

# **Staff Empathy and Burnout in Forensic Mental Health Services: The Impact of Psychological Formulation**

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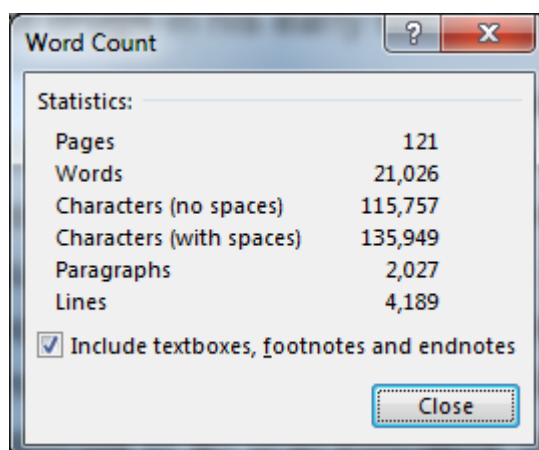
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### Thesis Overview

This thesis is comprised of two chapters: 1) a systematic review of literature, examining the relationship between burnout and empathy in healthcare staff, and 2) an empirical paper exploring the effect of formulation on the state empathy expressed by clinical staff towards a hypothetical service user in a forensic service. An appendix section containing additional relevant information follows.

The chapters, although linked, are written as individual papers addressing gaps in the empirical literature. It is planned that the empirical paper will be submitted for publication in *The Journal of Forensic Psychological Practice*. This chapter has been written in accordance with the author guidelines (see Appendix A).

The National Health Service (NHS) has been under increased scrutiny and subsequent evolution due to exposure of catastrophic failures at Winterbourne View Hospital, Southern Health, and Mid Staffordshire NHS Foundation Trust. Subsequent reports (Cavendish, 2013; Francis, 2013) recommend an increased focus on patient-centered, and compassionate care. This ‘culture of compassion’ (Grey & Cox, 2015) has called into debate what constitutes good nursing care (Chowdhry, 2010). There has been an increasing focus on the construct of empathy as a ‘tool’ within the context and quality of clinician–service user relationships (Yu & Kirk, 2009). This shift in focus demonstrates the influence of the political arena on clinical practice, which is often informed by public opinion, alongside media and government agendas. Therefore understanding the factors associated with, or influencing, empathy holds clinical and organizational relevance.

Burnout and empathy have been linked in empirical / theoretical literature (Ferri, Guerra, Marcheselli, Cunico, & Di-Lorenzo, 2015). Although viewed as distinct constructs, their relationship remains unclear. Chapter one reviews the current literature in relation to the experience of nurses and medical doctors with regards to burnout and empathy via two



hypotheses: 1) Burnout is negatively associated with empathy (as one construct increases the other decreases); 2) burnout and empathy are positively associated (high rates of burnout are evident in clinicians with high levels of empathy). The strongest evidence supports the first hypothesis. The review highlights the lack of research conducted within forensic mental health services, despite the empirical evidence identifying the importance of staff empathy and increased risk of burnout in these settings.

This gap in the literature, along with the current organizational and political focus on empathy within the NHS, informs chapter 2. Onyett (2007) has discussed how Clinical Psychologists are called to take the lead within services and work more creatively. Clinical formulation is a tool that can be used as a platform to promote psychologically informed approaches to understanding service users. Given that empathy within nursing is centered on increasing staffs' psychological understanding of the service user (Chowdhry, 2010), formulation could be considered influential in the capacity of a clinician to empathize. Self-reported state empathy towards a hypothetical service user is measured in forensic staff following exposure to formulated or unformulated client information. Statistical analysis suggests that mode of client information does not significantly affect clinicians' expressed state empathy. The brief nature of the case vignette is one hypothesis for the lack of effect; something which future research could develop.

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## **Chapter 1: Systematic Review**

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*Examining the Relationship between Burnout and Empathy in Healthcare*

*Professionals: A Systematic Review*

### Abstract

**Objective:** Empathy and burnout are two related yet distinct constructs that are relevant to clinical healthcare staff. The nature of their relationship is uncertain and the review aimed to complete a rigorous, systematic exploration of the literature investigating the relationship between burnout and empathy in healthcare staff.

**Design:** A systematic review was conducted in accordance with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidance.

**Data sources:** Search terms (Burnout OR Burn-out OR “Burn out”) AND (Empathy OR Empath\*) enabled identification of studies investigating burnout and empathy in healthcare staff, using five electronic data bases (MEDLINE, PsycINFO, CINAHL Plus, PubMed, and SCOPUS). Manual searching amongst reference lists of eligible articles was also completed.

**Review methods:** Databases were searched for studies published in the English language, from inception to October 2015. Key inclusion criteria were: 1) participants who were nurses or medical professionals, 2) full written manuscript in English, 3) use of standardized outcome measures for burnout and empathy, 4) quantitative methodology exclusively.

**Results:** Nine eligible studies were reviewed. Of those, six were conducted in countries where English was not the first language. Eight of the studies measured burnout with the Maslach Burnout Inventory. Seven of the studies provided empirical support for a negative relationship between empathy and burnout. One study provided support for a positive relationship between burnout and empathy. One study reported contradictory evidence with positive and negative correlations between different subscales of the empathy and burnout measures. In general, the quality of the studies was assessed to be good. However, some of the studies failed to provide information pertaining to sample size, with the reporting of data less than adequate from one study.

**Conclusions:** There was consistent evidence for a negative association between burnout and empathy. This review avoided a common English-speaking country bias of some areas of the literature. Given that all of the studies reviewed were cross sectional, further research is necessary to establish causality.

*Key Words:* burnout, empathy, healthcare staff, systematic review

## Introduction

Empathy is a core element of an effective therapeutic relationship (Yu & Kirk, 2009); however it is a subtle concept that is hard to conclusively define. It is often confused with related concepts such as compassion fatigue and sympathy. Burnout is a related but distinct concept (Maslach, 2003), that needs to be distinguished from empathy. Both of these concepts have been cited in the literature as fundamental to quality of healthcare (Brockhouse, Msetfi, Cohen, & Joseph, 2011; Slayers, 2015), and therefore the exact relationship between the two needs to be examined rigorously.

## Burnout

Maslach and Jackson (1981) defined burnout as a psychological syndrome involving physical depletion, feelings of helplessness, negative self-concept, and negative attitudes towards work, life, and others. Their conceptualization cited burnout as an internal reaction to external stressors (Adriaenssens, De Gucht, & Maes, 2015). The Maslach Burnout Inventory ([MBI]; Maslach & Jackson, 1981) is referred to as the 'gold standard' for measuring burnout in empirical research (Bradham, 2008; Lee & Ashforth, 1990). Lee and Ashforth (1990) comment on how, although Maslach and Jackson's (1981) definition did not have universal agreement it is widely cited in the literature. This is cited in the literature as the most commonly used measure for assessing burnout in human services (Halbesleben & Demerouti, 2005; Lee & Ashforth, 1990). Indeed, a review of the literature demonstrated 90% of studies utilized the MBI as an outcome measure for burnout (Schaufeli & Enzmann, 1998), and it continues to be used more recently (Torres, Areste, Mora, & Soler-Gonzalez, 2015; Walocha, Tomaszewski, Wilczek-Rużyczka1, & Walocha, 2013).

In line with Maslach and Jackson's (1981) definition of burnout, the MBI measures burnout across three dimensions: emotional exhaustion (EE), depersonalization (DP), and personal accomplishment (PA).

EE is defined as a state of emotional and sometimes physical depletion. Those experiencing EE are likely to feel over-extended and unable to offer emotional support to others; Nyatanga (2014) refer to EE as being central and often the most obvious manifestation of the syndrome. DP is conceptualized as an unfeeling and impersonal response towards recipients of one's care (Paris & Hodge, 2009). This conceptualization has been supported in the literature as clinicians' development of negative or cynical attitudes towards service user (Baxter, 1992). Lee and Ashforth (1990) discuss how DP can be seen as a defense which serves to protect against unwanted demand, or reduce perceived threat. Therefore it has been associated with psychological strain, and escape as a way of coping. Maslach (2003) defined a reduced sense of PA as involving a negative view of oneself, particularly in relation to one's work with service users.

Whilst the MBI has good reported reliability and validity (Maslach & Jackson, 1981), it has come under some criticism in relation to the wording and scoring of items. All of the DP and EE items are worded negatively and the PA items are worded positively (Demerouti, Bakker, Nachreiner, & Schaufeli, 2001), indicating that this uni-directional wording may have caused artificial clustering of factors (Bouman, te Brake, & Hoogstraten, 2002; Lee & Ashforth, 1990). Additionally researchers have suggested that 'exhaustion' should also include cognitive and physical aspects (Pines, Aronson, & Kafry, 1981; Shinn, 1982).

In response to these criticisms Halbesleben and Demerouti (2005) developed another measure of burnout to address these limitations, however, the utilization of this measure within the empirical literature does not compare with that of the MBI (Maslach & Jackson, 1981). The lack of utilization of Halbesleben and Demerouti's (2005) measure and the precedence of the MBI (Maslach & Jackson, 1981) as the gold standard tool for measuring burnout has informed its use in the current study.



Prevalence of burnout in western countries within the general working population ranges from 13% to 27% (Lindblom, Linton, Fedeli, Bryngelsson, 2006; Norlund et al., 2010). However, healthcare professionals are referred to as being at increased risk of suffering burnout (Bender & Farvolden, 2008; Gelsma et al., 2006; Morse, Salyers, Rollins, Monroe-DeVita, & Pfahler, 2012), compared with non-helping professions.

Prevalence is documented to be as high as 70% worldwide amongst physicians (Lamothe, Boujut, Zenasni, & Sultan, 2014), with 30% to 50% of nurses reaching clinical levels of burnout on self-report measures (Aiken, Clarke, Sloane, Sochalski, & Silber, 2002; Gelsema et al., 2006; Poncet et al., 2007). Burnout has been linked to quality of care, with an international study, Poghosyan, Clarke, Finlayson, and Aiken (2010) reporting that higher self-ratings of burnout were associated with lower self-ratings of quality of nurses own care. Similarly Maslach (2003) cites burnout as the principle reason for job attrition within nurses. Burnout is also linked with increased rates of job turnover and stress-related absences (Potter et al., 2010), estimated to cost £450,000 a year per National Health Service (NHS) Trust in the United Kingdom (Wright, 2005). It is not surprising therefore, that burnout has been widely researched in healthcare settings.

### **Empathy**

Empathy, like burnout, has been widely discussed within the context of medical, nursing, and other healthcare professions in relation to its role in therapeutic relationships and quality of care (Brockhouse et al., 2011; Cunico, Sartori, Marognolli, & Meneghini, 2012; Smajdor, Stöckl, & Salter, 2011). Theoretically and conceptually, empathy has seen much attention in the philosophical, psychological, and more recently, cognitive neuroscience literature, with varying definitions and conceptualizations (Decety & Lamm, 2006). It is not within the scope of this review to consider all of these definitions; instead, the reader will be guided through

the clinically relevant conceptualizations of empathy, its measurement, pertinence to clinical practice, and links with burnout as a construct.

Rogers (1957) termed empathy as the ability of the clinician to sense the service user's private world as if it were their own, without losing the 'as if', hypothetical quality. This sense of distancing, or appropriate level of detachment from the service user's emotion, is supported in subsequent definitions offered by Hojat et al. (2002) and Mercer and Reynolds (2002). The common factor amongst these definitions is the suggestion that empathy bridges the gap between self-experience and that of others (Hodges & Klein, 2001). This may be important for clinicians who, through their therapeutic relationships, are required to empathize for long periods with service users experiencing intense and often negative emotions.

Within this context empathy is understood to have four key dimensions: emotive, cognitive, behavioral, and moral (Morse et al., 1992). The emotive and cognitive components relate to clinicians' abilities to experience and share in another person's feelings, and intellectually identify and understand another person's feelings from an objective stance. The behavioral dimension refers to a clinician's ability to communicate their understanding of another person's perspective. The fourth, moral dimension, was referred to by Morse et al. (1992) as an internal altruistic motivation to be empathic towards others. This dimension was not supported by a subsequent review of the literature by Decety and Jackson (2004). Despite this lack of support, the moral component could be considered relevant when reflecting on the recent exposure of failing NHS Trusts (Mid Staffordshire; Southern Health). Subsequent reports (e.g. Francis, 2013) recommended the need for a change of culture within the NHS, embodying compassionate and patient centered care that is underpinned by the NHS constitution and values. These values could be seen to reflect the moral obligation of healthcare staff to work in an empathic way with service users.

The clinical relevance of the emotive, cognitive, and behavioral dimensions have been demonstrated empirically with varied emphasis (Decety & Jackson, 2004; Eisenberg & Eggum, 2009; Mercer & Reynolds, 2002). Stepien and Baernstein (2006) discussed how engagement on a solely cognitive level could lead to empathic statements appearing superficial, therefore emotional engagement is necessary to enhance the interaction, building trust within the therapeutic relationship. Here the focus is on the importance of the cognitive and emotional dimensions.

Conversely, service users have reported that a clinician's ability to firstly, understand them (cognitive dimension) and secondly, express this understanding (behavioral dimension), is a key aspect in the therapeutic relationship (Shattell, Starr, & Thomas, 2007). This emphasis on understanding, and the links with developing a meaningful relationship, are supported by Hojat et al. (2002) who highlight how developing a meaningful relationship with service users is contingent on an understanding of their cognitive and affective states. Mercer and Reynolds (2002) also considered 'understanding' to be an important facet in responding empathically.

This connection between empathy and relationship with service users has been cited in previous research. Roter et al. (1997) and Suchman, Roter, Green, and Lipkin (1993) found that service users and clinicians felt greater satisfaction with an interaction when there was an increase in empathy. Improved clinical outcomes have also been linked to increased clinician empathy and a good therapeutic relationship (Burns & Nolen-Hoeksema, 1992; Elliot, Bohart, Watson, & Greenburg, 2011, Krupnick et al., 1996). Therefore empathy, irrelevant of the particular dimension or definition, could be viewed as an important component of the staff - service user relationship, and subsequently crucial to ensuring the delivery of quality care (Yu & Kirk, 2009).

Yu and Kirk (2009) highlighted the importance of ensuring the measurement of empathy is robust, if it is to be utilized as an outcome for quality of care. In reviewing the measurement tools for empathy in nursing staff they found no 'gold standard' tool (Yu & Kirk, 2009). They cited the Empathy Construct Rating Scale ([E CRS]; La Monica, 1981) as the most widely used in the reviewed literature and scored highest on their quality rating scale; however they found that of the 12 measures of empathy they reviewed, none were both psychometrically and conceptually satisfactory. Additionally, the use of service users in the development of the tools was considered lacking and recommended in future research.

### **Burnout and Empathy: Is there a Relationship?**

In addition to improving the psychometric and conceptual measurement of empathy, understanding factors which impact on a clinician's empathic ability is also beneficial. Studies have shown how, despite being an important component in providing effective care, empathy also creates vulnerability for stress related conditions such as compassion fatigue and professional emotional exhaustion (Figley, 2002; Rothschild, 2006). As emotional exhaustion is considered one aspect of the burnout construct, it is not surprising that links have been established between empathy and burnout (Åstrom, Norberg, Nilsson, & Winblad, 1987; Ferri, Guerra, Marcheselli, Cunico, & Di-Lorenzo, 2015). However, findings have been inconclusive in establishing the direction and nature of the relationship (Picard et al., 2015), with empirical evidence demonstrating both a negative and positive correlation between high burnout scores and empathy (Hoffman, 2000; Mercer & Reynolds, 2002).

In an editorial, Zenasni, Boujut, Woerner, and Sultan (2012) proposed three hypotheses for the relationship between burnout and empathy: (1) burnout reduces the ability of clinicians to respond empathically; (2) being empathic draws significantly on personal resources and thus causes burnout; and (3) being empathic protects clinicians from burnout. In their proposal, Zenasni et al. (2012) only summarize the research, providing no empirical

evidence for their directional hypotheses. It is important to distinguish that burnout is an occupational stress syndrome, while empathy could be viewed as a human capacity.

Although impaired empathy could be a feature of burnout syndrome (hypothesis 1), it is harder to conceptualize that burnout could be a feature of low levels of empathy.

