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School of Psychology

An Investigation into Predictors of Maslach's Three Dimensions of Burnout in Mental Health Staff

By Lucinda Turnpenny

Supervisors: Dr Nick Maguire, School of Psychology, University of Southampton and

Dr Sharon Pettit, School of Psychology, University of Southampton

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ABSTRACT

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AN INVESTIGATION INTO PREDICTORS OF MASLACH'S THREE DIMENSIONS OF BURNOUT IN MENTAL HEALTH STAFF

By Lucinda Turnpenny

The literature investigating predictors of burnout in mental health staff was reviewed using a systematic approach. Seventeen empirical studies were identified. A high level of variety in terms of the independent variables selected by researchers was observed within the literature. Important predictors of burnout included workload, autonomy and control in the workplace, duration of experience of working in mental health, satisfaction and gratitude in the workplace, social support in the workplace, appropriate supervision, and the way that staff experienced working with service users. Study limitations include the use of cross-sectional data, that data were collected at a single time point, and the employment of self-selection methods of recruitment.

Improving Access to Psychological Therapy (IAPT) was launched in 2006, including investment in a new mental health workforce. The current study hypothesised that IAPT therapists would exhibit high burnout and that age, experience, job demands, healing and stressful involvement and general self-efficacy would predict burnout. A cross-sectional design explored burnout in 112 IAPT therapists. A high level of burnout was exhibited; independent-samples *t*-tests confirmed emotional exhaustion and depersonalisation were significantly higher than that in a prior sample of IAPT therapists (Steel Macdonald, Schroder & Mellor-Clark, 2015). Regression models indicated emotional exhaustion was predicted by psychological job demands and stressful involvement; depersonalisation was predicted by stressful involvement, experience, supervisor support and psychological job demands; personal accomplishment was predicted by healing and stressful involvement with clients. Results suggest that IAPT therapists are on a worrying trajectory of burnout; services are advised to urgently address the issue of burnout within therapists, recommendations are discussed.

Table of Contents

List of Tables

List of Figures

DECLARATION OF AUTHORSHIP

I, Lucinda Helen Turnpenny, declare that this thesis and the work presented in it are my own and has been generated by me as the result of my own original research.

An Investigation into predictors of Maslach's Three Dimensions of Burnout in Mental Health Staff

I confirm that:

1. This work was done wholly or mainly while in candidature for a research degree at this University;
2. Where any part of this thesis has previously been submitted for a degree or any other qualification at this University or any other institution, this has been clearly stated;
3. Where I have consulted the published work of others, this is always clearly attributed;
4. Where I have quoted from the work of others, the source is always given. With the exception of such quotations, this thesis is entirely my own work;
5. I have acknowledged all main sources of help;
6. Where the thesis is based on work done by myself jointly with others, I have made clear exactly what was done by others and what I have contributed myself;
7. None of this work has been published before submission

Signed: .....

Date: .....

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Abbreviations

AMH :	Adult Mental Health
CBT :	Cognitive Behavioural Therapy
DP :	Depersonalisation
EE :	Emotional Exhaustion
GMB :	General Model of Burnout (Maslach & Jackson, 1981)
GSE :	The General Self Efficacy Scale (Schwarzer & Jerusalem, 1995
IAPT :	Improving Access to Psychological Therapies
JCQ :	Job Content Questionnaire (Karasek et al., 1998)
JDR :	Job Demands-Resources Model (Bakker & Demerouti, 2007)
MBI :	Maslach Burnout Inventory (Maslach et al., 1998)
MH :	Mental Health
NHS:	National Health Service
NICE :	National Institute for Health and Care Excellence
PA :	Personal Accomplishment
TWIS :	Therapist Work Involvement Scale (TWIS, Orlinsky & Rønnestad, 2005)

Chapter 1: Predictors of Maslach's Three Dimensions of Burnout in Mental Health Professionals: A Literature Review

1.1 Introduction

1.1.1 Adult Mental Health Services and Staff

Staff in the UK National Health Service (NHS) appear to be at a crisis point, with ten million working days lost each year to sickness absence (NHS England, 2016). Mental health (MH) services have struggled to achieve parity of esteem with physical health services in the UK and have long been denied essential funds. Adult mental health (AMH) services are under intense pressure and securing adequate staffing levels has been an area of difficulty. Forty-three per cent of sick days taken by MH staff are reportedly due to work related stress; a figure seconded only by ambulance staff (NHS England, 2016). Almost half of community MH teams report staffing levels judged to be less than adequate, and many more are unable to provide a full multidisciplinary team (The King's Fund, 2015).

Typically, MH services use multidisciplinary teams, which the National Institute for Health and Care Excellence (NICE) advise as the best model of care. This approach is favourable with service users (NICE, 2011) and underpins evidence-based approaches for MH problems including borderline personality disorder (NICE, 2009), depression (NICE, 2009) and obsessive-compulsive disorder (NICE, 2005). Multidisciplinary teams include a range of professionals such as psychiatrists, psychologists and nurses. Surveys have explored different professional disciplines to understand their experiences of workplace stress. The British Psychological Society and New Savoy Staff Wellbeing Survey (2015) focused on psychological professionals; seventy per cent reported their job as stressful, and around half experienced current depression. Meanwhile, Health Education England (2015) highlighted a high vacancy rate for consultant psychiatrist roles and reported that one fifth of psychiatry training positions are currently unfilled. Despite the vast pressures, it appears that little action is taken to support workers, with insufficient NHS occupational health

services available, and fewer than half of NHS trusts implementing any staff wellbeing plan (NHS England, 2016).

It is difficult to disentangle the cause and effect of the stressors that MH staff face. Regardless of service provision and funding, any clinical role providing care to people experiencing mental distress entails unique challenges; the work is demanding, and clinicians must be dedicated, caring individuals to work effectively. Alongside government policy and funding reformation, it is important to build an informative literature base to support MH service providers to understand the stressors experienced by workers, the effects of such stressors, and the factors that diminish and exacerbate such stressors.

1.1.2 Burnout

A commonly cited term in the literature is that of 'burnout', first coined by Freudenberger (1974) following reports of staff fatigue and reduced motivation in MH care settings. The concept of burnout was formalised by Maslach and Jackson (1981), who developed understanding through interviews with human-service workers. They consequently developed the General Model of Burnout (GMB, Maslach & Jackson, 1981, see Figure 1) and the Maslach Burnout Inventory (MBI). The MBI measures three constructs outlined by the GMB (Maslach & Jackson, 1981); emotional exhaustion (EE), depersonalisation (DP), and reduced personal accomplishment (PA). EE refers to depleted emotional resources, leading to difficulties in engaging emotionally with clients and colleagues. DP encompasses a negative, callous or detached response to others. Finally, reduced PA includes decreased feelings of competence at work and a sense of inadequacy in abilities to effectively support clients. Of the three components, EE is the most widely reported in the literature and is most likely to be identified by staff (Maslach et al., 2001); consequently, some have speculated that DP and PA are unnecessary (Shirom, 1989). Within this movement, measures of burnout that focus exclusively on exhaustion have been proposed. For example, the Shirom-Melamed Burnout Measure (Shirom & Melamed, 2006) assesses emotional, physical, and cognitive aspects of fatigue, while the Copenhagen Burnout Inventory (Kristensen et al., 2006) assesses physical and psychological exhaustion.

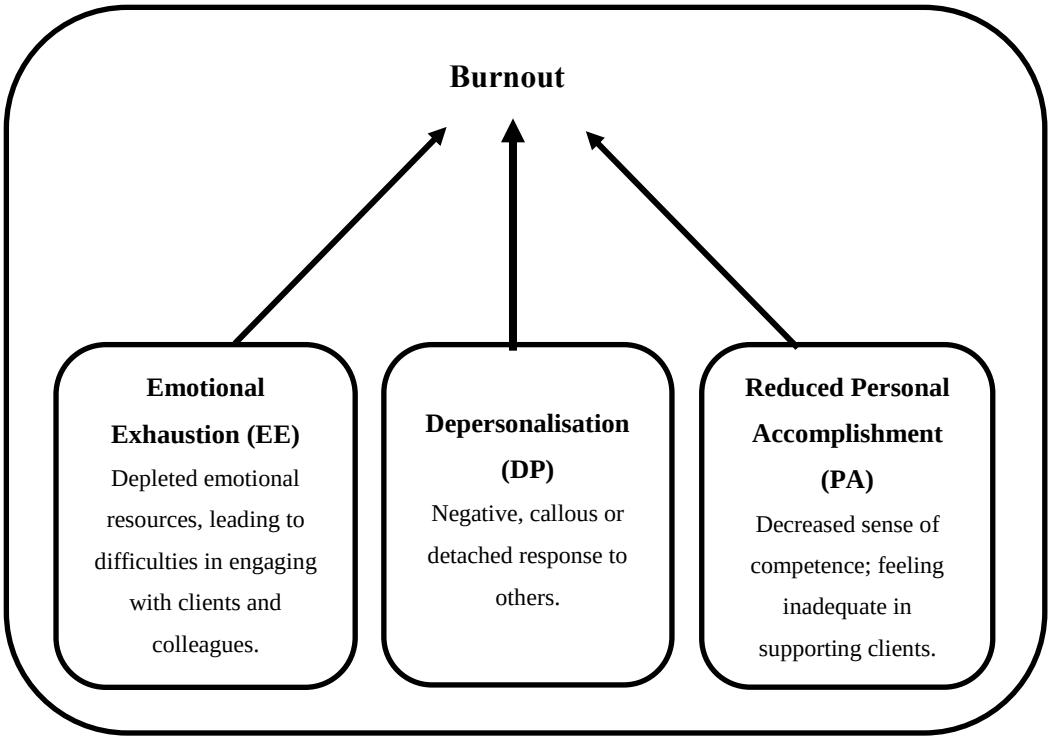

Figure 1. Schematic model depicting General Model of Burnout (GMB, Maslach & Jackson, 1981)

However, while EE captures the feelings of stress and exhaustion that characterise burnout, DP and PA are seen to represent how people relate to their work, and are believed to develop in addition to EE (Leiter & Maslach, 2001). EE is proposed to instigate workers to distance themselves emotionally in order to cope, leading to DP. Furthermore, it is conceivable that feelings of exhaustion and cynicism would lead a worker's sense of PA to diminish, either because they no longer perceive themselves to be effective, or due to an objective reduction in their effectiveness. Some have argued that PA does not correlate with EE and DP, suggesting it should not be included in concepts of burnout (see Lee & Ashforth, 1996). The authors of the Oldenburg Burnout Inventory (Halbesleben & Demerouti, 2005) argue that burnout is a two-factor model including only EE and DP, positing that PA is a personality trait and not a component of burnout. Despite such arguments, the three-factor structure of the MBI has been demonstrated extensively (e.g., Bria, Spanu, Baban & Dumitraşcu, 2014; Poghosyan, Aiken & Sloane, 2009; Bakker**,** Demerouti & Schaufeli, 2002; Schaufeli, Salanova, Gonzalex-Roma & Bakker, 2002; Gorter, Albrecht, Hoogstraaten & Eijkman, 1999; Enzmann, Schaufeli & Girault**,** 1995).

Others have further criticised the MBI due to the inductive procedure used in its development, contending that theory-driven, deductive methods are more appropriate (Shirom, 2005). The MBI has gained further criticism due to its wording, which is claimed to be dated (Demerouti et al., 2003). Despite these criticisms, the MBI continues to be widely used.

In addition to the multiple measures available, several theories have been proposed to understand the factors leading to the development of burnout (see Maslach & Leiter, 2016). Initial models sought to understand how the three dimensions of burnout affect one another, and suggested that EE was an antecedent of DP and subsequent diminished PA (Maslach & Jackson, 1981). However, such theories offer little insight into the precipitating factors leading to EE, DP and PA initially. In contrast, the Defensive Coping model (Cherniss, 1980), proposed three stages experienced by an individual leading to burnout. The first is job stressors, where the worker undergoes an imbalance between work demands and their own resources. This leads to an emotional response of exhaustion and anxiety, and finally the worker engages in defensive coping, altering their attitude and behaviour to cope, for example, by becoming more cynical. This model does not explore the role of accomplishment in burnout.

Subsequently, the Conservation of Resources model (Hobfoll & Freedy, 1993) was developed, proposing that burnout develops in response to continued 'threat' to available resources. This model was expanded upon and the Job Demands-Resources model was developed (JDR, Bakker & Demerouti, 2007, see Figure 2), which is highly popular, perhaps because it explores both positive and negative job characteristics, and is not limited to specific factors, but assumes that any demand and any resource can contribute to worker burnout (Schaufeli & Taris, 2014). The JDR suggests that individuals experience burnout when they are exposed to excessive job demands and have inadequate resources to manage such demands. This model is useful in recognising the broad factors that may contribute to burnout, for example, demands and resources may include aspects of the physical working environment, psychological characteristics of the individual and qualities of the work itself. However, its broad approach may also be a limitation as the theory lacks specificity, meaning it may be difficult to test (Schaufeli & Taris, 2014), and may have led to disparity amongst study designs, making it difficult to compare results. Furthermore, the JDR places little emphasis on the interaction between the individual and their job role.

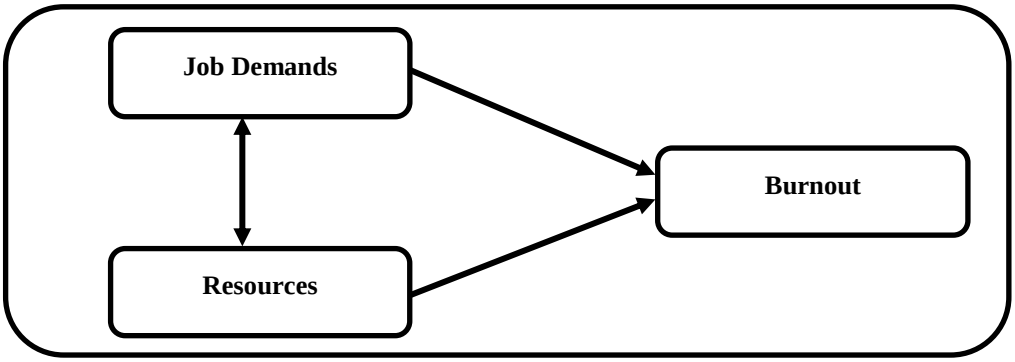

Figure 2. Schematic model depicting the Job Demands-Resources model was developed (JDR, Bakker & Demerouti, 2007)

In contrast, the Areas of Worklife model (Leiter & Maslach, 2003) perceives burnout to arise in response to person-job 'mismatches' in six focal areas; workload, control, reward, community, fairness, and values; the larger the mismatch between the person and the job, the greater the chances of burnout. This model is useful in building understanding around why some individuals may experience burnout within a workplace while others do not, but may be overly rigid in the focal areas it proposes.

In summary, since the establishment of the term 'burnout', several schools of thought have emerged, with no uniform view on which model most accurately explains its development. Despite criticisms, the GMB and the MBI (Maslach & Jackson, 1981) remain the most widely used and accepted construction and measurement of burnout, leading to bias towards the MBI within the literature. Despite this criticism, the current review will focus exclusively on studies utilising the MBI. The rationale for such a restriction is based on the continued dominance of this measure in empirical research and the availability of research papers employing the MBI. Furthermore, comparing and synthesizing results from studies that construct burnout differently could confound the possible conclusions that can be drawn; whilst focusing exclusively on one measure and construct of burnout enables study results to be directly compared. In line with the GMB, in the current review, the term 'burnout' will be used to refer to a sense of high EE, high DP and low PA (Maslach & Jackson, 1981).

1.1.2.1 The Impact of Burnout in MH Staff

Burnout has repeatedly been linked with outcomes for staff wellbeing, service provision and patient outcomes in MH staff and therefore provides an important area for

research. For example, in MH staff, burnout has been associated with relationship problems, reduced job satisfaction, and mental and physical health problems (Carson et al., 1999; Heaney, Price & Rafferty, 1995; Killian, 2008; Long, Blackwell & Midgley, 1990; Perrone, Aegisdottir, Webb & Blalock, 2006; Rohland, 2000; Smoot & Gonzolas, 1995; Stalker & Harvey, 2002). At a service level, burnout has also been linked with increased absenteeism, poor job commitment, reduced job performance, and high levels of staff turnover (Burke & Richardsen, 1993; Schwab, Jackson & Schuler, 1986; Smoot & Gonzolas, 1995; Stalker & Harvey, 2002). Furthermore, levels of staff burnout have been predictive of self-reported quality of care (Salyers et al., 2015) and patient satisfaction (Vahey et al., 2004).

1.1.2.2 Predictors of burnout

From the above review of measures and models of burnout, it can be observed that at present, the field of burnout lacks a unified approach to its measurement or to understanding its development in individuals. However, ensuring the wellbeing of MH workers is an important topic in the current economical and political climate. In more recent theories, conceptualisations of burnout have focused on the demands placed on the worker and the resources available to the worker to cope with such difficulties. However, the wide variety and disparity of potential explanatory models leads to a question around how researchers formulate research questions and select independent measures to consider the predictive factors of burnout, which the current systematic review seeks to explore.

1.1.3 Previous Reviews

Previous reviews have explored burnout in other staff groups, such as teachers (Watts & Roberston, 2011), correctional officers (Schaufeli & Peeters, 2000), medical doctors (Ishak et al., 2009), nurses in general healthcare (Epp, 2012; Adriaenssens, De Gucht & Maes, 2015). Burnout in mental health staff has previously been explored, but has limitations. For example, Dickinson and Wright (2008) conducted a review of literature on stress and burnout in inpatient forensic MH nurses. The review focused on literature published between 1978 and 2007 and identified seven studies that were appropriate for inclusion. The authors identified several main factors that appear to act as stressors for forensic nurses, including inter-professional conflicts, high workload, and a lack of involvement in decision-making. This paper has several limitations; it explores a narrow range of literature, with no clear inclusion or exclusion criteria explicitly stated, and is

limited to only nurses in forensic MH setting, meaning the results cannot be generalised beyond this population.

Another paper that focuses on a narrow population is presented by Lee, Lim, Yang and Lee (2011), which aimed to investigate burnout in psychotherapists. The authors identified 17 suitable papers published between 1988 to 2008. Results indicated that over-involvement with clients had the most significant association with high EE, while a poor sense of control appeared to lead to a greater sense of DP and reduced PA. Job satisfaction also played an important role in protecting therapists from all three components of burnout. However, this study is limited to investigation of psychotherapists working in the USA. Furthermore, the review only included papers that studied independent variables that had been explored in a minimum of three empirical papers, thus the review does not reflect the true diversity and variety in the factors and populations that researchers have explored.

A broader review was conducted by Paris and Hoge, (2010), which reviewed literature in the 'MH workforce'. The review explored the prevalence of burnout, the associated correlating factors and the interventions to prevent burnout that had been examined in papers published between 1990 and 2009. The review yielded a total of 145 articles and included papers utilising a range of measures, making it difficult to infer comparisons due to differing definitions of burnout. Due to the breadth of subject matter included, the review offers little in-depth analysis, and leaves a space in the literature for a literature review with a more focused question and scope.

In summary, previous reviews have typically focused on narrow populations, or have been so broad that it is difficult to obtain a detailed picture of the literature in existence. Thus the literature presents a gap for an in-depth review on predictive factors of burnout in MH staff.

1.1.4 Objectives

A systematic review aims to identify, evaluate and summarise the findings of all relevant individual studies within a subject area, thereby making the available evidence more accessible to decision makers (Centre for Reviews and Dissemination, 2009). Such reviews can guide services and practitioners to the most current studies, and can inform practice guidelines and research agendas (Wieseler & McGauran, 2010). Regular

systematic literature reviews can indicate unanswered questions and methodological flaws within the evidence base.

