to trainee CPs, at this early stage of their career. Comparison research could be done between trainees/band 7s and band 8a/band 8b CPs to establish whether the two groups use supervision differently, whether it had different influences over PWB, or whether it differentially affects the relationship between job demands and PWB. The current research did not have enough participants in each of these groups to do this.

Conclusions

This critical review has discussed the findings of the research study, which set out to examine the effects of job demands on PWB in CPs, and whether supervision moderates this relationship. Particular attention has been given to the second part of the research study in regards to the surprising results of the moderator model. Methodological strengths and weaknesses have been highlighted, and alternative methods for future work have been suggested. Suggestions have been made for future research in this area, the main one being that the study be replicated using trainee CPs or those at early stages in their career as the target population, as there is a strong possibility that this group use supervision differently to qualified CPs (who may have different needs). It is hypothesised that a moderator effect would be found for the effects of job demands on PWB in this population instead.

References

American Psychological Association (APA). (2011). Careers in Psychology. Washington: APA. Retrieved from: http://www.apa.org/careers/resources/guides/careers.pdf

Atkinson, R., & Flint, J. (2001). Accessing hidden and hard-to-reach populations: Snowball research strategies. *Social research update*, *33*(1), 1-4. Retrieved from: http://citizenresearchnetwork.pbworks.com/f/accessing+hard+to+reach+populations+for+research.doc

Australian Psychological Society (APS). (2007). *APS Code of Ethics.* Melbourne: Author. Retrieved from: http://www.psychology.org.au/Assets/Files/APS-Code-Of-Ethics.pdf

Bakker, A. B., Demerouti, E., & Euwema, M. C. (2005). Job resources buffer the impact of job demands on burnout. Journal of occupational health psychology, 10(2), 170. Doi: org/10.1037/1076-8998.10.2.170

Beinart, H. & Clohessy, S. (2009). Supervision. In Beinart, H., Kennedy, P., & Llewelyn, S. (Eds.), *Clinical psychology in practice* (pp. 319-335). Chichester: John Wiley & Sons.

British Psychological Society (BPS). (2004). *Widening access within undergraduate psychology education and its implications for professional psychology: Gender, disability and ethnic diversity.* Leicester: BPS. Retrieved from: http://dcp.bps.org.uk/document-download-area/document-download$.cfm?file_uuid=1B299121-7E96-C67F-D2C54425655A6BE8

British Psychological Society (BPS). (2008). *Generic Professional Practice Guidelines.* BPS: Leicester. Retrieved from: http://www.bps.org.uk/sites/default/files/documents/generic_professional_practice_guidelines.pdf

Clearing House (2015). Clearing House for Postdoctorate Courses in Clinical Psychology. http://www.leeds.ac.uk/chpccp/

Demerouti, E., Bakker, A. B., Nachreiner, F., & Schaufeli, W. B. (2001). The job demands-resources model of burnout. *Journal of Applied psychology*, *86*(3), 499. Doi: 10.1037/0021-9010.86.3.499

Department of Health (DoH). (2008). *Predicting Well-being.* NatCent Social Research. DoH: Amsterdam. Retrieved from: http://www.natcen.ac.uk/media/205352/predictors-of-well-being.pdf

Department of Health (DoH). (2013). Mental Health Payment by Results Guidance for 2013-14. DoH: Leeds. Retrieved from: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/232162/Mental_Health_PbR_Guidance_for_2013-14.pdf

Di Benedetto, M., & Swadling, M. (2013). Burnout in Australian psychologists: Correlations with work-setting, mindfulness and self-care behaviours. *Psychology, health & medicine, 19*(6), 1-11. Doi: 10.1080/13548506.2013.861602

Diener, E. (2000). Subjective well-being: The science of happiness and a proposal for a national index. *American psychologist, 55*(1), 34-43. Doi.org/10.1037/0003-066X.55.1.34

Goldberg, D., & Williams, P. (1988). *A User's Guide to the GHQ*. NFER-Nelson: Windsor.

Hannigan, B., Edwards, D., & Burnard, P. (2004). Stress and stress management in clinical psychology: Findings from a systematic review. *Journal of Mental Health, 13*(3), 235-245. Doi:10.1080/09638230410001700871

Hendricks, V. M., Blanken, P., & Adriaans, N. (1992) *Snowball Sampling: A Pilot Study on Cocaine Use*. Rotterdam: IVO

Huppert, F. A. (2009). Psychological Well‐being: Evidence Regarding its Causes and Consequences. *Applied Psychology: Health and Well‐Being*, *1*(2), 137-164. Doi: 10.1111/j.1758-0854.2009.01008.x

Inskipp, F., & Proctor, B. (1993). *Making the most of supervision Part 1.* Middlesex, UK: Cascade Publications.

Johnson, S., Osborn, D. P., Araya, R., Wearn, E., Paul, M., Stafford, M., Wellman, N., Nolan, F., Killaspy, H., Lloyd-Evans, B., Anderson, E., & Wood, S. J. (2012). Morale in the English mental health workforce: questionnaire survey. *The British Journal of Psychiatry*, *201*(3), 239-246. Doi: 10.1192/bjp.bp.111.098970

Karasek, R. A. (1979). Job demands, job decision latitude, and mental strain: Implications for job redesign. *Administrative science quarterly*, *24*(2), 285-308. Retrieved from EBSCO database.

Karasek, R. A., Triantis, K., & Chaudhry, S. (1982). Co-worker and supervisor support as moderators of associations between task characteristics and mental strain. *Journal of Occupational Behavior, 3,*147-160. Doi: 10.1002/job.4030030205

Karasek, R., Brisson, C., Kawakami, N., Houtman, I., Bongers, P., & Amick, B. (1998). The Job Content Questionnaire (JCQ): an instrument for internationally comparative assessments of psychosocial job characteristics. *Journal of occupational health psychology*, *3*(4), 322. Doi.org/10.1037/1076-8998.3.4.322

Kroth, P. J., McPherson, L., Leverence, R., Pace, W., Daniels, E., Rhyne, R. L., & Williams, R. L. (2009). Combining web-based and mail surveys improves response rates: a PBRN study from PRIME Net. *The Annals of Family Medicine*, *7*(3), 245-248. Doi: 10.1370/afm.944

Kuyken, W., Peters, E., Power, M. J., & Lavender, T. (2003). Trainee clinical psychologists' adaptation and professional functioning: A longitudinal study. *Clinical Psychology & Psychotherapy*, *10*(1), 41-54. Doi: 10.1002/cpp.350

Loretto, W., Platt, S., & Popham, F. (2010). Workplace change and employee mental health: results from a longitudinal study. *British Journal of Management*, *21*(2), 526-540. Doi: 10.1111/j.1467-8551.2009.00658.x

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

Maslach, C., Schaufeli, W. B., & Leiter, M. P. (2001). Job burnout. *Annual review of psychology*, *52*(1), 397-422. Doi: 10.1146/annurev.psych.52.1.397

Maslach, C., Jackson, S. E., & Schwab, R. L. (1986). The Maslach Burnout Inventory-Educators Survey. In C. Maslach, S. E. Jackson, & M. P. Leiter (Eds.), *Maslach Burnout Inventory Manual, 3rd edition.* California: Consulting Psychologists Press.

McGrath, L., Griffin, V., & Mundy, E. Psychologists Against Austerity (2015). *The Psychological Impact of Austerity: A Briefing Paper.* Retrieved from: https://psychagainstausterity.files.wordpress.com/2015/03/psychological-costs-of-austerity-briefing-paper-compressed.pdf

McMahon, M., & Patton, W. (2000). Conversations on clinical supervision: Benefits perceived by school counsellors. *British Journal of Guidance and Counselling*, *28*(3), 339-351. Doi: 10.1080/713652301

Morse, G., Salyers, M. P., Rollins, A. L., Monroe-DeVita, M., & Pfahler, C. (2012). Burnout in mental health services: a review of the problem and its remediation. *Administration and Policy in Mental Health and Mental Health Services Research*, *39*(5), 341-352. Doi: 10.1007/s10488-011-0352-1

National Alliance on Mental Illness (NAMI). (2011). State Mental Health Cuts: A National Crisis. NAMI: U.S. Retrieved from: https://www2.nami.org/Content/NavigationMenu/State_Advocacy/State_Budget_Cuts_Report/NAMIStateBudgetCrisis2011.pdf

National Institute for Mental Health in England (NIMHE). 2010. New ways of working for psychological therapists: Overarching report. NIHHE. Retrieved from: http://www.iapt.nhs.uk/silo/files/new-ways-of-working-for-psychological-therapists.pdf

O'Driscoll, M. P., & Beehr, T. A. (1994). Supervisor behaviors, role stressors and uncertainty as predictors of personal outcomes for subordinates. *Journal of organizational Behavior*, *15*(2), 141-155. Doi: 10.1002/job.4030150204

Palomo, M., Beinart, H., & Cooper, M. J. (2010). Development and validation of the Supervisory Relationship Questionnaire (SRQ) in UK trainee clinical psychologists. *British Journal of Clinical Psychology*, *49*(2), 131-149. Doi: 10.1348/014466509X441033

Proctor, B. (1986). Supervision: A Co-operative Exercise in Accountability. In M. Marken & M. Payne (Eds.), *Enabling and Ensuring - supervision in practice* (pp. 21-23). National Youth Bureau, Council for Education and Training in Youth and Community Work: Leicester.

Rupert, P. A., & Kent, J. S. (2007). Gender and work setting differences in career-sustaining behaviors and burnout among professional psychologists. *Professional Psychology: Research and Practice*, *38*(1), 88. Doi.org/10.1037/0735-7028.38.1.88

Schaufeli, W. B., & Buunk, B. P. (2003). Burnout: An overview of 25 years of research and theorising. In M. J. Schabracq, J. A. M. Winnubst, & C. L. Cooper (Eds.), *The handbook of work and health psychology.* West Sussex: John Wiley & Sons.