### **Rationale and Aims**

In light of the above, it is proposed that the original three hypotheses can, and for the purpose of this review, be reduced to; 1) There is a negative association between burnout and empathy (as one construct increases the other decreases), and 2) there is a positive association between burnout and empathy (high burnout is associated with high empathy). Zenasni et al.'s (2012) editorial does not constitute a systematic review of the literature; instead it can be seen as a provisional framework for reviewing the literature in the area. A preliminary literature search indicated no existing systematic review exploring the relationship between burnout and empathy.

The impact of burnout on staff well-being, and subsequent financial burden on the NHS provides a rationale for understanding the relationship between burnout and empathy. This understanding could serve to inform future research and practice around preventative actions within services. Measures of burnout could be utilized within services to identify 'at risk' members of staff with whom these preventative interventions could be targeted. Similarly, as empathy is considered key to clinician service user interactions a greater understanding of the role of burnout in empathic responses may have a positive effect on service user experiences. Ham, Berwick, and Dixon (2016) cite quality of care as the focus of many government policies (Department of Health [DoH], 1998, 2008). Therefore exploration into burnout and empathy in healthcare staff, holds organizational and clinical importance. The current review will also discuss the implications of the findings for future research and clinical application.

## Method

This review followed the Preferred Reporting Items for Systematic Reviews and Meta-Analyses ([PRISMA]; Liberati et al., 2009). In line with this, the methods of the review were specified in advance in a protocol registered on the international prospective register of systematic reviews ([www.crd.york.ac.uk/PROSPERO](http://www.crd.york.ac.uk/PROSPERO), CRD42015029564).

### Information Sources

Initial scoping searches were completed to define the search terms: (Burnout OR Burn-out OR “Burn out”) AND (Empathy OR Empath\*). Publications were retrieved by searches on five electronic databases: MEDLINE, PsycINFO, CINAHL Plus, PubMed, and SCOPUS. The search was expanded manually by searching reference lists of eligible articles and by citation tracking the selected studies on Web of Science. The databases were searched for studies in the English language, from inception of each journal to October 2015.

### Eligibility Criteria

The inclusion and exclusion criteria were generated by the primary researcher through preliminary scoping searches of the literature and verified by supervisors. Quantitative non-intervention studies were included in this review. If all other inclusion criteria were met, intervention studies addressing factors which moderate or mediate burnout were included where data was available pertaining to the relationship at baseline, between burnout and empathy. Only studies available as full-text in English were included due to time and budget restrictions. There were no restrictions applied to publication format (e.g. journal article, thesis etc.). Studies that did not provide enough detail to ascertain whether or not they met the inclusion criteria were excluded from the study. Additionally studies which did not provide enough detail to complete the quality assessment were excluded from the study.

**Outcomes.** Burnout and empathy were considered outcomes for the purpose of the review, given the unclear relationship between the two variables. For inclusion, studies must

have utilized a formal outcome measure for their primary constructs of burnout and empathy (e.g. Maslach Burnout Inventory [MBI], Maslach & Jackson, 1981; Interpersonal Reactivity Index [IRI], Davis, 1983). This ensured the construct validity and reliability of the data could be ascertained if available. Studies using translated standardized measures were also included if the study was reported in English.

**Participants.** Studies were eligible if they reported on participants who had a nursing (health or mental health) or medical professional background, regardless of participant age, ethnicity or nationality. Students or trainees were excluded as their role and pressures are likely to differ from that of a qualified professional, for example, due to the demands placed on them to complete academic aspects of their training. Although burnout is documented to affect many human services, studies recruiting non-healthcare professionals (e.g. teachers, veterinarians) were excluded as the review aimed to address healthcare related literature.

Nurses and doctors are often expected to see a large volume of patients for more limited periods, compared with other professions such as psychology who would typically engage in a therapeutic relationship over a longer period of time. The nature of the relationship between these professionals therefore may differ, with doctors and nurses adopting a more prescriptive didactic stance guiding service users through a medically dominated process. On this basis allied healthcare professionals (e.g. psychologists, therapists, and social workers) were excluded because their roles and relationships with patients are different from that of a nurse or medical doctor. Studies conducted in both adult and paediatric healthcare settings, including mental health services were included.

### **Search Strategy**

Titles and abstracts were initially reviewed to check they met the inclusion criteria. A second researcher independently screened a random 10% of these abstracts to check the reliability of the screening process, with 100% agreement between both researchers. Articles

not meeting the inclusion criteria were removed (see Figure 1). Two independent researchers came to 100% agreement when screening the eligible nine articles using the inclusion criteria.

References of eligible articles were searched, however no additional articles were found. All intervention studies that met the other inclusion criteria were screened for baseline relationship data between burnout and empathy, however none of these studies provided this data and were therefore excluded from the review. The process of screening identified publications is reported using the PRISMA diagram (Liberati et al., 2009) (see Figure 1).

### **Data Extraction**

Data was extracted independently by two researchers using a piloted extraction form (Appendix B). Data was extracted pertaining to study characteristics (author, year, country, design, outcome measures, and primary purpose), participant information (number of participants, mean age, gender, job role), and study findings (analysis and outcomes relating to burnout and empathy). The value of the main measure of association between burnout and empathy (total, and where appropriate, subscales) was extracted for each study, together with statistical significance and precision estimates where available.

### **Methodological Quality (risk of bias in individual studies)**

A specific quality assessment tool was selected based on the cross sectional design utilized by all of the studies in the review. A search of the literature revealed one quality assessment tool specifically designed for reviewing cross sectional studies. The Agency for Healthcare Research and Quality tool (Williams, Plassman, Burke, Holsinger, & Benjamin, 2010) was adapted for use in this review (see Appendix C). The adaptations to the tool included changes to terminology and omission of some items that were not relevant to the constructs of interest, as in previous studies which have utilized this tool (Taylor, Hutton, & Wood, 2015).



Categories for assessment included: sample selection, size, and description; validation of outcome measurements for empathy and burnout; analysis of confounders; and handling of missing data (see Appendix C). Studies were assessed using four categories, as having ‘met’, ‘not met’, ‘partially met’, or ‘unable to ascertain’ if they met the quality criteria. A total (numerical) quality score was not assigned to the individual studies, as evidence demonstrates this does not provide a better quality systematic review (Jüni, Witschi, Bloch, & Egger, 1999). To date this tool does not have any reported reliability or validity data. Its construction is cited by the authors (Williams et al., 2010) to be based on quality criteria utilized in two previous evidence reports by the Agency for Healthcare Research and Quality (Myers et al., 2008; Wang et al., 2004). Two researchers completed the quality checks independently, following which a Kappa score was calculated to establish reliability of the decisions based on the tool. Any discrepancies were resolved by discussion with supervisors (see Table 2).

### **Data Synthesis and Analysis**

Results tables (see Table 1) were used to capture the extracted data and quality assessment process for each study individually, and the findings were narratively synthesized across studies.

## **Results**

### **Study Selection**

Nine articles were included in the review (see Figure 1). No additional papers were found by hand searching the reference lists of eligible articles.

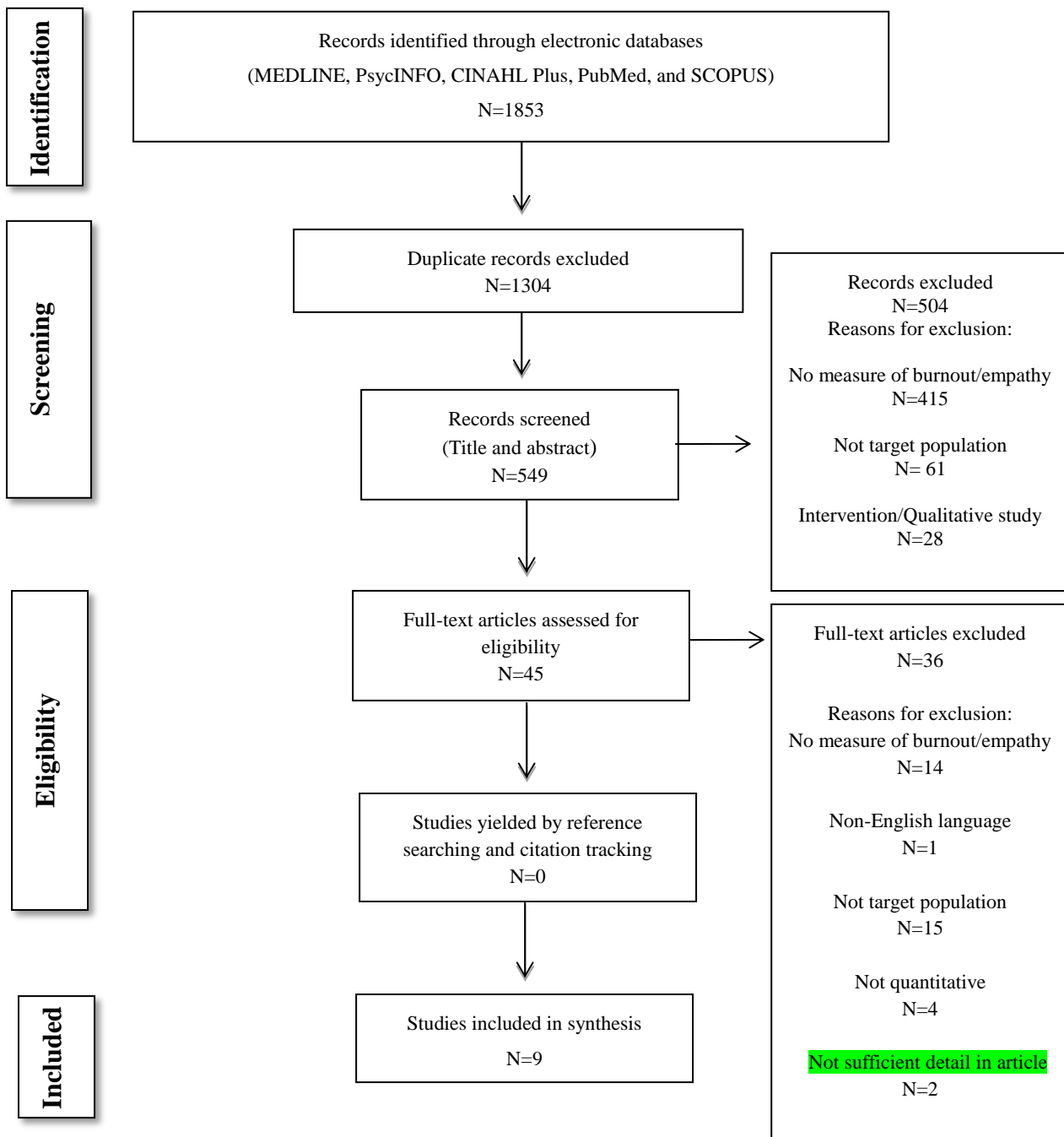


Figure 1. Flow Chart of Literature Search Process

Table 1

Data Extracted from Studies Pertaining to Study Characteristics, Participant Details, and Main Findings

	Study Characteristics				Participant Characteristics				Study Results					
	Authors, Year, Country	Setting/ Specialty	Measures		N=	Profession			Gender	Age (years)	Relationship to Empathy			
			Burnout	Empathy		Nurses	Medics	Other			EE	DP	PA	Other
A	Astrom et al. (1990); Sweden	Nursing home, Somatic long term care clinic, Psychogeriatric clinic	TM Trans. from English	LME Trans. from English	358	✓			M=40 F=318	Median = 32				$r = -0.19$ Burnout & Empathy
B	Baxter (1992); America	Acute care hospital setting	MBI	BLRI	124	✓			M=5 F=119	Mean = 38.9 (SD 8.9)	$r = -0.14^c$	$r = -0.33^a$	$r = +0.21^d$	
C	Bradley (1995); America	Adolescent medical unit, Emergency department, Adolescent psychiatric unit	MBI	EES	79	✓	✓		M=12 F=67	Mean = 35.7 (SD 5.9)	$r = -0.07^d$	$r = -0.15^d$	$r = -0.01^d$	
D	Kellner (2001); America	Emergency Services	MBI	EES	124	✓	✓		M=55 F=69	Mean = 38 (SD 11.5)	$r = +0.40^a$	$r = +0.24^c$	$r = -0.25^c$	
E	Lamoth e et al. (2014); France	Primary Care-GP practices	MBI	Emotional Empathy (Empathic Concern) - TEQ Cognitive Empathy - JSPE (Perspective Taking Subscale)	294		✓		M=151 F=143	Mean (M) = 53.5 (SD 8.6) Mean (F) = 48.3 (SD 9.4)	Cognitive & Emotional Empathy & Burnout Subscales EE: $r = \text{not reported}$	Cognitive & Emotional Empathy & Burnout Subscale DP: $r = -0.18 \text{ to } -0.32^c$	Cognitive & Emotional Empathy & Burnout Subscales PA: $r = +0.18 \text{ to } +0.40$	$r = -0.24^c$ Total Burnout Score & Reduced Cognitive Empathy $r = -0.17^c$ Total Burnout Score & Reduced Emotional Empathy Linear Regression (cognitive and emotional empathy interaction as predictors): Higher emotional empathy ( $\beta = -0.17^d$ ) & cognitive empathy ( $\beta = -0.21^a$ ) predicted lower

burnout.

F	Lee, et al. (2003); Korea	Tertiary hospitals	MBI	Emotional Empathy-EES Cognitive Empathy - BLES	178 ✓	F=178	Mean = 30	Correlations	Correlations	Correlations
								Cognitive Empathy & Burnout Subscales EE: $r = -0.25^a$	Cognitive Empathy & Burnout Subscales DP: $r = -0.36^a$	Cognitive Empathy & Burnout Subscales PA: $r = +0.47^a$
								Emotional Empathy & Burnout Subscales: $r = -0.03$	Emotional Empathy & Burnout Subscales: $r = +0.03$	Emotional Empathy & Burnout Subscales: $r = -0.07$
								Hierarchical Regressions:	Hierarchical Regressions:	Hierarchical Regressions:
								Burnout subcategories and Cognitive empathy: $\beta = -0.15^c$	Burnout subcategories and Cognitive empathy: $\beta = -0.24^b$	Burnout subcategories and Cognitive empathy: $\beta = +0.27^a$
								Burnout subcategories and Emotional empathy: $\beta = -0.02^c$	Burnout subcategories and Emotional empathy: $\beta = -0.01^c$	Burnout subcategories and Emotional empathy: $\beta = 0.00^c$

G	Tei et al. (2014); Japan	Hospital	MBI	IRI	25	✓	M=5 F=20	Mean = 26 (SD 3.14)					Correlations of Burnout Subscale: Depersonalization and Empathy Subscales; <i>r</i> = +0.39 Perspective Taking <i>r</i> = -0.02 Empathic Concern <i>r</i> = -0.10 Personal Distress
H	Torres et al. (2015); Spain	Primary Care-GP practices	MBI Spanish trans.	JSPE	108	✓	M=39 F=69	not given					Correlations of Burnout Subscale: Emotional Exhaustion & Empathy Subscales <i>r</i> = +0.51 <sup>c</sup> Perspective Taking <i>r</i> = +0.14 Empathic Concern <i>r</i> = +0.24 Personal Distress high empathy and low burnout, no inferential statistics reported
I	Walocha et al. (2013); Poland	Hospitals, Outpatient clinics, university departments	MBI	EES, TAT	71	✓	✓	M=46 F=25	Range = 25-68	Empathy and EE subscale of Burnout	Empathy and DP subscale of Burnout	Empathy and PA subscale of Burnout	Spearman's Correlation Coefficient: Whole Sample;  <i>r</i> = -0.23 <sup>d</sup> Low Personal Accomplishment & Empathy
										G1 <i>r</i> = -0.01	G1 <i>r</i> = -0.13	G1 <i>r</i> = +0.18	
										G2 <i>r</i> = -0.13	G2 <i>r</i> = -0.37 <sup>e</sup>	G2 <i>r</i> = +0.11	
										G3 <i>r</i> = -0.34 <sup>e</sup>	G3 <i>r</i> = -0.39 <sup>d</sup>	G3 <i>r</i> = +0.02	

Note: *p*<0.001<sup>a</sup>, *p*<0.005<sup>b</sup>, *p*<0.01<sup>c</sup>, *p*<0.05<sup>d</sup>, *p*>0.05<sup>e</sup>