The overall research question for the current review was ‘in recent research, which factors are the most important in predicting MH professionals’ experiences of EE, DP, and PA?’. The review had a secondary question, ‘which factors have researchers selected to focus on when exploring predictors of burnout in MH professionals?’. The review had two main aims, firstly to draw together and synthesise the recent literature around predictors of burnout, critically appraising the evidence base, and secondly to build a clearer picture of the factors that appear to be more and less important in predicting burnout of staff in the most up-to-date literature.

1.2 Methods

1.2.1 Inclusion and Exclusion Criteria

The current review only included papers that were peer reviewed journal articles, written in English language, and published between 2006-2016. Articles were included if they used an empirical, quantitative methodology, if they utilised a population consisting exclusively of MH professionals working in clinical roles within AMH, and if they explored predictive factors for burnout, measuring any or all of Maslach and Jackson's (1981) three dimensions of burnout (EE, DP and PA) as the dependent variable. The dependent variable was constricted to Maslach and Jackson's (1981) three dimensions of burnout due to the dominance of this measure in the literature, and to enable direct comparisons between papers. Papers were excluded if they were case studies, if they were intervention studies, and if they did not include any regression analysis of predictors of components of burnout, for example, if they only utilised correlation analysis. Furthermore, studies utilising populations of staff working with people with intellectual disabilities, dementia, substance abuse difficulties, children and adolescents and veterans were excluded as these were not seen to be direct AMH settings.

1.2.2 Information Sources

The following electronic databases were searched via EBSCO: Medline, CINAHL, PsycINFO. Following retrieval and screening, the reference lists from each eligible paper were screened for eligible studies.

1.2.3 Search

Search terms were identified through examination of previous literature and were adjusted according to MeSH and thesaurus terms. The same search terms and Boolean operators were utilised across all three databases, see Table 1.

Table 1.

Search terms utilised across databases.

Population		**Population**		**Outcome**
Professional*	AND	"Mental Health"	AND	Burnout
OR				OR
Staff				"Emotional Exhaustion"
OR				OR
Personnel				Depersonalisation
OR				OR
Psychiatrist				Depersonalization
OR				OR
Psychotherapist				"Personal Accomplishment"
OR				
Therapist				
OR				
Psychologist				
OR				
Nurse				
OR				
"Psychiatric nurse"				
OR				

Team

Restrictions: English language only; Peer reviewed Journal Articles, published 2006- 2016

1.2.4 Study Selection

The search process is presented in Figure . The search returned 1,653 papers that were English language, peer reviewed journal articles, published within the previous 10 years. After removal of 551 duplicates, 1,102 papers remained. Titles and abstracts were screened according to fixed inclusion and exclusion criteria, revealing 129 papers applicable to the relevant criteria. Subsequently, full texts were examined, revealing 17 articles to be appropriate for inclusion in the current review. Reference lists of included papers were scrutinised but revealed no further eligible papers. This gave a total sample of 17 papers. Table 2 presents full details of studies selected, including the current review's quality assessment rating, completed using the National Institute of Health Quality Assessment Tool for Observational Cohort and Cross-Sectional Studies (2014), discussed further below (see section 1.4, 'Risk of bias within studies').

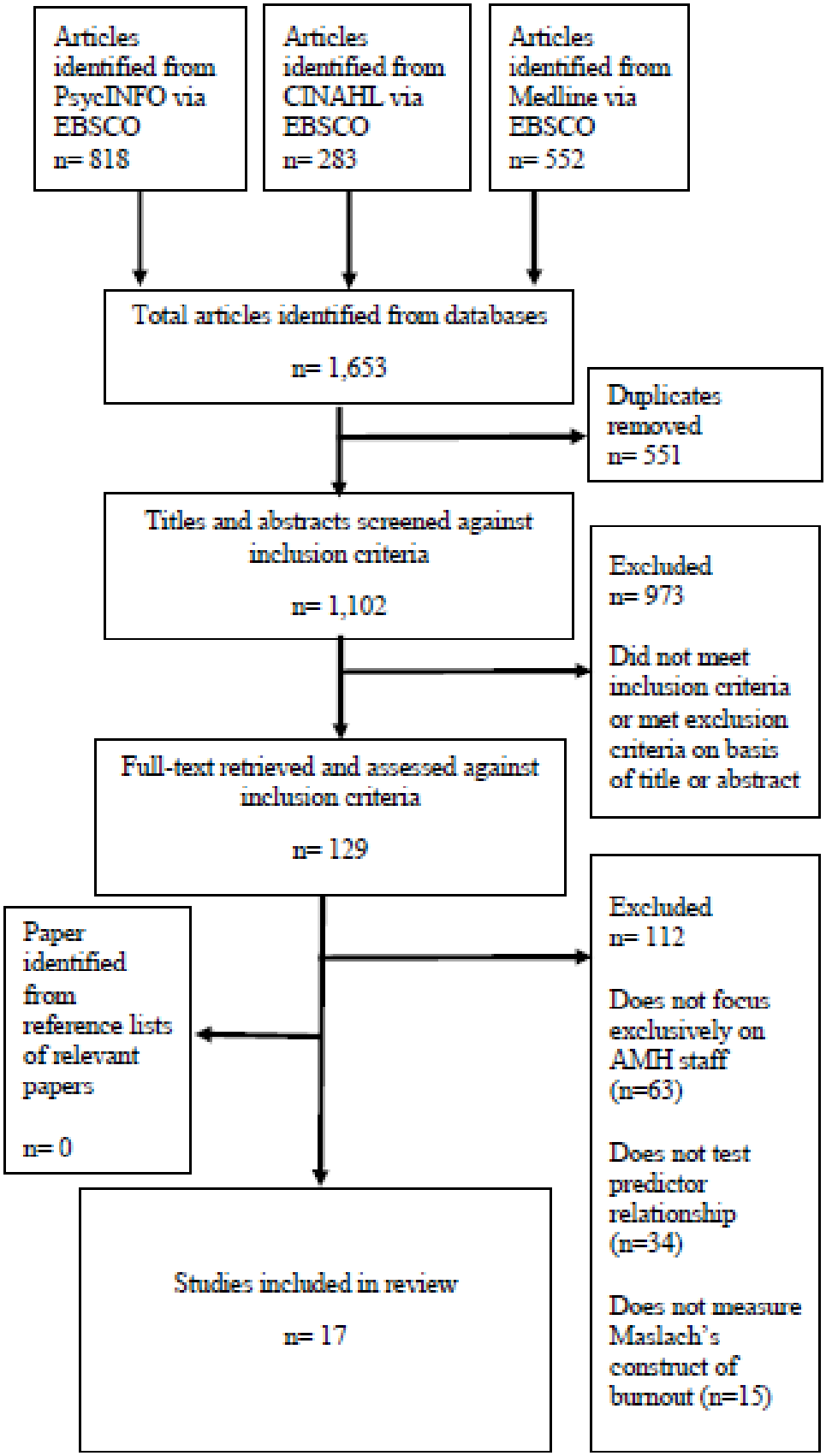

Figure 3. Flow chart of selection process employed within the review.

Table 2.
Details of selected papers including population, setting, design, sample size, independent variables (IVs), dependent variable (DV), results, and quality assessment rating using National Institute of Health Quality Assessment Tool for Observational Cohort and Cross-Sectional Studies (2014). Papers are listed in order of sample size (ascending).

Author	**Sample**	**Setting**	**IVs:** Measures	**DV:** Measure	**Results**	**Quality Rating**
Lanham et al., 2012	65 MH Staff	USA Community MH agencies	**Demographics:** Age, gender, education level, job position and duration **Workplace Factors – job variety, social support from colleagues & supervisor, friends & family, quality of client/provider relationships:** Original questionnaire **Job Satisfaction:** Minnesota Satisfaction Questionnaire (Weiss, Dawis, England & Lofquist, 1967) **Gratitude:** Gratitude Questionnaire (McCullough, Emmons & Tsang, 2002); plus self-authored measured of work-place gratitude **Hope:** Adult Trait Hope Scale (Snyder et al., 1991)	**Burnout**: MBI	**Predictors of EE:** Workplace-specific gratitude **Predictors of DP:** Workplace-specific gratitude **Predictors of PA**: Dispositional gratitude	Fair

Author	Sample	Setting	IVs: Measures	DV: Measure	Results	Quality Rating
Bressi et al., 2009	81 Psychia-trists	Italy Dept. of psychiatry in MH system	**MH:** General Health Questionnaire (Goldberg, 1992) **Job Satisfaction:** Job Diagnostic Survey, Job Satisfaction subscale) (Hackman & Oldham, 1975) **Demographic variables, level of experience and work setting, sources of stress:** Original questionnaire	**Burnout**: MBI	**Predictors of EE:** Low job satisfaction; engaging in work that involved patients' families **Predictors of DP:** Working with demanding patients **Predictors of PA:** Job satisfaction; relationship with superiors.	**P**oor

Author	Sample	Setting	IVs: Measures	DV: Measure	Results	Quality Rating
Madathil et al., 2014	89 Psychiatric nurses	USA MH hospitals	**Demographics:** Age, gender, nursing degree/licensure, nursing employment history **Workplace Factors:** Characteristics of hospital, hours worked, total patients per shift, salary. **Transformational Leadership Style:** Multifactor Leadership Questionnaire (Bass & Avolio, 2004) **Autonomy:** Nursing Work Index—Revised (Aiken & Patrician, 2000) **Depressive Symptoms:** Brief Symptom Inventory (Derogatis, 1975)	**Burnout**: MBI	**Predictors of EE:** Transformational leadership **Predictors of DP:** Autonomy **Predictors of PA**: Transformational leadership	**F**air

Author	**Sample**	**Setting**	**IVs:** Measures	**DV:** Measure	**Results**	**Quality Rating**
Kraus & Stein, 2013	114 MH Case Managers	USA Community MH agencies	**Demographics:** Age, gender, ethnicity, marital status, and highest education level. **Structural Aspects of Work:** Caseload size, number of years at agency, and types of adult clients served **Degree to which agencies have implemented recovery-oriented services:** Recovery Self-Assessment (RSA): Provider Version (O'Connell et al. 2005)	**Burnout**: MBI	**Predictors of EE: C**aseload size, case managers' perceptions of agency recovery oriented services **Predictors of DP:** highest education level completed, case managers' perceptions of agency recovery-oriented services **Predictors of PA**: Age, case managers' perceptions of agency recovery-oriented services	**F**air
Steel, et al., 2015	116 Psychological therapists	UK Improving Access to Psychological Therapies	**Psychological Demands, Social Support and Decision Latitude:** Job Content Questionnaire (Karasek et al., 1998) **Control Coping**: The Coping Survey (Latack, 1986; Leiter, 1991) **Therapists' working style and emotional involvement:** Therapist Work Involvement Scale (Orlinsky & Rønnestad, 2005)	**Burnout**: MBI	**Predictors of EE:** Psychological job demands; decision latitude; stressful involvement with clients **Predictors of DP:** Young age; psychological job demands **Predictors of PA:** Length of training; Control Coping and Decision Latitude; healing involvement with clients	Good

Author	**Sample**	**Setting**	**IVs:** Measures	**DV:** Measure	**Results**	**Quality Rating**
Nelson et al., 2009	169 MH Staff	UK NHS Crisis resolution teams	**Demographics:** Age, sex, profession, level of seniority, hours worked, shift work, site of team **Job Satisfaction:** Minnesota Satisfaction Scale **General Job Satisfaction**: Item from the Job Diagnostic Survey (Hackman & Oldham, 1975) **Sources of Stress and Satisfaction:** PLAO questionnaire (Billings et al., 2003)	**Burnout**: MBI	**Predictors of EE:** Ethnicity**,** duration of career, age **Predictors of DP:** Ethnicity, job title**,** duration of career, age, work setting **Predictors of PA**: Ethnicity, job title work setting	Fair

Author	**Sample**	**Setting**	**IVs:** Measures	**DV:** Measure	**Results**	**Quality Rating**
Ogresta et al., 2008	174 MH Staff	Croatia State psychiatric hospitals, psychiatric clinics	**Demographics:** Age, sex, profession, years of service, marital status, number of children **Job Satisfaction:** Job Satisfaction Survey (Spector, 1994) **Occupational Stress:** Manifestations of Occupational Stress Survey (Jelec, 2006)	**Burnout**: MBI	**Predictors of EE: R**ewards satisfaction; work climate satisfaction; psychological and physical manifestations of occupational stress; advancement opportunities; benefits satisfaction. **Predictors of DP:** Negative emotional and behavioural reactions toward patients and colleagues; psychological and physical manifestations of occupational stress; rewards satisfaction. **Predictors of PA:** Work climate satisfaction	**G**ood

Author	**Sample**	**Setting**	**IVs:** Measures	**DV:** Measure	**Results**	**Quality Rating**
Pedrini, 2009	202 MH staff	Italy Non-hospital psychiatric residential facilities	**Demographics:** Age, sex, marital status, children, professional, education level **Work-related aspects**: Duration of experience in MH, job characteristics, correspondence of current job to one's own aspirations, workload, relationship with colleagues, and support from supervisor **Job Characteristics (Feedback about results, task significance, task variety, task identity, and autonomy.):** Job Diagnostic Survey (Hackman &Oldham, 1975)	**Burnout**: MBI	**Predictors of EE**: Low feedback; about job performance; poor support from supervisors; young age **Predictors of DP:** Low feedback about job performance **Predictors of PA:** Low task identity; young age	Good

Author	**Sample**	**Setting**	**IVs:** Measures	**DV:** Measure	**Results**	**Quality Rating**
Evans et al., 2006	237 MH Social Worker	England and Wales Adult Services	**Workplace Factors:** The Karasek Job Content Questionnaire (Karasek, 1979) **Feelings about employer, social work in MH services, government MH policy and the MH Act**: Original questionnaire by study authors **Demographics:** Qualifications, job history, and "Questions about work context and environment."	**Burnout**: MBI	**Predictors of EE:** Job demands, feeling valued, feelings about social work role **Predictors of DP:** Feelings about social work role, feeling valued, gender **Predictors of PA**: Decision latitude	**F**air
Lent & Schwartz, 2012	340 Professional counsellors	USA Inpatient settings, community MH outpatient settings	**Demographics:** Years of experience, sex, race/ethnicity. Type of counselling license held, educational level, education specialty, primary work settings **Personality factors:** International Personality Item Pool Big Five (Goldberg, 1999)	**Burnout**: MBI	**Predictors of EE:** Neuroticism **Predictors of DP**: Neuroticism; agreeableness **Predictors of PA**: Neuroticism; agreeableness	Fair

Author	**Sample**	**Setting**	**IVs:** Measures	**DV:** Measure	**Results**	**Quality Rating**
Dreison et al., 2016	358 MH staff	USA Clinical teams from MH agencies	**Job Demands:** Organizational Readiness for Change Short Form (ORC-D4) stress subscale (Lehman et al. 2012; TCU Institute of Behavioral Research 2014) **Supervisor autonomy support**: Work Climate Questionnaire (Rochester 2014) **Self-efficacy:** ORC-D4 self-efficacy subscale (Lehman et al. 2012; TCU Institute of Behavioral Research 2014). **Staff Cohesion:** ORC-D4 staff cohesion subscale (Lehman et al. 2012; TCU Institute of Behavioral Research 2014)	**Burnout**: MBI	**Predictors of EE:** Supervisor autonomy support; staff cohesion **Predictors of DP:** Supervisor autonomy support, self-efficacy, and staff cohesion **Predictors of PA**: Self-efficacy	Good
Ray et al., 2013	430 MH staff	Canada Community MH, Inpatient MH	**Compassion Satisfaction, Compassion Fatigue**: ProQol R-IV Questionnaire (Stamm, 2005) **Person-job match:** Areas of Work-Life Scale (Leiter & Maslach, 2000)	**Burnout**: MBI	**Predictors of EE:** Number of years in the profession; compassion satisfaction; person–job match **Predictors of DP:** CS; CF; person–job match	**G**ood

Author	**Sample**	**Setting**	**IVs:** Measures	**DV:** Measure	**Results**	**Quality Rating**
Acker, 2008	460 MH staff	UK Outpatient MH and community support systems	**Sociodemographic variables:** Age, marital status, family status, gender, job experience, education, race, job setting **Control variables**: Worker's salary, size of agency, and size of caseload. **Agencies Variables:** Type of agency - outpatient MH agencies and community support systems, and the type of funding that the agency receives (i.e., public, private, or non-profit).	**Burnout**: MBI	**Predictors of EE:** Agencies' variables **Predictors of DP:** Sociodemographic variables **Predictors of PA:** Sociodemographic variables	Fair
Van Daalen et al., 2006	1,008 MH staff	The Nether-lands MH care organisations	**Job Characteristics**: Workload, emotional demands, autonomy, social support):VBBA (van Veldhoven and Meijman, 1994) **Family to work conflict:** Survey Work Home Interference-Nijmegen (SWING, Wagena and Guerts, 2000) **Background variables**: Gender, age education, contract hours, job tenure, job type	**EE:** UBOS – Dutch version of MBI	**Predictors of EE:** Gender, workload, Autonomy, social support from colleagues, emotional demands, family-to-work conflict	Good

Author	**Sample**	**Setting**	**IVs:** Measures	**DV:** Measure	**Results**	**Quality Rating**
Blau et al., 2013	1,639 Psychi-atric Rehab. Practi-tioners	USA Inpatient and outpatient psychiatric services	**Demographics:** Gender, age, educational level **Work-related variables:** Duration of service, annual salary, personal involvement **Personal Involvement with clients:** Original questionnaire designed by study authors	**Burnout**: MBI	**Predictors of Predictors of EE:** Education level; personal involvement **Predictors of Predictors of DP:** Demographic variables; work-related variables; EE; female gender; age; personal involvement **Predictors of Predictors of PA:** Demographic variables; EE; depersonalization; age; length of service	**Poor**
Jovanović et al., 2016	1,980 Psychia-try trainees	15 European countries	**Individual Factors:** Age, gender, relation-ship status, having children, psychiatry as first career choice **Education:** Years of training, postgraduate education other than training **Work related Factors:** Weekly working hours, daily rest and weekly clinical supervi-sion	**Burnout**: MBI	**Predictors of EE:** Longer working hours, lack of clinical supervision, less than 11 hours daily rest **Predictors of DP:** Younger age, not having children, being male, not having psychiatry as first career choice **Predictors of PA**: Lack of postgraduate education.	**Poor**

Author	**Sample**	**Setting**	**IVs:** Measures	**DV:** Measure	**Results**	**Quality Rating**
LaSalvia et al., 2009	2,000 MH Staff	Italy All local MH employees	**Workplace factors:** Areas of Worklife Scale (Leiter & Maslach, 2003) **Perceived Changes in Work Organisation**: Evaluation of Changes scale (Original questionnaire designed by study authors) **Leadership, Skills Development, Work-group cohesion:** Management Areas scale (Original questionnaire designed by study authors)	**Burnout**: MBI	**Predictors of EE:** High workload **Predictors of DP:** Poor rewards; few perceived positive changes in organisation **Predictors of PA**: Lack of participation in decision-making	Good

1.3 Results

1.3.1 Study Characteristics

A summary of methodology and results of studies included will now be discussed in addition to that presented in Table 1.

1.3.2 Design

All 17 studies included utilised a cross-sectional questionnaire design, with data collected at a single point in time. Participation was voluntary in all studies, with all participants being self-selected.

1.3.3 Population Characteristics and Sample Size

The studies took place in a variety of countries; six studies were conducted in the USA, four in the UK, three in Italy, one in Croatia, one in Canada, one in The Netherlands, and one study was international, recruiting participants from 15 European countries (Jovanović et al., 2016). Across the studies, where reported, the mean age of participants was 40.44 years old. All samples included a majority of female participants, and on average, 59.63% of participants were female. Sample sizes ranged from 65 to 2000. Nine studies utilised a multi-disciplinary sample of MH staff, while two studies focused exclusively on psychiatrists, two on counsellors and talking therapists, one on psychiatric rehabilitation practitioners, one on MH social workers, and one on nurses.