Schaufeli, W. B., Leiter, M. P., Maslach, C., & Jackson, S. E. (1996). The Maslach Burnout Inventory-General Survey. In C. Maslach, S. E. Jackson, & M. P. Leiter (Eds.), *Maslach Burnout Inventory Manual, 3rd edition.* California: Consulting Psychologists Press.

Schwebel, M., & Coster, J. (1998). Well-functioning in professional psychologists: As program heads see it. *Professional Psychology: Research and Practice*, *29*, 284 – 292. Doi.org/10.1037/0735-7028.29.3.284

Spence, S. H., Wilson, J., Kavanagh, D., Strong, J., & Worrall, L. (2001). Clinical supervision in four mental health professions: A review of the evidence. *Behaviour change*, *18*(03), 135-155. Doi: http://dx.doi.org/10.1375/bech.18.3.135

Stoltenberg, C. D., McNeill, B. W., & Crethar, H. C. (1994). Changes in supervision as counselors and therapists gain experience: A review. *Professional Psychology: Research and Practice*, *25*(4), 416. Doi.org/10.1037/0735-7028.25.4.416

Tamura, L. J., Guy, J. D., Brady, J. L., & Grace, C. (1995). Psychotherapists' management of confidentiality, burnout and affiliation needs: a national survey. *Psychotherapy in private practice*, *13*(2), 1-17. Doi: 10.1300/J294v13n02_01

Van Gelder, M. M., Bretveld, R. W., & Roeleveld, N. (2010). Web-based questionnaires: the future in epidemiology? *American Journal of Epidemiology*, 172, (11), 1292-1298. doi: 10.1093/aje/kwq291

Van Katwyk, P. T., Fox, S., Spector, P. E., & Kelloway, E. K. (2000). Using the Job-Related Affective Well-Being Scale (JAWS) to investigate affective responses to work stressors. *Journal of occupational health psychology*, *5*(2), 219. Doi.org/10.1037/1076-8998.5.2.219

Vaux, A., & Briggs, C. (2006). Conducting mail and internet surveys. In F. Leong, & J. Austin (Eds.), *The psychology research handbook: A guide for graduate students and*

research assistants. (2nd ed., pp. 186-210). Thousand Oaks, CA: SAGE Publications, Inc. Doi: http://dx.doi.org.ezproxy.lancs.ac.uk/10.4135/9781412976626.n13

Wallbank, S. (2012). Health Visitor Needs: National Perspectives from the Restorative Clinical Supervision Programme. Community Practitioner, 85, 4. Retrieved from British Library.

Warr, P. (2012). How to think about and measure psychological well-being. *Research Methods in Occupational Health Psychology: Measurement, design and data analysis, Routledge Academic, New York*, 76-90. Retrieved from: https://www.sheffield.ac.uk/polopoly_fs/1.157454!/file/Warr_pdf_Well-being_Measurement_Chapter.pdf

Ethics Section

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Doctorate in Clinical Psychology

Lancaster University

2012 intake

Helen Walls

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Health and Medicine | LANCASTER UNIVERSITY

Faculty of Health and Medicine Research Ethics Committee (FHMREC)
Lancaster University

Application for Ethical Approval for Research

Instructions

1. Apply to the committee by submitting
   - ✓ **The University's Stage 1 Self-Assessment Form (standard form or student form) *and* the Project Information & Ethics questionnaire. These are available on the Research Support Office website:** LU Ethics
   - ✓ **The completed FHMREC application form**
   - ✓ **Your full research proposal (background, literature review, methodology/methods, ethical considerations)**
   - ✓ **All accompanying research materials** such as, but not limited to,
     1) Advertising materials (posters, e-mails)
     2) Letters of invitation to participate
     3) Participant information sheets
     4) Consent forms
     5) Questionnaires, surveys, demographic sheets
     6) Interview schedules, interview question guides, focus group scripts
     7) Debriefing sheets, resource lists
2. **Submit all the materials electronically** as a **SINGLE** email attachment in PDF format. Instructions for creating such a document are available on the FHMREC website (http://www.lancs.ac.uk/shm/research/ethics/).
3. **Submit one collated and signed paper copy** of the full application materials. If the applicant is a student, the paper copy of the application form must be signed by the Academic Supervisor.
4. Committee meeting dates and application submission dates are listed on the research ethics committee website http://www.lancs.ac.uk/shm/research/ethics. Applications must be submitted by the deadline stated on the website, to:

   Diane Hopkins
   Faculty of Health & Medicine
   B03, Furness College
   Lancaster University, LA1 4YG
   d.hopkins@lancaster.ac.uk

5. Attend the committee meeting on the day that the application is considered.

1. Title of Project: Does supervision moderate the relationship between job demands and psychological well-being for clinical psychologists?
2. If this is a student project, please indicate what type of project by ticking the relevant box: ☐ PG Diploma ☐Masters dissertation ☐MRes ☐MSc ☐ DClinPsy SRP ☐ PhD Thesis ☐PhD Pall. Care/Pub. Hlth/Org. Hlth & Well Being ☐MD ☐**DClinPsy Thesis** ☐ Special Study Module (3rd year medical student)
3. Type of study ✓ ☐ Involves direct involvement by human subjects ☐ Involves existing documents/data only. Contact the Chair of FHMREC before continuing.

Applicant information
4. Name of applicant/researcher: Helen Walls
5. Appointment/position held by applicant and Division within FHM Trainee clinical psychologist in the Division of Health Research in the Faculty of Health and Medicine
6. Contact information for applicant: E-mail: h.walls1@lancaster.ac.uk Telephone: 07843660371 Address: Faculty of Health and Medicine, C12 Furness College, Lancaster University, Lancaster, LA1 4YG
7. Project supervisor(s), if different from applicant: Name(s): Pete Greasley / Fiona Eccles E-mail(s): p.greasley@lancaster.ac.uk and f.eccles@lancaster.ac.uk
8. Appointment held by supervisor(s) and institution(s) where based (if applicable): Pete Greasley: Teaching Fellow Fiona Eccles: Lecturer in Research Methods / Clinical Psychologist (both based at Lancaster University
9. Names and appointments of all members of the research team (including degree where applicable) Fiona Eccles – MPhys; DPhil (Physics); Graduate Diploma (Psychology); DClinPsy Pete Greasley – BSc (Hons) Behavioural Sciences; PhD Psychology

The Project **NOTE**: In addition to completing this form you must submit a detailed research protocol and all supporting materials.
10. Summary of research protocol in lay terms (maximum length 150 words). In the research project, I will be investigating the relationship between job demands (or 'stress') and psychological well-being at work in the profession of clinical psychology, and how the supervisory relationship might affect this. I am interested in finding out whether the relationship psychologists have with their supervisor and the support they receive from their supervisor helps buffer the demands of a job and the stress caused by the person's working environment. To this end, I am asking qualified clinical psychologists to complete an online survey consisting of some questionnaires which measure job demands, psychological well-being at work, and the supervisory relationship. The questionnaires are 'standardised scale' which means they have been tested on a large number of people and deemed reliable to use for what they claim to measure. I will also be asking them to provide some additional demographic information.
11. Anticipated project dates Start date: August 2014 End date: June 2015

12. Please describe the sample of participants to be studied (including number, age, gender):

Recruitment will be across the United Kingdom, including England, Scotland, Wales and Northern Ireland.

Approximately 300 Clinical Psychologists (CPs), of any age or gender. There is no aim to recruit a certain number of males/females. If more than 300 participants are recruited, their data will be included in analysis. If less than 300 are recruited, the method of analysis may be revised, e.g. correlations. This will require a minimum of approximately 80.

CPs working at any banding (related to role and salary) will be included, but details of their banding will be required in order to make meaningful comparisons if necessary. CPs working at band 7 and 8a are primarily client-focussed and receive regular supervision whereas higher banded staff are likely to be involved in more managerial roles and service-level work (and less therapy) and, therefore supervision may differ.

Both NHS and non-NHS psychologists will be recruited for two reasons. Firstly, it is hoped that this will maximise the chances of recruiting the required number of participants. Secondly, there may be differences between NHS and non-NHS psychologists' perceptions and experiences of job demands due to possible differences in their working environment, so this would allow for such comparisons to be made in analysis.

Participants need to have been receiving supervision for a period of at least four sessions in order to have begun to develop a relationship with their supervisor. This supervision will need to be delivered by a CP to maintain consistency. This is stated in the participant information sheet (appendix 4-J).

13. How will participants be recruited and from where? Be as specific as possible.

The chief investigator will make the questionnaires available as an online questionnaire (using Qualtrics). An email will be sent to all stakeholders on the mailing list of the Doctorate in Clinical Psychology (DClinPsy) Programme, who are largely practising clinical psychologists; the mailing list contains 700 contacts. Permission has been given by the Research Director of the teaching programme to send out an email to all members on this list to invite them to participate in the research (please see appendix 4-G for a copy of this email). It will be clearly stated on the accompanying information that there is no obligation to participate. If the required number of participants is not recruited, a reminder will be sent (please see appendix 4-H for a copy of this email).

An additional form of recruitment will use electronic media called Facebook and Twitter. The Division of Clinical Psychology (DCP), a branch of the British Psychological Society (BPS), have given permission for a link to the research to be posted on these social media networks, giving people chance to opt into the study if they wish to.

The email will contain brief information about the research, an official participant information sheet and an electronic link to the study. Participants will also be given a contact number for the chief investigator, whereby they can access further information should they wish to. If participants choose to take part and click on the electronic link, they will firstly see a consent form which they will have to read, then tick a checkbox to show they have understood and consented. They will then be taken to a survey hosted by Qualtrics, a computer package designed to collect data, where they will complete a series of questionnaires and individual questions (including demographic information). Prior to beginning the questionnaires, participants will be advised that it should take them no more than 15 minutes to complete. Participants are able to cease participation in the study at any point during questionnaire completion, but it will be stated on the participant information sheet that their responses so far will be submitted, in order to capture as much data as possible.