Measures:

La Monica Empathy construct rating scale ([LME], La Monica, 1981); Tedium Measure ([TM], Pines, Aronson, & Kafry, 1981); Maslach Burnout Inventory ([MBI], Maslach & Jackson, 1981); Barrett-Lennard Relationship Inventory ([BLRI], Barrett-Lennard, 1962); Mehrabian Emotional Empathic Tendency Scale ([EES], Mehrabian & Epstein, 1972), Toronto Empathy Questionnaire ([TEQ], Spreng, McKinnon, Mar, & Levine, 2009), Jefferson Scale of Physician Empathy ([JSPE], Hojat et al., 2001); Barrett-Lennard Empathy Scale ([BLES], Barrett-Lennard, 1962); Interpersonal Reactivity Index ([IRI], Davis, 1983); Thematic Apperception Test ([TAT], Murray, 1951)

Burnout and Empathy Results:

(G1) Surgical, (G2) Non-surgical, (G3) Primary Care

Burnout Subscales: (EE) Emotional Exhaustion, (DP) Depersonalization, (PA) Personal Accomplishment

Table 2

*Agreed Outcome of Quality Assessment of Study Methodology*

		Unbiased selection of participants	Sample size	Adequate description of the cohort	Validated method for measuring burnout	Validated method for assessing empathy	Response rate	Analysis controls for confounding	Analytic methods appropriate
<b>A</b>	<b>Astrom et al. (1990)</b>	Yes	No	Yes	Partially	Partially*	Yes	No	Yes*
<b>B</b>	<b>Baxter (1992)</b>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<b>C</b>	<b>Bradley (1995)</b>	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
<b>D</b>	<b>Kellner (2001)</b>	Partially	Partially	Yes	Yes	Yes	Partially*	Yes	Yes
<b>E</b>	<b>Lamothe et al. (2014)</b>	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
<b>F</b>	<b>Lee, et al. (2003)</b>	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
<b>G</b>	<b>Tei et al. (2014)</b>	Yes	No	Yes	Partially	Partially	Yes	Yes	Yes
<b>H</b>	<b>Torres et al. (2015)</b>	Yes	No	Yes	Partially*	Partially	Yes	Yes	Yes
<b>I</b>	<b>Walocha et al. (2013)</b>	No	No	Partially	Can't tell	Can't tell	No	No	Yes

Note: \* Identifies initial scoring variations between researchers

### Study Characteristics

Study characteristics are reported in Table 1. All studies utilized a cross sectional design and were published between 1990 and 2015. The studies were conducted in primary and secondary care health settings. Two studies [E, H] recruited participants within Primary Care General Practices, whilst three [B, F, G] of the studies identified hospitals as their recruitment setting, with an additional study [D] specifically stipulating ‘Emergency Departments’ as their place for recruitment. Three of the studies [A, C, I] reported collecting data across multiple services including acute and outpatient departments.

The studies were all conducted in developed countries with three [B, C, D] carried out in the U.S.A. Eight studies [B, C, D, E, F, G, H, I] reported using the MBI (Maslach & Jackson, 1981) to measure the construct of burnout. However one study [C] used only the depersonalization subscale of the measure. Of the eight studies administering the MBI, six [A, E, F, G, H, I] were conducted in countries where English is not the first language (Japan, Spain, Poland, France, Korea, and Sweden). Only one of these studies [H] stated that they had utilized a translated (Spanish) version of the MBI, referencing empirical validation. The study [A] utilizing an alternative measure of burnout (Tedium measure, Pines et al., 1981) also translated the measure from English.

In contrast, the construct of empathy was measured utilizing a wide variety of validated measures. The Mehrabian Emotional Empathy Scale ([EES], Mehrabian & Epstein, 1972) was utilized by four studies [C, D, F, I]. One of these studies [F] also used the Barrett-Lennard Relationship Inventory (BLRI, Barrett-Lennard, 1962) to measure cognitive empathy (see Table 1). Studies E and F were the only ones to delineate the measurement of cognitive and emotional aspects of empathy with separate measures. One study [G] administered the Interpersonal Reactivity Index (IRI, Davis, 1983), and one study [H] translated the Empathy Construct Rating Scale (ECSR, La Monica, 1981) into Spanish. Five

of the studies focused on burnout and empathy exclusively [B, C, D, H, I] however other constructs including spirituality, empowerment, emotional dissonance, sick leave prescribing, coping styles, and attitudes towards patients with dementia were included within the other studies [A, E, F, G].

### **Participant Details**

Different terminology was utilized for reporting participant profession, without clarification of the job role. Therefore some of the participants may have had the same job role but under different job titles, although it was not possible to ascertain this from the information provided by the authors. This may be accounted for by the variety of countries the studies were conducted in.

Three of the studies [B, F, G] cite 'Nurses' as the profession of all of their participants, with one study [B] specifying 'Registered Nurses'. An additional study [A] reported recruiting staff of varying roles within the nursing profession including 'Nurses Aids, Registered Nurses, and Licensed Practical Nurses'. One study [C] reported recruiting Mental Health Workers in addition to Registered Nurses. Taken together over half of the studies conducted their research with a target population of 'nursing professionals'.

Two of the remaining studies [E, H] reported recruiting medical doctors exclusively and one study [I] recruited participants who came from different medical specialties, including non-surgical and surgical medics and primary care physicians. One study [D] had a mixed sample of nurses (60%) and physicians (40%).

Eight of the studies [A, B, C, D, E, G, H, I] recruited both male and female participants. Seven of these studies reported over 50% of their mixed sample as female. Two studies [E, I] conducted with medical doctors, reported more male than female participants. One of these studies [I] reported over 50% of their sample to be male. Study [E] reported only 2% difference in the gender of their sample, in favor of male participants. One study [F]



reported that all of their participants were female, they did not indicate that this was an inclusion criteria. Five [A, B, E, F, H] of the nine studies reported a participant response rate. These varied from 39% to 81%. Six studies [B, C, D, E, F, G] reported the mean age of their samples, across these studies the mean ranged from 26-48 years. Study [A] reported the median age of their sample as 32 years and study [I] reported the range of their participants as 25-68 years. One study [H] did not report participant age (see Table 1).

### **Risk of Bias within Studies**

The assessment of methodological quality is presented in Table 2. Cohen's kappa was calculated ( $k=0.89$ ) to establish the level of inter-rater agreement in the quality assessment of the studies. The relative observed agreement ( $P_o$ ) was 94.4%, both raters gave the same rating across the included studies 68/72 times (see Appendix D).

The most common methodological problem related to sample size. Six studies failed to provide a power calculation to justify or contextualize their sample size [A, E, F, G, H, I]. This could indicate that analysis of the correlation between burnout and empathy may have been underpowered, which could lead to inflated Type II error. It was not possible to establish if the studies were underpowered or if the authors had failed to report an a priori sample size calculation. However as many of the findings were reported as significant, this minimized concerns about the studies potentially being under-powered.

Study [I] scored least favorably, with a rating of 'no' or 'can't tell' across six of the eight criteria in the assessment tool. All of the studies utilized self-report measures of burnout and empathy. Two studies [A, H], reported translating one of the measures into the language of the participants in the study, however there were a further four studies [E, F, I, G] that were conducted in countries where English is not the first language. These studies may have utilized translated measures but failed to report this information.

### **Reporting of Results in Individual Studies**

All of the studies reported correlational analyses of their data (see Table 1). Two of the studies [E, F] also conducted linear regressions. All eight of the studies that utilized the MBI (Maslach & Jackson, 1981) to measure burnout [B, C, D, E, F, G, H, I] reported the correlation between empathy and the separate subscales DP, PA and EE of burnout. However one study [H] only stated the direction of correlation found for one of the subscales, and did not provide any further inferential statistics. The study that did not utilize the MBI [A] reported a total score for burnout without indicating the level of significance.

Two studies [E, F] defined two aspects of empathy (cognitive and emotional), utilizing different measures for each. A third study [I] also measured behavioral components of empathy through the subscale of an empathy measure. Two studies [A, H] reported empathy as a total score. Study [G] which administered the IRI (Davis, 1981) reported the burnout subscales in relation to the empathy subscales.

### **Evidence for Hypothesis One: Negative Association between Burnout and Empathy**

Seven studies' findings clearly supported this hypothesis [A, B, C, E, F, H, I]. Study [I] demonstrated findings that supported this hypothesis across all three of their participant subgroups (Primary Care Physicians, Non-Surgical Specialists, and Surgical Specialists), with differing strengths of correlation. They reported a moderate negative correlation between DP and empathy for Non-Surgical and Primary Care doctors (see Table 1). A moderate negative correlation for EE and empathy was only found within the Primary Care doctors. These results should be interpreted with caution as the quality assessment was weak.

Study [E] reported a weak to moderate, negative correlation between DP and empathy, however no  $r$  values for the EE subscale of the MBI were given. PA was positively correlated with empathy (see Table 1). A separate score for cognitive and emotional empathy in relation to a total score for burnout was reported. Cognitive empathy was negatively correlated with

total burnout score and emotional empathy had a weak, but significant, negative correlation with total burnout score (see Table 1).

Study [F] found no significant correlation between emotional empathy and burnout, however their results supported study [I] reporting a moderate correlation between cognitive empathy and DP (see Table 1). Findings for EE and cognitive empathy also support [I] with a weak negative correlation. A strong positive correlation was reported between PA and cognitive empathy. Study [B] found a positive correlation between PA and empathy supporting the above studies. The findings for DP and EE subscales were also in support of [I, F] with negative correlations reported.

Study [H] reported no inferential statistics, however descriptive data suggested that of the participants who scored high on empathy, more scored lower on burnout (72.1%). The sample size for the professionals who reported high burnout was very small ( $n=7$ ) when compared with the number of participants who reported low burnout and high empathy ( $n=60$ ), this implies that there may be a low statistical power to detect small effects. Study [A] also supported this hypothesis however only mean differences between a total burnout and empathy score were provided with no  $p$  value. Study [C] reported no correlation between empathy and the PA and EE subscales of the MBI. However DP was negatively correlated with empathy, providing some evidence for hypothesis one.

Despite there being seven studies that provided evidence for this hypothesis there is variation in the strength of the correlations and level of significance of the findings that are reported. Due to some of the poor reporting standards from two studies [A & H] it has not been possible to fully synthesize and compare those findings. In summary, the evidence for this hypothesis appears to be complex and nuanced.

**Evidence for Hypothesis Two: A Positive Correlation between Burnout and Empathy**

Study [D] was the only study to provide consistent support for this hypothesis. Statistically significant, weak positive and moderate to strong positive correlations with empathy were found for DP and EE respectively (see Table 1). The small  $p$  value reported indicates strong evidence to reject the null hypothesis that there is no association between empathy and burnout. PA was found to have a weak negative correlation with empathy. The quality checks completed on this study indicated that across all of the domains the study provided at least partial information to fulfil the criteria, this indicates that the standard of reporting and quality of the study was adequate. As part of this, the study provided a power calculation, indicating that the number of participants recruited ( $n=124$ ) was less than the minimum required to ensure adequate power ( $n=140$ ).

Alongside support for hypothesis one, study [G] also provided support for hypothesis two. The results indicated that all subscales on the IRI (PT, EC, PD) had strong to moderate, positive correlations with the EE subscale of the MBI (Maslach & Jackson, 1981) (see Table 1). This concurs with study [D] indicating that those clinicians with higher empathy scored higher on the EE subscale of the MBI (see Table 1). In their discussion, study [G] concluded that their results supported the ‘compassion fatigue’ theory, whereby clinicians who demonstrate high levels of empathy suffer from compassion fatigue, which then leads to burnout. However they found a weak negative correlation between two subscales of the IRI (PD, EC) and DP, which could be seen to support hypothesis one. As study G provided support for both hypotheses, this could be seen as somewhat contradictory. This could be explained by the small sample size ( $n=11$ ) which is indicative of an underpowered study. The result must therefore be viewed with caution. These negative correlations would provide support for the first hypothesis and therefore contradicts the positive correlations reported between the EE subscale and empathy (see Table 1).

In contrast to the reasonably strong support for hypothesis one, there was less evidence found in support of hypothesis two, with only one study providing consistent support for this hypothesis across their findings. The second study discussed in relation to this hypothesis [G] found aspects of their results to support both hypotheses. It would appear therefore that within the studies reviewed there is more support for a negative association between empathy and burnout.

### Discussion

This review sought to explore the current literature conducted with medical doctors and nurses to explore the relationship between burnout and empathy.

This review found evidence to support the previously suggested association between burnout and empathy (Åstrom et al., 1987; Ferri et al., 2015; Miller, Stiff, & Ellis, 1988). These two distinct constructs which are so central to effective healthcare delivery appeared to be related. However, the size and statistical significance of the reported correlations varied. Only three studies [D, F, I] reported large correlations, as defined using Cohen's criteria for behavioral sciences (Cohen, 1992). This reflects previous research in the area which has reported varying strengths of correlation (Hoffman, 2000; Mercer & Reynolds, 2002).

As highlighted in a previous editorial (Zenasni et al., 2012), findings relating to the direction (positive / negative) of the relationship between burnout and empathy were not unanimous. The aim of this review was to explore the ambiguous relationship between burnout and empathy within the framework of two opposing hypotheses: 1) there is a negative association between burnout and empathy, (as one construct increases the other decreases), and 2) there is a positive association between burnout and empathy (high burnout is associated with high empathy). Taking into consideration the methodological rigor, homogeneity in terms of MBI (Maslach & Jackson, 1981) usage, number of concurring findings, and the strength of the correlations reported, the current review found the strongest

evidence for the first hypothesis that burnout and empathy were negatively correlated, inferring that as the presence of one construct increases the other decreases.

Seven of the nine studies reported a negative relationship between burnout and empathy supporting the first hypothesis. As these studies were cross sectional it is not possible to infer causality. However, despite this, some of the studies discussed their findings in relation to high burnout causing low empathy. It is important to be cautious with these statements, as the research design does not allow for a definitive statement; instead these could be viewed as potential hypotheses that could be explored in future research.

The studies supporting hypothesis one were conducted within heterogeneous settings (e.g. outpatient departments, nursing home, emergency department), involving participants from different professions (e.g. registered nurses, general practitioners, surgeons). This could be seen to demonstrate that the association between empathy and burnout is consistent across these settings within these populations and therefore is relevant to all healthcare professionals. This would therefore support the need for intervention and awareness across all staff groups at an organizational level. It is important to note however, that transferring findings between contexts should be done with caution as these environments are diverse and unique.

Two of these studies satisfied all of the quality assessment criteria indicating that reliability of the findings is high. However six of the studies failed to report enough data pertaining to their sample size. This makes it difficult to ascertain if their studies were underpowered. One of the studies reported moderate correlations in support of this hypothesis however the quality assessment rating indicated that 50% of the domains were given a rating of 'no' (see Table 2). This indicated that the quality of the reporting or design was not adequate. Therefore this may affect the reliability of the findings.

There was only one study which provided support for the second hypothesis, of a positive correlation between burnout and empathy. This hypothesis maps on to the suggestions of Maslach and Jackson (1981), that those staff who are empathic will become burnt out. This study was the only study conducted exclusively within an emergency care setting that was undergoing restructuring. This was a unique environmental aspect which was not explored in the other studies. Previous research has suggested that factors such as lack of satisfaction with work conditions and economic hardships can increase the level of burnout experienced in healthcare staff (Demir, Ulusoy, & Ulusoy, 2003). In addition to empathy this study explored the relationships between ways of coping, spirituality, and psychiatric training burnout in participants. Research has indicated that level of psychiatric training may serve to enhance empathy. However Kellner (2000) highlights that these training models to help reduce over identification with service users are not implemented with those participants in the study. They suggest that as a result participants in this study with high levels of empathy are at an increased risk of burnout.

The evidence found by this review supports burnout as a cross-cultural construct. The studies were conducted in a variety of countries that represented several continents (Asia, North America, and Europe). Whilst this can be interpreted as a strength of this review, it is important to note that of the six studies that were conducted in countries where English was not the first language, only two reported information about the translation of measures. Evidence suggests that the language of a questionnaire can affect the way a participant responds (Harzing, & Maznevski, 2002). Therefore researchers should systematically establish equivalent terms in their adapted measures (Mullen, 1995).