1.3.4 Measures

1.3.4.1 Dependent Variable

As previously stated, only studies including burnout as the dependent variable were selected. Several papers included additional dependent variables (for example, Evans et al., 2006 measured participants' mental wellbeing using The General Health Questionnaire (Goldberg, 1992) but these are not discussed in the current review.

1.3.4.1.1 Burnout

In line with selection criteria, all studies employed the MBI (Maslach & Jackson 1981). The MBI includes 22 items and three subscales measuring; EE, DP, and PA. A combination of high EE, high DP and low PA are thought to indicate burnout. The MBI has reported Chronbach's alpha ranging from .70 to.90 (Maslach & Jackson, 1981), indicating satisfactory validity and reliability. Researchers may employ individual subscales or use the measure in its entirety, but the three subscales may not be aggregated to create one scale. All selected studies except one (Van Daalen et al., 2006) used the measure in its entirety, suggesting that researchers continue to view the three components of the general model of burnout (Maslach, 1996) as relevant, despite criticisms of the PA subscale (Demerouti et al., 2001).

1.3.4.2 Independent Variables

Across the selected literature, studies were highly diverse in terms of the independent variables selected and the questionnaires utilised to measure such variables, and a total of 24 measures were utilised across the 17 studies (presented in Table 3). In some cases, multiple questionnaires were used to measure the same construct, and the field appears to have little uniformity. For example, four studies measured job satisfaction, but utilised three different measures (the Minnesota Satisfaction Questionnaire (Weiss, Dawis, England & Lofquist, 1967) the Job Satisfaction Survey, (Spector, 1994), and the PLAO questionnaire (Billings et al., 2003). Several studies authored original measures for their research purposes. Independent variables could be grouped into several larger categories, titled for the purposes of this review as 'Workplace Factors', including aspects of the physical environment and workload, 'Emotional Experiences', referring to how the worker experienced the workplace, for example, their level of job satisfaction or compassion fatigue, and 'Personal Attributes', referring to personal characteristics of the worker, such as their self-efficacy (see Table 3). A selection of measures will now be discussed in further detail.

The Job Content Questionnaire (JCQ, Karasek et al., 1998) was utilised in two selected studies (Steel, Macdonald, Schroder & Mellor-Clark, 2015; Evans et al., 2006) and is designed for self-administration to measure five components of working life; 'Decision Latitude', 'Psychological Demands', 'Social Support', 'Physical Demands' and 'Job Insecurity'. A strength of the measure is that researchers may select individual

subscales according to their research question. The JCQ is comprehensive in terms of measuring demands and resources within the workplace but does not measure personal attributes of workers, so researchers may need to use this measure in conjunction with other measures to obtain a full picture of the factors affecting burnout.

In contrast, The Areas of Worklife Scale (AWS, Leiter & Maslach, 2003) assesses personal factors for individual workers, measuring person- job congruence in six areas of work life. These are 'Workload', 'Control', 'Reward', 'Community', 'Fairness', and 'Values'. A high score indicates a good person-job match, and a low score identifies a mismatch (Leiter & Maslach, 2003). Because the AWS seeks to measure overall person-job match, it must be used in its entirety, unlike the JCQ (Karasek et al., 1998) where subscales may be used exclusively, meaning the measure is less flexible and may not be tailored to research questions. However, a strength is that the measure has strong theoretical underpinnings and directly maps onto the Areas of Worklife model (Leiter & Maslach, 2004), enabling this model to be directly tested.

The Job Diagnostic Survey (JDS, Hackman & Oldham, 1975) is designed to explore employees' motivation and to evaluate the impact of workplace changes on employees. Both Bressi et al. (2009) and Nelson et al. (2009) utilised only the personal outcome 'general satisfaction' subscale. Although the 'general satisfaction' subscale achieved good internal consistency, other JDS subscales appeared unsatisfactory, and this is possibly why researchers have not opted to utilise the full measure. The 'general satisfaction' subscale includes only five items, meaning it is quick to administer, however, it may be too short to offer a detailed analysis of workplace satisfaction.

A more in-depth measure of workplace satisfaction is provided in the Minnesota Satisfaction Questionnaire (Weiss, Dawis, England & Lofquist, 1967), which offers a long scale (100 items) and a short scale (20 items). Both Lanham et al. (2012) and Nelson et al. (2009) employed the short scale, which includes three subscales; 'General Satisfaction', 'Intrinsic Satisfaction,' and 'Extrinsic Satisfaction'. The short scale was initially tested on a 'heterogenous' group of 1,460 employed men from different professions, and indicated good internal consistency and validity. Although the Minnesota Satisfaction Questionnaire remains a popular measure of workplace satisfaction, it is now over 40 years old, and was

originally only validated on a male population, thus its validity in the present day and in samples including females may be questionable.

Table 3.
Measures utilised across selected studies.

Overall Category	Factor Measured	Measure name	Measure author	n studies utilising measure
Workplace Factors	Job Demands, staff cohesion	ORC-D4 - stress subscale, staff cohesion subscale	Lehman et al. 2012; TCU Institute of Behavioral Research, 2014	1
Workplace Factors	Psychological Demands, Social Support and Decision Latitude	Job Content Questionnaire	Karasek et al., 1998	2
Workplace Factors	Transformational Leadership Style	Multifactor Leadership Questionnaire	Bass & Avolio, 2004	1
Workplace Factors	Leadership, Skills Development, Work-group cohesion	Management Areas scale	LaSalvia et al., 2009	1
Workplace Factors	Workplace factors workload, control, reward, community, values and fairness	Areas of Work life Scale	Leiter &Maslach, 2000	2

Workplace Factors	Perceived Changes in Work Organisation	Evaluation of Changes scale	LaSalvia et al., 2009	1
Workplace Factors	Feedback, task significance, variety, task identity, and autonomy	Job Diagnostic Survey	Hackman & Oldham, 1975	2
Workplace Factors	Workload, emotional demands, autonomy, social support	VBBA	van Veldhoven & Meijman, 1994	1

Overall Category	Factor Measured	Measure name	Measure author	n studies utilising measure
Workplace Factors	Degree to which agencies are recovery-oriented	Recovery Self-Assessment (RSA): Provider Version	O'Connell et al., 2005	1
Workplace Factors	Supervisor autonomy support	Work Climate Questionnaire	Rochester, 2014	1
Emotional Experiences	Hope	Adult Trait Hope Scale	Snyder et al., 1991	1
Emotional Experiences	Job Satisfaction	Minnesota Satisfaction Questionnaire	Weiss, Dawis, England & Lofquist, 1967	2
Emotional Experiences	Job Satisfaction	Job Satisfaction Survey	Spector, 1994	1
Emotional Experiences	Stress and Satisfaction	PLAO questionnaire	Billings et al., 2003	1
Emotional Experiences	Gratitude	Gratitude Questionnaire	McCullough, Emmons & Tsang, 2002	1

Emotional Experiences	Occupational Stress	Manifestations of Occupational Stress Survey	Jelec, 2006	1
Emotional Experiences	Compassion Satisfaction, Compassion Fatigue	ProQol R-IV Questionnaire	Stamm, 2005	1
Overall Category	Factor Measured	Measure name	Measure author	n studies utilising measure
Personal Attributes	Self-efficacy	ORC-D4 self-efficacy subscale	Lehman et al. 2012; TCU Institute of Behavioral Research 2014	1
Personal Attributes	Mental wellbeing	General Health Questionnaire	Goldberg, Williams & Williams, 1988	1
Personal Attributes	Mental wellbeing	Brief Symptom Inventory	Derogatis, 1975	1
Personal Attributes	Personality factors	International Personality Item Pool Big Five	Goldberg, 1999	1

Personal Attributes	Family to work conflict	Survey Work Home Interference-Nijmegen	Wagena & Guerts, 2000	1
Personal Attributes	Therapists' working style and emotional involvement	Therapist Work Involvement Scale	Orlinsky & Rønnestad, 2005	1
Personal Attributes	Control Coping	The Coping Survey	Latack, 1986	1

1.4 Risk of bias within studies

To evaluate the quality and internal validity of the studies selected, the National Institute of Health Quality Assessment Tool for Observational Cohort and Cross-Sectional Studies (2014) was employed. Seven studies were rated as 'Good', seven as 'Fair', and three as 'Poor' (see Table 2, full scoring for each study under each quality domain is presented in Appendix A). Although other assessment tools are available, the current tool was designed for cross-sectional studies, and therefore was most applicable. Overarching themes and features that appeared across papers within the quality assessment will now be discussed; strengths and weaknesses of individual papers will be discussed thereafter.

All selected papers utilised a cross-sectional design conducted at a single time point, and a strength across all studies was that this design was appropriate to answer research questions posed. A strength of cross-sectional designs capturing a single time point is the reduced burden on participants compared to studies collecting data at multiple time points, and consequently the risk of attrition is lowered. However, although the results indicate associations and predictive relationships, no conclusions can be drawn regarding direct causality. Furthermore, studies which gather cross-sectional, snapshot data do not enable exploration of the chronological progression of burnout, and may fuel a view of burnout as a state rather than a chronic condition. Such data does not allow the exploration of sequential models of burnout such Maslach and Jackon's (1981), which proposes that EE precedes DP and diminished PA.

All studies utilised self-report measures, which are popular in such research, being both efficient and inexpensive, meaning researcher burden is reduced (Palhus & Vazire, 2009). However, self-report measures can be criticised, and there are possibilities for validity to be affected by social desirability bias (answering of questions in a way that is perceived to be socially desirable), acquiescent responding (the tendency to agree to a statement without fully understanding its content), extreme responding (the tendency to use extreme choices on a rating scale) or regression to the mean (where participants select ratings at the middle of the scale).

This use of the Institute of Health Quality Assessment Tool for Observational Cohort and Cross-Sectional Studies (2014) highlighted themes of weaknesses within the papers, for example, poor reporting of justification of sample size, and limited control over key confounding variables. Most studies (14 in total) did not provide any sample size justification, such as a power calculation. Consideration and justification of sample size is

important; if the sample is too small, it may not be possible to answer research questions, meanwhile, a larger than justified sample may lead to unnecessary costs and undue burden on participants (National Institute of Health, 2014). Therefore, ensuring an appropriate sample is important to ensure valid and ethical research. Within reviewed papers, it is unclear whether the problem is a failure to report calculations, or a failure to consider this factor when planning research, but the lack of discussion of such a factor leads to difficulties in assessing the quality of such research.

As noted above, a further weakness was the lack of measures to control for potential confounding variables. Of the 16 reviewed papers, only seven controlled for such factors. This means that the validity of such papers may be compromised, limiting the conclusions that can be drawn.

A strength across the papers is that all utilised the MBI as an outcome measure (Maslach & Jackson, 1981), which is a clearly defined and deemed reliable, valid and consistent. In terms of exposure measures, several papers (Blau, Tatum & Goldberg, 2013; Bressi et al., 2009; Evans et al., 2006; Jovanović et al., 2016) employed original questionnaires designed for the purposes of their study.

1.5 Summary and Synthesis of Results of Individual Studies

Results of the studies will now be discussed and research methodology will be critiqued. Full results of studies are presented in Table 2.

Several studies focused exclusively on factors related to the job role or the workplace setting. The study by LaSalvia et al. (2009) found that high workload, low control, high frequency of face-to-face interactions with service-users, and perceived organisational unfairness were predictors of burnout. Such findings around clear workplace factors are useful clinically, as workplaces can directly intervene to improve these aspects, however, the research provides little information around the contribution of personal factors to burnout. Strengths of the study include the large and representative sample of 2,000 MH staff, and the employment of established measures, meaning the results may be directly compared with other research.

Another study that demonstrated strength in its sample was that of Jovanović et al. (2016), which recruited 1,980 psychiatry trainees. However, predictors were measured using an original questionnaire, and the results indicated that factors including the number of hours worked, whether supervision was absent or present, and whether psychiatry was the worker's first career choice were predictive of burnout. Although these findings are useful in developing recommendations to reduce burnout, they provide little in-depth understanding, for example, around the necessary qualities of supervision. The use of a pre-existing, validated measure such as the JCQ (Karasek et al., 1998) would have provided more nuanced explanations to further develop understanding.

Similarly, Evans et al. (2006) designed an original questionnaire to measure participants' attitudes towards their work, and found that feeling unhappy about the place of MH social workers in modern services acted as a predictor of burnout. Unlike Jovanović et al. (2016), Evans et al.'s (2006) use of an original questionnaire appears to be well justified in relation to the research questions posed, which relate uniquely to the sample and political landscape. Although the study is robust in answering its own research questions, the results are difficult to generalise beyond the sample and political context, and again may offer little in terms of wider understanding around burnout.

The above studies have examined workplace and organisational factors but have paid little attention to the unique aspects of working within AMH teams. The study by Kraus and Stein (2013), paid more attention to such factors, and results indicated that those

who perceived their agency to offer high levels of 'recovery-oriented' services experienced lower levels of burnout. This study employed established measures, meaning the research may be replicated to build theoretical understanding around recovery-based approaches. However, a criticism might be that the researchers did not explore whether service users perceived services to be recovery oriented; although it is useful to recognise that staff evaluations impact burnout.

A further study that explored issues unique to AMH services was that of Steel et al. (2015). The study concluded that therapists' perceptions of their therapeutic relationships with clients, were predictive of burnout. Uniquely within the selected studies, Steel et al.'s (2015) study measured service user factors, including their age, sex, presenting problem and symptoms. These factors did not play a significant role in predicting burnout, a finding which is useful in signposting researchers to the most important areas for future investigation, although, clearly, conclusions cannot be drawn from one study alone. The study exclusively explored therapists working within IAPT (Improving Access to Psychological Therapies) services, meaning the data is highly useful to inform understanding of this profession, but cannot be generalised beyond this population.

Blau et al. (2013) also investigated a sample restricted to one profession, in this instance psychological rehabilitation practitioners. Results indicated that personal involvement with clients and higher education level was predictive of increased burnout, while being older, and having a longer length of service were related to lower burnout. The sample was large but the response rate was low given the large pool of potential respondents who were contacted. Furthermore, the study was conducted as part of a wider study with different aims, and the authors acknowledge that this limited the number of factors explored, which leaves a question around the theoretical grounding of the study, suggesting it was designed in a top-down way rather than grounded in theory.

The results of the study conducted by Madathil, Heck and Schuldberg (2014) provide in-depth guidance around important factors to reduce burnout in psychiatric nurses. Results indicated that the leadership style of supervisor, and the nurses' work role autonomy were predictors of burnout. This suggests that training and education for supervisors could be highly beneficial in reducing burnout. A strength of the study was the use of validated measures, however, the study utilised a small sample size and did not achieve statistical power, thus further exploration is required to verify the results.

A factor that was explored across more than one paper was that of workplace satisfaction. Bressi et al. (2009), found that the strongest predictor of burnout was poor job satisfaction, but the paper did not investigate the factors that may lead to poor satisfactions, meaning the clinical implications are unclear. A further weakness is the use of an original questionnaire to measure workplace "sources of stress". Although items were reportedly derived from literature and a pilot study, the use of an original measure appears unjustified, given that pre-existing measures of workplace stressors have been validated across large, diverse samples (for example, the JCQ, Karasek et al., 1998, and the AWS, Leiter & Maslach, 2003), and would have provided data that could be compared directly with other studies.

Like the paper by Bressi et al. (2009), Ogresta, Rusac and Zorec (2008) also explored the role of job satisfaction. However, the results are arguably more useful, as the authors employed correlations to explore the factors most related to job satisfaction, which, although unable to establish causal relationships, can guide organisations and researchers to future areas for investigation and interventions. The study measured a comprehensive range of predictor variables using established measures, and makes clear service recommendations, overall leading to a high level of potential application both clinically and academically.

The paper by Lanham et al. (2012) found that gratitude in the workplace (including feeling grateful for co-workers, supervisors and clients) was predictive of burnout and job-satisfaction. The study was unique amongst selected studies in exploring the role of workplace gratitude. A weakness of the study was the small sample size of 65 participants; the authors do not provide any power analysis but estimate that the study did not achieve satisfactory power. This limits the validity of the study; however, gratitude is a relatively unexplored factor within the field of burnout, and the study can tentatively signpost this as an area of interest for future burnout research.

In contrast to those papers which focused on workplace factors, several studies explored personal attributes of staff. Only one selected study explored personality factors (Lent & Schwarz, 2012). Results suggested that those presenting with low neuroticism and high extraversion, agreeableness and conscientiousness experienced lower burnout. The paper also demonstrated that workers' race and sex play a role in predicting burnout. Although these findings are useful in theoretical understanding of burnout and personality traits, clinical application is difficult to conceive due to the fixed nature of personality traits, sex and race. The authors' suggestions for clinical implications is limited to

encouraging increased 'self-awareness' for the most vulnerable staff, and no organisation-level recommendations are made.

A further paper that explored personal attributes was that of Dreison et al. (2016), which investigated arguably less-static factors. The paper aimed to assess whether components from self-determination theory (supervisor autonomy support, staff cohesion and self-efficacy; Deci & Ryan, 1985) could act as resources in the JDR model (Bakker & Demerouti, 2007). Higher levels of supervisor autonomy support, staff cohesion and self-efficacy were predictive of lower burnout, and the authors suggest this supports a model integrating self-determination theory and the JDR model. Based on these findings, the paper makes several useful recommendations to services, such as increasing self-efficacy by ensuring staff are assigned tasks appropriate to their level of competency. This paper is useful in clearly stating its implications in terms of theory and practice, but stands alone in the theory it is explores, and without further investigation the impact of results is difficult to assess.

Several studies explored the role of interactions with others at work. Pedrini et al. (2009) demonstrated that work-related social aspects were strongly associated with burnout, with low feedback about job performance, low task identity and poor support from supervisors acting as predictors of burnout. These findings provide clear clinical implications and recommendations for organisational interventions. The study also demonstrated strength in achieving a high response rate (83%), suggesting the sample is representative of the target population, although the authors do not comment on the achieved statistical power. Furthermore, the study employed established measures, increasing validity and the possibility for replication.

Ray, Wong, White and Heaslip (2013) take a novel theoretical approach, drawing together of models of compassion satisfaction and compassion fatigue with the Areas of Worklife model (Leiter & Maslach, 2003). They found that compassion satisfaction, compassion fatigue and person–job match in Leiter and Maslach's (2003) six areas of working life were all important predictors of burnout. The authors make clear justification for drawing together these conceptual models, the study was well powered and utilised established measures, suggesting good validity and reliability, however, further research is needed to build evidence around the combination of these factors.

A further paper that explored the role of interacting factors in professionals' personal and working lives was that of Van Daalen, Willemsen, Sanders and van

Veldhoven (2006), which explores the JDR model (Bakker & Demerouti, 2007). Family to work conflict was measured by the Survey Work Home Interference-Nijmegen (Wagena & Guerts, 2000) and alongside demands of workload, was found to be associated with increased EE, while the resource of autonomy was linked with decreased feelings of EE. This study was unique in the selected studies in that it only explored EE and did not include DP or PA, meaning the findings do not inform understanding around Maslach's model of burnout (Maslach & Jackson, 1981). However, the paper demonstrates clear grounding in theory, and achieved a large sample size with a good response rate, and used established measures, suggesting strong validity.

A study that explored a less comprehensive range of predictor variables was that of Acker (2008), which focused on sociodemographic variables and workplace variables such as the type of agency and the method of funding. Results indicated that sociodemographic characteristics of age, marital status, job experience and education were predictive of DP and PA, while agency characteristics (including type of agency and form of funding) were predictive of EE. These findings offer little information around recommendation for staff or service providers for areas of intervention to reduce burnout. A strength was the large sample achieved and the moderate response rate.