On completion of the questionnaires, responses will be sent to the chief investigator and entered into SPSS, a software package used for statistical analysis. Participants will be given

the option to email the chief investigator to provide their name and contact details if they wish to receive a summary of the research once it has been completed in 2015. Furthermore, on completion of the questionnaires, participants will be given the opportunity to share the study on their social media networks if they wish to, in order to encourage other clinical psychologists to participate; this will be in the format of a web link to the Qualtrics page where the participant information sheet will be available.

14. What procedure is proposed for obtaining consent?

Consent will be sought prior to participants taking part in the online questionnaires. After reading the email inviting them to take part in the study, they will be invited to click on a link to the study. Firstly they will see a participant information sheet and following this, they will see a consent form. Participants will be required to tick boxes to confirm they understand the information, and that they agree to take part.

Participants are able to cease participation in the study at any point during questionnaire completion, but will be advised that their responses so far will be submitted, in order to capture as much data as possible. Unfortunately, it will not be possible to withdraw their data once they have completed the questionnaires as they will be anonymous so it will not be possible to identify their data.

15. What discomfort (including psychological), inconvenience or danger could be caused by participation in the project? Please indicate plans to address these potential risks.

It is not anticipated that this project will cause distress to participants, as questions are investigating the supervisees' perceptions of the supervisory relationship, their perceptions of psychological well-being at work and their perceptions of current job demands. Participants will view a debriefing page following the research containing contact numbers whereby they can seek further support and also will be advised to address any concerns they have with their line manager or an alternative supervisor, or occupational health in their place of work. Contact details for the chief investigator will also be provided. Participants will have the option of downloading the participant information sheet and debriefing sheet, which they can keep if they wish.

16. What potential risks may exist for the researcher(s)? Please indicate plans to address such risks (for example, details of a lone worker plan).

No potential risks exist for the research for this project, as it is an online study.

17. Whilst we do not generally expect direct benefits to participants as a result of this research, please state here any that result from completion of the study.

None.

18. Details of any incentives/payments (including out-of-pocket expenses) made to participants:

None.

19. Briefly describe your data collection and analysis methods, and the rationale for their use

I plan to use online questionnaires using Qualtrics to gather my data, as this is generally an efficient method to gather large amounts of data and transfer the data straight to a statistical software package.

Questionnaires will be presented in a set order. Those questionnaires that are considered least integral to the analysis will be presented last eg. MBI. The current study is designed with three outcome questionnaires to measure well-being comprehensively. However, a more parsimonious analysis could be conducted with fewer outcome questionnaires having been completed. This is

also a rationale for collecing the data as participants complete individual questionnaires so as much data is gathered as possible.

Questionnaires to be used:

- The Job Content Questionnaire (JCQ; Karasek et al., 1998). This is a self-report questionnaire to measure the psychological and social demands of a job, including scales of decision latitude, psychological demands, social support, physical demands and job insecurity. This will measure the predictor variable. See appendix 4-C.
- The Job-related Affective Well-being Scale (JAWS; Van Katwyk, Fox, Spector, & Kelloway, 2000). This is a self-report scale containing 20 or 30 items, designed to assess people's emotional reactions to their job. It includes a wide variety of emotional experiences, both negative and positive. The emotions can be placed into four categories (subscales) that fall along two dimension: pleasurableness and arousal (intensity). This will measure the outcome variable. See appendix 4-E.
- The General Health Questionnaire-12 (GHQ-12; Goldberg & Williams, 1988) will be used as a general measure of well-being to supplement the JAWS. It is a widely-used and well-validated scale, used to detect psychiatric disorders in the general population by assessing the respondent's current state and asks if that differs from his or her usual state.
- The Supervisory Relationship Questionnaire (SRQ; Palomo, Beinart & Cooper, 2010). This is a self-report measure of the supervisory relationship from the perspective of the supervisee. Subscales include safe base, structure, commitment, reflective education, role model, and formative feedback. This will measure the moderator variable. See appendix 4-D.
- The Maslach Burnout Inventory (MSB; Maslach & Jackson, 1981) will be used as a measure of burnout and captures three dimensions: emotional exhaustion (EE), depersonalization (DP), and personal accomplishment (PA). It has been found to have good psychometric properties and reliability coefficients of α=0.89 (EE), α=0.74 (PA) and α=0.77 (DP) (Maslach & Jackson, 1981). The 22 items in the scale as responders to describe their feelings on a 7-point Likert scale ranging from 'never had those feelings' to 'having those feelings a few times a week'.

Additional information required from participants: age, gender, ethnicity, banding (if work for NHS), role responsibilities (if don't work for NHS), number of years qualified, locality currently working in, duration of current supervisory relationship, number of hours of supervision received per month, number of hours worked per week, length of time in current job role, stability of post (permanent, fixed duration or temporary). See appendix 4-F for list of additional information required.

This demographic information will potentially be used to make comparisons between psychologists working at different levels, or of different ages, for example. It is possible that more established clinical psychologists may have developed more resilience, for example, and this might mean that they are less affected by job demands. In the same light, newly qualified psychologists might be more affected by their supervisory relationship than experienced psychologists. The demographic information will allow for such comparisons to be made in analysis.

Moderation analysis will be carried out on the data. Firstly, Pearson's correlations will be calculated; this means that relationships between variables will be examined and where significant relationships exist, further analysis will be carried out. For example, according to previous literature, a negative relationship might exist between amount of job stress and amount of psychological wellbeing at work, i.e. as job stress increases, psychological well-being at work reduces.

Moderation analysis would then consist of regression analysis, which would look to see how much change in one variable predicts change in another. For example, to what extent do job demands predict changes in psychological wellbeing at work. The moderation analysis would test to see whether the supervisory relationship in any way buffers/affects that relationship between job demands and psychological wellbeing, and if so, to what extent.

20. Describe the involvement of users/service users in the design and conduct of your research.

If you have not involved users/service users in developing your research protocol, please indicate this and provide a brief rationale/explanation.

Service users have not been included in the development of this research, because the nature of the study is to look at qualified clinical psychologists and their experiences of work and supervision, rather than service users' or clients' experiences. However, qualified clinical psychologists have been consulted in the design of this project to discuss applicability of questionnaires to be used.

21. What plan is in place for the storage of data (electronic, digital, paper, etc.)? Please ensure that your plans comply with the Data Protection Act 1998.

Data will be anonymous; participants will be identified by their unique reference number assigned to them when completing the questionnaires on Qualtrics. Data will be stored on the Qualtrics software, which is accessed via the Internet; access to this will be password-protected with only the chief investigator and study supervisors having access. Once data is transferred to SPSS, the data files will be password-protected. They will be stored on the secure university network which is encrypted as a standard function. This can be accessed via the VPN from home. These files will be stored securely by the DClinPsy administration team, for up to ten years following completion of research, or from ten years after publication in order to ensure an audit trail is available. Publication of the study will be competed within two years of graduation of the doctoral course (graduation December 2015); if this is to change, the chief investigator will be responsible for informing the ethics committee.

22. Will audio or video recording take place? ☐ **no** ☐audio ☐video

If yes, what arrangements have been made for audio/video data storage? At what point in the research will tapes/digital recordings/files be destroyed?

N/A

23. What are the plans for dissemination of findings from the research?

Dissemination of project findings will be written up as part of the Doctoral Thesis research paper. Further dissemination will be to fellow colleagues and staff. Participants from the research will then be given the option to receive a summary of the findings. It is hoped that the research paper will also be submitted for publication to a relevant journal after completion of the project.

24. What particular ethical problems, not previously noted on this application, do you think there are in the proposed study? Are there any matters about which you wish to seek advice from the FHMREC?

Questions in the measures are not considered to be of an intrusive nature, as they are investigating the supervisees' perceptions of the supervisory relationship, their perceptions of PWB at work and their perceptions of current job demands, using widely-used scales. All participants will be given contact numbers following the research whereby they can seek further support and also advised to address any concerns they have with their line manager, supervisor or occupational health in their place of work.

As all participants will be professional clinical psychologists, it is extremely unlikely that they will not have access to the internet. However, if this is the case, they unfortunately will not be able to take part.

Signatures: Applicant: ……..……......

Date: ……......

Project Supervisor* (if applicable): ……..…….....

Date: ……......

*I have reviewed this application, and discussed it with the applicant. I confirm that the project methodology is appropriate. I am happy for this application to proceed to ethical review.

Appendix 4-A

Protocol

Title

Does supervision moderate the relationship between job demands and psychological well-being for clinical psychologists?

Details

Name of applicant: Helen Walls, Trainee Clinical Psychologist

Name of field supervisor: Dr Fiona Eccles, Lecturer in Research Methods

Name of research supervisor: Dr Pete Greasley, Teaching Fellow, Research Methods

Version number: 2

Date: July, 2014

Introduction

Psychological well-being (PWB) generally refers to positive mental states, happiness and contentment (Robertson & Cooper, 2011). This research will be focusing specifically on PWB at work, i.e. happiness and emotional contentment in the work context. Factors known to affect PWB at work are levels of autonomy (Deci & Ryan, 1991; Deci & Ryan, 1995; Loher et al., 1985), feedback received from managers (Warr, 2007), perceived competence (Deci & Ryan, 1991), satisfaction with job (Robertson & Cooper, 2011), job security (Clarke, 2010; Robertson & Cooper, 2011), workload (Karasek, 1979), work hours (Sparks, Cooper, Freid & Shirom, 1997), and social support including relationship with manager (O'Driscoll & Beehr, 1994; Warr, 2007) and co-worker social support (Johnson & Hall, 1988; O'Driscoll & Beehr, 1994). Poor PWB at work has been found to be detrimental to both the individual and the organisation. For example, significant relationships have been found between PWB at

work and productivity (Harter et al, 2003), customer satisfaction, turnover of staff and sickness-absence levels (Robertson & Cooper, 2011).