An inclusion criterion for the current review was that studies had used a standardized measure for both burnout and empathy. The utilization of the MBI to measure the construct of burnout in empirical studies is highlighted in the literature as the gold standard (Bradham,

2008; Lee & Ashforth, 1990). Indeed, eight of the studies used the MBI to measure burnout. Despite criticisms raised in the empirical literature about the wording and direction of the scoring of this measure (Demerouti et al., 2001), studies included in this review reported high reliability within their samples.

### **Clinical Implications**

The predominant finding of this review was the largely consistent support for a negative relationship between burnout and empathy amongst healthcare staff (e.g. high burnout - low empathy/ low burnout – high empathy). The evidence in the literature highlights the prevalence of burnout within healthcare staff and possible consequences on quality of care (Poghosyan et al., 2010) and staff attrition (Maslach, 2003). Therefore, measuring levels of burnout in staff could be utilized as a way of identifying and targeting staff who are ‘at risk’ of developing burnout. They could then be offered preventative interventions. For example, in a recent evidence review for Public Health England, Bagnall, Jones, Akter, and Woodall (2016) provided an overview of the prevention and intervention literature on burnout and work-related stress in individuals and within organizations. They found that interventions to prevent or reduce burnout were usually aimed at an individual level including staff training, workshops, and cognitive-behavioral programs. A greater understanding of burnout in terms of treatment and prevention is highlighted as being important from a public health and organizational perspective in the context of reducing absenteeism and increasing productivity (Bagnall et al., 2016).

If the impact of burnout on staff cannot be reduced, then interventions to increase / sustain empathy within staff groups, and perhaps therefore guard against burnout, may be useful. This is particularly relevant given the links demonstrated in the literature between burnout, empathy and quality of care (Brockhouse et al., 2011; Poghosyan et al., 2010). One potential mechanism of this may be through the use of psychological formulation, as



increasing clinician understanding of service users is often seen as integral to the development and maintenance of empathic interactions (Yu & Kirk, 2009). Future research could therefore seek to explore the utility of psychological formulation in increasing empathy.

### **Strengths and Limitations of the Review**

The current review has followed a predetermined protocol and was informed by the PRISMA guidelines (Liberati et al., 2009) to ensure methodological rigor. However the author acknowledges that it has a number of limitations which should be considered when interpreting the conclusions.

The current review excluded studies that were not available in English due to time and budgetary restrictions, which would not allow for translation of articles. Given that six of the nine studies were conducted in countries where the first language was not English, it could be reasonably assumed that there may be other relevant studies that have been conducted and are published in languages other than English. The implications of this on the current review are that it may not have captured all of the current research looking at the relationship between empathy and burnout. Therefore the reliability of the conclusions may be affected. However by including studies where there is an English translation of the article available, the current review has avoided an English-speaking bias that can be seen in some literatures e.g. violence (Whittington et al., 2013).

In addition, this review excluded papers that used qualitative or mixed methodology as it was felt comparison between studies which utilized standardized psychometric assessments to measure the constructs would be more reliable. However qualitative studies provide a richness of data that is lost in the numerical values assigned in standardized measures. This more descriptive data could provide greater insight into the experiences of staff relating to

burnout and responding empathically, and subsequently the relationship between these two constructs.

### **Suggestions for Future Research**

As previously highlighted, all of the studies included in this review utilize a cross-sectional design. This is due in part to the exclusion of intervention studies, however intervention studies were screened for inclusion if they provided baseline data. Whilst the review has established useful findings as to the association between empathy and burnout, it has not been possible to progress further in commenting on the existence or direction of causality of this association. Many of the authors in the included studies recognize this limitation, highlighting the need for future research to adopt a longitudinal causal design in order to begin to address this gap in the literature. However the author acknowledges that longitudinal research is not without difficulties, as retention of participants can be challenging and affect the viability of the research.

Whilst the inclusion criteria of the current review restricted the profession of participants included in the study, it was noted that there are currently no studies based in forensic settings investigating the relationship between empathy and burnout. This setting may be of particular interest, as societal norms would suggest that being empathic to those with a forensic record might be more difficult (Sandhu, Rose, Rosthill-Brookes, & Thrift, 2012), and working in this environment where there is an increased risk of physical violence and verbal aggression may put staff at greater risk of burnout (Joseph, 1993).

Despite extensive research in this area no previous systematic review with this aim was identified prior to commencing the current review. This review has made some progress in outlining the state of the current research investigating burnout and empathy within nurses and medical doctors. Effect sizes have been reported to provide some statistical indication of

the strength of the findings, although not empirically tested. However, future research could build on this by completing a more detailed meta-analysis of the data.

Although all of the studies included in this review approach empathy and burnout as distinct constructs, it could be suggested EE and PA are more distinct from empathy, while DP and a lack of empathy overlap. Therefore it is likely that these constructs would be correlated. Future research may wish to explore the individual constructs of empathy and burnout to develop this further. This future research would be aided by the development of improved psychometric measurement of clinician empathy. This could help capture empathy more accurately. In addition to supporting further research into the distinction between empathy and burnout, development of an improved psychometric measure could also help to inform future research and enhance development of ‘empathy-enhancing’ interventions and training. Measurement of empathy could also serve a purpose within staff recruitment in line with the NHS constitution and values based recruitment.

Finally, the results support previous research in emphasizing the importance of decreasing burnout in care staff, and the potential for increasing levels of empathy as a way of doing this. Further research exploring mechanisms by which empathy can be increased, and any resulting impact on levels of burnout, would therefore be beneficial.

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## Chapter 2: Empirical Paper

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*Does formulation of service users' difficulties improve empathy in forensic mental health services?<sup>1</sup>*

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<sup>1</sup> To be submitted to: (Journal of Forensic Psychology Practice), Author guidelines can be found in Appendix A



### Abstract

The culture and values of the National Health Service and the staff that work within it have received much attention over recent years. The erosion of empathy and compassionate care towards service users has been highlighted. Psychological formulation may be one way that clinicians can understand their service users more fully, which could lead to an improvement in the empathy they express towards them. The current study investigates the effect of presenting client information in a psychological formulation on self-reported empathy in staff in medium and low secure forensic mental health services. One hundred and fifty four staff were recruited via convenience sampling to complete self-report questionnaires measuring burnout (Maslach Burnout Inventory), state (Adapted Interpersonal Reactivity Index) and trait (Empathy Quotient) empathy. No significant difference in state empathy scores was observed between the staff in the formulated group when compared with the unformulated group. Linear multiple stepwise regressions demonstrated that trait empathy and burnout significantly predicted variance in state empathy, but the information format was not significant. It was concluded that mode of presentation in this instance did not influence the degree of empathic concern staff expressed towards a hypothetical client in a vignette. Further research is needed on how adjusting client information formats might enhance empathy amongst professionals.

*Key Words:* state empathy, trait empathy, formulation, forensic healthcare staff, burnout

## Introduction

### Empathy in Forensic Mental Health Services

The culture within the UK National Health Service (NHS) has come under increasing scrutiny following the exposure of failings within a series of hospital trusts (e.g. Mid Staffordshire and Southern Health). Subsequent reports investigating these incidents, such as the Francis report (Francis, 2013), highlight the need for a change within NHS culture, with a renewed focus on patient led and compassionate care. In response, there has been a greater emphasis on values-based staff recruitment, where by prospective employees holding values congruent with the NHS constitution (e.g. dignity, respect, and compassion) are sought (Health Education England, 2014). Within this context empathy is often referred to as a skill that NHS trusts seek in individuals (Nash, 2013).

Empathy is cited in the literature as being central to the role of healthcare professionals (Walker & Allgood, 2001). It is an important component of the relationship between staff and service users, and is crucial to ensuring the delivery of quality care (Yu & Kirk, 2009). Research indicates that empathy is vulnerable to erosion by factors including cultural and environmental influences (Allgood & May, 2000). In a longitudinal study with first year nursing students, Ward, Cody, Schaal, and Hojat (2012), found a significant decline in empathy for participants who had a greater exposure to client interaction. These findings were mirrored in studies conducted with third year medical students (Bellini & Shea, 2005; Hojat et al., 2009). These studies indicate empathy is a dynamic construct and therefore attention to empathy levels within staff should not only focus on recruitment, but maintain prominence throughout their employment.

In mental health services, staff can regularly be exposed to, and expected to manage, behaviors such as self-harm and aggression. Working within a forensic setting has been highlighted as particularly challenging for staff. The perceived threat of violence felt by staff

within these settings has been hypothesized to lead to increased stress (Joseph, 1993), thereby affecting the ability of staff to empathize with service users. Sandhu, Rose, Rosthill-Brookes, and Thrift (2012) discussed the specific challenges staff face when working with service users who had committed sexually related / sexual offences. Within this context their qualitative study found that staff reported difficulties in empathizing with this population.

Despite the challenges staff face, Polson and McCullom (1995) highlight the importance of empathy within a forensic mental health setting. They discuss the positive effects of therapists' empathy towards a service user on the service users' subsequent ability to empathize with themselves and their victims. This highlights the clinical relevance of investigating mechanisms for increasing and facilitating empathy within staff.

### **Empathy: State and Trait**

Carl Rogers' (1957) definition of empathy was developed from a humanistic approach within the field of Psychology. He referred to empathy as the ability to accurately perceive the internal emotions and meaning of another 'as if' one were the person. Despite decades of research, reviews of the literature on empathy in nursing have highlighted continuing inconsistencies in the definition and components of the construct (Duan & Hill, 1996; Kunyk & Olson, 2001).

In a concept analysis of nursing literature on empathy between 1992 and 2000, Kunyk and Olson (2001) summarized varying definitions of empathy into five key conceptualizations (trait, state, caring, communication process, and special relationship). As with previous research (Evans, Wilt, Alligood, & O'Neil, 1998), this paper will focus on two of these conceptualizations: trait and state.

Trait empathy is considered in the literature to be a natural, innate ability, which cannot be taught (Kunyk & Olson, 2001); for example toddlers appear to be able to relate to the happiness or sadness of others. Definitions in this category focus on empathy being a human

capacity, with an ability to share another person's experiences (Dracup & Bryan-Brown, 1999). Alligood (1992) discusses how trait empathy is an involuntary sharing of another person's emotions. Therefore trait empathy is a raw, basic human reaction of one person to another. Although this conceptualization posits that empathy cannot be taught, Kunyk and Olson (2001) highlight that it can be identified, and reinforced in individuals.

In addition to trait empathy, Alligood (1992) distinguishes state empathy, which is also included in the five conceptualizations by Kunyk and Olson (2001). State empathy is defined as being a learned skill, which is primarily comprised of cognitive and behavioral components. This has been the focus of the nursing literature, and has also been referred to as clinical empathy (Hojat et al., 2009). State empathy encompasses concepts of trait empathy in that the clinician is able to accurately perceive the emotions of the service user. However it moves beyond this, focusing on the clinicians' ability to maintain objectivity, and focus on the service user. Rogers' (1957) definition would fit within this conceptualization with his reference to the importance of maintaining the 'as if' quality.

The inference that state empathy can be taught or learnt in relation to professional practice (Alligood, 1992) is supported empirically by evidence for empathy enhancing programs with nursing and medical students (Batt-Rawden, Chisolm, Anton, Flickinger, 2013; Brunero, Lamont, & Coates, 2010). In a review of empathy education in nursing Brunero et al. (2010) found 11 out of 18 studies reported statistically significant increases in empathy as a result of empathy education. The most successful interventions were shown to be experiential role-plays, where students were given opportunities to reflect upon and understand service users' emotional states in a controlled environment. The majority of this research has focused on students within healthcare professions; however the Francis report (Francis, 2013) has highlighted the potential loss of empathy within qualified staff already working within the NHS. Research investigating interventions that support or increase

empathy in qualified clinicians would be beneficial, given the association with clinical outcomes and quality of care.

One potentially promising approach which has been highlighted in the literature is psychological formulation. A greater, more meaningful understanding of service users' difficulties, which can be facilitated by psychological formulation (Boyle & Johnstone, 2014), has been highlighted in the literature as essential to empathic interaction (Mercer & Reynolds, 2002). Staff reports within forensic mental health settings have supported this, stating that an awareness of service user's early life experiences helped their empathic response towards those with a sexual offending history (Sandhu et al., 2012).

### **Formulation: Possible Effects on Empathy**

Johnston and Dallos (2013) define psychological formulation as a summary of the service users' difficulties, based on psychological theory, which informs intervention. It aims to explore a service users past experiences, making links with how this may serve to explain or impact on their current difficulties. One outcome of developing a formulation with service users is to aid their understanding of their difficulties; which can serve to enhance staff understanding. This was supported by Berry, Barrowclough, and Wearden (2009) who found that staff reported a greater understanding of service user's difficulties following formulation with service users with psychosis.

The Division of Clinical Psychology ([DCP], 2011) highlight the strengths of formulation to promote collaborative working, and improved relationships between clinicians and service users.

Formulation is also cited in the literature as a powerful systemic intervention (Kennedy, Smalley, & Harris, 2003). This may be particularly relevant in Cognitive Analytic Therapy approaches where evidence has shown that formulations with team members can enable staff to understand their own interactions, adaptive and maladaptive, with service users (Carradice,

2004; Kerr, 1999). In this approach staff roles and relationships with service users can be encompassed within the service user's formulation to help staff identify the role they play in the relationship. Further research has reported the positive effects of formulation on staff understanding of service users, and subsequent relationships (Hewitt, 2008; Lake, 2008; Summers, 2006).

Although formulation has been shown to have a positive effect based on self-report from staff perspectives (Hewitt, 2008; Lake, 2008; Summers, 2006), the evidence from service user perspectives is inconclusive. Some research denotes the clients' experience of formulation as being helpful, encouraging, and reassuring (Evans & Parry, 1996). However, qualitative interviews provide evidence that service users can experience formulation as overwhelming and worrying (Chadwick, Williams, & Mackenzie, 2003). Completing a comprehensive assessment and formulation can be a daunting process for service users who may not have discussed or fully comprehended the adversity they have experienced.

The British Psychological Society's, Division of Clinical Psychology (BPS, DCP) 'Good Practice Guidelines on the Use of Formulation' (2011) summarize how there is emerging evidence for the value of formulation within multidisciplinary working, but that further research is required to assess the impact of formulation on quality of care and team functioning. The role of formulation in potentially enhancing or maintaining levels of state empathy in staff is therefore worth exploring.

### **Burnout: The Potential Influence on Empathy**

In addition to the mode by which staff are presented with information when working with service users, there are a number of additional factors which might influence their capacity to empathize. Some examples include: gender; inter-personal style; culture; environment, and personality (Alligood & May, 2000). In particular burnout has been

associated in the nursing and medical literature with empathy (Ferri, Guerra, Marcheselli, Cunico, & Di-Lorenzo, 2015) and will be examined in the current study.

Maslach (2003) defines the experience of burnout as involving physical depletion, feelings of helplessness, negative self-concept; and negative attitudes towards work, life, and others. The Maslach Burnout Inventory (MBI; Maslach & Jackson, 1981) measures burnout across three dimensions: emotional exhaustion, depersonalization and personal accomplishment. Burnout is linked with increased rates of job turnover and stress-related absences, and healthcare workers are documented to be at increased risk of suffering burnout (Bender & Farvolden, 2008; Morse, Salyers, Rollins, Monroe-DeVita, & Pfahler, 2012). It is not surprising therefore that burnout has been widely researched in healthcare settings with an increasing focus on mental healthcare workers.

In some of the literature, empathy has been negatively correlated to level of perceived burnout in healthcare staff (Lamothe, Boujut, Zenasni, & Sultan et, 2014; Lee, Song, Cho, Lee, & Daly, 2003; Torres, Areste, Mora, & Soler-Gonzalez, 2015; Walocha, Tomaszewski, Wilczek-Rużyczka<sup>1</sup>, & Walocha, 2013). Zenasni, Boujut, Woerner, & Sultan (2012) have proposed, (given the evidence for a negative association between burnout and empathy), that interventions to increase clinicians' level of empathy with service users may serve to prevent or protect against burnout. This suggestion provides supplementary support for investigating mechanisms that can increase clinician empathy levels.