Nelson et al. (2009) also found demographic factors to be important in predicting burnout, reporting that Asian ethnicity was associated with reduced burnout while being Black or mixed race was associated with greater burnout. The clinical implications of these findings are unclear, and limited recommendations can be given. The study also measured more dynamic factors, including job satisfaction, employed in separate analysis. Including more dynamic factors as predictors within regression analyses for burnout could have provided useful information around their predictive value for burnout compared with demographic factors. A strength of the study was the high response rate of participants, although the sample was limited to inner-city London teams and thus may not be representative more broadly.

1.6 Discussion

The aim of this review was firstly to draw together and synthesise the literature existing around predictors of burnout, critically appraising the evidence base, and secondly to build a clearer picture of the factors that appear to be more and less important in predicting burnout of staff working in MH services.

1.6.1 Main Findings

The current review highlighted the disparity amongst research on predictors of burnout, in particular, the vast choice of independent variables to be studied and the appearance of minimal unity amongst researchers in choice of factors for investigation. Such disparity perhaps reflects that which occurs in the theoretical understanding of burnout, where several models have been proposed, including Maslach's model of burnout (Maslach & Jackson, 1981), the Defensive Coping model (Cherniss, 1980), the Conservation of Resources model (Hobfoll & Freedy, 1993), the Areas of Worklife model (Leiter & Maslach, 2004). Furthermore, it may reflect the broad nature of the most popular current burnout theory, the JDR (Bakker & Demerouti, 2007), which does not propose a specific model but rather a way of thinking about burnout, where any factor may act as a resource, and any factor may act as a demand (Schaufeli & Taris, 2014). At present, it appears that a unified understanding of burnout has not yet been reached, and although this makes for a varied and exciting field which is open to debate, it may be difficult for researchers to pinpoint the most important areas for investigation.

Due to the diversity of factors that were explored amongst the selected studies, the current review is limited in its ability to draw firm conclusions about the most important factors for predicting EE, DP and PA in MH staff. However, factors directly related to the workplace and the job role itself appear to be highly important. In particular, workload appeared to be an important factor in predicting burnout, with a high level of workload linked with increased burnout (LaSalvia et al., 2009; Steel et al., 2015; Evans et al., 2006; Van Daalen et al., 2006; Jovanović et al., 2016). Furthermore, workers' sense of control and autonomy in the workplace played a key role, with a lower sense of control associated with higher levels of burnout (LaSalvia et al., 2009; Steel et al., 2015; Evans et al., 2006; Madathil et al., 2014; Van Daalen et al., 2006). Perceived unfairness within the organisation was also linked with higher levels of burnout (LaSalvia et al., 2009).

Social factors within the workplace and interactions with colleagues were found to be predictive of burnout. Such factors included levels of staff group cohesion and social support from colleagues (LaSalvia et al., 2009; Madathil et al., 2014; Van Daalen et al., 2006) level of supervisory support and the style of supervision received (Jovanović et al., 2016; Dreison et al., 2016; Madathil et al., 2014; Pedrini et al., 2009), as well as relationships with superior colleagues (Bressi et al., 2009).

The way that workers experienced interactions with service users also appeared to be a salient factor. For example, a higher frequency of face-to-face interaction with service-users (LaSalvia et al., 2009), a perception of "stressful involvement" with clients (Steel et al. (2015), negative emotional and behavioural reactions toward patients (Ogresta et al., 2008), working with 'demanding' patients (Bressi et al., 2009), and perceiving a high level of personal involvement with clients (Blau et al., 2013) all acted as predictors of higher levels of burnout.

Staff perceptions of their workplaces also presented as a notable in predicting burnout, with feeling of satisfaction and gratitude in the workplace predicting lower levels of burnout (Ogresta et al., 2008; Bressi et al., 2009; Lanham et al., 2012; Ray et al., 2013). A perception of the service as "recovery oriented" (Kraus & Stein, 2013), and the way that the worker perceived their role within current services (Evans et al., 2006) were also found to be relevant in predicting burnout.

Factors relating more specifically to the individual including personality factors (Lent & Schwarz, 2012) and self-efficacy (Dreison et al., 2016) may play a key role in predicting burnout. Age and experience also appeared to be a key factor, with a longer career and more experience in MH services associated with lower levels of burnout (LaSalvia et al., 2009; Nelson et al., 2009; Ray et al., 2013; Acker, 2008; Blau et al., 2013). Being older appeared to be linked with the experience of reduced burnout (Blau et al., 2013), while a young age was linked with higher levels of burnout (Pedrini et al., 2009).

1.6.2 Critical Review

1.6.2.1 Limitations of previous research

There were several limitations which were common across the studies included in the current study, these are outlined below.

All studies included used a cross-sectional design, employing regression analysis, meaning that although associations and relationships can be described, causality cannot be inferred. Such a design is most appropriate when investigating phenomena occurring in natural settings, where it is not possible to implement randomisation or control groups. However, when exploring the results of studies, it is difficult to infer which factors may preclude others. For example, Van Daalen et al. (2006) concluded that social support from colleagues led to reduced EE, however, it may be that those who are less emotionally exhausted are more able to seek social support. Disentangling such questions is difficult when using cross-sectional research. A further and linked limitation is that all data was collected via self-report, and thus relies on worker's perceptions. Again, this is problematic, for example, LaSalvia et al. (2009) concluded that the strongest predictors of high levels of burnout included high workload and low control, however, it is possible that those who are experiencing higher levels of burnout perceive themselves to have a high workload and a low sense of control. The use of an objective measure of workplace factors, for example, completed by an external observer, could serve to ameliorate this difficulty, however, one could argue that workplace variables are subjective to each worker.

A further limitation of the studies selected was that all of them utilised snapshot data, collected at a single timepoint. This means that the data provides little information to enhance understanding around the progression of burnout over time, meaning that sequential or chronological relationships cannot be inferred. However, some studies (Blau et al., 2013; Lanham et al., 2012; Nelson et al., 2009; Pedrini et al., 2009) measured factors such as the workers' duration of employment in the current service, or duration of employment in MH settings, meaning that some information about the association between duration of experience and levels of burnout could be garnered.

All studies utilised samples that were self-selected, and there was a high level of variation in terms of response rate and sample sizes (sample sizes ranged from 65 to 2000). The use of self-selected samples is perhaps the most ethical format of recruitment given the level of control allocated to the participant, but may lead to biases in samples. This is particularly salient when considering studies of burnout that are conducted in workplaces, and it is possible that those who experienced the highest levels of burnout may not have felt they had time to take part in studies. Alternatively, those who did take part may have done so because they felt they were experiencing burnout, and thus had higher interest in completing the questionnaires.

1.6.2.2 Limitations of current review

A limitation of the current review is that was restricted to papers that utilised the MBI (Maslach & Jackson, 1981) to measure burnout, which may have led to a bias in the papers that were selected. Several other measures are available, including the Shirom-Melamed Burnout Measure (Shirom & Melamed, 2006), the Copenhagen Burnout Inventory (Kristensen et al., 2006) and the OLDI (Halbesleben & Demerouti, 2005). The selection was limited to papers utilising the MBI because this measure is the most dominant within empirical literature, and because investigating papers using multiple measures could confound the possible conclusions. The current review may contribute to the current bias in the literature towards the use of the MBI; and had the methodology been different, the current review could have compared and contrasted research employing other measures of burnout, raising their profile further. However, considering that the level of disparity between studies utilising the MBI reported in the current paper, one could infer that a review encompassing several measures of burnout would encounter an even greater level of disparity and may not provide any useful synthesis. However, a future literature review focusing on critically evaluating measures of burnout could be highly useful.

A methodological limitation of the current review was that only one reviewer was involved in the selection of papers and the quality assessment completed. Systematic reviews should ideally involve two researchers independently performing data extraction; or at the very least should involve a second researcher independently checking data extraction for accuracy and completeness (Centre for Reviews and Dissemination, 2009). Neither occurred in the current review, and as such it is possible that reviewer bias or human error may have occurred in the selection of studies to be included.

A disadvantage of the design of the current literature review is that only published, peer reviewed articles were included, meaning that publication bias may exist. Publication bias occurs when studies are not published due to insignificant results or because the results do not fit with the results of previous literature (Dickersin, 1990). While this problem reflects wider issues within academic literature, the current review could have countered this by including a search of unpublished dissertation research. Furthermore, the current review only searched Medline, CINAHL and PsycINFO databases and reference lists of selected papers, and this may have led to biased selection. The search could have been widened by searching Google Scholar, which accesses a wider range of data sources.

Furthermore, the selected data was limited to studies employing regression analyses. Papers exploring mediator or moderator relationships without also employing regression analyses were not included. Throughout study selection, very few papers exclusively using mediator or moderator analyses were encountered, however, exclusion may have led to an omission of discussion of more complex relationships between predictors of burnout within the review. However, exclusively selecting papers utilising regression analysis enabled more direct comparisons across studies.

The current review did not restrict study selection to one work setting, staff population or country but included MH professionals from a wide range of settings and countries. Thus large variations may occur that have not been accounted for by the researcher, for example, the current political landscape and cultural views of MH. Only one study (Evans et al., 2006) directly considered government policy, and found workers' perceptions of these factors to play a significant role in predicting burnout. This indicates that political climate has an important role, and this factor should be considered when comparing studies internationally.

1.6.3 Implications

The current review points to several key areas for interventions in MH services where workers are experiencing a high level of burnout. An important starting point may be to review the workloads of staff to ensure that these are appropriate and manageable. The workloads of individuals within a setting may not be directly controlled by the service itself and may be due to policy or funding, and hence reform at a higher level may be required. However, services may be able to directly change the level of control and autonomy allocated to staff. Where possible, staff should be encouraged to take part in decisions around how the service is operated, and regarding how their own workload is managed. Social factors within a workplace should also be considered, with a sense of cohesion fostered, as well as an appropriate and supportive level of input from supervisors. Staff should also be encouraged to discuss their experiences of service users within supervision, and support should be offered where staff have experienced negative reactions towards clients; where they perceive a 'stressful involvement', and when they perceive themselves to be highly personally involved with clients. Further work and investigation should be undertaken to investigate the factors that help workers to feel satisfied in the workplace, and such factors should be fostered. It is notable that a greater level of experience is linked with reduced levels of burnout, and although difficult to directly

change, MH staff who are in the early stages of their career may find this reassuring to hear.

1.6.4 Future Research

A prominent difficulty identified in the field of burnout research was the level of variance amongst the predictors and measures explored within studies. The current review focused exclusively on studies employing the Maslach Burnout Inventory (Maslach, 1996); but the availability of multiple measures of burnout within the literature suggests even greater disparity within the field than that covered within the current review. A future independent review to evaluate existing measures of burnout could be highly useful in directing researchers to the most applicable measure for their research questions. Similarly, independent reviews to evaluate existing measures of predictors, such as workplace demands or job satisfaction, could lead to further uniformity within the field. The most popular current model of factors leading to burnout is the JDR (Bakker & Demerouti, 2007), which is useful due to its flexibility but may have led to the high level of variety amongst research. Future research could aim to refine the JDR theory further by identifying the most salient demands and resources, perhaps according to different staff groups.

1.6.5 Conclusions

The current review sought to investigate which factors appear to be the most important in predicting MH professionals' experiences of EE, DP, and PA. Through a systematic search, the review identified 17 papers, which were synthesised and critically appraised. A multitude of factors were found to be predictive of burnout within MH professionals, including autonomy, social support in the workplace, supervision, qualities of interactions with service users, satisfaction and gratitude within the workplace, personality factors, self-efficacy, duration of experience and sense of harmony between work life and home life.

The review also aimed to explore which factors researchers have selected to focus on when exploring predictors of burnout in MH professionals. The review uncovered a high level of discrepancy in the predictive variables that researchers sought to investigate, meaning a great number of predictors were identified. Such variety in the field may reflect the lack of uniformity that exists within current academic understanding of burnout. Future research should aim to synthesise the vast range of factors that have been investigated; a

greater sense of cohesion within academic understanding of burnout may facilitate more unified approaches within research.

Chapter 2: An Investigation into Predictors of Burnout in IAPT Therapists

2.1 Introduction

2.1.1 Improving Access to Psychological Therapies

Improving Access to Psychological Therapy (IAPT) was launched in the UK in 2006 following a report from government advisor Richard Layard (2004), which detailed the cost of the lack of access to evidence-based psychological therapies, indicating mental health (MH) difficulties as a major causal factor in long-term absence from work. Initial studies (Clark, 2011) encouraged further investment, and IAPT was expanded following the No Health without Mental Health strategy (Department of Health, 2011a). The IAPT model centres on provision of therapy following National Institute for Health and Clinical Excellence (NICE) guidelines for depression and anxiety, utilising stepped-care service models for the treatment of common MH problems (Clark, 2011). In 2010, the government pledged to invest £400 million into IAPT services over four years (Department of Health, 2012). In 2015-2016, IAPT services received 1,399,088 referrals (Health and Social Care Information Centre, 2016). The estimated cost of an individual IAPT therapy session is £102.38 at step two and £173.88 at step three (Griffiths & Steen, 2013). IAPT services now represent a substantial part of UK MH care and a significant government investment, and research in IAPT services is crucial to justify ongoing expenditure and to ensure services run effectively.

Central to the formation of IAPT services has been the investment in a new MH workforce (Robinson, Kellett, King & Keating, 2012); with over 6,000 therapists trained since IAPT began (NHS England, 2015). Therapists include those in the new role of Psychological Wellbeing Practitioner, who work at ‘step two’ on a ‘high-volume, low-intensity’ basis, delivering interventions such as telephone support, psycho-educational groups and computerised cognitive behavioural therapy (CBT). Psychological Wellbeing Practitioners are trained to deliver interventions to those with mild to moderate difficulties, and are restricted to guided self-help CBT approaches. At the ‘step three’ level, High Intensity Therapists operate, working on a face-to-face basis with individuals and groups to deliver CBT to those with moderate to severe difficulties, using a range of CBT models according to diagnosis (Clark, Layard, Smithies, Richards, Suckling & Wright, 2009;

Clark, 2011). High Intensity Therapists are paid on Agenda for Change band six while training and band seven once qualified, while Psychological Wellbeing Practitioners are paid on band four during training, moving to band five upon qualification. To date, it appears that no research has investigated differences in how therapists from step two and step three experience working within IAPT.

IAPT is a unique and innovative model, advocating strict adherence to evidence-based protocols across all therapists and utilising novel supervision approaches (Clark et al., 2009). Although the latest annual IAPT report (Health and Social Care Information Centre, 2016) indicates that IAPT interventions are highly effective, with a recovery rate of 46.3 per cent; this figure may be flawed, as it is based only on the 56.33 per cent of patients who complete therapy. The impact of therapist factors for those who do not recover or do not complete therapy is unknown, but given the large investments in IAPT services and staff, it is an important area for investigation.

Due to IAPT's relative infancy, little empirical research has been conducted with its staff. However, the study by Green, Barkham, Kellett and Saxon (2014) investigated the effectiveness of 21 Psychological Wellbeing Practitioners and found that therapist effects accounted for around nine per cent of the variance in patient factors. The most effective Psychological Wellbeing Practitioners, who generated higher rates of reliable and clinically significant change in patients, displayed greater resilience, organisational abilities, knowledge and confidence. Although this study had a limited sample size, and does not indicate cause and effect, the results suggest that despite IAPT's strict therapy protocols, individual therapist factors may play a role in the outcomes of patients. Thus the factors that might impact IAPT therapists and their effectiveness are important topics for investigation.

2.1.2 Burnout

Burnout has been described as a prolonged psychological syndrome in response to chronic interpersonal stressors at work, and is typically associated with care-giving occupations (Maslach, Schaufeli & Leiter, 2001). The General Model of Burnout (GMB; Maslach et al., 1996) proposes three components of burnout. The first is emotional exhaustion (EE), a reduction of emotional resources, leading to difficulties in engaging emotionally with clients and colleagues. The second is depersonalisation (DP), involving a negative, callous or overly detached response to others, encompassing a loss of idealism. Finally, burnout is seen to include reduced personal accomplishment (PA), with decreased

feelings of competence and productivity at work, whereby staff experience a growing sense of inadequacy regarding their ability to help clients. Burnout is construed on a continuous scale ranging from low to high, and a professional presenting with high EE, high DP and low PA is seen to be experiencing high burnout.

Some have speculated that DP and PA are unnecessary (Shirom, 1989) aspects of burnout. However, although EE reflects the stress dimension of burnout, which workers may be able to best relate to, DP and PA are perceived to be essential criteria, capturing the relationship that staff have with their work (Maslach, 2001). A sequential model is suggested, and it is proposed that the experience of EE reduces workers' capacity to be responsive towards service users, leading to DP, making service users appear as impersonal objects with more manageable needs (Maslach, 2001). The experience of a reduced sense of PA is less clear, and authors have suggested it may arise consequentially or in parallel to EE, DP, or both (Byrne, 1994; Lee & Ashforth 1996; Leiter 1993). Others have suggested that PA does not play a role within burnout, arguing that it does not correlate with EE and DP (Lee & Ashforth, 1996) and instead represents a personality trait (Halbesleben & Demerouti, 2005). Despite such arguments, the three-factor structure of the MBI has been demonstrated extensively (e.g., Bria, Spanu, Baban & Dumitraşcu, 2014; Poghosyan, Aiken & Sloane, 2009; Bakker**,** Demerouti & Schaufeli, 2002; Schaufeli, Salanova, Gonzalex-Roma & Bakker, 2002; Gorter, Albrecht, Hoogstraaten & Eijkman, 1999; Enzmann, Schaufeli & Girault**,** 1995).

Understanding of burnout has developed over time as different models have evolved. A widely cited model is that proposed by Karasek (1979), the job-demand-control model, which suggests high workplace demands will lead to poor worker health outcomes in organisations of low control, where employees have minimal influence over their activity levels and limited participation in decision making. This model accounts for the role of negative factors that might increase burnout but does not explore more positive aspects that could ameliorate burnout. Subsequently, Karasek and Theorell (1990) proposed the demand-control-support (DCS) model to understand stress in the workplace. Again, the DCS assumes that a combination of high job demands and low job control leads to negative health and organizational consequences, but proposes that a lack of social support compounds the effect (Karasek & Theorell, 1990). Although this model goes some way to consider both positive and negative contributors to the experience of burnout, the suggested contributing factors are fixed, with little flexibility.

A more flexible model is the Job Demands-Resources model (JDR, Bakker & Demerouti, 2007), which has been highly popular amongst academics, seemingly because it accounts for the balance between positive and negative job characteristics, and because it does not restrict itself to specific factors, but assumes that any demand and any resource can contribute to staff health and wellbeing (Schaufeli & Taris, 2014). The term 'job demands' may refer to any aspects of a job that require sustained effort and are associated with physiological and psychological costs, such as high work pressure, emotional demands, and poor environmental conditions. 'Job resources' may encompass any component that support employees to achieve goals, that reduce job demands, and stimulate personal growth. The model posits that when job demands are high and job resources are limited, employees' energy and motivation depletes, leading to burnout. The theory has been praised due to its applicability to a range of work settings and its flexibility (Schaufeli & Taris, 2014). However, a criticism is that the JDR represents a way of thinking about burnout rather than a specific, clearly defined model, meaning it may be difficult to test, and a multitude of study methodologies and measures can be said to test the same assumptions of the JDR model (Schaufeli & Taris, 2014). This has led to varied and interesting research but means that implications may be difficult to synthesise due to the disparity amongst study designs.