Karasek's Job Demands-Control (JDC) model (1979) is one of the most widely recognised and accepted models of occupational strain. The model was initially constructed because it was felt important to distinguish between the different factors that can influence how a person feels when they are at work, whereas previous research had focused on overall demands of the job (Karasek, 1979). The context-specific model proposes that job strain results from a combination of high psychological demands (such as having to work hard and fast) with little freedom to make decisions affecting work, i.e. 'control' (known as decision latitude). Demerouti et al. (2001) further developed this idea and devised the Job Demands-Resources model which assumes that strain at work is related to an imbalance between job demands for the individual (such as such as workload, time pressure and physical environment) and the control or resources (such as feedback, rewards, job control, supervisor support and autonomy) they have to cope with such demands.

In this study I will be focusing on 'supervisor support' as a resource or means of control. This will focus on the supervisory relationship an individual has with their supervisor. Clinical supervision is a significant part of working life within the profession of clinical psychology; the British Psychological Society (BPS) specifies that clinical psychologists at all stages of their career, working in a variety of contexts must engage in regular clinical and line management supervision (BPS, 2003). It is considered the major influence on clinical practice for both qualified and trainee clinical psychologists (Lucock, Hall & Noble, 2006).

Various definitions of clinical supervision exist; after reviewing the literature, Milne (2009) suggests that clinical supervision comprises of three domains: 1) 'Normative'- monitoring and ensuring client well-being; 2) 'Restorative'- supporting the supervisees'

personal and professional well-being; and 3) 'Formative' - educating and guiding professional practice (Milne, 2009).

For supervision to be of use to an individual, the process has to be deemed effective. A large body of research exists around what constitutes 'effective' supervision (see Spence et al., 2001 for a review). In a recent quantitative study of trainee clinical psychologists, Ladany, Mori and Mehr (2013) found effective supervisory behaviours, skills and techniques to include: encouraged autonomy, a strong supervisory relationship and facilitated open discussions between supervisor and supervisee.

In terms of what this means for the individual, McMahon and Patton (2000) found that when supervisees (who were qualified counsellors) perceived their supervisory relationship as helpful and supportive, they reported better emotional well-being, reduced stress and prevention of burnout. Koivu, Saarinen and Hyrkas (2012) explored whether nurses receiving clinical supervision were healthier and more satisfied with their work than their peers who did not attend clinical supervision. The nurses who received efficient clinical supervision reported higher levels of motivation and commitment to the organisation than their colleagues. The authors concluded that clinical supervision can be conceptualised as an additional job resource, which promotes well-being at work. This is in line with Demerouti et al.'s (2001) revised Jobs-Demands-Resources model.

This study will be exploring the impact of job stresses on individuals' PWB at work. Although a large body of research currently exists to show clear relationships between job stresses and individuals' PWB at work (e.g. Karasek, 1979; Robertson & Cooper, 2011; Warr, 2007), little research has been conducted within the profession of clinical psychology.

A review by Hannigan, Edwards and Burnard (2004) explored stress operationalised as well-being, in clinical psychologists in the UK and found only seven studies that could be included in the review. The review found that 40% of psychologists scored at clinical level

on the General Health Questionnaire (GHQ; Goldberg & Williams, 1988), which is used to measure psychological wellbeing and distress, and women scored higher than men overall. The main causes of stress excessive workloads, professional self-doubt and poor management. Lack of resources also contributed to stress. Several methodological problems exist with the studies included in the review: non-standardised self-report measures were used in many of the studies giving cause for concern about their reliability and validity, and in addition, lack of consistency of measures between studies made comparisons difficult. Some of the studies also used small sample sizes and all studies were conducted in the UK, making generalisability weak. The authors suggested that lack of literature in this area may be related to the high amounts of stress experienced by clinical psychologists, meaning their time is limited to carry out such research.

Giver the importance of supervision within their professional role, this research will focus on how clinical supervision can potentially affect the already well-established relationship between job demands and PWB at work. Again, limited research exists in this area; Sterner (2009) investigated 71 U.S. qualified counselling psychologists' perceptions of the supervisory working alliance and found that these perceptions influenced how they responded to work-related stress. When supervisees perceived a strong working alliance with their supervisor, they experienced decreased work-related stress. This finding is consistent with an earlier study of social workers (Coady, Kent & Davis, 1990).

Thus, the research is warranted because there is a paucity of literature around predictors of PWB in qualified clinical psychologists in a work context, and around the role that clinical supervision serves in this. Whilst there is a breadth of literature to suggest what makes good clinical supervision, little research exists that looks at the *impact* of having a good or bad supervision (Bambling et al., 2006). Furthermore, the research is timely due to recent changes in the National Health Service (NHS) including increased pressure on services

due to financial cuts, reductions in staff numbers and the introduction of temporary contracts which are likely to increase job strain. It is, therefore, important to explore PWB in NHS professionals and how this might be improved.

Aims

This research will therefore examine the relationship between job demands, the supervisory relationship and PWB at work. Specifically, it will investigate the role of clinical supervision in moderating the relationship between job demands and PWB at work. It is hypothesised that perceived effectiveness of supervision will act as a buffer between job demands and PWB.

Method

Participants

Inclusion Criteria

Participants will include fully qualified clinical psychologists (CPs) of any age, gender and ethnicity working in the UK NHS or private sector. CPs working at any grade will be included. Within the NHS specifically, CPs working at band 7 and 8a are primarily client-focussed and receive regular supervision whereas higher banded staff are likely to be involved in more managerial roles and service-level work (and less therapy) and, therefore supervision may differ. Participants need to have been receiving supervision for a period of at least four sessions in order to have begun to develop a relationship with their supervisor. It has been found that the bond between supervisee and supervisor begins to form after three session of supervision (Ladany, Ellis & Friedlander, 1999). This supervision will need to be delivered by a CP to maintain consistency.

Sample Size

No previous research has directly examined this model in order to provide an estimate of effect size (although effect sizes for the direct relationships between supervision and well-being, and job demands and wellbeing, are moderate to large). However, as moderation effect sizes are usually small in comparison to main effects, it is proposed to power this study to find a large effect size (suggested as $f^2 = 0.025$; Kenny, 2013) requires approximately 300 participants (Kenny, 2013).

There is no aim to recruit a certain number of males/females. If more than 300 participants are recruited, their data will be included in analysis. If less than 300 are recruited, the method of analysis may be revised, e.g. correlations. This will require a minimum of approximately 80.

Design

A quantitative, within-subjects moderation design will be used. Four standardised self-report assessment measures will be administered as well as a questionnaire gathering demographic information. Measures will be presented in a random order. Figure 1 shows the model to be tested including the proposed measures. A snowball sampling technique will be employed in order to maximise recruitment opportunities; the method for this is detailed below.

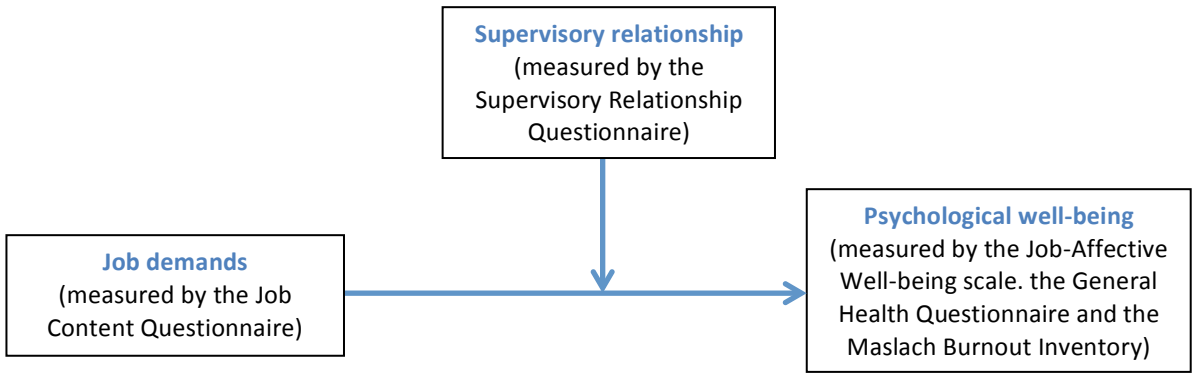

Figure 1. Proposed moderator model.

Predictor Variable

The Job Content Questionnaire (JCQ; Karasek et al., 1998) is a widely-utilized self-report questionnaire used to provide an overall measure the psychological and social demands of a job. It has been used to predict job-related stress in the US and has a strong theoretical background based on Karasek's Job Demands-Control (JDC) model (1979). The JCQ includes six sub scales: Decision Latitute (comprised of Skills Descretion and Decision Authority), Psychological Job Demands, Physical Job Demands, Job Insecurity, Supervisor Social Support and Co-worker Social Support. These sub-scales may be selected and combined according to individual use of the scale.

Cronbach's alpha reliability coefficients of the individual sub-scales have been calculated in several countries (U.S., Canada, Netherlands and Japan) across a range of professions for both men and women, from which mean reliability coefficients have been calculated: Decision Latitute: α=0.81, Psychological Job Demands: α=0.63, Physical Job Demands: α=0.86 , Job Insecurity: α=0.61, Supervisor Social Support: α=0.84 and Co-worker Social Support: α=0.75 (Karasek et al., 1998). See appendix 4-C for the scale.

For the purposes of this study, the following sub-scales will be used: (1) *Decision Latitude* (which consists of *Skill Discretion* (6 items) and *Decision Authority* (3 items), (2) *Psychological Job Demands* (5 items), (3) *Co-worker Social Support* (6 items) and *Job Insecurity* (6 items). Two sub-scales have been omitted for the following reasons: In terms of social support, the *Supervisor Social Support* sub-scale could produce a duplication of questions with the moderator measure (SRQ; see below). And the *Physical Demands* sub-scale will also be omitted because it is deemed irrelevant for the study sample.

Items in the scales are scored using a Likert scale in which 1= stro*ngly disagree* and 4 = *strongly agree*. Sum scores will be created for each of the scales according to existing recommendations.