This study aims to address the identified gap in the literature by exploring the effect of formulation on the state empathy of clinical staff towards a hypothetical service user in a forensic service. Furthermore, the study will look at the impact of other independent variables on empathy (e.g. age of participants, years of experience, and level of burnout).

## Hypothesis

Formulated client information will be associated with an enhanced empathic response to a hypothetical service user case compared to non-formulated information, after controlling for other potential confounding variables. Where participants have a greater psychological understanding of the client via formulation, they will endorse a more empathic response towards the service user.

## Method

### Participant Characteristics

The sample consisted of one hundred and fifty-four participants with 64% of the sample female (see Table 1). There was an even spread of participants across the first four age categories spanning 18 to 55 years (see Appendix E). Eleven participants (7.1%) were in the 56 years and above category (see Appendix E). The most frequent category was 26-35 years (see appendix E). One hundred and thirty five participants (88%) described themselves as White; other ethnic groups represented 12% of the sample including participants who identified themselves as being mixed ethnicity, Black, Indian, Asian, Mauritian, and Iranian.

The majority of participants worked on medium secure forensic wards (n=110, 71%) in full time roles (n=145, 94%). The majority of participants (n=119, 77%) reported that they had more than five hours' face to face contact with patients per shift. Eleven percent of participants reported having 1-3 hours or 3-5 hours of face to face contact with patients per shift. The largest proportion of participants (n=58, 38%) reported having up to three years of experience, however the second highest reported level of experience was 15 years or more (n=27, 18%) (see Appendix E).



### Sampling Procedures and Ethics

Ethical and sponsorship approval (UoL001107, 12/01/2015) was granted by the University of Liverpool (see Appendix F). Research and development committee approval was also granted from the local services where recruitment took place (ref: 867, 09/04/2015; ref: 15/06, 08/04/2015; ref: 2015/11, 10/06/2015) (see Appendices G, H, and I). Prior to commencing recruitment, the researcher liaised with the relevant ward and service managers to agree the best time to access potential participants that would have minimal impact on service users.

One hundred and fifty four clinical staff were recruited face to face, from three low and medium secure forensic services in the North West of England, via convenience sampling. All of the hospitals included in the study provided care for male and female patients presenting with a variety of difficulties including: self-harm, psychosis, interpersonal difficulties, and emotional regulation difficulties. ‘Clinical staff’ were defined as those who had face to face contact with service users. Staff that did not have face to face contact with service users (e.g. admin staff) were excluded from the study. Due to their extensive training in formulation, Psychologists were also excluded from taking part in the study. One hundred and ninety participants agreed to take a questionnaire pack, however 154 participants (81% response rate) gave written consent and returned fully completed questionnaires (recruitment process shown in Figure 1). Demographic categories were dichotomized to ease data interpretation and reporting (see Table 1). A table containing all of the data categories can be found in Appendix E.

Participants were recruited on site by the researcher or a link researcher based within the respective services. Staff were told verbally about the project, and if they showed interest they were given an information leaflet further outlining the procedure, aims, and confidentiality arrangements of the study (see Appendix J). The participants’ right to

withdraw was explained and written consent gained (see Appendix K). Participants were given a questionnaire pack which included the measures described below (see Measures and Covariates section) and either a formulated or unformulated vignette which were alternately allocated (see Appendices L, M, N, O, P, and Q). The content of the pack was arranged in a specific sequence. Participants completed the MBI (Maslach & Jackson, 1981) and EQ-SF (Wakabayashi et al., 2006) first and then asked to read through the vignette and complete the IRI-A (Davis, 1983) in relation to the client presented in the vignette.

Following completion of these questionnaires the participants were invited to ask any questions relating to the study and to request relevant support. However none of the participants requested any further support. Additionally, they were given the opportunity to enter the prize draw as remuneration for their time by providing their contact details that were stored separately to their data.

**Sample Size and Power.** A minimum sample size target was calculated for multiple linear stepwise regression utilizing G\*Power 3 software (Faul, Erdfelder, Lang, & Buchner, 2007). Alpha was set at .05 and power at 80%, based on Cohen's guidelines for behavioral sciences (Cohen, 1992) with a medium effect size anticipated, this yielded a target sample size of 92 with 5 predictors.

### **Measures and Covariates<sup>2</sup>**

Demographic information was collected via a self-report questionnaire designed by the researcher (see Appendix L). Information collected included: participant age, gender, ethnicity; years of experience, role, hours of face to face contact with service users, and whether they were full time or bank members of staff.

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<sup>2</sup> The publication manual of the American Psychological Association 6<sup>th</sup> edition (APA, 2012) was adhered to in relation to acronyms when referring to measures and subscales; for ease of interpretation full titles have been used at times within the results and discussion sections.

**Interpersonal Reactivity Index (Adapted) (IRI-A; Davis, 1983).** State empathy / empathic responses to the formulated / non-formulated case presentation was assessed using an adapted version of the IRI (IRI-A). The original IRI is based on a multidimensional model of the process of empathy, with four distinct subscales: 1) perspective taking (PT), in line with traditional definitions of cognitive empathy; 2) fantasy (FS), which measures a tendency to identify with fictional characters; 3) empathic concern (EC), capturing the respondent's ability to have warm feelings towards others; and 4) personal distress (PD), which measures the occurrence of the respondent's experience of others' negative experiences.

Each of these subscales are represented by seven items (subscale score range = 0-28) with a total of 28 items (total score range = 0-112). Respondents are asked to indicate along a five point Likert scale, the extent to which statements describe them (0 = does not describe me well, 4 = describes me well). Internal consistency is reported at ( $\alpha = 0.70-0.78$ ) and test-retest reliability is reported over a 60-75 day period ( $r = 0.61-0.81$ ; Yu & Kirk, 2009).

Although it was not designed specifically for use in a healthcare context, studies within a healthcare setting have reported good structural integrity and convergent validity. This suggests that the measure has the potential for use specifically with healthcare professionals (Evans, Stanley & Burrows, 1993; Yarnold, Bryant, Nightingale, & Martin, 1996). Konrath (2013) highlighted how the subscale scores should not be totaled, advising that researchers utilize the individual subscales pertinent to their study. Additionally, Baron-Cohen and Wheelwright (2004) highlighted the lack of clarity surrounding the FS subscale in relation to its measurement of empathy therefore the FS subscale was omitted. Items from the other three subscales (PT, EC, & PD) were modified to relate specifically to the service user presented in the case vignette (total score range = 0- 84) (see Appendix M). This adaptation enabled the measure to capture participant's state empathy towards the service user in the

vignette. Each of the adapted subscales (EC, PT, PD) in this study were found to have Cronbach's alphas of ( $\alpha = .61$ ;  $\alpha = .65$ ;  $\alpha = .73$ ) respectively.

**The Empathy Quotient (short form) (EQ-SF; Wakabayashi et al., 2006).** Trait empathy was assessed using the EQ-SF. This is a self-report questionnaire designed to measure empathy in adults. It is based on the original 60 item questionnaire developed by Lawrence, Shaw, Baker, Baron-Cohen, and David (2004). Respondents are asked to indicate along a four point scale the degree to which they agree with a series of 40 statements (e.g. I find it hard to know what to do in a social situation). Response options are four statements 'strongly / slightly agree' or 'strongly / slightly disagree'. Responses are either reverse or normally scored, with two points for a strong empathy response, one point for a slightly empathic response, and zero if the response is non-empathic. A total score is calculated (range = 0-80) and then interpreted as falling within one of four categories: 1) lower than average (0-32); 2) average (33-52); 3) above average (53-63); and 4) very high (64-80). These categories indicate the respondents' self-reported ability to understand the feelings of others and respond appropriately (see Appendix N).

Although originally designed for clinical applications, the measure has been utilized in general populations, with studies reporting higher scores in females than males (Baron-Cohen & Wheelwright, 2004), a finding which has been replicated cross culturally (Berthoz, Wessa, Kedia, Wicker, & Grezes, 2008; Preti et al., 2011; Wakabayashi et al., 2007). The short form of this questionnaire was utilized to reduce the burden for participants. This was deemed important as clinical staff would be completing the study within working hours and ethically it was important to reduce the possible impact on service users. Principal component analysis and factor analysis has suggested that the short form version is highly correlated with the full-scale versions (Wakabayashi et al., 2006). The current study reported good internal consistency in this measure ( $\alpha = .83$ ).

**Maslach Burnout Inventory (MBI; Maslach & Jackson, 1981).** The MBI is a 22 item self-report questionnaire measuring three identified dimensions of burnout: emotional exhaustion (EE), depersonalization (DP) and lack of personal accomplishment (PA) along a seven-point response scale. Respondents are asked to indicate the frequency with which they experience the feeling specified in each item. The frequency scale ranges from ‘never experienced’ (0) to ‘experience such feelings every day’ (6). A separate score is calculated for each of the subscales. These are categorized as low, medium or high according to predetermined cut off scores for each subscale (EE, low = 0-16, medium = 17-26, high = 27-54; DP, low = 0-6, medium = 7-12, high = 13-30; PA, low = 0-31, medium = 32-38, high = 33-48) (see Appendix O). High scores on the EE and DP subscales and a low score on the PA subscale is deemed to be suggestive of high levels of perceived burnout. This measure is considered to be the ‘gold standard’ for measuring burnout (Dorez, Novara, Sica & Sanavio, 2003; Schutte, Toppinen, Kalimo, & Schaufeli, 2000). The subscales demonstrate high internal consistency (EE,  $\alpha = .90$ ; DP,  $\alpha = .79$ ; PA,  $\alpha = .71$ ) as reported by Maslach and Jackson (1981). In this study the subscales of EE and PA demonstrated good internal consistency (EE,  $\alpha = .88$ ; PA,  $\alpha = .71$ ) however alpha was shown to be lower ( $\alpha = .60$ ) for the DP subscale.

### **Design**

A between groups design was adopted. Exposure to formulated client information (yes / no) was the main independent variable, with state empathy as the dependent variable.

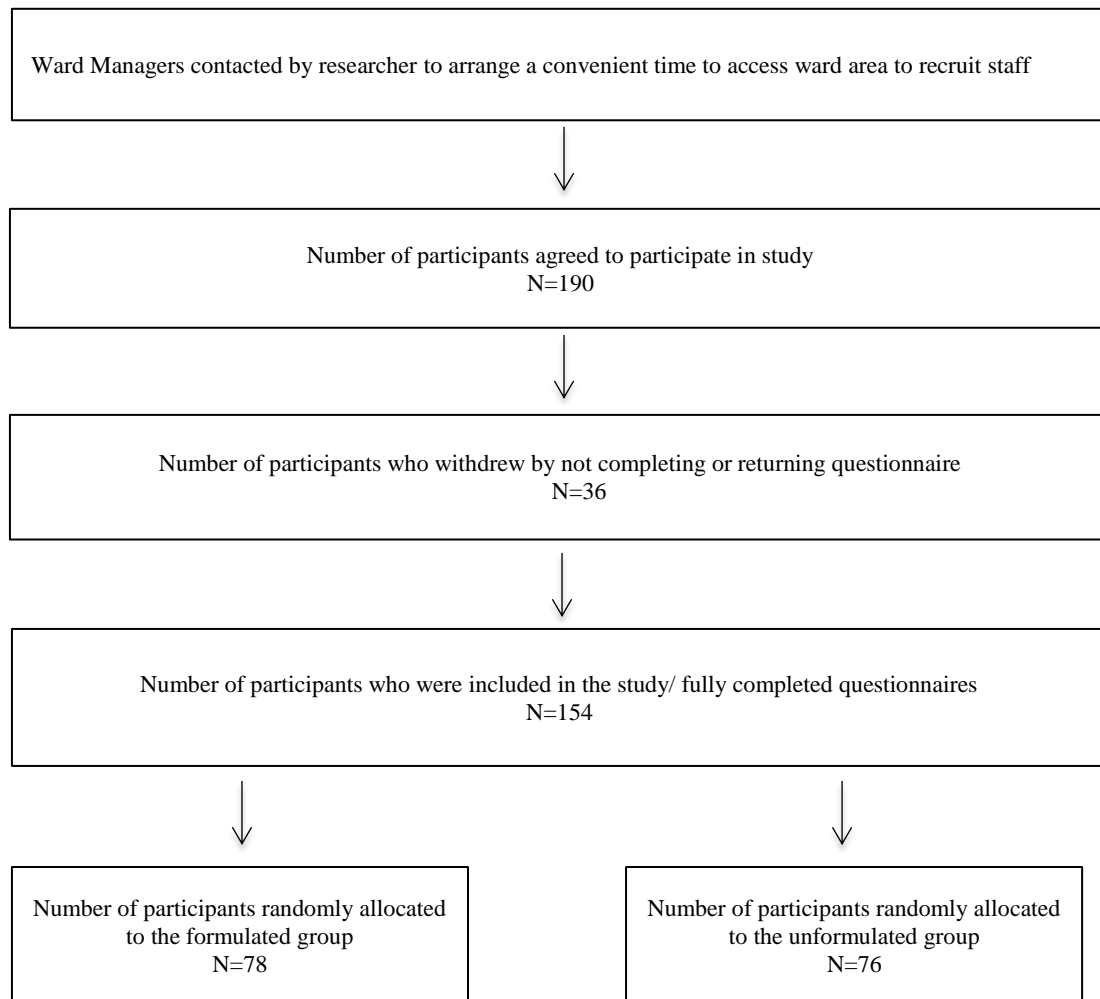
### **Experimental Manipulations**

**Case Vignette.** A case vignette was designed and two versions were developed to reflect a formulated and an unformulated presentation. The case was developed during a focus group with qualified Clinical Psychologists based in a forensic setting. Details about the client in the vignette were based on an amalgamation of clients with whom the Clinical Psychologists

had worked, and considered representative of a typical service user within a secure forensic setting. Both versions described the same hypothetical service user (see Appendices P and Q). The ‘unformulated’ version detailed basic information including, age, index offence, current medications, diagnosis, presenting difficulties, gender, and reason for referral. The ‘formulated’ version provided additional information about the hypothetical service user’s background and history from a psychological stance.

### **Data Analysis Procedure**

Variable distributions were first examined for parametric assumptions testing. Results of the Shapiro-Wilk test for normality (Field, 2013) indicated that the scores on the EQ-SF (Wakabayashi et al., 2006) and the EC subscale of the adapted IRI (Davis, 1983), were normally distributed ( $W = .991, p = .416$ ;  $W = .985, p = .048$ ). Tests of normality on the EE, DP and PA subscales of the MBI (Maslach & Jackson, 1981) ( $W = .962, p = .000$ ;  $W = .899, p = .000$ ;  $W = .968, p = .001$ ) and the PD and PT subscales of the IRI, ( $W = .970, p = .002$ ;  $W = .967, p = .001$ ) indicated that the data was significantly different from that of a normal distribution. Where assumptions were not violated parametric tests were conducted. Basic descriptive analysis was then conducted on all variables, and bivariate associations between individual independent variables and the dependent variable (state empathy) were examined. The main hypothesis was tested by examining whether the independent variables (formulation yes / no, burnout – MBI Scores, trait empathy – EQ-SF scores) predicted the variance in the dependent variable (state empathy, IRI-A scores) using multiple regressions (SPSS version 21) (International Business Machines [IBM], 2012). Assumptions for regressions were met.



*Figure 1.* Flow chart indicating process of recruiting participants into the current study.

## Results

### Descriptive Statistics: Exploring Formulated and Unformulated Groups

The profiles of the two groups (formulated and unformulated) were examined to ensure that they were comparable. Categories for the demographic variables were dichotomized in

order to aid comparison between the two groups (see Table 1). There was an equal split of participants across both age categories, and the majority of participants were female. No significant differences in age or gender for the two groups were observed (see Table 1).

The highest number of participants were support workers, followed by qualified nurses. The rest of the sample consisted of other healthcare professionals including, social workers, occupational therapists, and doctors (see Table 1). No significant differences were observed between the groups for participant role. Participants allocated to the unformulated and formulated groups were almost equally split in each of the respective services, level of security and hours of contact. Chi-squared analysis demonstrated no significant differences between the groups, therefore these variables were not entered as predictors in the regressions (see Table 1).

Participant's years of experience in the unformulated group were spread equally across the subcategories. However participants in the formulated group were not equally spread (see Table 1). A Chi-square test of independence was calculated comparing the formulated and unformulated groups across the demographic variables in Table 1. No significant association was found between the unformulated and formulated groups on any of the demographic variables, and therefore they were assumed not to be predictive of the dependent variable (trait empathy, IRI-A), so were not inputted into the regression model.