To date, the only empirical investigation into burnout in IAPT staff has been that of Steel, Macdonald, Schroder and Mellor-Clark (2015), which investigated predictors of burnout in 116 High Intensity Therapists and Psychological Wellbeing Practitioners. Results indicated that staff presented with high EE and low PA, but surprisingly low DP. The authors attribute this finding to the infancy of IAPT, and suggest this result fits with the sequential model of burnout, where DP occurs subsequently to the instillation of EE and low PA (Leiter, 1989, Maslach et al., 2001). Steel et al. (2015) collected data prior to 2013, and it is possible that four years on, therapists may have begun to exhibit DP. In the study by Steel et al. (2015), burnout levels were not associated with demographic variables of the patients on therapists' caseloads. The most important predictors of burnout for both High Intensity Therapists and Psychological Wellbeing Practitioners were therapists' age, duration of experience, as well as psychological work demands. Furthermore, the extent to which they perceived themselves to have a 'stressful involvement' with clients acted as a significant predictor of EE and DP, while their perceived 'healing involvement' with clients significantly predicted therapists' sense of PA. Due to the infancy and rapid growth of IAPT, it is important to continue monitoring IAPT therapists' experience of burnout and the most important predictors, and to extend the work by investigating further predictors of

burnout. The current study partially replicates the work of Steel et al. (2015), employing the same measures of burnout and predictive factors, and extends the work by investigating additional predictors: general self-efficacy, and supervisor support.

2.1.3 Predictors of Burnout

2.1.3.1 Demographic factors

Across the literature, demographic factors have been linked with experiences of burnout, in line with findings of Steel et al. (2015), where age and experience were important predictors of DP and PA. Other studies of staff working in MH settings have found work experience in MH to be a strong predictor of burnout, with a greater duration of experience linked with lower burnout (for example, Lasalvia et al., 2009; Acker, 2008; Nelson et al., 2009; Blau et al., 2013), and with older age predictive of decreased burnout (Blau et al., 2013; Acker, 2008).

2.1.3.2 Factors of Therapeutic Work

Psychotherapeutic work, regardless of therapeutic orientation, involves a unique set of challenges that can be constructed as psychological 'demands' within the JDR model (Demerouti et al., 2001). Therapists are exposed to suffering of clients, they are required to interact in a healing manner with a range of intense emotions, and can experience difficult interpersonal dynamics emerging in therapeutic relationships (Safran & Muran, 2000). In their daily work, therapists will experience fluctuations in terms of how demanding their experiences in therapy are, depending on current challenges, the clients they are working with, and burdens on their personal lives (Zeeck et al., 2012). Considering these factors within the JDR model (Demerouti et al., 2001), it is reasonable to suggest that when these demands become more severe, and when therapists lack resources to cope, they may be likely to experience burnout. Steel et al.'s (2015) finding around the associations between healing and stressful involvement and therapists' levels of burnout further indicates the importance of therapeutic relationships. However, the literature around these factors is limited, perhaps because measurement of such factors has been slow to evolve, and perhaps because the concept is only applicable to therapeutic professionals and not all MH professionals, thus opportunities for investigation are more limited.

2.1.3.3 Workplace Factors

In considering potential demands and resources existing at the workplace organisational level, several factors have been highlighted. As outlined, psychological therapists face unique psychological demands, but more general psychological demands can also exist in workplaces. These include how hard and fast employees feel they are required to work, how excessive they perceive their workload to be, the presence of conflicting demands, the requirement for intense concentration, and the interruption of tasks before completion (Karasek, Brisson, Kawakami, Houtman, Bongers & Amick, 1998). Given the unique expectations of IAPT therapists, including high volume caseloads for Psychological Wellbeing Practitioners, strict adherence to therapy protocols, and frequent assessment via patient outcome measures; the psychological demands experienced by IAPT workers and the associated consequences are an important area for investigation.

An important resource for workers is 'social support' in the workplace, involving any helpful interactions from co-workers (Karasek & Theorell, 1990). Several studies have investigated the relationship between workplace support and burnout within varied populations. For example, Hombrados-Mendieta and Cosano-Rivas (2013) found that limited support in the workplace was strongly related to high levels of burnout in social workers, and Lasalvia found that poor work group cohesion (2009) was a significant predictor of burnout in a sample of MH staff. Such a factor could act as a protective 'resource' for staff, which IAPT organisations could cultivate, and thus poses a useful area for investigation.

2.1.3.4 Supervisor Support

Reiser and Milne (2012) highlight that although supervision for therapists has been strongly advocated since the emergence of CBT, defined in key articles by Padesky (1996), Liese and Beck (1997), Beck Sarnat and Barenstein (2008) and Newman (2010), little evidence has been generated to understand its importance in terms of outcomes for therapists or clients. Supervision within IAPT is protocol-driven with clear guidelines (Turpin & Wheeler, 2011). IAPT therapists must be provided with a minimum of one hour of supervision per week, and must include a review of all clinical cases, each prioritised according to a pre-determined schedule. The priorities of IAPT supervision are to safeguard effective therapy for clients, and maintain fidelity to the evidence base. The IAPT supervision protocol refers to the possibility of staff burnout, but directs supervisors to ensure therapists are 'fit for practice', rather than offering any interventions for support.

This leaves a question around the value placed on staff wellbeing within IAPT, and suggests that services and supervisors may be unclear on how to appropriately support staff to reduce burnout and enable continued practice. Supervisor support was not investigated in the study by Steel et al. (2015), and research into supervision in IAPT is minimal to date. Further evidence is needed to understand the importance of effective supervision for IAPT therapists, and to guide supervisors towards interventions to reduce the likelihood of burnout.

2.1.3.5 General Self-Efficacy

A psychological 'resource' that workers may possess is that of self-efficacy. Bandura (1997) has defined self-efficacy as an individuals' confidence in their capacity to exercise control over challenging demands. General self-efficacy maybe conceptualized and measured as a global construct representing the belief in one's competence to cope with a broad range of challenging demands (Luszczynska, Scholz & Schwarzer, 2005). Self-efficacy has been linked with burnout widely within the literature. Shoji, Cieslak, Smoktunowicz, Rogala, Benight and Luszczynska (2016) conducted a meta-analysis of 57 studies examining burnout and self-efficacy in a wide range of professions, including teachers and healthcare workers. The review found that on average, there was a medium effect size estimate for the association between self-efficacy and burnout, although this varied across the three components of burnout and across professions, with the largest effect size seen in the domain of PA, and within teachers. Although some might argue that self-efficacy and PA are overlapping constructs, they are constructed as distinct concepts within the literature. While self-efficacy refers to one's perception of their abilities globally to be able to tackle challenges, PA refers to negative emotions and cognitions about one's own achievements and capacities to succeed at work (Schaufeli, Leiter & Maslach, 2009). Research too has not reflected any consistent overlap between self-efficacy and PA, for example, a meta-analysis conducted by Brown (2012) found that significant associations were found more often between EE and self-efficacy than between PA and self-efficacy in teachers. However, a review by Alarcon, Eschleman and Bowing (2009) identified 12 studies and found that the strongest associations were observed for self-efficacy and PA in varying professions. Within the meta-analysis conducted by Shoji et al. (2016), only two studies focusing on therapists were yielded, which focused on addiction therapists (Volker et al., 2010), and applied behavioural analysis therapists (Gibson, Grey & Hastings, 2009). General self-efficacy was not investigated within the

research of Steel et al. (2015) and to date, it appears no study has yet investigated the role of self-efficacy and burnout in IAPT therapists.

2.1.4 The Current Study

2.1.4.1 Outline of Study

The current study replicated the work of Steel et al. (2015); by utilising a cross-sectional design to explore the experiences of EE, DP and PA within IAPT therapists across step two and step three, including Psychological Wellbeing Practitioners and High Intensity Therapists. Furthermore, the study aimed to investigate self-efficacy, workplace factors, and psychological demands of therapeutic work as predictors of EE, DP, and PA in IAPT therapists. The inclusion of the investigation of general self-efficacy and supervisor support as predictors of EE, DP and PA represents original work, extending the research of Steel et al. (2015). Data was collected across four IAPT settings, participants completed an online survey consisting of four questionnaires which measured burnout, self-efficacy, perception of therapeutic involvement with clients, psychological job demands, co-worker support and supervisor support.

The study aimed to update the current literature to enhance understanding of the experiences of IAPT therapists by replicating aspects of the study by Steel et al. (2015); and to develop an understanding of additional predictors of burnout for IAPT therapists, including the role of self-efficacy and supervisor support.

2.1.4.2 Research Questions

1. How do IAPT therapists (including trainee and qualified Psychological Wellbeing Practitioners and trainee and qualified High Intensity Therapists) currently experience burnout in terms of EE, PA and DP in comparison to the sample of IAPT staff investigated by Steel et al. (2015)?

2. Following on from the work of Steel et al. (2015), to what extent do demographic factors, workplace factors and perceptions of therapeutic involvement, as well as general self-efficacy and supervisor support, predict the three components of burnout experienced by a different and more recent sample of IAPT staff?

2.1.4.3 and self-efficacy Hypotheses

1. In line with sequential models of burnout, four years on from the data collection of Steel et al. (2015), IAPT staff will now present with high EE, high DP, and low PA, in comparison to norms presented in Maslach et al. (1996), and those presented in previous studies utilising the MBI with clinicians.

2. Age, duration of experience, psychological job demands, and perceived healing and stressful involvement with clients will act as predictors of the three domains of burnout in IAPT staff. General self-efficacy will play a role in predicting domains of burnout.

2.2 Method

2.2.1 Design

A cross-sectional design using a web-based quantitative questionnaire was used, employing a staff sample.

2.2.2 Procedure

Managers of four IAPT services were contacted via email to invite their participation within the study. Upon agreement to participate, managers were asked to forward an email to therapists working within their service, which included an invitation letter and information sheet, with a link to the consent form and online survey. After therapists had provided informed consent, the survey was presented online. The survey took approximately 15 minutes to complete and therapists were free to exit the survey at any point.

2.2.3 Ethics

Ethics approval was provided by the University of Southampton, by the Health Research Authority, and by individual NHS Trusts included within the research (see Appendix items B to G).

2.2.4 Participants

All four IAPT services that were approached agreed to be included in the study. Participants were recruited between December 2016 and February 2017. According to Cohen (1992), for a regression study at power .80, significance level .05, with three independent variables, 85 participants would be required to obtain a medium effect size. 112 participants completed the full range of questionnaires. The sample had an average age of 35.55 years old, and 83% were female. Full demographic data is presented in Tables 4 and 5. Due to information provided on the ethical information sheet, participants who did not complete all measures within the questionnaire were considered to have withdrawn their response, and thus incomplete data sets were not included.

Table 4.
Descriptive data for the sample regarding gender, job role and education level.

	N	Frequency (%)
Gender		
Female	93	83.03
Male	18	16.07
Prefer not to say	1	.89
Job Role		
Trainee Psychological Wellbeing Practitioners	19	16.91
Psychological Wellbeing Practitioners	36	32.04
Trainee High Intensity Therapist	10	8.90
High Intensity Therapist	47	41.83
Highest level of Education		
GSCE	1	.89
A-levels	1	.89
Degree	26	23.14
Postgraduate Certificate	13	11.57
Post graduate diploma	28	24.92
Masters	39	34.71
Doctorate	3	2.67
Not stated	1	.89

Table 5.
Descriptive data for the sample regarding age and duration of experience.

	M	SD	Mdn	Range	
				Min	Max
Age	35.55	10.71	32	22	64
Total years employed	13.39	9.80	12	1	41
Total years employed in mental health	7.99	7.42	6	.16	34
Total years employed in IAPT	3.29	2.54	3	.16	9

2.2.5 Measures

2.2.5.1 Demographics

Demographic information collected included sex, age, job title, previous job title, total years of employment, total months of employment in IAPT, total duration of employment within MH, and educational level.

2.2.5.2 Maslach Burnout Inventory (MBI, Maslach, 1996)

Burnout was measured using the MBI (Maslach, 1996), which includes three subscales measuring EE, DP and PA. The scale consists of 22 items and subjects are questioned around different aspects of their job, using a Likert scale ranging from 'Never' to 'Every day'. Total scores reflect the participant's position on a continuum within each subscale ranging from low to high. All subscales are reported to have strong internal consistency and test-retest reliability (Schaufeli, Maslach & Marek, 1993); and the MBI is reportedly utilised in 90% of journal articles measuring burnout (Schaufeli, Bakker, Hoogduin, Schaap & Kladler, 2001).

2.2.5.3 Job Content Questionnaire (JCQ, Karasek et al., 1998)

Subscales measuring psychological demands, supervisor support and co-workers support were utilised from the JCQ (Karasek et al., 1998). Subjects are asked to rate their

agreement with statements using a four point Likert scale ranging from Strongly Disagree to Strongly Agree. The JCQ has been translated into numerous languages and is evidenced to have strong reliability and validity across multiple cultures and contexts (Karasek et al., 1998).

2.2.5.4 Therapist Work Involvement Scale (TWIS, Orlinsky & Rønnestad, 2005)

The TWIS (Orlinsky & Rønnestad, 2005) is a 52-item scale designed to measure therapists' working style and emotional involvement with clients. The scale includes two validated subscales, healing involvement and stressful involvement, which are comprised of further subscales, which are not validated. Healing involvement includes subscales measuring therapists' perceptions of their 'Basic Relational Skills', their 'Involvement' with clients, their sense of therapeutic 'Efficacy', their ability to be 'Affirming' towards clients, their in-session 'Flow' and their skills in 'Constructive coping' when difficulties arise. Stressful involvement measures 'Frequent Difficulties', in-session 'Boredom', 'Anxiety' and use of 'Avoidant Coping'. The scale employs several different Likert scales for subjects to respond to a range of statements. The scale has demonstrated good convergent and discriminant validity and yielded satisfactory internal consistencies (Nissen-Lie, Monsen & Rønnestad, 2010).

2.2.5.5 The General Self Efficacy Scale (GSE, Schwarzer & Jerusalem, 1995)

Self-efficacy was measured through the GSE (Schwarzer & Jerusalem, 1995), which includes one global dimension measured through 10 items. Participants respond to items such as "Thanks to my resourcefulness, I can handle unforeseen situations" using a four point Likert scale ranging from 'not at all true' through to 'exactly true'. The GSE was originally developed in Germany and has been adapted to 28 languages. Numerous studies have demonstrated the GSE to have high reliability, stability, and construct validity (e.g., Leganger, Kraft & Røysamb, 2000; Schwarzer, Mueller & Greenglass, 1999).

2.3 Results

2.3.1 Data Preparation.

Data were prepared and analysed using Statistics Package for Social Scientists (SPSS) Version 24.0. Due to the nature of the online questionnaire, there were no missing data. Total and subscale scores for each scale were calculated in accordance with manuals.

2.3.2 Assumptions of Statistical Analysis.

Normal distribution of relevant variables was checked through inspection of histograms as well as the Shapiro-Wilk test of skewness and kurtosis. EE, PA, healing involvement, stressful involvement, and generalised self-efficacy were normally distributed. DP, duration of experience in MH, therapist age, psychological demands, co-worker support and supervisor support were not distributed normally. Therefore, where necessary, non-parametric tests were employed to compare samples. Bootstrapping was employed in all regression models.

All data were independent, and all variables were comprised of interval data as necessary for regression analyses. Inspection of scatterplots confirmed the data did not include any outliers. Multicollinearity must not exist between any two variables within a regression model, meaning they must not have a perfect linear relationship or correlate too highly. Therefore, a matrix of Pearson's correlations between all relevant variables was inspected. Field (2013) estimates that a correlation above .8 is unacceptable; in the current analysis, no correlations above .8 existed between variables (see Appendix item A). Variance inflation factors (VIF) can reveal more subtle forms of multicollinearity. Myers (1990) and Bowerman and O'Connell (1990) state that a value of 10 or more is a cause for concern; in all of the current models all VIFs were well below 10. Furthermore, tolerance statistics can be examined; Field (2013) states values below 0.1 are a serious concern, while Menard (1995) states that values below 0.2 are worrying. All models contained no tolerance statistics below 0.2. Durbin-Watson tests were utilised within all models to confirm that adjacent residuals were not correlated. A value between one and three, and closer to two is desirable (Field, 2013). For the current models, all Durbin-Watson values were close to two, indicating that assumptions of independence were met.

2.3.3 Descriptive Statistics: Predictor Variables

Descriptive statistics for all predictor variables will now be presented and discussed. Independent-samples *t*-tests were used to compare data from the current sample to that from original validation samples using means, standard deviations and sample size (Field, 2013). According to whether data were normally distributed, independent-samples *t*-tests or Mann-Whitney tests were employed to compare males and females and therapists from step two and step three within the current sample.

2.3.3.1 Descriptive statistics: Therapist Work Involvement Scale (TWIS, Orlinsky & Rønnestad, 2005)

Table 6.
Descriptive Statistics for the Therapist Work Involvement Scale.

					Range	
Subscale	N	Mean	SD	Mdn	Min	Max
Healing Involvement						
Full Sample	112	12.05	1.50	12.08	7.44	15.48
Female	94	12.21	1.48	12.20	7.44	15.48
Male	18	11.24	1.34	11.12	9.40	14.32
Step two	55	12.06	1.44	12.08	8.28	15.48
Step three	57	12.04	1.56	12.05	7.44	15.48
Basic Relational Skills	112	16.24	2.74	16.00	7.00	20.00
Invested	112	7.00	1.38	7.00	3.00	9.00
Efficacy	112	12.40	2.79	12.00	3.00	19.00
Affirming	112	13.90	1.85	14.00	10.00	16.00
Flow	112	7.92	2.32	8.00	2.00	12.00
Constructive Coping	112	23.10	4.05	24.00	14.00	30.00
Stressful Involvement						
Full Sample	112	5.22	2.15	5.18	.64	10.77
Female	94	5.16	2.21	5.06	.64	10.77
Male	18	5.5	1.89	5.52	2.5	9.59
Step two	55	4.98	1.84	5.00	1.23	9.73
Step three	57	5.45	2.41	5.50	.64	10.77
Frequent Difficulties	112	13.65	7.75	13.00	.00	34.00
Boredom	112	3.46	2.55	3.00	.00	12.00
Anxiety	112	5.61	2.89	6.00	.00	12.00
Avoidant coping	112	9.50	3.52	9.00	1.00	20.00

2.3.3.1.1 Descriptive statistics: Healing Involvement.

Mean healing involvement scores (M = 12.05, SD = 1.5) were slightly higher than norms reported for the original sample of 4,868 therapists (Orlinsky & Rønnestad, 2005; M = 10.2, SD = 1.7), independent-samples *t*-test confirmed this difference was significant, *t* (4,978) = 11.41, *p* =<.001, *d* =.32. Males (M = 11.24, SD = 1.34). Males presented with a higher level of healing involvement than females (M = 12.21, SD = 1.48), this difference was confirmed by an independent-samples *t*-test, .96, BCa 95% CI [.22, 1.71], *t* (110) = 2.57, *p* = <.05, *d* =.49. An independent-samples *t*-test confirmed there was no significant difference between scores for healing involvement for staff at step two and step three.

2.3.3.1.2 Descriptive statistics: Stressful Involvement

Mean stressful involvement scores of the current sample (M = 5.22, SD =2.15) were significantly higher than that of the original sample (M = 4.1, SD = 1.7), as confirmed by an independent-samples *t*-test (4,978) = 6.85, *p* =<.001, *d* =.19. Males and females experienced comparable levels of stressful involvement, as confirmed by an independent-samples *t*-test. A further independent-samples *t*-test confirmed scores for healing involvement were comparable across staff from step two and step three.

2.3.3.2 Descriptive statistics: General Self-Efficacy Scale (GSE Schwarzer & Jerusalem, 1995)

Table 7.
Descriptive Statistics for the General Self Efficacy Scale.

					Range	
Measure	N	Mean	SD	Mdn	Min	Max
General Self Efficacy						
Full Sample	112	31.71	3.61	31.00	23.00	40.00
Female	94	31.67	3.55	31.00	23.00	40.00
Male	18	31.89	4.04	32.5	24.00	38.00
Step two	55	31.93	3.42	31.00	23.00	40.00
Step three	57	31.49	3.81	30.00	24.00	39.00

Mean GSE scores (M = 31.71, SD = 3.61) were slightly higher than a validation study including a general population sample of 19,120 adults from a total of 25 countries (M = 29.55, SD = 5.32) (Scholz, Doña, Sud & Schwarzer, 2002), an independent-samples *t*-test confirmed this difference was significant, *t* (19,230) = 4.29, *p* =<.001, *d* =.06. For GSE, males scored comparably to females, and staff from step two scored comparably to staff from step three, as confirmed by independent-samples *t*-tests.