Moderator Variable

The Supervisory Relationship Questionnaire (SRQ; Palomo, Beinart & Cooper, 2010) is a self-report measure of the supervisory relationship from the perspective of the supervisee. This scale consists of 67 items from six subscales:

- *Safe base* (15 items)
- *Structure* (8 items)
- *Commitment* (10 items)
- *Reflective Education* (11 items)
- *Role model* (12 items)
- *Formative feedback* (11 items)

The scale is scored from 1 to 7 using a Likert scale, where 1 = *strongly disagree* and 7 = *strongly agree*. A total SRQ can be gained by totalling scores for all items and a high score is considered reflective of a positive/good supervisory relationship. The internal consistency of the SRQ is reported to be high (α=0.98) and item total correlation for each subscale is reported to be high. The scale has also been found to have good test-retest reliability and good construct (divergent and convergent) validity (Palomo, Beinart & Cooper, 2010). Appendix 4-D provides full details of the scale.

Dependent Variables

The Job-related Affective Well-being Scale (JAWS; Van Katwyk, Fox, Spector, & Kelloway, 2000) is a self-report scale containing 30 items, which measures affective well-

being in relation a person's job. The overall internal consistency of the JAWS is reported to be high (α=0.95). A copy of measure is provided in appendix 4-E.

Response choices range from 1 = *almost never* to 5 = *extremely often or always*. The scale includes a wide variety of emotional experiences, both negative (15 items) and positive (15 items) emotions. Scores shall be added together to gain an overall scale of affective well-being at work, with a high score signifying a high level of well-being.

The General Health Questionnaire 12 (GHQ-12; Goldberg & Williams, 1988) will also be used to gain an overall measure of well-being that is context-free. The GHQ-12 is an extensively used short screening instrument used to measure well-being in the general population by assessing the respondent's current state and asks if that differs from his or her usual state.. It has good validity and reliability across cultures (ranging from α=0.82 to α=0.86) Gender, age and educational level are shown to have no significant effect on the validity (Goldberg et al., 1997). This is a 12-item measure that is scored using a Likert Scale of 0, 1, 2, 3 with 0 = *not at all* and 3 = *more than usual*. Scores can range 0 to 36. A copy of due to copyright laws but the scale is accessible on the internet.

The Maslach Burnout Inventory (MSB; Maslach & Jackson, 1981) will be used as a measure of burnout and captures three dimensions: emotional exhaustion (EE), depersonalization (DP), and personal accomplishment (PA). It has been found to have good psychometric properties and reliability coefficients of α=0.89 (EE), α=0.74 (PA) and α=0.77 (DP) (Maslach & Jackson, 1981). The 22 items in the scale as responders to describe their feelings on a 7-point Likert scale ranging from 'never had those feelings' to 'having those feelings a few times a week'. A copy of due to copyright laws but the scale is accessible on the internet.

Demographic Information

In order to control for potential factors that might influence individuals' responses, some additional demographic information will be required from participants. They will be asked to provide details of:

- their age, gender and ethnicity;
- if working within the NHS, their banding, as this may have implications for their views on salary, role and responsibilities; if working privately, they will be asked to give details of their role;
- number of years qualified, and length of time in current job role, as this is linked to amount of experience participants will have;
- locality currently working in, in order to look for differences in regions and to monitor number of psychologists who could potentially be supervised by the same supervisor;
- type of service currently working in, in order to make comparisons between individual services if appropriate;
- duration of current supervisory relationship, as differences in perceptions of the relationship may exist depending on its duration;
- number of hours of supervision received per month;
- number of hours worked per week;
- and stability of post (permanent, fixed duration, temporary or speciality). See appendix 4-F for list of additional information required

Procedure

The chief investigator will make the measures available as an online questionnaire (using Qualtrics, a computer package designed to collect data,). An email will be sent to all stakeholders on the mailing list of the Doctorate in Clinical Psychology (DClinPsy)

Programme, who are largely practising clinical psychologists; the mailing list contains 700 contacts. Permission has been given by the Research Director of the teaching programme to send out an email to all members on this list to invite them to participate in the research (please see appendix 4-G for a copy of this email). It will be clearly stated on the accompanying information that there is no obligation to participate. If the required number of participants is not recruited, a reminder will be sent (please see appendix 4-H for a copy of this email).

An additional form of recruitment will use electronic media, namely Facebook and Twitter. The Division of Clinical Psychology (DCP), a branch of the British Psychological Society (BPS), have given permission for a link to the research to be posted on these social media networks, giving people chance to opt into the study if they wish to. Repeated postings will be made to prompt participation. Please refer to appendix 4-I for social media text.

A snowball approach will also be used. Participants will also be able to share the link to the study with fellow clinical psychologists if they wish, and an advert may also be placed in clinical psychologist newsletters (e.g., the DClinPsy course Newsletter).

The email sent out will contain brief information about the research as detailed in appendix 4-G), and an electronic link to the study. By clicking on this link, participants will be taken to the online study hosted by Qualtrics. They will first see a participant information sheet (see appendix 4-J). This will contain a contact number for the chief investigator, whereby they can access further information should they wish to. Participants will then view a consent form (see appendix 4-K for items that will be on the consent form, although the format will alter slightly when transferred into electronic format for Qualtrics), which they will have to read, then tick a checkbox to show they have understood and consented. They will then be taken to questionnaires (appendices 4-C, D, E) and asked to complete some further demographic information (appendix 4-F). Prior to beginning the questionnaires,

participants will be advised that it will take them between 15 and 20 minutes to complete. Participants are able to cease participation in the study at any point during questionnaire completion, but will be advised that their responses so far will be submitted, in order to capture as much data as possible.

On completion of the questionnaires, responses will be sent to the chief investigator and entered into SPSS, a software package used for statistical analysis. Participants will view a participant debriefing sheet (appendix 4-L) where they will be given information about an option to email the chief investigator on completion of the study in order to provide their name and contact details if they wish to receive a summary of the research once it has been completed in 2015. They will also be given details of additional support they can access should they feel it is necessary. Furthermore, on completion of the study, participants will be given the opportunity to share the link to the study with others in order to encourage other clinical psychologists to participate.

Data will be anonymous; participants will be identified by their unique reference number assigned to them when completing the questionnaires on Qualtrics. Data will be stored on the Qualtrics software, which is accessed via the Internet; access to this will be password-protected with only the chief investigator and study supervisors having access. Once data is transferred to SPSS, the data files will be password-protected. They will be stored on the secure university network which is encrypted as a standard function. This can be accessed via the VPN from home. These files will be stored securely by the DClinPsy administration team, for up to ten years following completion of research, or from ten years after publication in order to ensure an audit trail is available.

Participants are able to cease participation in the study at any point during questionnaire completion, but will be advised that their responses so far will be submitted, in order to capture as much data as possible. Unfortunately, it will not be possible to withdraw

their data once they have completed the questionnaires as they will be anonymous so it will not be possible to identify their data.

Proposed Analysis

A moderator is a variable that affects the direction or the strength of the relationship between a predictor variable and a dependent variable (Baron& Kenny, 1986). Moderation analysis (Baron & Kenny, 1986; Field, 2013) will be conducted to examine relationship between job stresses and psychological well-being, and whether supervision moderates this relationship (see Figure 1, page 6).

Multiple regressions can be used to examine moderator effects (Baron & Kenny, 1986) and thus several regressions will be conducted with each measure of psychological wellbeing acting as outcome variables. Predictors will be job demands, supervisory relationship and an interaction term (to explore the moderating effect). If demographic variables correlate significantly with the outcome variable, these will be controlled for.

Costs

Three of the scales are freely available for the proposed number of participants in the study. However, the MSB and the GHQ-12 are licenced and costs will be covered by by the DClinPsy Programme. The cost of the online data collection system, Qualtrics, will also be covered by the DClinPsy Programme.

Ethical Issues

Ethical approval will be sought from the University Ethics Committee via the Chair(s) of the Faculty of Health and Medicine Research Ethics Committee (FHMREC).

Risk to participants or chief investigator

- Consent will be sought prior to participants taking part in the online questionnaires (see appendix 4-K). Participants will be required to tick boxes to confirm they understand the information, and that they agree to take part.
- The participant information sheet (see appendix 4-J) will detail the nature of the research and the exact role of the chief investigator. It will make clear that the investigator is not acting in a therapeutic role, nor can they offer consultation or advice during the process.
- Questions in the measures are not considered to be of an intrusive nature, as they are investigating the supervisees' perceptions of the supervisory relationship, their perceptions of PWB at work and their perceptions of current job demands, using a standardised approach.
- All participants will be given contact numbers following the research whereby they can seek further support and also advised to address any concerns they have with their line manager, supervisor or occupational health in their place of work.

Timescale

The aim is for ethical approval to be gained by July 2014. Data collection would begin once this has been given and the questionnaires are set up on the Qualtrics programme. Participants would then be contacted via email and data collection would take place approximately between July and November (depending on recruitment numbers).. The analysis will be carried out between November and December and the report written thereafter. Submission of the final project would be in May2015. Dissemination of project findings will be given to fellow colleagues and staff and participants from the research(if they have requested them).

Appendices referred to in Protocol

Appendix 4-C: Job Content Questionnaire

Appendix 4-D: Supervisory Relationship Questionnaire

Appendix 4-E: Job-related Affective Well-being Scale

Appendix 4-F: Demographic information required from participants

Appendix 4-G: Email to potential participants

Appendix 4-H: Reminder email to potential participants

Appendix 4-I: Social media text

Appendix 4-J: Participant information sheet

Appendix 4-K: Participant consent form

Appendix 4-L: Participant debriefing sheet

Approval letter

LANCASTER UNIVERSITY

Applicant: Helen Walls
Supervisor: Dr Pete Greasley
Department: DHR

30 September 2014

Dear Helen and Pete

Re: Does supervision moderate the relationship between job demands and psychological well-being for clinical psychologists?