Table 1

*Frequencies and percentages of participants in the unformulated and formulated groups according to demographic variable categories*

	Total N (%)	Unformulated N (%)	Formulated N (%)	Chi Squared $X^2$	<i>p</i>
Age				.000	1.00
18-35	77 (50)	38 (50)	39 (50)		



	Total N (%)	Unformulated N (%)	Formulated N (%)	Chi Squared $\chi^2$	<i>p</i>
36+	77 (50)	38 (50)	39 (50)		
Gender				.002	.962
Male	55 (35.7)	27 (35.5)	28 (35.9)		
Female	99 (64.3)	49 (64.5)	50 (64.1)		
Years of Experience				.917	.338
0-7	83 (54)	38 (50)	45 (57.7)		
8-15+	71 (46)	38 (50)	33 (42.3)		
Role				.419	.811
Nurse	64 (41.6)	32 (42.1)	32 (41)		
Support worker	72 (46.8)	34 (44.7)	38 (48.7)		
Other	18 (11.6)	10 (13.2)	8 (10.3)		
Hours of contact				.314	.575
0-3	18 (11.6)	10 (13.2)	8 (10.3)		
3+	136 (88.4)	66 (86.8)	70 (89.7)		
Security				.065	.799
Low	44 (28.6)	21 (27.6)	23 (29.5)		
High	110 (71.4)	55 (72.4)	55 (70.5)		
Service				.180	.914
A	40 (26)	20 (26.3)	20 (25.6)		
B	47 (30.5)	22 (28.9)	25 (32.1)		
C	37 (43.5)	34 (44.7)	33 (42.3)		
Employment				.981	.612
Full time	145 (94.2)	72 (94.7)	73 (93.6)		
Part time	6 (3.9)	2 (2.6)	4 (5.1)		
Bank	3 (1.9)	2 (2.6)	1 (1.3)		

	Total N (%)	Unformulated N (%)	Formulated N (%)	Chi Squared X <sup>2</sup>	<i>p</i>
Ethnicity				.014	.286
White	135 (87.7)	64 (84.2)	71 (91)		
Mixed	5 (3.2)	3 (3.9)	2 (2.6)		
Black	7 (4.5)	3 (3.9)	4 (5.1)		
Asian	3 (1.9)	2 (2.6)	1 (1.3)		
Other	4 (2.7)	4 (5.3)	0		

**Independent Variables: Burnout (MBI) and Trait Empathy (EQ-SF)**

There were no significant differences between the groups on the MBI (Maslach & Jackson, 1981) subscales. Scores on the EE subscale fell within the Medium range, and scores on the PA and DP subscales fell into the high and low ranges respectively (further information in Table 2).

Means and standard deviations were comparable between the groups on the EQ-SF (Wakabayashi et al., 2007), with no significant difference found (see Table 2). These scores score fell within the high end of the ‘average’ empathy category.

Table 2

*Mean Scores, Standard deviations, and t-tests on the Maslach Burnout Inventory (MBI) subscales, and Empathy Quotient (EQ-SF) in the formulated and unformulated groups*

	Total M (SD)	Unformulated M (SD)	Formulated M (SD)	<i>t</i>	<i>P</i>
MBI					
EE	19.1 (10.4)	19.5 (11.5)	18.7 (9.3)	.528	0.061
DP	5.9 (4.7)	5.8 (4.9)	5.9 (4.6)	.107	0.594

PA	36.4 (6.5)	36.9 (6.3)	35.9 (6.8)	.937	0.501
EQ-SF					
Total score	50.5 (9.8)	49.8 (9.5)	51.1 (9.9)	.84	0.56

Note: Burnout measure – MBI (Maslach Burnout Inventory) subscales: EE, emotional exhaustion; DP, depersonalization; PA, personal accomplishment; Baseline empathy measure- EQ-SF (Empathy Quotient short form). df =152

**Dependent Variable: State Empathy (IRI-A)**

Means and standard deviations were comparable between the groups on the IRI-A subscales (see Table 3). An independent samples *t*-test revealed no significant differences between groups on state empathy (as measured by the IRI-A), indicating that exposure to the formulated client information did not significantly affect participants’ scores.

Table 3

*Mean Scores, Standard deviations, and t-tests on the adapted Interpersonal Reactivity Index (IRI-A) subscales in the formulated and unformulated groups*

	Total M (SD)	Unformulated M (SD)	Formulated M (SD)	<i>t</i>	<i>P</i>
IRI-A					
EC	19.9 (4.1)	19.3 (4.1)	20.5 (4.2)	1.68	.095
PT	19.9 (4.9)	19.8 (4.8)	20 (5)	.215	.830
PD	9.4 (5.4)	9.1 (5.4)	9.7 (5.4)	.581	.562

Note: State empathy measure – IRI-A subscales: EC, empathic concern; PT, perspective taking; PD, personal distress. df =152

**Regressions**

Two separate stepwise multiple regressions were performed (see Table 4) with IRI-A subscales (EC and PT) as the dependent variable in each case. In each of the two analyses the predictor variables were (MBI subscales, trait empathy [EQ-SF], vignette formulated/unformulated] (see Table 4). A third analysis with PD subscale as the dependent variable did not meet the assumptions of the regression due to the weak correlations with the independent variables.

As shown in Table 4, for empathic concern, only trait empathy (EQ-SF, Wakabayashi et al., 2007) and the personal accomplishment subscale of the MBI (Maslach & Jackson, 1981) predicted a significant amount of the variance ( $F(1,151) = 27.323$ ,  $p < .01$ ,  $R^2$  Adjusted = .256). Type of vignette (formulated or unformulated) was not a significant predictor of empathic concern. For perspective taking, trait empathy (EQ-SF) was again significant, alongside the depersonalization subscale of the MBI. There was no evidence of an effect for personal accomplishment. Type of vignette (formulated / unformulated) was not a significant predictor of this subscale of state empathy ( $F(1,151) = 6.105$ ,  $p < .01$ ,  $R^2 = .075$ ,  $R^2$  Adjusted = .063). The emotional exhaustion subscale of the MBI was not predictive of scores on either dependent variable. Correlations were performed on IRI-A subscale scores and EQ-SF score for participants in the unformulated (control) group, to further explore the relationship between trait and state empathy. Significant positive correlations were found between EQ-SF and two of the IRI-A subscales PT ( $r_s = .256$ ,  $p < 0.05$ ) and EC ( $r = .382$ ,  $p < 0.05$ ). This demonstrated a small but significant association between trait empathy and two subscales of state empathy. The PD subscale of the IRI-A was negatively correlated with EQ-SF, however this was not significant ( $r_s = -.094$ ,  $p > 0.05$ ).

Table 4

*Linear model of predictors of IRI-A subscales: Empathic Concern and Perspective Taking*

		Variable	<i>b</i>	SE B	B	<i>p</i>
EC subscale of IRI-A	Model 1	EQ-SF total score	.197	.031	.461	.000
	Model 2	EQ-SF total score	.164	.031	.384	.000
		PA subscale of MBI	.155	.047	.242	.001
PT subscale of IRI-A	Model 1	DP subscale of MBI	-.230	.082	-.220	.006
	Model 2	DP subscale of MBI	-.181	.085	-.173	.035
		EQ-SF total score	.085	.041	.169	.040

Note: IRI-A subscales – state empathy measure (Interpersonal Reactivity Index – adapted): EC, empathic concern; PT, perspective taking. MBI Subscales – burnout measure (Maslach Burnout Inventory): DP, depersonalization; PA, personal accomplishment. EQ-SF total score – trait empathy measure (Empathy Quotient Sort Form).

## Discussion

This research addressed a gap in the empirical literature by investigating whether the mode of presentation (formulated / unformulated) of client information affected the level of state empathic response from staff in a forensic service, towards a hypothetical service user presented in a vignette.

### Exploring the Hypothesis

It was hypothesized that formulated client information would be associated with an enhanced state empathic response from staff when compared to responses from staff that read non-formulated information. Theoretical evidence suggested that where participants had a greater psychological understanding of the client via formulation, they would endorse a more empathic response towards the service user.

In order to test the hypothesis a comparison was made between participants' scores on the adapted Interpersonal Reactivity Index (IRI-A) in the formulated and unformulated groups. Mean scores and standard deviations were comparable across both groups on all of the IRI-A subscales, with no significant difference in scores between groups. This suggested that exposure to the formulated client information did not significantly affect clinicians' expressed state empathy. Therefore no statistical evidence was found to support the alternative hypothesis and the null hypothesis has been accepted.

There have been no previous studies investigating the effect of psychological formulation on staff state empathy towards service users. As discussed in the introduction, previous empirical research (Berry et al., 2009) suggested that psychological formulation, through the mechanism of increasing staff understanding, could increase staff empathy towards service users. The current research did not find evidence to support these findings. Unlike Berry et al. (2009) the current research did not evaluate the level of understanding staff had of a service user pre and post formulation. In addition, the method of providing the

formulation to staff differed in the two studies. In the current research participants were presented with already formulated service user information, conversely in the study conducted by Berry et al. (2009), participants attended hour-long formulation meetings. The brevity of the formulation provided in the current research was important practically to reduce participant burden however this may have reduced the potential impact of the formulation.

As outlined in the introduction, qualitative research with staff from a forensic learning disability service has reported that an awareness of service users' early life experiences helped to increase their empathic response (Sandhu et al., 2012). It may be that the findings of the current study are not comparable with this research due to the use of different methodologies. Qualitative research gleans rich, descriptive data (Patton, 2005), which may have been lost through the numeric, categorical, self-report measures utilized in the current study. Additionally, this study did not cite formulation as the method by which staff learnt about the service users' early life experiences. Instead this information was shared as part of a therapeutic group. Therefore the written format of the information about early life experiences in the current study may be considered to be detached from the hypothetical service users' emotions, or personal delivery of this information, which may explain the difference in findings.

The regression analysis was performed in the current study to investigate whether the way information was presented to participants (e.g. formulated / unformulated) would significantly predict participant scores on the subscales of the IRI-A. Preliminary descriptive statistics revealed that the groups did not significantly differ across the range of demographic variables. Therefore no additional independent variables were added into the regression analysis. Despite previous research (Bellini & Shea, 2005; Hojat et al., 2009) indicating a negative association between years of experience and empathy, this finding was not

replicated in this study. These previous studies had a longitudinal design and were conducted with medical students. The current study adopted a single time point sampling method and different population which may explain the difference in findings.

Whilst formulation mode was not a significant predictor of state empathy, two other factors were associated with a more empathic response to the vignette. Trait empathy was shown to be predictive of both subscales of the IRI-A, and there was a particular pattern of relationships between elements of burnout and elements of state empathy.

Total trait empathy score (EQ-SF, Wakabayashi et al., 2007) and the personal accomplishment (PA) subscale of burnout significantly predicted variance in empathic concern (EC) subscale of the IRI-A. Empathic concern is discussed by Davis (1983) as an emotional state, where respondents have the ability to feel warm towards others, which could be perceived as similar to Alligood's (1992) conceptualization of trait empathy, which encompasses an involuntary sharing of others' emotions. The similarities demonstrated in the definitions of these constructs could account for the variance in empathic concern (EC) being predicted by trait empathy. The link between low personal accomplishment and EC in the current study is also supported by the literature: Maslach (2003) conceptualizes low PA as indicative of burnout, which in turn has been linked to lower levels of empathy (Ferri et al., 2015).

The (Davis, 1983) conceptualization of state empathy includes perspective taking in addition to empathic concern. The regression analysis indicated that EQ-SF (trait empathy) was also predictive of this IRI-A subscale. However the depersonalization (DP) subscale of the Maslach Burnout Inventory ([MBI], Maslach & Jackson, 1981) was predictive in this instance. Paris and Hoge (2009) define depersonalization as an unfeeling and impersonal response towards service users, while perspective taking could be seen as the opposite: the clinicians' ability to take on the view of another person (Davis, 1983). It could be

hypothesized that a clinician's ability to take the perspective of a service user (PT) may be explained or predicted by, the degree to which they hold negative attitudes towards them (DP), thus explaining the predictive relationship observed in the current study.

This does not support the work of Paro et al. (2014) who found that personal accomplishment, rather than depersonalization, was predictive of the variance in perspective taking. Despite obvious differences between the studies in terms of location (Brazil) and target population (medical students), it is not clear why their findings would have differed from the current study.

Although Allgood (1992) proposed that trait and state empathy were two distinct and unique concepts, Kunyk and Olson (2001) highlighted little difference between definitions, with overlap between the two conceptualizations. These included the ability to accurately perceive the clients' situation, thoughts, and feelings. The weak yet significant correlations observed in the current study between the PT and EC subscales of the IRI-A and trait empathy measure, may indicate that there is an association between the constructs but they are not the same. This provided evidence to support the theoretical argument of Kunyk and Olson (2001).

### **Clinical Implications**

Methodological issues in the current study (e.g. the brevity of the formulation provided and the written format of the formulation) may explain the lack of effect observed between the groups (formulated / unformulated). Previous studies reporting the positive effects of formulation for staff have utilized interactive experiential methods such as formulation meetings. The findings of the current study could support the clinical importance of Clinical Psychologist's actively involving the staff team in generating and discussing the formulation rather than relying on a written version within service users notes. This demonstrates the importance and value of Clinical Psychologists being situated within multidisciplinary teams,



where they are able to promote and support staff understanding of service users through the active process of formulation and re-formulation.

Although the current research did not find support for the experimental hypothesis, evidence was found to support the partial association between trait and state empathy. This finding holds clinical significance in that NHS trusts could screen prospective employees for trait empathy with a view to providing training for state empathy as part of their induction program. The aim here would be to keep naturally empathic people able to remain empathic in a clinical context throughout their working life.

### **Strengths and Limitations**

This study was conducted following a predetermined protocol, with approval from the relevant research and ethical committees. The use of well-validated tools enabled comprehensive exploration of a complex construct, with strong clinical relevance. This in addition to the real-world setting with busy practitioners ‘on the ground’ aids the ecological validity and reliability of the findings. In addition the study exceeded the minimum number of participants required for adequate power to detect a medium effect size. However, there are limitations that should be considered when interpreting the findings.

The key limitation of this study was the brevity and format of the formulation. The decisions regarding the format of the formulated vignette and study design were made to ensure that participant burden was minimized. It was important to reduce the possible impact of completing the study on staff work load, so as to prevent any subsequent impact on service user care. The use of a specific psychological model as a framework for the formulation (e.g. a sequential diagrammatic reformulation from cognitive analytic therapy), or a visual representation of the hypothetical service user are potential ways for future studies to maximize the effect of the manipulation (formulation).

This study adopted a quantitative research design. Whilst this numerical approach affords the opportunity to complete statistical analysis to derive potentially generalizable findings, empathy and formulation are complex nuanced constructs which are difficult to fully capture using predefined structured instruments. Indeed Yu and Kirk (2009) comment on the lack of satisfactory measures of empathy within nursing literature. Therefore a mixed methods design utilizing qualitative interviews may have enriched the numerical data. Qualitative exploration could have enhanced understanding of the nature of the significant relationships, and further explored staff's perception of the utility of formulation. Alongside this, Paro et al. (2014) highlighted the problem of social desirability bias in self-report measures of empathy, such as those used in the current study. Inclusion of a social desirability questionnaire (e.g. the Brief Social Desirability Scale; Haghghat, 2007) would have enabled exploration of its impact on the current study. Qualitative interviews may have given the researcher the opportunity to explore these issues however a mixed method approach was beyond the resources of this project.

### **Areas of Future Research**

It was not within the remit of the current study to validate the adapted version of the IRI. The researcher acknowledges the potential limitations this may have on the findings of the study, and therefore future research validating this version of the measure would be beneficial. This would also address a previously identified gap in the literature highlighted by (Yu & Kirk, 2009) who stated that improvements needed to be made in the measurement of empathy, as there was currently no gold standard tool. A larger study could include development of a more detailed case vignette and support more focused involvement of staff when responding to it, and thus be in a better position to bring about a difference amongst those exposed.