2.3.3.3 Descriptive statistics: Job Content Questionnaire (JCQ, Karasek et al., 1998)

Table 8.
Descriptive Statistics for the Job Content Questionnaire.

Variable						Range	
Measure	Subscale	N	Mean	SD	Mdn	Min	Max
Job Content Questionnaire							
	Psychological Job Demands						
	Full Sample	112	30.57	4.39	32.00	19.00	36.00
	Female	94	30.98	2.00	32.00	19.00	36.00
	Male	18	28.44	28.40	28.00	19.00	36.00
	Step two	55	32.18	3.74	33.00	21.00	36.00
	Step three	57	29.02	4.43	30.00	19.00	36.00
	Supervisor Support						
	Full Sample	112	12.88	3.06	13.50	4.00	16.00
	Female	94	12.74	3.21	13.00	4.00	16.00
	Male	18	13.61	1.97	14.5	10.00	16.00
	Step two	55	12.85	2.93	13.00	4.00	16.00
	Step three	57	12.91	3.20	14.00	4.00	16.00
	Co-worker Support						
	Full Sample	112	13.15	1.96	13.00	8.00	16.00
	Female	94	13.17	1.99	13.00	8.00	16.00
	Male	18	13.05	1.76	13.00	10.00	16.00
	Step two	55	13.22	1.90	13.00	10.00	16.00
	Step three	57	13.09	2.02	13.00	8.00	16.00

The JCQ subscales have been validated within a sample of 4,500 taken from the general population of the USA, including a wide variety of professions and job roles (Karasek, 2015).

2.3.3.3.1 Descriptive statistics: Psychological Job Demands

An independent-samples *t*-test confirmed the mean scores for the psychological job demands (M = 30.57, SD = 4.39) were comparable to that of the original validation sample (M= 30.26, SD 7.17); t (4610) = .46, p =.10, d =.01. Males reported lower levels of psychological job demands (*Mdn* = 28.00) than females (*Mdn* = 32). A Mann-Whitney test confirmed these differences were significant, U = 576 , z = -3.90, p <.001, r = -.37. Staff from step two reported higher levels of Psychological Job Demands (*Mdn* = 33) than staff

from step three (*Mdn* = 30). A Mann-Whitney test confirmed these differences were significant, *U* = 900.5, *z* = -2.15, *p* <.001, r = -.20.

2.3.3.3.2 Descriptive statistics: Supervisor Support

The mean scores for supervisor support (M = 12.88, SD = 3.06) were not significantly different to that of the original validation sample (M= 12.65, SD 3.18), according to an independent-samples *t*-test, *t* (4610) = .76, *p* =.45, *d* = .02. Mann-Whitney tests confirmed there were no significant differences between reports of supervisor support between males and females or between staff from step two and step three.

2.3.3.3.3 Descriptive statistics: Co-worker Support

The mean scores for co-worker support (M = 13.15, SD = 1.96) were not significantly different from that of the original validation sample (M = 13.24, SD = 2.77), an independent-samples *t*-test confirmed this; *t* (4610) = -.34, *p* =.73, *d* = -.01. Mann-Whitney tests confirmed there were no significant differences between scores for co-worker support between males and females or between staff from step two and step three.

2.3.4 Descriptive Statistics: Maslach Burnout Inventory (MBI, Maslach, 1996)

Comparisons between scores on the Maslach Burnout Inventory in the current sample and previous samples will be discussed below (Hypothesis one). Full descriptive statistics for the Maslach Burnout Inventory are presented in Table 9, and comparisons between males and females and step two and step three will now be discussed.

Table 9.
Descriptive Statistics for Maslach Burnout Inventory.

Variable						Range	
Measure	Subscale	N	Mean	SD	Mdn	Min	Max
Maslach Burnout Inventory							
	Emotional Exhaustion						
	Full Sample	112	29.96	11.35	29.00	6.00	53.00
	Female	94	29.84	10.94	29.00	6.00	53.00
	Male	18	30.56	13.61	29.00	6.00	51.00
	Step two	55	29.98	11.53	30.00	6.00	53.00
	Step three	57	29.93	11.27	29.00	6.00	53.00
	Depersonalisation						
	Full Sample	112	7.73	5.71	7.00	0.00	24.00
	Female	94	7.82	5.85	7.00	0.00	24.00
	Male	18	7.27	5.06	7.00	0.00	20.00
	Step two	55	7.65	5.89	6.00	0.00	24.00
	Step three	57	7.81	5.58	8.00	0.00	22.00
	Personal Accomplishment						
	Full Sample	112	38.27	5.06	39.00	26.00	48.00
	Female	94	38.40	5.19	40.00	26.00	48.00
	Male	18	35.55	4.44	38.00	30.00	35.00
	Step two	55	38.13	4.93	39.00	26.00	47.00
	Step three	57	38.40	5.23	40.00	27.00	48.00

2.3.4.1 Descriptive statistics: Emotional Exhaustion (EE)

Independent-samples *t*-tests confirmed there were no significant differences between EE scores for males and females or between staff at step two and step three.

2.3.4.2 Descriptive statistics: Depersonalisation (DP)

Mann-Whitney tests confirmed there were no significant differences between DP scores for males and females or between staff working at step two and step three.

2.3.4.3 Descriptive statistics: Personal Accomplishment (PA)

Independent-samples *t*-tests confirmed there were no significant differences between PA scores for males and females or between staff at step two and step three.

2.3.5 Reliability

Table 10.

Cronbach's Alpha for all subscales.

Variable		α
Measure	Subscale	
Maslach Burnout Inventory (MBI)		
	Emotional Exhaustion (EE)	.91
	Depersonalisation (DP)	.75
	Personal Accomplishment (PA)	.64
General Self-Efficacy Scale (GSE)		
	General Self-Efficacy	.84
Therapist Work Involvement Scale (TWIS)		
	Healing Involvement	.83
	Basic Relational Skills	.85
	Invested	.46
	Efficacy	.64
	Affirming	.58
	Flow	.67
	Constructive Coping	.69
	Stressful Involvement	.89
	Frequent Difficulties	.88
	Boredom	.79
	Anxiety	.79
	Avoidant coping	.47
Job Content Questionnaire (JCQ)		
	Psychological Job Demands	.76
	Supervisor Support	.91
	Co-worker Support	.76

Internal reliability was assessed by calculating Cronbach's alpha for each subscale utilised within the study (Table 10). All dependant and independent variables subscales (PA, EE, DP, healing involvement, stressful involvement, psychological job demands, co-worker support and supervisor support) showed adequate reliability, with the PA subscale achieving the lowest reliability with a Cronbach's alpha score of .64. The TWIS includes subscales that have not been formally validated, these presented with poorer reliability, for example, the 'Invested' subscale gleaned a Cronbach's alpha of .46

2.3.6 Hypothesis one: Burnout

The first hypothesis of the current study predicted that in line with sequential models of burnout, four years on from the data collection of Steel et al. (2015), the current population would present with high EE, high DP, and low PA, in comparison to norms presented in Maslach et al. (1996), and those presented in previous studies utilising the MBI with clinicians. This hypothesis was investigated by conducting independent-samples *t*-tests utilising the means, SDs and sample sizes (Field, 2013) from the current sample and previous studies employing the MBI with IAPT staff (Steel et al., 2016) Sample size, age, experience, and mean scores and SD for EE, DP, and PA in the current study and from Steel et al. (2016) are presented in Table 11. As the current study focused on the sequential model of burnout, it was felt that therapists with minimal experience should be excluded from the analyses, and therefore all trainee PWPs and HI therapists were omitted from analyses for the current report. Tables reporting analyses including trainee PWPs and HI therapists are presented in Appendix L.

Table 11.
Age, experience and mean scores for EE, DP, and PA in the current study compared to previously published data.

	Current Study	Current Study	Steel et al. (2016)
N	93	112	116
Age, mean (SD)	37.26 (10.88)	35.55 (10.71)	36.90 (10.40)
Experience (years), mean (SD)	9.09 (7.63)	7.99 (7.42)	2.40 (2.60)
EE, mean (SD)	29. 77 (11.35)	29.96 (11.35)	20.47 (9.70)
DP, mean (SD)	7.53 (5.42)	7.73 (5.71)	3.26 (3.45)
PA, mean (SD)	38.48 (5.11)	38.27 (5.06)	38.71 (5.36)

2.3.6.1 Comparisons between current and previous samples for EE

2.3.6.2 On average, participants in the current study presented with higher EE scores (M=29.77, SD=11.35) than those in the study by Steel et al. (2016) (M = 20.47, SD = 9.7), an independent-samples t-test confirmed this difference was significant, t (207) = 6.38, p =<.0001, d = .88Comparisons between current and previous samples for DP

2.3.6.3 Participants in the current study experienced higher DP (M= 7.53, SD = 5.42), than those in the study by Steel et al. (2016), (M = 3.26, SD = 3.45), an independent-samples t-test confirmed this difference was significant t (207) = 6.92, p =<.0001, d = .94. Comparisons between current and previous samples for PA

Participants in the current study experienced comparable levels of PA (M= 38.48, SD = 5.11) to that experienced by participants in the study by Steel et al. (2016) (M = 38.71, SD = 5.36), an independent-samples *t*-test confirmed there was no significant difference between the two samples; t (207) = -.31, p =.75, d = .04.

2.3.7 Hypothesis two: Predictors of EE, DP and PA

The second hypothesis predicted that age, duration of experience, psychological job demands, perceived healing and stressful involvement with clients would act as predictors of the three domains of burnout in IAPT staff. Furthermore, it was predicted that general self-efficacy would play a role in predicting domains of burnout. Three separate multiple regression analyses investigated the predictive qualities of independent variables in relation to EE DP, and PA. Although alternative models such as mediation analysis or structural equation modelling could have been employed, hierarchical regression analyses were selected so that results could be more directly compared to those of Steel et al. (2015). In line with previous literature, EE and DP subscales showed a modest association (r =0.54, p < .001), but were analysed in separate multiple regressions in accordance with the GMB. For each model, all variables were initially entered to identify potential predictors; relevant variables were then entered sequentially in order of their estimated importance according to previous literature (as recommended in Field, 2013) into hierarchical regression models. Relations between significant predictor variables and the three dimensions of burnout are represented in Figure 4. As stated above, all trainee PWPs and HI therapists were omitted

from analyses for the current report. Tables reporting analyses including trainee PWPs and HI therapists are presented in Appendix L.

2.3.7.1 Predictors of EE

Table 12.
Multiple regression model for predictors of EE.

	B	B SE	β
Step 1			
Psychological Job Demands	0.48	0.11	.37***
Step two			
Psychological Job Demands	0.38	0.09	.29***
Stressful Involvement	2.86	0.40	.55***

Note: R^2 =.135 for step 1 ($p < .001$); ΔR^2 = .296 for step two ($p < .001$); R^2 =.431 for step two; ***p<0.001, **p<0.01, *p<0.05.

Therapist age, experience, job role, healing involvement, general self-efficacy, supervisor support and co-worker support did not act as significant predictors. Psychological job demands were entered as block one, and stressful involvement was entered as block two. As shown in Table 12, psychological job demands significantly predicted EE, accounting for 13.5% of the variance. Stressful involvement explained a further 29.6% and represented a significant addition to the model ($F(2,92) = 34.07$, $p < 0.001$). Of its subscales, 'frequent difficulties' had the highest correlation with EE ($r = .56$, $p < .001$). The final model explained 43.1% of total variance.

2.3.7.2 Predictors of DP

Table 13.
Multiple regression model for predictors of DP.

		B	B SE	β
Step one				
	Psychological Job Demands	0.44	0.10	0.36**
Step two				
	Psychological Job Demands	0.38	0.10	0.31**
	Experience (total months employed in MH)	-0.02	0.00	-0.28**
Step three				
	Psychological Job Demands	0.23	0.10	0.23*
	Experience (total months employed in MH)	-0.02	0.00	-0.35**
	Supervisor support	-0.49	0.18	-0.26*
Step four				
	Psychological Job Demands	0.23	0.08	0.18*
	Experience (total months employed in MH)	-0.02	0.00	-0.27**
	Supervisor support	-0.40	0.15	-0.21*
	Stressful Involvement	1.22	0.19	0.49***

Note: R^2 =.126 for step one ($p < .01$); Δ R^2 =.074 for step two ($p < .001$); R^2=.200 for step two; Δ R^2 =.58 for step three ($p < .01$); R^2 =.258 for step three; ΔR^2 =.226 for step four ($p < .01$); R^2 =.484 for step four. ***p<0.001, **p<0.01, *p<0.05.

Therapist age, job role, healing involvement, general self-efficacy and co-worker support did not act as significant predictors. Psychological job demands were entered as block one, therapist experience (total months employed in MH), was entered as block two, supervisor support was entered as block three, and stressful involvement was entered as block four. As shown in Table 13, psychological job demands significantly predicted DP, accounting for 12.6%. Experience accounted for a further 7.4% of the variance, and represented a significant addition to the model ($F (2, 89) = 11.11$, $p < .001$), with less experience linked with increased DP. Supervisor support accounted for a further 5.8% and represented a significant addition to the model ($F (3, 91) = 10.18$, $p < .001$), with lower supervisor support associated with increased DP. Stressful involvement explained a further 22.6% and represented a significant addition to the model ($F (4, 91) = 20.42$, $p < .001$). Of its subscales, 'frequent difficulties' had the highest correlation with DP ($r = .53$, $p < .001$). The final model explained 48.4% of total variance.

2.3.7.3 Predictors of PA

Table 14.
Multiple regression model for predictors of PA.

		B	B SE	B
Step 1				
	Healing Involvement	2.23	0.22	.28***
Step two				
	Healing Involvement	1.86	0.24	.30***
	Stressful Involvement	-0.56	0.19	.20**

Note: R^2 =.405 for step 1 ($p < .001$); ΔR^2 = .051 for step two ($p < .005$); R^2 =.456 for step two. ***p<0.001, **p<0.01, *p<0.05.

Therapist age, job role, experience, general self-efficacy, co-worker support, supervisor support, and psychological job demands did not act as significant predictors. Healing involvement was entered as block one (as Steel et al., 2016 found this to be a significant predictor of PA), and stressful involvement was entered as block two. As shown in Table 14, healing involvement significantly predicted PA, accounting for 4 40.5% of the variance.

Of its subscales, 'Basic relational skills' had the highest correlation with PA (r = .51, $p < .001$. Stressful involvement explained a further 5.1% and represented a significant addition to the model (F (2,92) = 37.79, $p < 0.001$), with lower stressful involvement associated with increased PA. Of its subscales, 'Frequent Difficulties' had the

highest correlation with PA (r = -.51, p < .001). The final model explained 45.6% of total variance.

increased PA. Of its subscales, ‘Frequent Difficulties’ had the highest correlation with PA (r = -.52, p < .001). The final model explained 41.9% of total variance.

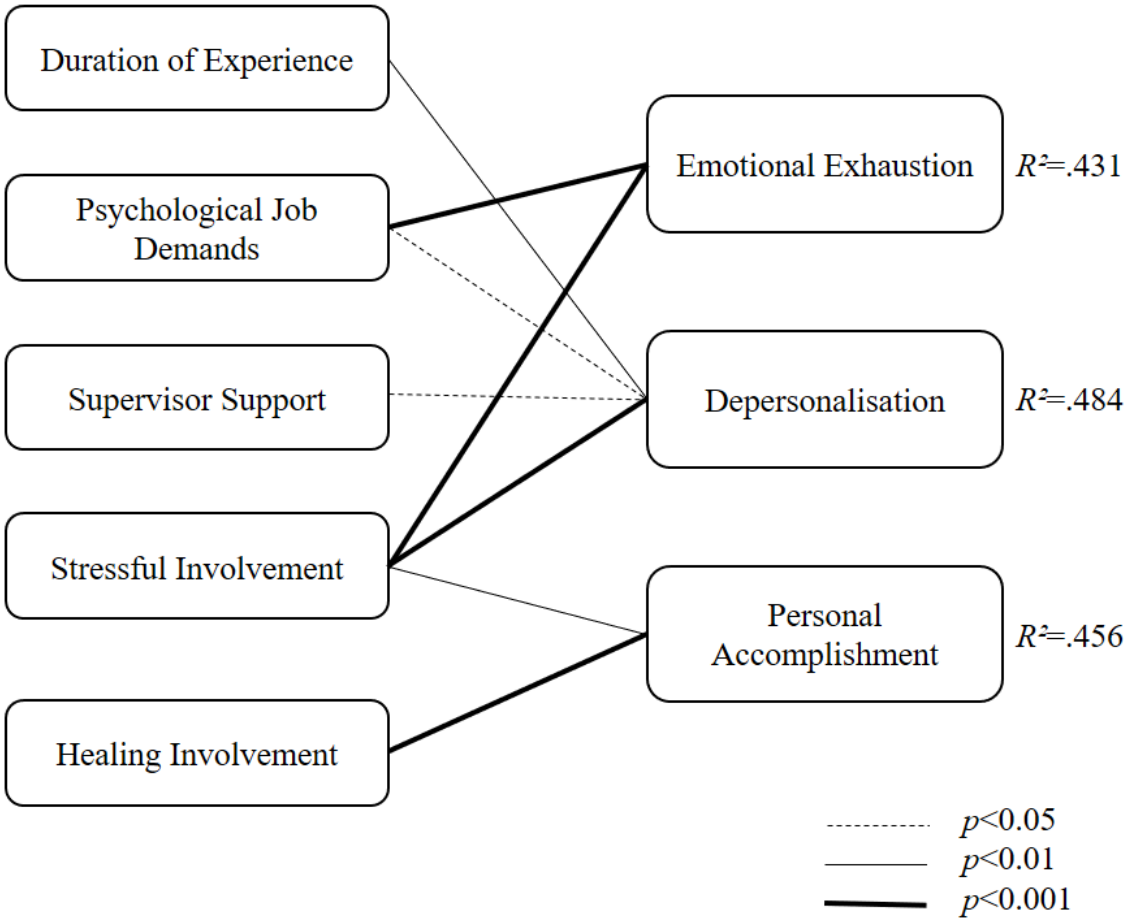

Figure 4. Relation between significant predictors and the three dimensions of burnout on the Maslach Burnout Inventory.

2.4 Discussion

The aim of this study was to investigate how IAPT therapists working within step two and step three experience burnout, and to explore predictors of burnout in this population. The study replicated aspects of the study by Steel et al. (2015), and extended their work by investigating general self-efficacy and supervisor support as predictors of burnout in IAPT therapists.

2.4.1 Main findings

2.4.1.1 Hypothesis One

The prediction that IAPT staff would present with high EE was supported. In the current sample, therapists' reported levels of EE were found to be considerably higher than that of a previous study utilising a sample of IAPT therapists (Steel et al., 2015). The prediction that the current sample would present with high DP was met, with participants presenting with significantly higher levels of DP than those in the study by Steel et al. (2015). The prediction that the current sample would present with low PA was met. The level of PA reported in the current sample did not differ from that reported in the sample of Steel et al. (2015). Interpreted in conjunction with the results from Steel et al. (2015), where the sample had not yet become depersonalised, the current findings appear to provide evidence for the sequential model of burnout, where DP occurs subsequently to EE (Maslach, 2001; Byrne, 1994: Lee & Ashforth 1996; Leiter 1993), suggesting that IAPT therapists may now have progressed to experiencing burnout across all three domains.