Thank you for submitting your research ethics application for the above project for review by the Faculty of Health and Medicine Research Ethics Committee (FHMREC). The application was recommended for approval by FHMREC, and on behalf of the Chair of the University Research Ethics Committee (UREC), I can confirm that approval has been granted for this research project.

As principal investigator your responsibilities include:

- ensuring that (where applicable) all the necessary legal and regulatory requirements in order to conduct the research are met, and the necessary licenses and approvals have been obtained;
- reporting any ethics-related issues that occur during the course of the research or arising from the research to the Research Ethics Officer (e.g. unforeseen ethical issues, complaints about the conduct of the research, adverse reactions such as extreme distress);
- submitting details of proposed substantive amendments to the protocol to the Research Ethics Officer for approval.

Please contact the Research Ethics Officer, Debbie Knight (01542 592605 ethics@lancaster.ac.uk) if you have any queries or require further information.

Yours sincerely,

S.C. Taylor

Sarah Taylor
Secretary, University Research Ethics Committee

Cc Fiona Aiken, University Secretary, (Chair, UREC); Professor Roger Pickup (Chair, FHMREC)

Research and Enterprise Services

Lancaster University
Bowland Main
Lancaster LA1 4YT
United Kingdom

Tel: +44 (0) 1524 592002
Fax: +44 (0) 1524 593229
Web: http://www.lancs.ac.uk

Appendix 4-C

Job Content Questionnaire Questions

Skills Discretion

1. My job requires that I learn new things
2. My job involves lots of repetitive work
3. My job requires me to be creative
4. My job requires a high level of skill
5. I get to do a variety of different things on my job
6. I have an opportunity to develop my own special abilities

Decision Authority

7. My job allows me to make a lot of decisions on my own
8. On my job, I have very little freedom to decide how I do my work
9. I have a lot of say about what happens on my job

(Decision latitude = Skills Discretion +Decision Authority)

Psychological Job Demands

10. My job requires working very fast
11. My job requires working very hard
12. I am not asked to do an excessive amount of work
13. I have enough time to get the job done

Job Insecurity

14. How steady is your work?
15. My job security is good
16. During the last year, how often were you in a situation where you faced job layoff?
17. How likely is it during the next couple of years you will lose your present job with your employer?

Co-worker social support

18. People I work with are competent doing their jobs
19. People I work with take a personal interest in me
20. I am exposed to hostility of conflict from people I work with
21. People I work with are friendly
22. People I work with are helpful in getting the job done

Taken from the Job Content Questionnaire (JCQ; Karasek et al., 1998)

Appendix 4-D THE SUPERVISORY RELATIONSHIP QUESTIONNAIRE (SRQ)

Developed by Marina Palomo (supervised by Helen Beinart)

The following statements describe some of the ways a person may feel about his/her supervisor. **To what extent do you agree or disagree with each of the following statements about your relationship with your supervisor? Please tick the column which matches your opinion most closely.**	**Strongly Disagree**	**Disagree**	**Slightly Disagree**	**Neither Agree nor Disagree**	**Slightly Agree**	**Agree**	**Strongly Agree**
SAFE BASE SUBSCALE							
1. My Supervisor was respectful of my views and ideas							
2. My supervisor and I were equal partners in supervision							
3. My supervisor had a collaborative approach in supervision							
4. I felt safe in my supervision sessions							
5. My supervisor was non-judgemental in supervision							
6. My supervisor treated me with respect							
7. My supervisor was open-minded in supervision							
8. Feedback on my performance from my supervisor felt like criticism							
9.The advice I received from my supervisor was prescriptive rather than collaborative							
10. I felt able to discuss my concerns with my supervisor openly							
11. Supervision felt like an exchange of ideas							
12. My supervisor gave feedback in a way that felt safe							
13. My supervisor treated me like an adult							
14. I was able to be open with my supervisor							
15. I felt if I discussed my feelings openly with my supervisor, I would be negatively evaluated							
STRUCTURE SUBSCALE							
16. My supervision sessions took place regularly							
17. Supervision sessions were structured							
18. My supervisor made sure that our supervision sessions were kept free from interruptions							
19. Supervision sessions were regularly cut short by my supervisor							
20. Supervision sessions were focused							
21. My supervision sessions were disorganised							
22. My supervision sessions were arranged in advance							
23. My supervisor and I both drew up an agenda for supervision together							
COMMITMENT SUBSCALE							
24. My supervisor was enthusiastic about supervising me							

25. My supervisor appeared interested in supervising me							
26. My supervisor appeared uninterested in me							
27. My supervisor appeared interested in me as a person							
28. My supervisor appeared to like supervising							
29. I felt like a burden to my supervisor							
30. My supervisor was approachable							
31. My supervisor was available to me							
32. My supervisor paid attention to my spoken feelings and anxieties							
33. My supervisor appeared interested in my development as a professional							
REFLECTIVE EDUCATION SUBSCALE							
34. My supervisor drew from a number of theoretical models							
35.My supervisor drew from a number of theoretical models flexibly							
36. My supervisor gave me the opportunity to learn about a range of models							
37. My supervisor encouraged me to reflect on my practice							
38. My supervisor linked theory and clinical practice well							
39. My supervisor paid close attention to the process of supervision							
40. My supervisor acknowledged the power differential between supervisor and supervisee							
41. My relationship with my supervisor allowed me to learn by experimenting with different therapeutic techniques							
42. My supervisor paid attention to my unspoken feelings and anxieties							
43. My supervisor facilitated interesting and informative discussions in supervision							
44. I learnt a great deal from observing my supervisor							
ROLE MODEL SUBSCALE							
45. My supervisor was knowledgeable							
46. My supervisor was an experienced clinician							
47. I respected my supervisor's skills							
48. My supervisor was knowledgeable about the organisational system in which they worked							
49. Colleagues appeared to respect my supervisor's views							
50. I respected my supervisor as a professional							
51. My supervisor gave me practical support							
52. I respected my supervisor as a clinician							
53. My supervisor was respectful of clients							
54. I respected my supervisor as a person							
55. My supervisor appeared uninterested in his / her clients							
56. My supervisor treated his / her colleagues with respect							

FORMATIVE FEEDBACK SUBSCALE							
57. My supervisor gave me helpful negative feedback on my performance							
58. My supervisor was able to balance negative feedback on my performance with praise							
59. My supervisor gave me positive feedback on my performance							
60. My supervisor's feedback on my performance was constructive							
61. My supervisor paid attention to my level of competence							
62. My supervisor helped me identify my own learning needs							
63. My supervisor did not consider the impact of my previous skills and experience on my learning needs							
64. My supervisor thought about my training needs							
65. My supervisor gave me regular feedback on my performance							
66. As my skills and confidence grew, my supervisor adapted supervision to take this into account							
67. My supervisor tailored supervision to my level of competence							

Scoring Key

	Scored 1 (Strongly Disagree) to 7 (Strongly Agree)
	Reverse Scoring Scored 7 (Strongly Disagree) to 1 (Strongly Agree)

References:
Palomo, M. (2004). Development and validation of a questionnaire measure of the supervisory relationship. Unpublished DClinPsych Thesis, Oxford University.

Palomo, M., Beinart, H. & Cooper, M. (in preparation), Development and validation of the Supervisory Relationship Questionnaire (SRQ) in a population of UK trainee clinical psychologists.

Contact details:

Marina Palomo marina.palomo@kmpt.nhs.uk

Helen Beinart helen.beinart@hmc.ox.ac.uk

Appendix 4-E

Job-related Affective Well-being Scale, JAWS

Below are a number of statements that describe different emotions that a job can make a person feel. Please indicate the amount to which any part of your job (e.g., the work, coworkers, supervisor, clients, pay) has made you feel that emotion in the past 30 days.

Please check **one** response for each item that best indicates how often you've experienced each emotion at work over the past 30 days.	Never	Rarely	Sometimes	Quite often	Extremely often
1. My job made me feel angry.					
2. My job made me feel anxious.					
3. My job made me feel at ease.					
4. My job made me feel bored.					
5. My job made me feel calm.					
6. My job made me feel content.					
7. My job made me feel depressed.					
8. My job made me feel discouraged.					
9. My job made me feel disgusted.					
10. My job made me feel ecstatic.					
11. My job made me feel energetic.					
12. My job made me feel enthusiastic.					
13. My job made me feel excited.					
14. My job made me feel fatigued.					
15. My job made me feel frightened.					
16. My job made me feel furious.					
17. My job made me feel gloomy.					
18. My job made me feel inspired.					
19. My job made me feel relaxed.					
20. My job made me feel satisfied.					

Appendix 4-F

Demographic information / additional information about job required for the study

1. Age
2. Gender
3. Ethnicity
4. Banding (if work for NHS)
5. Role (if don't work for NHS)
    a. Predominantly clinical work
    b. Predominantly managerial work
    c. Combination of a and b
6. Location (region)
7. Type of service currently working in
8. Number of years qualified
9. Number of hours worked per week
10. Job status (permanent, fixed term contract, temporary, self employed etc.)
11. Number of hours of supervision currently receiving per month
12. Duration of current supervisory relationship
13. Length of time in current role

Appendix 4-G Email to potential participants

Clinical Supervision Survey

Dear Clinical Psychologist,

Hello!

I am a trainee clinical psychologist at Lancaster University and would like to invite you to take part in an online study about supervision. The questionnaires should take no longer than 15 minutes to complete.

My research is looking at the relationship between job demands and psychological well-being at work in the profession of clinical psychology, and more importantly, how your supervisory relationship might affect this. To this end, I am asking qualified clinical psychologists to complete some standardised scales measuring job demands, psychological well-being, and the supervisory relationship. I will also be asking you to provide some additional demographic information. The results will be used for my thesis and I am happy to provide you with a copy of the results if you send me your email address.

I am hoping to recruit over 300 participants. I know your time is very precious and your participation would be hugely appreciated. If you are interested in taking part, the following link will take you to the study, where you will first view the participant information sheet and consent form. The study can be completed online at any time up until _____ [date to be inserted following ethics approval as this will affect the time limits]. A reminder email may be sent between three and four weeks after receipt of this email as a second invitation to participate.