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## Appendices

## Appendix A

### Author guidelines for *The Journal of Forensic Psychology Practice*

**Aims and Scope:** The *Journal of Forensic Psychology Practice* is devoted to providing a forum for disseminating timely and practical developments to the forensic psychology practitioner and professional. The Journal promotes original research which examines the impact and effect of new knowledge in the field as it relates to the work of the practicing forensic psychologist and related specialists, mindful of where and how justice and social change are meaningfully advanced. The Journal presents new programs and techniques, analyzes existing policies and practice-oriented research and quantitative/qualitative analyses, and single case designs from a broad range of disciplines including forensic psychology, clinical psychology, law, sociology, criminology, clinical social work, and counseling psychology. Case studies and articles dealing with treatment and assessment in police, court, and/or correctional settings are welcome. Research submissions exploring individual, family, adult, and juvenile populations are encouraged. The *Journal* does not accept books for review.

**Submission Guidelines:** Suggested length of the article is 20 to 30 pages, double spaced. Include an abstract including: name, address, telephone number, and e-mail address. Sections of the journal include Articles, Commentary, Practice Update, Case Report, and Ethics, Psychology and Public Policy.

**Formatting:** Manuscripts should be highly legible. All parts of the manuscript should be typewritten, double-spaced, with margins of at least one-inch on all sides. Number manuscript pages consecutively throughout the paper.

**References:** Cite in the text by author and date. Prepare reference list in accordance with the APA Publication Manual, 6th ed.



## Appendix C

### Quality Assessment Tool for Cross Sectional Studies

This appendix shows the adapted tool utilized in the current review. Reference information for the original tool is provided in the method section of the document.

General instructions: Grade each criterion as “Yes,” “No,” “Partially,” or “Can’t tell.”

Factors to consider when making an assessment are listed under each criterion. Where appropriate (particularly when assigning a “No,” “Partially,” or “Can’t tell” score), please provide a brief rationale for your decision (in parentheses) in the evidence table.

#### 1. Unbiased selection of the cohort?

Factors that help *reduce* selection bias:

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

#### 2. Sample size calculated/5% difference?

Factors to consider:

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

#### 3. Adequate description of the cohort?

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

- Age
- Sex
- Race
- Educational level
- Cognitive status

#### 4. Validated method for measuring burnout and empathy?

Factors to consider:

- Was the method used to ascertain level of burnout / empathy clearly described? (Details should be sufficient to permit replication in new studies.)
- Was a valid and reliable measure used to ascertain level of burnout / empathy? (Subjective measures based on self-report tend to have lower reliability and validity than objective measures such as clinical reports and lab findings.)
- Were these measures implemented consistently across all study participants?

5. Response rate?

Factors to consider:

- Did attrition from any group exceed 30%? (Attrition is measured in relation to the time between baseline/allocation and outcome measurement. Where different numbers of patients are followed up for different outcomes, use the number followed up for the primary outcome for this calculation.)
- Did attrition differ between groups by more than 10% percent?

6. Analysis controls for confounding?

Factors to consider:

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

7. Analytic methods appropriate?

Factors to consider:

- Was the kind of analysis done appropriate for the kind of outcome data?
  - Dichotomous – logistic regression, survival
  - Categorical – mixed model for categorical outcomes
  - Continuous – ANCOVA, mixed model
- Was the number of variables used in the analysis appropriate for the sample size? (The statistical techniques used must be appropriate to the data and take into account issues such as controlling for small sample size, clustering, rare outcomes, multiple comparison, and number of covariates for a given sample size. The multiple comparisons issue may be a problem particularly when performance results on numerous cognitive measures are being compared. When assessing change on cognitive measure over time, consider whether change score should be adjusted for baseline score, and consider distribution of baseline scores and change scores.)





Tei et al. (2014)	Yes	Yes	No	No	Yes	Yes	Partially	Partially	Partially	Partially	Yes	Yes	Yes	Yes	Yes	Yes
Torres et al. (2015)	Yes	Yes	No	No	Yes	Yes	Yes	Partially		Partially	Yes	Yes	Yes	Yes	Yes	Yes
Waloch a et al. (2013)	No	No	No	No	Partially	Partially	Can't tell	Can't tell	Can't tell	Can't tell	No	No	No	No	Yes	Yes

**Appendix E**

**Results Table**

This table shows the demographic characteristics of the whole sample prior to dichotomization of the demographic variable categories. Mean scores and standard deviations are also reported for the whole sample on the three measures, Maslach Burnout Inventory, Empathy Quotient and the adapted Interpersonal Reactivity Index.

	<b>n=154</b>	<b>MBI</b>			<b>Empathy y Baseline</b>		<b>IRI</b>	
		<b>EE</b>	<b>DP</b>	<b>PA</b>	<b>EQ</b>	<b>EC</b>	<b>PT</b>	<b>PD</b>
	<b>N</b>	<b>M</b>	<b>M</b>	<b>M</b>	<b>M</b>	<b>M</b>	<b>M</b>	<b>M</b>
	<b>(%)</b>	<b>(SD)</b>	<b>(SD)</b>	<b>(SD)</b>	<b>(SD)</b>	<b>(SD)</b>	<b>(SD)</b>	<b>(SD)</b>
<hr/>								
Age								
<b>18 – 25</b>	32 (20.8)	18.4 (8.1)	5.2 (3.7)	36.4 (6.9)	53 (6.7)	20.8 (3.9)	20.2 (4.5)	10.4 (5.8)
<b>26 – 35</b>	45 (29.2)	17.6 (9.8)	6.5 (3.9)	36.3 (6.2)	51 (9.1)	20 (4.1)	19.3 (5)	9.6 (5.7)
<b>36 – 45</b>	31 (20.1)	17.4 (9.8)	4.1 (3)	37.7 (6)	48.3 (9.9)	19.7 (4.2)	20 (4.9)	9.2 (5)
<b>46 – 55</b>	35 (22.7)	23.8 (12.2)	6.6 (6)	34.8 (7.3)	48.6 (11.6)	19.4 (4.5)	20.7 (5.2)	8.2 (4.8)
<b>56+</b>	11 (7.1)	16.8 (11.2)	8 (7.9)	37.5 (5.3)	52.9 (11.5)	18.9 (4.3)	18.9 (5.4)	9.6 (6.2)
<hr/>								
Gender								
<b>Male</b>	<b>55</b> <b>(35.7)</b>	<b>18.4</b> <b>(11.3)</b>	<b>6.2</b> <b>(5.4)</b>	<b>36.3</b> <b>(6.7)</b>	<b>47.2</b> <b>(10.4)</b>	<b>18.6</b> <b>(4.1)</b>	<b>20.4</b> <b>(5.1)</b>	<b>7.8</b> <b>(5)</b>
<b>Female</b>	<b>99</b> <b>(64.3)</b>	<b>19.5</b> <b>(9.9)</b>	<b>5.7</b> <b>(4.3)</b>	<b>36.4</b> <b>(6.5)</b>	<b>52.2</b> <b>(8.8)</b>	<b>20.7</b> <b>(4)</b>	<b>19.7</b> <b>(4.9)</b>	<b>10.3</b> <b>(5.5)</b>
<hr/>								

Years of Experience								
<b>0 – 3</b>	58 (37.7)	15.7 (8.2)	5.3 (4.5)	37.7 (6.3)	51.2 (8.3)	21 (3.9)	19.7 (4.8)	10.4 (5.9)
<b>4 – 7</b>	25 (16.2)	21.2 (10.3)	9.6 (4.2)	35.4 (6.5)	51.8 (8.6)	18.9 (4.6)	19.3 (4.7)	8.9 (6)
<b>8– 11</b>	23 (14.9)	19.4 (8.6)	6 (4)	37.4 (7)	53.5 (10.9)	20.8 (4.8)	21.7 (5.6)	8 (4.4)
<b>12 – 15</b>	21 (13.6)	22.3 (12.5)	5 (3.9)	34.6 (6.9)	48.7 (9.3)	19.1 (3.6)	18.3 (4.9)	10.1 (6.1)
<b>15 +</b>	27 (17.5)	21.6 (12.7)	6.7 (6.5)	34.8 (5.9)	46.5 (11.8)	18.3 (3.5)	20.6 (4.5)	8.3 (3.9)
Role								
<b>Nurse</b>	64 (41.6)	19.3 (10)	5.5 (4.4)	36.8 (6.3)	49.6 (10.6)	20.2 (4.2)	20.4 (4.9)	9.2 (5.5)
<b>Support worker</b>	72 (46.8)	18.7 (10.7)	6 (5.2)	36.2 (6.5)	50.4 (8.9)	19.9 (4.4)	19.3 (5.2)	9.5 (5.6)
<b>Occupational Therapist</b>	6 (3.9)	26.3 (10.3)	9.2 (4)	33.5 (7.6)	54.3 (9.3)	19.3 (3.4)	19.7 (4.4)	13.3 (4)
<b>Social Worker</b>	5 (3.2)	16.2 (12.3)	4.8 (3)	34.2 (9.6)	54.6 (13.6)	17.6 (3.6)	20.8 (3.3)	7.2 (3.9)
<b>Trainee Psychiatrist</b>	1 (0.6)	26 -	6 -	35 -	64 -	25 -	26 -	7 -
<b>Psychiatrist</b>	1 (0.6)	26 -	10 -	34 -	58 -	21 -	21 -	12 -
<b>Gym instructor</b>	3 (1.9)	8.7 (5.1)	4.7 (1.5)	40.3 (5.5)	46.3 (5)	18.3 (2.5)	22.3 (2.1)	8 (2.6)
<b>Assistant OT</b>	1 (0.6)	28 -	0 -	37 -	58 -	18 -	18 -	12 -
<b>Doctor</b>	1 (0.6)	12 -	7 -	27 -	46 -	17 -	18 -	6 -
Hours of contact								
<b>0-1</b>	1	37	8	36	57	22	22	15

	(0.6)	-	-	-	-	-	-	-
<b>1 – 3</b>	17	15.9	4.6	35.2	52.5	20.5	22.2	8.3
	(11)	(10.9)	(3.7)	(7.7)	(11.8)	(4)	(4)	(3.9)
<b>3 – 5</b>	17	19	6.8	37.2	51.9	18.3	19.7	9.8
	(11)	(11.3)	(5.6)	(7.2)	(10.7)	(2.8)	(4.2)	(5.8)
<b>5+</b>	119	19.4	5.9	36.4	49.9	20	19.6	9.5
	(77.3)	(10.1)	(4.7)	(6.3)	(9.3)	(4.3)	(5.1)	(5.6)
<hr/>								
Security								
<b>Low</b>	44	21.3	5.9	35.7	51	20.5	20.9	9
	(28.6)	(11)	(5.7)	(6.1)	(11.9)	(4.7)	(5.4)	(5.2)
<b>Medium</b>	110	18.2	5.9	36.6	50.2	19.7	19.5	9.6
	(71.4)	(10)	(4.2)	(6.1)	(8.8)	(3.9)	(4.7)	(5.5)
<hr/>								
Service								
<b>A</b>	40	17	5.5	38.4	52.2	21.6	18.3	11.6
	(26)	(10.8)	(5.2)	(6.9)	(9.2)	(3.9)	(5.3)	(6.1)
<b>B</b>	47	21	6.7	35.3	49.3	19.6	19.3	10.9
	(30.5)	(10.5)	(4.6)	(6.2)	(10.5)	(4.3)	(5.3)	(5.8)
<b>C</b>	67	19	5.5	35.8	50.3	19.1	21.4	7
	(43.5)	(9.9)	(4.5)	(6.4)	(9.5)	(4)	(3.9)	(3.6)
<hr/>								
Vignette								
<b>Formulated</b>	78	18.7	5.9	35.9	51.1	20.5	20	9.7
	(50.6)	(9.3)	(4.6)	(6.8)	(9.9)	(4.2)	(5)	(5.4)
<b>Unformulated</b>	76	19.5	5.8	36.9	49.8	19.3	19.8	9.1
	(49.4)	(11.6)	(4.9)	(6.3)	(9.5)	(4.1)	(4.8)	(5.4)
<hr/>								
Employment								
<b>Full Time</b>	145	19.1	5.8	36.3	50.5	19.9	20	9.3
	(94.2)	(10.6)	(4.7)	(6.5)	(9.8)	(4.2)	(4.9)	(5.4)
<b>Bank</b>	6	18	7.3	39.8	51.8	20.3	20	11.7
	(3.9)	(4.3)	(2.8)	(4.8)	(6.6)	(3.9)	(5.8)	(6.2)
<b>Part Time</b>	3	21.3	7.7	33	46.3	16.7	18	12
	(1.9)	(7.6)	(10)	(7.8)	(13.9)	(1.5)	(3)	(5)
<hr/>								
Ethnicity								

<b>White</b>	135 (87.7)	19.3 (10.6)	5.8 (4.7)	36.1 (6.5)	50.4 (9.9)	19.8 (4.1)	20 (5)	9.2 (5.3)
<b>Mixed</b>	5 (3.2)	16.2 (6)	3 (2.6)	38 (5.6)	51.4 (6.9)	19 (7.3)	22.2 (3.9)	8.6 (5)
<b>Black</b>	7 (4.5)	17.4 (13)	6.4 (7.3)	40.6 (5.6)	50.4 (11)	21.5 (4.8)	20 (4.2)	11.3 (7.6)
<b>Asian</b>	3 (1.9)	18.7 (9.1)	7.3 (0.6)	41.3 (4)	50.3 (9.3)	22.3 (3.1)	18.7 (5.7)	11.7 (4)
<b>Mauritian</b>	2 (1.3)	20 (1.4)	7.5 (2.1)	30 (12.7)	48.5 (6.4)	18 (4.2)	14 (2.8)	13.5 (10.6)
<b>Iranian</b>	1 (0.6)	15 -	7 -	38 -	52 -	20 -	16 -	10 -
<b>Indian</b>	1 (0.6)	26 -	10 -	34 -	58 -	21 -	21 -	12 -

## Appendix F

### University Sponsorship and Ethical Approval Letter



Professor Richard Whittington  
Institute of Psychology, Health &  
Society,  
Eleanor Rathbone Building,  
University of Liverpool,  
Liverpool,  
L69 7QZ

Mr Alex Astor  
Head of Liverpool Joint Research  
Office

University of Liverpool  
Research Support Office  
2nd Floor Block D Waterhouse  
Building  
3 Brownlow Street  
Liverpool  
L69 3GL

12 January 2015

Tel: 0151 794 8739  
Email: [sponsor@liv.ac.uk](mailto:sponsor@liv.ac.uk)

Sponsor Ref: UoL001107

#### Re: Sponsorship Approval

**“Does formulation of clinical problems moderate the expression of empathy amongst clinical staff with high burnout?”**

Dear Professor Whittington

After consideration at the JRO Non Interventional Sponsorship Sub Committee on 6<sup>th</sup> January 2015 I am pleased to confirm that the University of Liverpool is prepared to act as Sponsor under the Department of Health’s Research Governance Framework for Health and Social Care 2<sup>nd</sup> Edition (2005) for the above study.

The following documents have been received by the Joint Research Office

Document title	Version	Date
Protocol	1	5/12/2014

Please note this letter does **NOT** allow you to commence recruitment to your study. A letter detailing Sponsor Permission to Proceed will be issued when governance and regulatory requirements have been met. Please see Appendix 1 to this letter for further information and a list of the documents required.

If you have not already applied for regulatory approvals through IRAS you may now do so at <https://www.myresearchproject.org.uk/Home.aspx>.

In order to meet the requirements of the Research Governance Framework 2<sup>nd</sup> Ed 2005, the University requires you to agree to the following Chief Investigator responsibilities:

1. Comply with the Research Governance Framework 2<sup>nd</sup> Ed 2005 and all relevant legislation, including but not limited to the Data Protection Act 1998, the Mental Capacity Act 2005 and the Human Tissue Act 2004;

2. Inform the Research Support Office as soon as possible of any SAE's;
3. Approval must be gained from the Research Support Office for any amendments to, or changes of status in the study prior to submission to REC and any other regulatory authorities;
4. You must provide copies of any reports submitted to Ethics Committees and any other regulatory authorities to the Research Support Office;
5. Maintain the study master file;
6. Make available for review any study documentation when requested by the sponsors and regulatory authorities;
7. Upon the completion of the study it is a requirement to submit an End of Study Declaration and End of Study Report to the Research Support Office;

The University also requires you to comply with the following:

1. University professional indemnity and clinical trials insurances will apply to the study as appropriate. This is on the assumption that no part of the clinical trial will take place outside of the UK. If you wish to conduct any part of the study in a site outside the UK or you wish to sub-contract any part of the study to a third party specific approvals and consideration of appropriate indemnity would be required;

If you have any queries regarding the sponsorship of the study or the above conditions please do not hesitate to contact the Joint Research Office governance team on 0151 794 8373 (email [sponsor@liv.ac.uk](mailto:sponsor@liv.ac.uk)).