2.4.1.2 Hypothesis Two

EE was significantly predicted by psychological job demands and stressful involvement with clients. Contrary to predictions and previous literature, age, duration of experience, perceived healing involvement with clients, supervisor support and co-worker support did not act as predictors of EE. In line with the hypothesis and previous research, job demands, experience, supervisor support and stressful involvement acted as predictors of DP. However, in contrast with predictions, age, co-worker support and perceived healing involvement with clients did not predict DP.

In support of the hypothesis, healing involvement and stressful involvement acted as significant predictors of PA. However, therapist age, job role, experience, general self-efficacy, co-worker support, supervisor support, and psychological job demands did not predict PA. In contrast to the hypothesis, and contrary to the findings of Shoji et al. (2016), general self-efficacy did not act as a predictor of any of the three components of burnout.

2.4.2 Implications in Relation Theory and Research

The current study can be said to provide support for the General Model of Burnout (Maslach et al., 1996), as staff presented with all three composite factors of burnout, high EE and high DP alongside a low sense of PA, in line with the findings of Steel et al. (2015).

In support of the JDR model (Demerouti et al., 2001), the current study appears to highlight the importance of demands in predicting burnout. The most important demands in the current population were psychological job demands and stressful involvement with clients, which were predictive of EE and DP. However, in contrast to predictions of the JDR model, no measured 'resources' (such as co-worker support and general self-efficacy) acted as predictors of EE, perhaps suggesting that demands were a more powerful factor for IAPT therapists and outweighed the impact of resources in terms of EE. However, healing involvement, supervisor support and duration of experience in MH were predictive of DP and PA, suggesting that such factors may act as resources in decreasing the likelihood of subsequent aspects of burnout following EE.

Although control was not directly measured in the current study, IAPT models advocate that therapists adhere to strict protocols, and thus can be said to have limited control over their work, a factor that Karasek (1979) posits as important for burnout. That control was not measured is a limitation of the current study, and future research should directly measure IAPT therapists' perceptions of their control over their workload and organisation.

In contrast to previous literature (Shoji et al. 2016), generalised self-efficacy did not play a role in predicting any of the three components of burnout for the current sample of IAPT therapists. The role of general self-efficacy in predicting burnout in IAPT therapists has not previously been explored and consequently this appears to represent an original finding. One explanation may be that for therapists working in an IAPT context, the impact of psychological demands of their work reduces the impact of general self-efficacy.

Alternatively, it is possible that in the current population, a more important factor may be self-efficacy specific to therapeutic skills, rather than general self-efficacy. The subscales of stressful involvement and healing involvement were found to be important for predicting burnout, and although they do not directly or exclusively measure self-efficacy for therapeutic skills, they do include items that relate to this, for example, 'How effective are you at engaging patients in a working alliance?'. Future research could focus on directly measuring self-efficacy for therapeutic skills in IAPT staff in order to build a more in-depth understanding of its impact.

The current study also represented unique and original research in its investigation of supervisor support in relation to burnout in IAPT therapists. Although supervisor support was not predictive of EE or PA, lower supervisor support was predictive of higher DP. This appears to be in line with the strong movement in favour of supervision for CBT therapists (e.g., Padesky, 1996; Liese & Beck, 1997; Beck, Sarnat & Barenstein, 2008; Newman, 2010), and although IAPT supervision is protocol-driven with a clear focus on case management (see Turpin & Wheeler, 2011), the relationship between therapist and supervisor does appear to be an important factor for the wellbeing of staff within IAPT. However, the measure employed in the current study was limited and focused on supervisor support only. The IAPT setting provides an excellent opportunity for more in-depth exploration of the role of supervision for therapists, and future measures could explore further aspects of supervision such as development of therapeutic skills and opportunities for reflection.

2.4.3 Clinical Implications

Results from the current study indicate that staff burnout may represent a significant and worsening problem in IAPT services. Considered alongside previous research (Steel et al., 2015), IAPT staff appear to be on a worrying trajectory of increasing levels of burnout experienced across all three domains. No studies to date have explored the impact of burnout in IAPT services specifically, but for MH staff, burnout has been linked with higher rates of sick leave, poor job commitment and performance, and increased staff turnover (Richardsen & Burke, 1993; Schwab, Jackson & Schuler, 1986; Smoot & Gonzales, 1995; Stalker & Harvey, 2002). Individual therapist factors have been shown to be linked with outcomes for patients within IAPT (Green et al., 2014), and burnout has been associated with quality of care delivered by staff (Salyers et al., 2015). Considering the significant government investment in IAPT, the high referral rates and vast amount of

staff training funded by IAPT (Department of Health, 2012; Health and Social Care Information Centre, 2016; and Griffiths & Steen, 2013), interventions to ensure quality of care and staff retention are highly important, and staff burnout is a potentially vital area to tackle.

An initial step within services could be to provide education and advice to staff around symptoms of burnout to increase awareness of its presentation. Research data such as that in the current paper should be disseminated to staff to highlight that burnout is a normal experience for IAPT therapists. Staff should be encouraged to seek support when they feel they are experiencing symptoms of burnout, and information and access to appropriate support should be ensured. Intervention studies have indicated practices that may be effective in reducing burnout, for example, an eight-week mindfulness meditation program has been shown to reduce EE (Galantino, Baime, Maguire, Szapary & Farrar, 2005). Services should be encouraged to pilot such interventions and audit their effectiveness.

Psychological job demands acted as a significant predictor of EE. This variable included items around working very hard, very fast, having enough time to complete tasks, and managing conflicting demands. Staff from step two reported higher levels of psychological job demands than those at step three, a finding which is possibly explained by the step two model of working with a high volume caseload, in contrast to step three, where therapists work with a smaller caseload using higher intensity approaches. Staff and supervisors should be aware that increased workload is associated with increased risk of staff burnout, and steps should be taken to ensure that workload is manageable according to each professional's competencies and the time available, and that therapists are supported to manage conflicting demands by developing skills in prioritising the most important tasks.

In the current population, increased stressful involvement with clients was predictive of increased DP and EE, whilst decreased stressful involvement and increased healing involvement was predictive of a higher sense of PA. This indicates that the way that IAPT therapists perceive and experience their relationships with clients is highly relevant to burnout. Of the stressful involvement subscales, 'frequent difficulties' in sessions appeared to have the strongest relationship with increased burnout. This scale includes items around feeling unsure how best to support clients, feeling powerless to invoke change for clients, and feeling unable to provide empathy to clients. These difficulties could be addressed in a number of ways, for example, by providing more training in therapeutic skills and by

encouraging staff to discuss difficulties within supervision. For healing involvement, the most important subscale appeared to be in-session 'flow', relating to therapists' experiences of feeling engrossed, inspired and stimulated within sessions. It appears that when therapists truly enjoy their work and feel appropriately challenged and stimulated by it, this leads to an increased sense of accomplishment. Healing involvement and stressful involvement have consistently been shown to be important for burnout in IAPT therapists, within the current sample and that of Steel et al. (2015). This suggests the importance of discussion around these factors during supervision, and IAPT supervision protocols should be updated accordingly to include these factors. The TWIS questionnaire (Orlinsky & Rønnestad, 2005) is recommended for regular self-monitoring (Duncan, 2010), and could be used regularly within supervision and training to facilitate discussion around the difficulties and positive aspects of therapeutic relationships, and to highlight areas for development.

Reduced supervisor support was predictive of higher DP within the current population. The utilised measure does not assess supervisees' perceptions of their supervisor's ability to promote fidelity to evidence-based models, so although IAPT strongly advocates this as the main function of supervision (Turpin & Wheeler, 2011), it is unclear how important this aspect of supervision is for staff burnout. However, the employed measure includes items around how concerned the supervisor appeared about the welfare of supervisees, how much attention the supervisor paid, and how 'helpful' the supervisor was. These factors were important for predicting DP, a finding which highlights the importance of supervision as a place to ensure therapists' wellbeing and to listen to their current needs, which again could be incorporated in updated IAPT supervision guidance. Steps should be taken to ensure IAPT supervisors are trained in these aspects of supervision as well as more specific, knowledge based aspects.

A further predictor of DP was duration of experience of employment in MH, with greater duration of experience linked with reduced DP. Although difficult to change for current staff with limited experience, such staff may find it reassuring to hear that DP appears to decrease with experience. Where DP has become a difficulty within services, it may be helpful to recruit staff with who are more experienced and thus may experience less DP, a factor which may have a positive influence on less experienced staff, enabling them to perceive effective skills to cope with emotionally exhausting situations without becoming cynical and depersonalised.

2.4.4 Critique of Study

The current study was based on that of Steel et al. (2015). The replication of measures for dependent and independent variables within the current study is a strength of the research, meaning that results may be compared to those of Steel et al. (2015). However, there are drawbacks in making such comparisons. Firstly, the samples were recruited from different teams in different geographical areas, meaning there is a high likelihood of extraneous variables, for example, the culture within teams as well as the relevant sociodemographic factors affecting the populations served by the teams. Secondly, the samples were recruited at different points in time which again could be linked with a number of confounding variables, such as differing political climates affecting the delivery of services.

A further limitation of the current study is that it relied on self-report measures. This may have led to a number of biases affecting the validity of the data, for example, social desirability bias, acquiescent responding, and extreme responding. However, as many variables focused on factors that were highly personal and related to each therapists' internal experiences, it is difficult to consider how another method such as observation or external reports could have captured these phenomenon appropriately.

Furthermore, the sample were self-selecting and were recruited via email, which again may have led to biases. For example, it is possible that those experiencing high EE felt more motivated to complete the questionnaire, as it was relevant to their experiences. However, it is equally possible that those experiencing lower burnout had more time available to partake in research, so the sample may reflect the least burnt out therapists within services. Ethical considerations meant it was not possible to make completion compulsory, but a longer duration of recruitment and more direct recruitment strategies, for example, face-to-face rather than via email, may have decreased the risk of a biased sample.

Finally, data were only collected at a single time point, meaning that the study cannot inform understanding around the progression of burnout over time within IAPT therapists. However, the current study did measure age and duration of experience and explored their impact on burnout symptoms, providing some information around how burnout may progress over time, with results indicating that increased experience is linked with reduced burnout. Furthermore, the study utilised standardised measures, including the

MBI, meaning it can be directly compared to previous studies such as that of Steel et al. (2015) and future research.

A strength of the current study was that it included an appropriate sample size meaning that the study achieved adequate power. The sample was spread almost evenly in terms of staff from different steps of services and across the four different job roles (trainee Psychological Wellbeing Practitioner, Psychological Wellbeing Practitioner, trainee High Intensity Therapist and High Intensity Therapist). The sample included a much larger number of women than men, with 83 per cent of the sample being female; this is in line with IAPT staff nationally, where women represent 79 per cent of the population (NHS England, 2015). The current study indicates that male therapists may experience working within IAPT slightly more favourably than female therapists; although experiences of burnout were equal across males and females, males reported fewer psychological job demands and a greater sense of healing involvement. Further research is required to explore the differences between male and female IAPT therapists and the potential implications.

All four services approached to participate in the study responded with interest and agreed to participate in the study, and adequate response rates were quickly achieved. Although focused on a relatively small number of services and staff, the current study appears to indicate that IAPT services and staff are highly receptive to participating in research, which is encouraging for much needed future research in this area.

2.4.5 Conclusion

The current study contributes to understanding of the experiences of IAPT therapists. Considered alongside a study conducted in this population four years previously (Steel et al. 2015), IAPT staff appear to be on a worrying trajectory in terms of burnout, and action should be taken immediately to reduce burnout within this staff population. The way that therapists perceived their relationships with clients was a particularly important factor, alongside duration of experience, work demands and supervisor support. Contrary to predictions, general self-efficacy does not appear to be a predictor of burnout within this population. However, therapists' perceptions of their therapeutic relationships with clients appear to be highly important, and this represents a promising area for intervention. Future research should assess the role of control within IAPT therapists' experiences of burnout, and should aim to develop and evaluate interventions to reduce burnout within this population. IAPT services appear to be receptive to engaging with research, and future

research within this area should be encouraged, ultimately aiming to ensure that staff are effectively supported. Without intervention to reduce IAPT staff burnout, services may face significant difficulties in terms of effectiveness and staff retention, which would be vastly problematic given the high level of referrals and the significant government investment (see Department of Health, 2012; Health and Social Care Information Centre, 2016; and Griffiths & Steen, 2013).

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Appendix A Table presenting ratings using the National Institute of Health Quality Assessment Tool for Observational Cohort and Cross-Sectional Studies (2014)

Table 19.
Ratings for each study for each domain and overall quality rating using the National Institute of Health Quality Assessment Tool for Observational Cohort and Cross-Sectional Studies (2014)

Study	1. Was the research question clearly stated?	2. Was the study population clearly specified and defined?	3. Was the participation rate of eligible persons at least 50%?	4. Were all subjects selected/ recruited from the same or similar populations? Were inclusion/ exclusion criteria prespecified and applied uniformly?	5. Was a sample size justification, power description, or variance and effect estimates provided?	6. Were the exposure(s) of interest measured prior to the outcome(s) being measured?	7. Was the timeframe sufficient to see an association between exposure and outcome?	8. Where relevant, did the study examine different levels of the exposure as related to the outcome?	9. Were the exposure measures clearly defined, valid, reliable, and implemented consistently across all participants?	10. Was the exposure assessed more than once over time?	11. Were the outcome measures clearly defined, valid, reliable, and implemented consistently across participants?	12. Were the outcome assessors blinded to the exposure status of participants?	13. Was loss to follow-up after baseline 20% or less?	14. Were key confounding variables measured and adjusted for their impact?	Overall quality rating
Acker, 2008	Yes	Yes	Yes	Yes	No	No	No	Yes	Yes	No	Yes	NA	NA	No	Fair
Blau et al., 2013	Yes	No	No	Yes	No	No	No	Yes	No	No	Yes	NA	NA	No	Poor
Bressi et al., 2009	Yes	Yes	Yes	Yes	No	No	No	No	No	No	Yes	NA	NA	No	Poor
Dreison et al., 2016	Yes	Yes	Yes	Yes	No	No	No	Yes	Yes	No	Yes	NA	NA	No	Good
Evans et al., 2006	Yes	Yes	No	Yes	No	No	No	Yes	No	No	Yes	NA	NA	Yes	Fair

Study	1. Was the research question clearly stated?	2. Was the study population clearly specified and defined?	3. Was the participation rate of eligible persons at least 50%?	4. Were all subjects selected/ recruited from the same or similar populations? Were inclusion/ exclusion criteria prespecified and applied uniformly?	5. Was a sample size justification, power description, or variance and effect estimates provided?	6. Were the exposure(s) of interest measured prior to the outcome(s) being measured?	7. Was the timeframe sufficient to see an association between exposure and outcome?	8. Where relevant, did the study examine different levels of the exposure as related to the outcome?	9. Were the exposure measures clearly defined, valid, reliable, and implemented consistently across all participants?	10. Was the exposure assessed more than once over time?	11. Were the outcome measures clearly defined, valid, reliable, and implemented consistently across participants?	12. Were the outcome assessors blinded to the exposure status of participants?	13. Was loss to follow-up after baseline 20% or less?	14. Were key confounding variables measured and adjusted for their impact?	Overall quality rating
Jovanović et al., 2016	No	Yes	No	No	No	No	No	Yes	No	No	Yes	NA	NA	Yes	Poor
Kraus & Stein, 2013	Yes	No	NR	Yes	No	No	No	Yes	Yes	No	Yes	NA	NA	Yes	Fair
Lanham et al., 2012	Yes	Yes	NR	Yes	No	No	No	Yes	Yes	No	Yes	NA	NA	Yes	Fair
LaSalvia et al., 2009	Yes	Yes	NR	Yes	No	No	No	Yes	Yes	No	Yes	NA	NA	No	Good
Lent & Schwartz, 2012	Yes	Yes	No	Yes	No	No	No	Yes	Yes	No	Yes	NA	NA	No	Fair
Madathil et al., 2014	Yes	Yes	NR	Yes	Yes	No	No	Yes	Yes	No	Yes	NA	NA	Yes	Fair
Nelson, et al., 2009	Yes	Yes	Yes	Yes	No	No	No	Yes	Yes	No	Yes	NA	NA	No	Fair
Ogresta et al., 2008	Yes	Yes	Yes	Yes	No	No	No	Yes	Yes	No	Yes	NA	NA	No	Good

Study	1. Was the research question clearly stated?	2. Was the study population clearly specified and defined?	3. Was the participation rate of eligible persons at least 50%?	4. Were all subjects selected/ recruited from the same or similar populations? Were inclusion/ exclusion criteria prespecified and applied uniformly?	5. Was a sample size justification, power description, or variance and effect estimates provided?	6. Were the exposure(s) of interest measured prior to the outcome(s) being measured?	7. Was the timeframe sufficient to see an association between exposure and outcome?	8. Where relevant, did the study examine different levels of the exposure as related to the outcome?	9. Were the exposure measures clearly defined, valid, reliable, and implemented consistently across all participants?	10. Was the exposure assessed more than once over time?	11. Were the outcome measures clearly defined, valid, reliable, and implemented consistently across participants?	12. Were the outcome assessors blinded to the exposure status of participants?	13. Was loss to follow-up after baseline 20% or less?	14. Were key confounding variables measured and adjusted for their impact?	Overall quality rating
Pedrini, 2009	Yes	Yes	Yes	Yes	No	No	No	Yes	Yes	No	Yes	NA	NA	No	Good
Ray et al., 2013	Yes	Yes	No	Yes	Yes	No	No	Yes	Yes	No	Yes	NA	NA	Yes	Good
Steel, et al., 2015	Yes	Yes	No	Yes	Yes	No	No	Yes	Yes	No	Yes	NA	NA	No	Good
Van Daalen et al.2006	Yes	Yes	Yes	Yes	No	No	No	Yes	Yes	No	Yes	NA	NA	Yes	Good

Appendix B Matrix of Pearson's correlations between dependent and independent variables.

	DP	EE	PA	Age	Months employed in MH	Decision Authority	Psychological job demands	Supervisor support	Co-worker support	Healing Involvement	Stressful Involvement
DP	-	-	-	-	-	-	-	-	-	-	-
EE	.523**	-	-	-	-	-	-	-	-	-	-
PA	-.276**	-.292**	-	-	-	-	-	-	-	-	-
Age	-.293**	0.042	.228*	-	-	-	-	-	-	-	-
Months	-.291**	0.044	0.061	.571**	-	-	-	-	-	-	-
Decision	-.285**	-.299**	.216*	0.060	0.158	-	-	-	-	-	-
Psychological	.335**	.410**	-0.075	-0.135	-0.186	-.454**	-	-	-	-	-
Supervisor	-.326**	-.313**	0.158	-0.139	-0.147	.357**	-.281**	-	-	-	-
Co-worker	-0.150	-.247**	0.080	-0.176	-0.161	.203*	-0.186	.267**	-	-	-
Healing	-.248**	-.243**	.601**	.345**	0.135	.200*	0.023	0.083	0.169	-	-
Stressful	.589**	.606**	-.483**	-.241*	-0.127	-.215*	0.169	-0.136	-0.055	-.446**	-
General self-	-0.176	-.285**	.255**	0.079	0.015	0.031	-0.023	0.034	0.140	.253**	-.404**

Note: **. Correlation is significant at the 0.01 level; *. Correlation is significant at the 0.05 level (2-tailed).

Appendix C Confirmation of ethical approval from university.