This study has been reviewed by the Faculty of Health and Medicine Research Ethics Committee, and approved by the University Research Ethics Committee at Lancaster University.

Thank you for taking the time to read this email. I am happy to answer any further questions you might have after reading the information sheet.

With best wishes,

Helen

Helen Walls
Trainee Clinical Psychologist

Faculty of Health and Medicine
C12 Furness College
Lancaster University
Lancaster
Lancashire
LA1 4YG

Email: *h.walls1@lancaster.ac.uk*

Appendix 4-H Reminder email to potential participants

Clinical Supervision Survey

Dear Clinical Psychologist,

I recently contacted you to invite you to take part in an online study about supervision as part of my thesis research. If you have already taken part in the study, thank you for doing so; your participation is greatly appreciated!

If you have not taken part, I wondered if you might consider participating. The questionnaires should take no longer than 15 minutes to complete.

My research is looking at the relationship between job demands and psychological well-being at work in the profession of clinical psychology, and more importantly, how your supervisory relationship might affect this. To this end, I am asking qualified clinical psychologists to complete some standardised scales measuring job demands, psychological well-being, and the supervisory relationship. I will also be asking you to provide some additional demographic information. The results will be used for my thesis and I am happy to provide you with a copy of the results if you send me your email address.

I am hoping to recruit over 300 participants. I know your time is very precious and your participation would be hugely appreciated. If you are interested in taking part, the following link will take you to the study, where you will first view the participant information sheet and consent form. The study can be completed online at any time up until _____ [date to be inserted following ethics approval as this will affect the time limits].

Thank you for taking the time to read this email. I am happy to answer any further questions you might have after reading the information sheet.

With best wishes,

Helen

Helen Walls
Trainee Clinical Psychologist

Faculty of Health and Medicine
C12 Furness College
Lancaster University
Lancaster
Lancashire
LA1 4YG

Email: *h.walls1@lancaster.ac.uk*

Appendix 4-I Social Media Text

Online study about clinical supervision – calling all clinical psychologists!

I am a trainee clinical psychologist at Lancaster University currently recruiting participants for my thesis research. My study is looking at the relationship between job demands and psychological well-being at work in the profession of clinical psychology, and more importantly, how the supervisory relationship might affect this.

Could you spare the time to take part? It will take you no more than 15 minutes to complete the online questionnaires.

For more information, click on the link below.

https://lancsdclinpsy.eu.qualtrics.com/SE/?SID=SV_6WZRUqbhjkUkI7P

This study has been reviewed by the Faculty of Health and Medicine Research Ethics Committee, and approved by the University Research Ethics Committee at Lancaster University.

Thank you for your support!

Appendix 4-J

Lancaster University
Doctoral Programme in Clinical Psychology

Participant Information Sheet

Does supervision moderate the relationship between job demands and psychological well-being for clinical psychologists?

My name is Helen Walls and I am conducting this research as a student on the DClinPsy programme at Lancaster University

What is the study about?

The purpose of this study is to investigate the impact that supervision might have on the relationship between job demands and psychological well-being at work.

Why have I been approached?

You have been approached because the study requires information from people who are practising qualified clinical psychologists. To be eligible to take part, it is necessary for you to have had at least four supervision sessions with your current supervisor who must also be a clinical psychologist.

Do I have to take part?

No. It's completely up to you to decide whether or not you take part and there are no repercussions if you choose not to participate.

What will I be asked to do if I take part?

If you decide you would like to take part, you will be asked to complete an online questionnaire as well as provide some demographic information and general information about your job. It should take no more than 15 minutes to complete all the questions.

If you agree to take part, it will be your responsibility to complete these questionnaires in your own time. Once you have begun completing the questionnaires, it will not be possible to withdraw your data as your responses will be anonymous. Please be aware, if you only manage to partially complete the questionnaires, this data will still be used in the analysis.

Will my data be confidential?

The information you provide is confidential. The data collected for this study will be stored securely and only the researchers conducting this study will have access to this data:

- You will be assigned a unique participant number when you complete the questionnaires which will identify your responses.
- If you choose to provide your name and contact details for dissemination purposes, these will be stored on the secure university network. It will not be possible to link these with your data.
- Your response data will be sent to a statistical software package, with only your reference number as an identifier, so it will not be possible for the researcher to know who has given what response.

- All of the files on the computer relevant to the research will be encrypted and the computer itself password protected. The statistical files will also be password protected.
- At the end of the study, following marking of the project, data will be stored electronically for ten years, or for ten years after publication (which will be completed within two years of graduation). At the end of this period, the data will be destroyed.

What will happen to the results?
The results will be summarised and reported in a thesis and may be submitted for publication in an academic or professional journal. A presentation will also be given to colleagues at Lancaster University. If you would like a copy of the results of the study, please email me to request this.

Are there any risks?
There are no risks anticipated with participating in this study. However, if you experience any distress following participation you are encouraged to inform the researcher and contact the resources provided at the end of this sheet.

Are there any benefits to taking part?
By taking part in the study you will be helping to understand the possible benefits of supervision and potentially improve quality of supervision.

Who has reviewed the project?
This study has been reviewed by the Faculty of Health and Medicine Research Ethics Committee, and approved by the University Research Ethics Committee at Lancaster University.

Where can I obtain further information about the study if I need it?
If you have any questions about the study, please contact the main researcher:

Helen Walls, Trainee Clinical Psychologist
Faculty of Health and Medicine, C12 Furness College,
Lancaster University, Lancaster, LA1 4YG
Email: h.walls1@lancaster.ac.uk

Research Supervisors: Dr Pete Greasley, Lancaster University, tel: 01524 593535 and Dr Fiona Eccles, Lancaster University, tel: 01524 592807

Complaints
If you wish to make a complaint or raise concerns about any aspect of this study and do not want to speak to the researcher, you can contact: Dr Jane Simpson, Research Director, Lancaster University, on 01524 592858, Email: j.simpson2@lancaster.ac.uk

If you wish to speak to someone outside of the Clinical Psychology Doctorate Programme, you may also contact: Professor Paul Bates, Associate Dean for Research, Lancaster University, on 01524 593718, email: p.bates@lancaster.ac.uk

Thank you for taking the time to read this information sheet.

Appendix 4-K

Lancaster University
Doctoral Programme in Clinical Psychology

Consent Form

Study Title: Does supervision moderate the relationship between job demands and psychological well-being for clinical psychologists?

We are asking if you would like to take part in a research project about job demands and psychological well-being at work, and how the supervisory relationship can affect this?

Before you consent to participating in the study, we ask that you read the participant information sheet and check each box below if you agree. If you have any questions or queries before signing the electronic consent form, please speak to the principal investigator, Helen Walls.

1. I confirm that I have read the information sheet (previous page) and fully understand what is expected of me within this study. ☐
2. I confirm that I have had the opportunity to ask any questions and to have them answered. ☐
3. I understand that my participation is voluntary. ☐
4. I understand that the information from my responses to the questionnaires will be pooled with other participants' responses, anonymised and may be published. ☐
5. I consent to the results being used in reports, conferences and training events. ☐
6. I consent to Lancaster University keeping my data for10 years after the study has finished or 10 years after the point of publication. ☐
7. I agree to complete the questionnaires in my own time. ☐
8. I consent to take part in the above study. ☐

Appendix 4-L

Lancaster University
Doctoral Programme in Clinical Psychology

Participant Debriefing Sheet

Thank you for participating in my study!

(Does supervision moderate the relationship between job demands and psychological well-being for clinical psychologists?).

If you would like to receive a summary of the results once the study has been completed, please contact the main researcher providing your name and contact details, at the address below:

Helen Walls, Trainee Clinical Psychologist, **Email:** h.walls1@lancaster.ac.uk

Resources in the event of distress

Should you feel distressed either as a result of taking part, or in the future, the following resources may be of assistance.

- Liaise with your line manager or supervisor if possible.
- Contact Occupational Health as per details for your specific NHS trust.
- Consult your GP if you feel you need further support regarding your psychological well-being.
- If you are experiencing problems related to your work situation whereby you feel you are being unfairly treated, we advise you to follow the NHS complaints procedure. For further information see:

  http://www.england.nhs.uk/wp-content/uploads/2012/09/griev-int-pol.pdf

- Charities to aid people with decreased psychological well-being:

  - Mind – www.mind.org.uk
    Tel: 020 8519 2122 Email: contact@mind.org.uk

  - The Samaritans – www.samaritains.org 08457 909090 (UK)

(c) If the Licensee is declared insolvent or bankrupt or goes into liquidation (other than voluntary liquidation for the purpose of reconstruction only) or if a Receiver is appointed.

Termination shall be without prejudice to any monies which may be due to the Publishers from the Licensee and without prejudice to any claim which the Publishers may have for damages and/or otherwise.

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15. This Agreement constitutes the entire agreement between the parties in respect of the Translated Material and supersedes all prior oral or written proposals, agreements or undertakings concerning the same.

16. This Agreement shall not be amended or modified in any way other than by an agreement in writing and signed by both parties or their duly authorised representatives and shall come into effect on receipt of the payment in full as specified above and a counter-signed copy of this Agreement.

17. This Agreement shall be governed by and construed in all respects in accordance with English Law.

AS WITNESS THE HANDS OF THE PARTIES
hereto the day and year first above written

Signed on behalf of GL Assessment Limited

S Green 9/9/2014

Signed by the Licensee: ***Please print this page, sign, and attach this signature page as a scanned document along with your typed User Agreement form, sent as a Word doc***

User's Signature (handwritten):	**Company/Organisation Stamp (if applicable):**
Title: TRAINEE CLINICAL PSYCHOLOGIST	
Company/Organisation: NHS / LANCASTER UNIVERSITY	
Date: 15.7.14	

University of Massachusetts Lowell

One University Ave Kitson 200
Lowell, Massachusetts 01854-5109

Web site: http://www.uml.edu/college/she/WE/

DEPARTMENT OF WORK ENVIRONMENT

6/08/2014

Dear Walls, Helen,

Thank you for your interest concerning the "Job Content Instrument: Questionnaire and Use's Guide." We have received your "JCQ Data Base Form" and your signed permission form.