From:
Sent: 21 October 2016 08:05
To: Subject: Research Governance Feedback on your Ethics Submission (Ethics ID:23809)

Submission Number 23809:
Submission Title An Investigation Into Burnout in IAPT Staff (Amendment 1):
The Research Governance Office has reviewed and approved your submission

You can begin your research unless you are still awaiting specific Health and Safety approval (e.g. for a Genetic or Biological Materials Risk Assessment) or external ethics review (e.g. NRES).The following comments have been made:

"I am writing to confirm that the University of _____is prepared to act as Research Sponsor for this study under the terms of the Department of Health Research Governance Framework for Health and Social Care (2nd edition 2005). We encourage you to become fully conversant with the terms of the Research Governance Framework by referring to the Department of Health document which can be accessed at:

http://www.dh.gov.uk/en/Aboutus/Researchanddevelopment/Researchgovernance/DH_4002112

If your study has been designated a Clinical Trial of an Investigational Medicinal Product, I would like to take this opportunity to remind you of your responsibilities under Medicines for Human Use Act regulations (2004/2006), The Human Medicines Regulations (2012) and EU Directive 2010/84/EU regarding pharmaco-vigilence If your study has been designated a 'Clinical Investigation of a Medical Device' you also need to be aware of the regulations regarding conduct of this work.
Further guidance can be found: http://www.mhra.gov.uk/

The University of _____ fulfils the role of Research Sponsor in ensuring management, monitoring and reporting arrangements for research. I understand that you will be acting as the Principal Investigator responsible for the daily management for this study, and that you will be providing regular reports on the progress of the study to the Research Governance Office on this basis.

Please also familiarise yourself with the Terms and Conditions of Sponsorship on our website, including reporting requirements of any Adverse Events to the Research Governance Office and the hosting organisation.
If your project involves NHS patients or resources please send us a copy of your NHS REC and Trust approval letters when available. Please also be reminded that you may need a Research Passport to apply for an honorary research contract of employment from the hosting NHS Trust. Both our Terms and Conditions of Sponsorship and information about the Research Passport can be found on our website:
http://www.soton.ac.uk/corporateservices/rgo
Failure to comply with our Terms may invalidate your ethics approval and therefore the insurance agreement, affect funding and/or Sponsorship of your study; your study may need to be suspended and disciplinary proceedings may ensue.
Please do not hesitate to contact this office should you require any additional information or support. May I also take this opportunity to wish you every success with your research.

Appendix D Confirmation of ethical approval from HRA.

NHS
Health Research Authority

[redacted]
Trainee Clinical Psychologist
[redacted]

Email: hra.approval@nhs.net

25 November 2016

Dear [redacted]

Letter of HRA Approval

Study title:	**An Investigation Into Burnout in IAPT (Improving Access to Psychological Therapies) Staff**
IRAS project ID:	**205923**
Protocol number:	**1**
Sponsor	[redacted]

I am pleased to confirm that **HRA Approval** has been given for the above referenced study, on the basis described in the application form, protocol, supporting documentation and any clarifications noted in this letter.

Participation of NHS Organisations in England

The sponsor should now provide a copy of this letter to all participating NHS organisations in England.

Appendix B provides important information for sponsors and participating NHS organisations in England for arranging and confirming capacity and capability. **Please read *Appendix B* carefully**, in particular the following sections:

- *Participating NHS organisations in England* – this clarifies the types of participating organisations in the study and whether or not all organisations will be undertaking the same activities
- *Confirmation of capacity and capability* - this confirms whether or not each type of participating NHS organisation in England is expected to give formal confirmation of capacity and capability. Where formal confirmation is not expected, the section also provides details on the time limit given to participating organisations to opt out of the study, or request additional time, before their participation is assumed.
- *Allocation of responsibilities and rights are agreed and documented (4.1 of HRA assessment criteria)* - this provides detail on the form of agreement to be used in the study to confirm capacity and capability, where applicable.

Further information on funding, HR processes, and compliance with HRA criteria and standards is also provided.

IRAS project ID	205923

It is critical that you involve both the research management function (e.g. R&D office) supporting each organisation and the local research team (where there is one) in setting up your study. Contact details and further information about working with the research management function for each organisation can be accessed from www.hra.nhs.uk/hra-approval.

Appendices

The HRA Approval letter contains the following appendices:

- A – List of documents reviewed during HRA assessment
- B – Summary of HRA assessment

After HRA Approval

The attached document *"After HRA Approval – guidance for sponsors and investigators"* gives detailed guidance on reporting expectations for studies with HRA Approval, including:

- Working with organisations hosting the research
- Registration of Research
- Notifying amendments
- Notifying the end of the study

The HRA website also provides guidance on these topics and is updated in the light of changes in reporting expectations or procedures.

Scope

HRA Approval provides an approval for research involving patients or staff in NHS organisations in England.

If your study involves NHS organisations in other countries in the UK, please contact the relevant national coordinating functions for support and advice. Further information can be found at http://www.hra.nhs.uk/resources/applying-for-reviews/nhs-hsc-rd-review/.

If there are participating non-NHS organisations, local agreement should be obtained in accordance with the procedures of the local participating non-NHS organisation.

User Feedback

The Health Research Authority is continually striving to provide a high quality service to all applicants and sponsors. You are invited to give your view of the service you have received and the application procedure. If you wish to make your views known please email the HRA at hra.approval@nhs.net. Additionally, one of our staff would be happy to call and discuss your experience of HRA Approval.

HRA Training

We are pleased to welcome researchers and research management staff at our training days – see details at http://www.hra.nhs.uk/hra-training/

Your IRAS project ID is **205923**. Please quote this on all correspondence.

IRAS project ID	205923

Yours sincerely

[redacted]
Assessor

Email: hra.approval@nhs.net

Copy to: [redacted]

Appendix E Confirmation of ethical approval from NHS Trust 1.

Dear [redacted]

Re: IRAS 205923 – An Investigation into Burnout in IAPT Staff
Confirmation of Capacity and Capability at [redacted] NHS Foundation Trust

This email confirms that [redacted] NHS Foundation Trust has the capacity and capability to deliver the above referenced study. Please find attached our agreed Statement of Activities as confirmation.

We agree to start this study on the date when you as sponsor give the green light to begin.

If you wish to discuss further, please do not hesitate to contact me.

Kind regards [redacted]

[redacted] NHS Foundation Trust | R&D

Appendix F Confirmation of ethical approval from NHS Trust 2

IRAS 205923 Confirmation of Capacity and Capability at [redacted] NHS Foundation Trust

[redacted]

Reply all

Inbox

You replied on 20/12/2016 14:57.

Statement of activities 2...
360 KB

Show all 1 attachments (360 KB) Download Save to OneDrive [redacted]

Action Items

Dear [redacted]

IRAS 205923 Confirmation of Capacity and Capability at [redacted] NHS Foundation Trust

Full Study Title: An Investigation into Burnout in IAPT Staff

This email confirms that [redacted] NHS Foundation Trust has the capacity and capability to deliver the above referenced study. Please find attached our agreed Statement of Activities as confirmation.

We agree that this study may start with immediate effect.

The Research and Development Department has received a copy of the HRA approval letter dated **25 November 2016** and is assured that governance criteria have been satisfied for NHS confirmation of capacity and capability to be granted at [redacted] NHS Foundation Trust.

- You may be aware of the 70-day benchmark Target set by the Department of Health from the validation of the study within the Trust to the first patient consented into the study. The target for the first participant to be consented is **3rd February 2017.** It is a condition of this confirmation that you confirm by e-mail the date that the first participant is consented into your study.
- It is a condition of your confirmation that you accept the terms of Schedule 3 (Confidentiality, Data Protection and Freedom of Information) and you as PI are responsible for your conduct and that of your team. Please ensure that you and your team are familiar with the Trust policies and procedures and have taken Trust training: http://bit.ly/2e8yc3l
- This Trust confirmation (and your ethics and HRA approval) only applies to the current protocol. Any changes to the protocol can only be initiated following further approval from the REC and HRA via an amendment submission; the R&D office should be informed of these changes.
- This confirmation is conditional on members of the research team being substantively employed by the Trust or having appropriate Honorary Research contracts in place commensurate with their role and research activity before they start data collection. Please contact the R&D office to discuss requirements for any new members of the research team.

If you wish to discuss any of these conditions further, please do not hesitate to contact me.

Many thanks,

[redacted]

Appendix G Confirmation of ethical approval from NHS Trust 3

[redacted] NHS

NHS Trust

[redacted]

7 December 2016

[redacted]

Dear [redacted]

IRAS Project ID : 205923
Study Title : An Investigation into Burnout in IAPT Staff
Sponsor : [redacted]

With effect from 1 April 2016, all research projects taking place within the Trust must now have prior approval from the Health Research Authority (HRA). We note that HRA Approval was granted on 25 November and that participating NHS organisations need to formally confirm their capacity and capability to undertake their role in the above reference study.

The Trust has reviewed the Statement of Activities submitted and this letter confirms the [redacted] NHS Trust has the capacity and capability to deliver the study. Please find attached our agreed Statement of Activities as confirmation.

We are ready to start the study and await confirmation of the actual date at which the Sponsor wishes to commence research activities at our site.

In accordance with our Trust Policy for R&D, I draw your particular attention to the following:

- In the event of a serious adverse event, which is linked to your research study, you must report any occurrence to the Research Department in accordance with the Trust's Incident Reporting Procedure

- The requirement to report annually to the Trust on the study's progress, and submit all publications resulting from the study to the Trust's Research Department for them to share with patients and staff.

- The requirement to ensure recruitment is recorded onto the NIHR portfolio regularly once we become a participating site.
(http://www.crn.nihr.ac.uk/can-help/funders-academics/nihrcrn-portfolio/)

- The understanding that your study will be subject to monitoring and/or audit by the research team.

- Please notify us of the date of your First Participant First Visit (FPFV), if appropriate. If you experience any problems recruiting, please contact the Research Department for advice and support.

- Ensuring any external staff working on this study have been issued with the appropriate Letters of Access/Honorary *Research* Contracts prior to commencing work on the study.

We wish you every success with your study. If you require support or assistance at any time with the involvement of our Trust in this study, please do not hesitate to contact us.

Yours sincerely

[redacted]
Research Management and Governance Manager

Cc [redacted]

Appendix H Confirmation of ethical approval from NHS Trust 4

[redacted] NHS

NHS Trust

[redacted]

Ref: [redacted]

1st December 2016

[redacted]

Dear [redacted]

Study Title: An Investigation Into Burnout in IAPT (Improving Access to Psychological Therapies) Staff

IRAS No.: 205923

CI: [redacted]

In accordance with the Department of Health's Research Governance Framework for Health and Social Care, all research projects taking place within the Trust must receive a favourable opinion from the Health Research Authority (HRA) and confirmation from the Trust Research and Development (R&D) Department that capacity and capability to deliver the study has been assessed and they are happy for you to commence recruitment of participants.

We confirm HRA assurance was granted on 25th November 2016.

[redacted] NHS Trust has reviewed the Statement of Activities submitted for the above research study and we are pleased to confirm that you may proceed with recruitment. The PICs where you are recruiting are listed in the attached appendix. Please notify us of any additional Sites / PICs.

I would like to bring your attention to the attached list of requirements when undertaking research within [redacted] NHS Trust.

a) The mandatory requirement to ensure recruitment is recorded both onto the e-dge™ database and NIHR portfolio regularly.

b) The mandatory requirement to report annually to the Trust on the study progress, and submit all publications resulting from the study to Solent NHS Trust for them to share with patients and staff.

c) The understanding that your study will be subject to monitoring and / or audit by the research team.

d) Please notify us of the date of your First Patient First Visit (FPFV). If you experience any problems recruiting, please contact the Research department for advice and support.

e) Ensuring any staff working on this study have been issued with the appropriate Letters of Access / Honorary Research Contracts prior to commencing work on the study.

We wish you every success with your study. If you require support or assistance at any time with the involvement of Solent NHS Trust in this study, please do not hesitate to contact us.

Yours sincerely

Associate Director of Research & Clinical Effectiveness

Appendix I Recruitment email sent to IAPT service managers

Document Title: Recruitment Email to send to IAPT Service Managers

Subject: Opportunity to participate in IAPT research

Dear _____,

I am a trainee Clinical Psychologist in my second year at _____ University and I'm contacting you regarding my doctoral research project, which will be investigating predictors of burnout for IAPT therapists. The project is supervised by _____and _____.

As you are a large local IAPT provider (and one of the partner services to our IAPT PG Diploma here at _____ University), I would like to invite your PWP and HI staff team to participate. Would you be prepared to circulate an email to your PWP and HI staff inviting them to participate? Staff recruited will then be asked to complete an online survey lasting around 15 minutes. After this, no further action will be required. The write up of the project will be anonymous and services will not be identifiable.

I have attached my participant information sheet for further information and I can send you a copy of the questionnaires if this would help. If you have any questions, if you would like more information, or if you would like to meet with me in person, please do let me know.

I look forward to hearing from you.

Many thanks,

Appendix J Participant Information Sheet

Participant Information Sheet

Study Title: An Investigation into Burnout in IAPT Staff

Researcher: _____

I am a Trainee Clinical Psychologist and the current study forms my doctoral thesis, which is funded by University of Southampton and supervised by _____and _____.

Rationale: The formation of a new workforce has been central to IAPT services but little research has been conducted with staff members. The current study aims to develop understanding of your experiences of working in IAPT and the impact of this demanding and rewarding role. Ultimately, the research aims to help IAPT service providers know how best to support you.

Why have I been chosen? The study is recruiting trainee/qualified Psychological Wellbeing Practitioners and trainee/qualified High Intensity Therapist working within IAPT.

What will happen if I take part? You will be asked to complete an online questionnaire, which takes about 10-15 minutes, and includes questions about yourself and your work.

Are there benefits in taking part? By participating you will contribute to research into IAPT staff.

Are there any risks involved? There are no risks to you or anyone in the study.

Will my participation be confidential? The current study operates in accordance with the Data Protection Act and the University of _____ data policy. No identifiable data will be collected and responses will be anonymous.

Can I change my mind? You may withdraw from the study at any point during completion. If you would like to exit the study during completion, please close the window you are viewing the online questionnaire in. Your data will be deleted immediately and will not be shared with the researcher. This will not have any negative consequences.

For more information, please contact me at _____.In the case of concern or complaint, please contact the University of _____ Research Governance Manager (_____).

Appendix K Debriefing statement.

An Investigation into Burnout in IAPT Therapists

This study aims to explore the experiences of IAPT therapists. The study is investigating therapists' levels of burnout (EE, PA and DP), self-efficacy, their experiences of the IAPT workplace (including workload and perceived levels of workplace social support), as well as individual therapist factors (for example, levels of anxiety experienced during sessions). We will use this information to investigate the relationships between these factors, ultimately aiming to contribute to research around IAPT staff and inform service providers in how to best support staff.

If you feel you are experiencing burnout or work related stress to an excessive degree, you should seek support from your GP, who can direct you to the relevant services. If you wish to find out more or have any concerns regarding the study, please contact the researcher at l_____. In the case of concern or complaint, please contact the University of _____ Research Governance Manager (_____).

Appendix L Tables and figure presenting Analyses for full sample including trainee and qualified PWPs and HI therapists

Table 15.
Age, experience and mean scores for EE, DP, and PA in the current study (for trainee and qualified PWPs and HI therapists) compared to previously published data.

	Current Study	Steel et al. (2016)
N	112	116
Age, mean (SD)	35.55 (10.71)	36.90 (10.40)
Experience (years), mean (SD)	7.99 (7.42)	2.40 (2.60)
EE, mean (SD)	29.96 (11.35)	20.47 (9.70)
DP, mean (SD)	7.73 (5.71)	3.26 (3.45)
PA, mean (SD)	38.27 (5.06)	38.71 (5.36)

Table 16.
Multiple regression model for predictors of EE for trainee and qualified PWPs and HI therapists.

	B	B SE	β
Step 1			
Psychological Job Demands	0.53	0.11	.41***
Step two			
Psychological Job Demands	0.41	0.09	.32***
Stressful Involvement	2.91	0.37	.55***

Note: R^2 =.168 for step 1 ($p < .001$); ΔR^2 = .297 for step two ($p < .001$); R^2 =.465 for step two; ***p<0.001, **p<0.01, *p<0.05.

Table 17.
Multiple regression model for predictors of D for trainee and qualified PWPs and HI therapists.

	B	B SE	B
Step 1			
Experience (total months employed in MH)	-0.02	0.01	-.29**
Step two			
Experience (total months employed in MH)	-0.02	0.01	-.35***
Supervisor support	-0.71	0.16	-.38***
Step three			
Experience (total months employed in MH)	-0.02	0.01	-.27***
Supervisor support	-0.55	0.13	-.30***
Stressful Involvement	1.37	1.90	.51***

Note: R^2 =.085 for step 1 ($p < .005$); ΔR^2 = .14 for step two ($p < .001$); R^2=.225 for step two; ΔR^2 = .252 for step three ($p < .001$); R^2 =.477 for step three. ***p<0.001, **p<0.01, *p<0.05.

Table 18.
Multiple regression model for predictors of PA for trainee and qualified PWPs and HI therapists.

	B	B SE	B
Step 1			
Healing Involvement	2.034	0.258	.601***
Step two			
Healing Involvement	1.627	0.276	.481***
Stressful Involvement	-0.633	0.192	.269**

Note: R^2 =.361 for step 1 ($p < .001$); ΔR^2 = .058 for step two ($p < .005$); R^2 =.419 for step two. ***p<0.001, **p<0.01, *p<0.05.

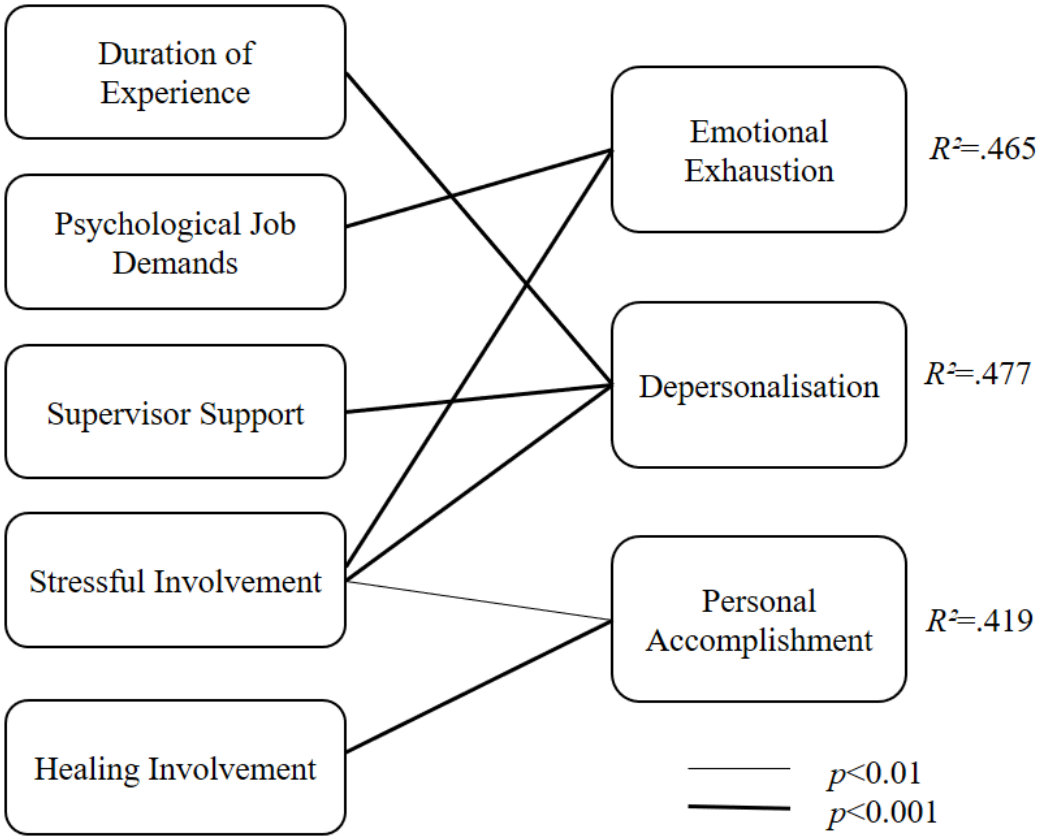

Figure 5. Relation between significant predictors and the three dimensions of burnout on the Maslach Burnout Inventory for trainee and qualified PWPs and HI therapists.