I hereby send our questionnaire and validation report (both password encrypted) and research literature as requested. We look forward to supplying you with information that may assist in your research.

Please do not redistribute the questionnaire and the validated report.

You may find more references and information in our book, Robert Karasek and Tores Theorell: Healthy Work, published by Basic Books, 1990.

Sincerely,

Wilfred Agbenyikey, ScD, MPH

for

Robert Karasek, Ph.D
Professor Emeritus, Work Environment

Enclosures:

JCQ 1.0 Questionnaire. Password: **JobStr@in**
JCQ User's Guide and Questionnaire. Password: **@cTiveJob**

Kristenssen (1996) J Occ Hlth Psych
Karasek (1979), Administrative Science Quarterly
Belkic et al, 2004
Hallquist
Karasek, AJPA, 1981
Karasek et al JOHP, 1998

Re: Research enquiry

Helen Beinart [helen.beinart@hmc.ox.ac.uk]
Sent: 19 March 2014 16:13
To: Walls, Helen
Cc: Myra Cooper [myra.cooper@hmc.ox.ac.uk]

Dear Helen

It is a good idea to explore the relationship between SR and well-being at work - not much has been published in the area. I am happy to be consulted re SRQ and SRM – both are valid and reliable measures of the SR from supervisee and supervisor perspectives. It would be great for you to validate on a post-qualification population as part of your thesis. I would be grateful to see the results if you do this. Another trainee from UEA (I think) used the SRQ with non–psychologists and I think validated this. However, this has not been published.
The predictive validity of both measures were looked at in the original studies.
Last year, XX, developed a short version of the SRQ for his thesis. As part of this he revalidated the SRQ.
I hope this answers your queries. Who is your supervisor ?
Do get back in touch when you have got a bit further along.

Best wishes

Helen

www.mindgarden.com

To whom it may concern,

This letter is to grant permission for the above named person to use the following copyright material for his/her thesis or dissertation research:

Instrument: ***Maslach Burnout Inventory, Forms: General Survey, Human Services Survey & Educators Survey***

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Three sample items from a single form of this instrument may be reproduced for inclusion in a proposal, thesis, or dissertation.

The entire instrument may not be included or reproduced at any time in any published material.

Sincerely,

Robert Most
Mind Garden, Inc.
www.mindgarden.com

References

Bambling, M., King, R., Raue, P., Schweitzer, R., & Lambert, W. (2006). Clinical supervision: Its influence on client-rated working alliance and client symptom reduction in the brief treatment of major depression. *Psychotherapy Research*, *16*(03), 317-331.

Baron, R. M., & Kenny, D. A. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of personality and social psychology*, *51*(6), 1173.

Bernard, J. M., & Goodyear, R. K. (2009). *Fundamentals of clinical supervision.* Upper Saddle River, NJ: Pearson Education, Inc.

British Psychological Society (BPS) Division of Clinical Psychology (2003). *Policy Guidelines on Supervision in the practice of Clinical Psychology.* Leicester: BPS.

Clark, A. E. (2010). Work, Jobs, and Well-Being across the Millennium (436-468). In E. Diener, J. Helliwell and D. Kahneman, (Eds.). *International Differences in Well-Being.* Oxford: Oxford University Press.

Coady, C. A., Kent, V. D., & Davis, P. W. (1990). Burnout among social workers working with patients with cystic fibrosis. *Health & social work*, *15*(2), 116-124.

Diener, E., Helliwell, J., and Kahneman, D. (2010). *International Differences in Well-Being.* Oxford: Oxford University Press.

Deci, E. L., & Ryan, R. M. (1995). Human autonomy: The basis for true self-esteem. In M. Kernis (Ed.), *Efficacy, agency, and self-esteem* (pp. 3149). New York: Plenum.

Deci, E., & Ryan, R. (1991). A motivational approach to self: Integration in personality. In R. Dienstbier (Ed.), *Nebraska symposium on motivation: Vol. 38. Perspectives on motivation* (pp. 237–288). Lincoln: University of Nebraska Press.

Demerouti, E., Bakker, A. B., Nachreiner, F., & Schaufeli, W. B. (2001). The job demands-resources model of burnout. *Journal of Applied psychology*, *86*(3), 499.

Department of Health (DoH). (2008). *Predicting Well-being.* NatCent Social Research. DoH: Amsterdam.

Diener, E. (1984). Subjective Well-Being. *Psychological Buletin, 95 (3),* 542-575.

Diener, E. (2000). Subjective well-being: The science of happiness and a proposal for a national index. American psychologist, 55(1), 34.

Goldberg, D. & Williams, P. (1988). A User's Guide to the GHQ. NFER-Nelson: Windsor.

Goldberg, D. P., Gater, R., Sartorius, N., Ustun, T. B., Piccinelli, M., Gureje, O., & Rutter, C. (1997). The validity of two versions of the GHQ in the WHO study of mental illness in general health care. *Psychological medicine*, *27*(1), 191-197.

Gurin, G., Veroff, J., & Feld, S. (1960). *Americans view their mental health: A nationwide interview survey.* New York: Basic Books.

Hannigan, B., Edwards, D., & Burnard, P. (2004). Stress and stress management in clinical psychology: Findings from a systematic review. *Journal of Mental Health*, *13*(3), 235-245.

Harter, J. K., Schmidt, F. L., & Keyes, C. L. (2003). Well-being in the workplace and its relationship to business outcomes: A review of the Gallup studies. *Flourishing: Positive psychology and the life well-lived*, *2*, 205-224.

Huppert, F. A. (2009). Psychological Well‐being: Evidence Regarding its Causes and Consequences†. *Applied Psychology: Health and Well‐Being*, *1*(2), 137-164.

Johnson, J. V., & Hall, E. M. (1988). Job strain, work place social support, and cardiovascular disease: a cross-sectional study of a random sample of the Swedish working population. *American journal of public health*, *78*(10), 1336-1342.

Karasek, R. A. (1979). Job demands, job decision latitude, and mental strain: Implications for job redesign. *Administrative science quarterly*, *24*(2).

Karasek, R., Brisson, C., Kawakami, N., Houtman, I., Bongers, P., & Amick, B. (1998). The Job Content Questionnaire (JCQ): an instrument for internationally comparative assessments of psychosocial job characteristics. *Journal of occupational health psychology*, *3*(4), 322.

Kenny, D. A. (2013). http://davidakenny.net/cm/moderation.htm.

Koivu, A., Saarinen, P. I., & Hyrkas, K. (2012). Who benefits from clinical supervision and how? The association between clinical supervision and the work-related well-being of female hospital nurses. *Journal of clinical nursing*, *21*(17-18), 2567-2578.

Ladany, N., Ellis, M. V., & Friedlander, M. L. (1999). The supervisory working alliance, trainee self‐efficacy, and satisfaction. *Journal of Counseling & Development*, *77*(4), 447-455.

Ladany, N., Mori, Y., & Mehr, K. E. (2013). Effective and ineffective supervision. *The Counseling Psychologist*, *41*(1), 28-47.

Ladany, N., Mori, Y., & Mehr, K. E. (2013). Effective and ineffective supervision. *The Counseling Psychologist*, *41*(1), 28-47.

Loher, B. T., Noe, R. A., Moeller, N. L., & Fitzgerald, M. P. (1985). A meta-analysis of the relation of job characteristics to job satisfaction. *Journal of Applied Psychology, 70,* 280–289.

Lucock, M. P., Hall, P., & Noble, R. (2006). A survey of influences on the practice of psychotherapists and clinical psychologists in training in the UK. *Clinical Psychology & Psychotherapy*, *13*(2), 123-130.

McMahon, M., & Patton, W. (2000). Conversations on clinical supervision: Benefits perceived by school counsellors. *British Journal of Guidance and Counselling*, *28*(3), 339-351.

Milne, D. (2009). *Evidence-based Clinical supervision; Principles and Practice.* Chichester: Wiley-Blackwell.

O'Driscoll, M. P., & Beehr, T. A. (1994). Supervisor behaviors, role stressors and uncertainty as predictors of personal outcomes for subordinates. *Journal of organizational Behavior*, *15*(2), 141-155.

Palomo, M., Beinart, H., & Cooper, M. J. (2010). Development and validation of the Supervisory Relationship Questionnaire (SRQ) in UK trainee clinical psychologists. *British Journal of Clinical Psychology*, *49*(2), 131-149.

Robertson, I., & Cooper, C. (2011). *Well-Being, Productivity and Happiness at Work.* Basingstoke: Palgrave Macmillan.

Ryan, R.M., & Deci, E.L. (2001). On happiness and human potentials: A review of research on hedonic and eudaimonic well-being. *Annual Review of Psychology, 52,* 141–166.

Sparks, K., Cooper, C.L., Fried, Y., & Shirom, A. (1997). The effects of hours of work on health: A meta-analytic review. *Journal of Occupational and Organizational Psychology, 70,* 391–408.

Spence, S. H., Wilson, J., Kavanagh, D., Strong, J., & Worrall, L. (2001). Clinical supervision in four mental health professions: A review of the evidence. *Behaviour change*, *18*(03), 135-155.

Sterner, W. R. (2009). Influence of the supervisory working alliance on supervisee work satisfaction and work-related stress. *Journal of Mental Health Counseling*, *31*(3), 249-263.

Van Katwyk, P. T., Fox, S., Spector, P. E., & Kelloway, E. K. (2000). Using the Job-Related Affective Well-Being Scale (JAWS) to investigate affective responses to work stressors. *Journal of occupational health psychology*, *5*(2), 219.

Warr, P. (2007). *Work, Happiness and Unhappiness*. London: Lawrence Erlbaum Associates.