Yours sincerely



Mr Alex Astor  
Head of Liverpool Joint Research Office

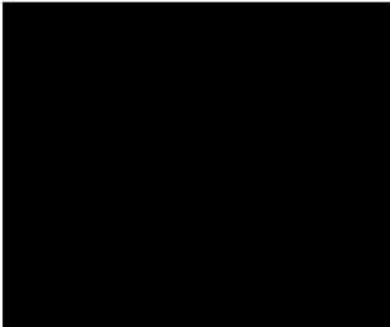


Appendix G

Local NHS Trust, Research and Development Permission to Proceed




**Standardised Process for  
Electronic Approval of Research**



9 April 2015

Ms Helen Wilkinson  
Department of Clinical Psychology  
University of Liverpool  
Whelan Building  
The Quadrangle  
Brownlow Hill  
Liverpool  
L69 3GB

Dear Ms Wilkinson

Information for ID Badge if required:  


**Re: NHS Permission for Research**



Sponsor: University of Liverpool  
Project Title: Does formulation of clinical problems moderate the expression of empathy amongst clinical staff with high burnout?  
Date of Permission: 9 April 2015

Further to your request for permission to conduct the above research study at this Trust, we are pleased to inform you that this Trust has given NHS permission for the research. Your NHS permission to conduct research at this site is only valid upon receipt of a signed 'Conditions for NHS Permission Reply Slip' which is enclosed.

Please take the time to read the attached conditions for NHS permission. Please contact the R&D Office should you require any further information. You will need this letter as proof of NHS permission. Please note when contacting the R&D office about your study you must always provide the project reference numbers provided above.

NHS permission for the above research has been granted on the basis described in the IRAS application form, Protocol and supporting documentation.

The documents reviewed were:

Document	Version	Date
Protocol	1	27/10/2014
Participant Information Sheet	1	30/01/2015



Participant Consent Form	1	20/11/2014
Application Form for NHS R&D Approval		
IPHS Research Ethics Committee Approval		13/03/2015

Permission is granted on the understanding that the study is conducted in accordance with the Research Governance Framework, ICH GCP (if applicable), and NHS Trust policies and procedures. Permission is only granted for the activities for which a favourable opinion has been given by the Ethics Committee.

Permission covers all locations within the Trust, however, you should ensure you have liaised with and obtained the agreement of individual service/ward managers before commencing your research.

We would like to point out that hosting research studies incurs costs for the Trust such as: staff time, usage of rooms, arrangements for governance of research. We can confirm that in this instance we will not charge for these. However, we would like to remind you that Trust costs should be considered and costed at the earliest stage in the development of any future proposals.

May I wish you every success with your research.

Yours sincerely

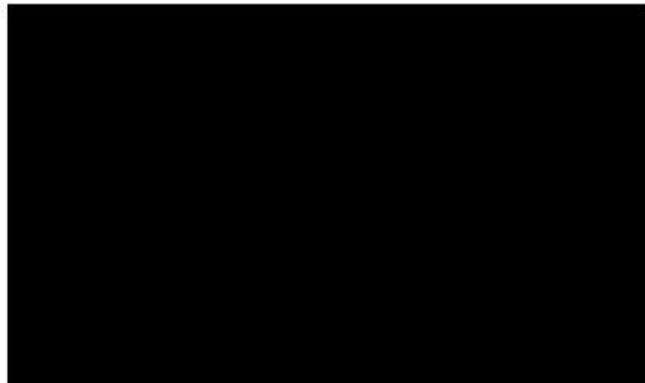


cc : Sponsor: University of Liverpool

Enc: Approval Conditions Leaflet  
Induction & ID Badge Information

## Appendix H

### Local NHS Trust, Research and Development Permission to Proceed



8<sup>th</sup> May 2015

Professor Richard Whittington  
Professor of Mental Health  
University of Liverpool  
Eleanor Rathbone Building  
Liverpool  
L69 7QZ

Dear Professor Whittington,

**Re: NHS Trust Permission to Proceed**



**Project Title:** *Does formulation of clinical problems moderate the expression of empathy amongst clinical staff with high burnout?*

I am pleased to inform you that the above project has received research governance permission.

Please take the time to read through this letter carefully and contact me if you would like any further information. You will need this letter as proof of your permission.

Trust R&D permission covers all locations within the Trust; however you will only be allowed to recruit from the sites/services you have indicated in section 3 of the SSI application form. If you would like to expand recruitment into other services in the Trust that are not on the original SSI then you must contact the R&D department immediately to discuss this before doing so.

You also must ensure you have liaised with and obtained the agreement of individual service/ward managers before commencing recruitment in that service and you must contact the relevant service/ward managers prior to accessing the service to make an appointment to visit before you can commence your study in the trust.

Please make sure that you take your Trust permission letter with you when accessing Trust premises and please include the Trust reference number on any correspondence/emails so that the services are assured permission has been granted.



**Honorary Research contracts (HRC)**

All researchers with no contractual relationship with any NHS body, who are to interact with individuals in a way that **directly affects the quality of their care**, should hold Honorary Research NHS contracts. Researchers have a contractual relationship with an NHS body either when they are employees or when they are contracted to provide NHS services, for example as independent practitioners or when they are employed by an independent practitioner (*Research Governance Framework for Health and Social Care*, 2005). If a researcher does not require an HRC, they would require a Letter of Access (LoA). For more information on whether you or any of your research team will require an HRC or LoA please liaise with this office. It is your responsibility to inform us if any of your team do not hold Honorary Research NHS contracts/Letters of Access.

Staff involved in research in NHS organisations may frequently change during the course of a research project. Any changes to the research team or any changes in the circumstances of researchers that may have an impact on their suitability to conduct research MUST be notified to the Trust immediately by the Principal Investigator (or nominated person) so that the necessary arrangements can be put in place

**Research Governance**

The Research Governance Sponsor for this study is The University of Liverpool. Whilst conducting this study you must fully comply with the Research Governance Framework. This can be accessed at:

[http://www.dh.gov.uk/PublicationsAndStatistics/Publications/PublicationsPolicyAndGuidance/PublicationsPolicyAndGuidanceArticle/fs/en?CONTENT\\_ID=4108962&chk=Wde1Tv](http://www.dh.gov.uk/PublicationsAndStatistics/Publications/PublicationsPolicyAndGuidance/PublicationsPolicyAndGuidanceArticle/fs/en?CONTENT_ID=4108962&chk=Wde1Tv)

For further information or guidance concerning your responsibilities, please contact your research governance sponsor or your local R&D office.

**Good Clinical Practice (GCP)**

GCP is an international ethical and scientific quality standard for designing, conducting, recording and reporting trials that involve the participation of human subjects. It is the responsibility of all researchers who are carrying out a research project involving NHS patients and carers to complete GCP training and to update this every 2 years. All training certificates must be forwarded to the R&D department to comply with Trust permission. Please note that student projects are exempt from this process.



**Confidentiality and Information Governance**

All personnel working on this project are bound by a duty of confidentiality. All material accessed in the trust must be treated in accordance with the Data Protection Act (1998) For good practice guidance on information governance contact us.

**Protocol / Substantial Amendments**

You must ensure that the approved protocol is followed at all times. Should you need to amend the protocol, please follow the Research Ethics Committee procedures and inform all NHS organisations participating in your research.

**Monitoring / Participant Recruitment Details**

If your study duration is less than one year, you will be required to complete an end of study feedback report on completion. However if your study duration is more than one year, you will be required to complete a short electronic progress report annually and an end of study report on completion. As part of this requirement, please ensure that you are able to supply an accurate breakdown of research participant numbers for this trust (recruitment target, actual numbers recruited). To reduce bureaucracy, progress reporting is kept to a minimum; however, if you fail to supply the information requested, the trust may withdraw permission.

**Recruitment**

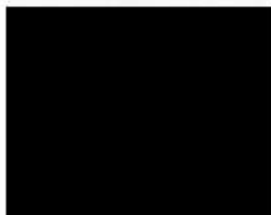
Please provide the trust details of your recruitment numbers when requested. If you have any concerns with recruitment please contact the R&D team immediately for assistance.

**Final Reports**

At the end of your research study, we will request a final summary report so that your findings are made available to local NHS staff. The details from this report may be published on the NHS Trust internet site to ensure findings are disseminated as widely as possible to stakeholders. You may also be invited to present your findings to the Trust at an event or meeting.

On behalf of this Trust, may I wish you every success with your research. Please do not hesitate to contact us for further information or guidance.

Yours sincerely,

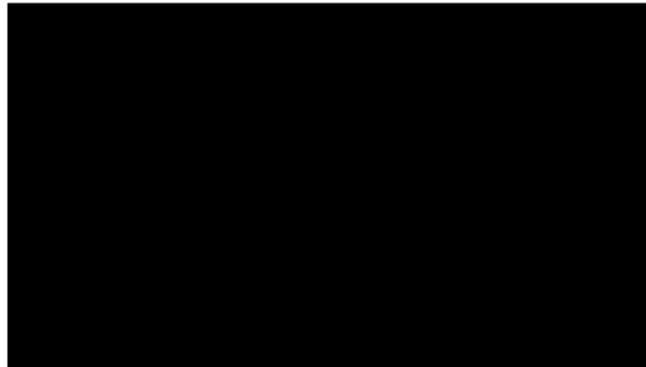


Cc: [heien.wilkinson@liverpool.ac.uk](mailto:heien.wilkinson@liverpool.ac.uk)



## Appendix I

### Local NHS Trust, Research and Development Permission to Proceed



Miss Helen Wilkinson  
Clinical Psychology Trainee  
Doctorate of Clinical Psychology Doctorate Programme  
University of Liverpool  
L69 3GB

10<sup>th</sup> June 2015

Dear Miss Wilkinson

#### **FORMAL NHS APPROVAL**

 Does formulation of Clinical problems Moderate the Impact Burnout on Empathy?

Thank you for submitting the above research application for NHS R&D review.

The study is being conducted as part fulfilment of Liverpool University's Doctorate in Clinical Psychology Doctorate programme, and aims to determine whether formulation of clinical problems moderates the effects of burnout on empathy in a specific situation

 tact  
te  
three questionnaires estimated to take approximately 20 minutes.

The study has University sponsorship and approval from the Review Committee.



Accordingly, please take this letter as confirmation of Trust NHS R&D approval. Please read the attached Conditions of Approval, and when contacting this department, please quote the above number.

I wish you every success with your research.

## Appendix J

### Participant Information Sheet

**Title of Research Project:** Staff burn out and empathy: Does a better understanding of service users help?

**Researcher:** Helen Wilkinson

**You are being invited to take part in a research study. Before you decide whether you would like to participate, it is important that you understand why the research is being done and what you will be asked to do. Please take time to**

#### **What is the study for?**

This research is about staff who work with service users in forensic mental health care facilities. Research has indicated that stress can affect our ability to respond empathically to others. Understanding the other person in more detail can help us to respond in an empathic way. We will use this research to inform our understanding of how staff can relate effectively to service users.

#### **Who is doing the study and who has approved it?**

The study is being carried out by a team from the University of Liverpool and Mersey Care NHS Trust. It has been approved by the University of Liverpool's Research Ethics Committee.

#### **Why have I been chosen to take part?**

You have been chosen because you work clinically with service users who have a forensic history and are currently experiencing mental health difficulties.

#### **Am I eligible to take part?**

You are eligible to take part if you work clinically with forensic mental health services users.

#### **Do I have to take part in the study?**

No. It is up to you to decide whether or not to take part. If you decide to take part then we will ask you to sign a consent form. However, you are still free to withdraw at any time without giving a reason. If you decide to withdraw before completing all of the questionnaires then your responses will be destroyed. However, as we will not collect any identifiable information from you, we are unable to remove your data from the study if you

decide to withdraw after you have handed in your completed questionnaires. A decision to withdraw, or a decision not to take part, will not affect you professionally in any way.

**What will taking part involve?**

You will be asked to complete two short questionnaires. You will then be given a case description to read based on service users similar to those that you work with. You will then be asked to complete another short questionnaire. Once you have completed the third questionnaire, you will have finished the study. There will be no further questionnaires or any other kind of follow up in the future. We estimate that this will take approximately 20 minutes to complete.

**Will there be benefits of taking part?**

There are no specific benefits from taking part. However at the end of the study, you will be given the option to provide your NHS email address, should you wish to be entered into a prize draw to win one of 11 prizes (10x£10 voucher for amazon, 1x£50 voucher for amazon). This information will be kept separately from your questionnaire answers, and we will ask for no other identifying information from you. Once the study closes, the draw will take place and you will be informed by email if you have won a prize.

**What are the possible disadvantages of taking part?**

The questionnaires will take a short time to complete (usually about 20 minutes). The study invites you to reflect on your current level of occupational stress via questionnaires but such reflection is unlikely to cause significant distress. If you do have any concerns then we recommend that you discuss these with your line manager as part of your normal supervisory arrangements.

**What will happen if I want to stop taking part?**

You have the right to stop answering the questionnaire at any point, without needing to give any explanation. Should you wish to do this, simply inform the researcher and give your incomplete questionnaire back to them to be destroyed. Unfortunately, once you have completed the study it will not be possible to ask for your data to be removed, as we will have no way of identifying which set of answers belongs to you.



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

If you wish to complain or have any concerns about any aspect of the way you have been treated during this study, you can approach Helen Wilkinson (Helen.Wilkinson@liv.ac.uk). Alternatively, you can contact the Research Governance Officer (0151 794 8290 or ethics@liv.ac.uk). When contacting the Research Governance Officer, please provide details of the name or description of the study (so that it can be identified), the researcher(s) involved, and the details of the complaint you wish to make.

**Will my taking part in this study be kept confidential?**

Yes it will. All responses will be anonymised, which means that no one will know your identity or which responses are yours. Any information that identifies you (e.g. your contact details, should you wish to be entered into the prize draw) will be stored separately from questionnaire data. Only the researchers involved in the study will view your responses. All information collected for this research project will be kept safely and securely on a University of Liverpool password-protected computer for 5 years in a central file store in line with University of Liverpool policy for the storage of research data.

**What will happen to the results of this study?**

The results of this study will form part of a Doctorate thesis in Clinical Psychology. They may also be written up for publication in academic journals. A summary of the research findings will be emailed to your ward manager who will be asked to make them available to staff.

**Who can I contact for further information?**

Helen Wilkinson (Trainee Clinical Psychologist) E: [helen.wilkinson@liverpool.ac.uk](mailto:helen.wilkinson@liverpool.ac.uk)

**Thank you for taking the time to read this. You should keep this information sheet for future reference**

**Principal Investigator:**

Name: Professor Richard Whittington  
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**Appendix K**

**Participant Consent Form**

**PARTICIPANT CONSENT FORM**

**Title of Research Project:** Staff burn out and empathy: Does a better understanding of service users help?)

**Researcher:** Helen Wilkinson

**Please  
initial box**

- |   |                          |
|---|--------------------------|
| 1. I confirm that I have read and have understood the information sheet dated 30/01/2015 (Version 1) for the above study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily.                     | <input type="checkbox"/> |
| 2. I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason, without my rights being affected. In addition, should I not wish to answer any particular question or questions, I am free to decline. | <input type="checkbox"/> |
| 3. I understand and agree that once I submit my data it will become anonymised and I will therefore no longer be able to withdraw my data.  | <input type="checkbox"/> |
| 4. I agree to take part in the above study.   | <input type="checkbox"/> |

_____	_____	_____
Participant Name	Date	Signature
Helen Wilkinson		
_____	_____	_____
Name of Person taking consent	Date	Signature

**Principal Investigator:**  
 Name: Professor Richard Whittington  
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**Appendix L****Demographic Questionnaire****Name of Researcher:** Helen Wilkinson

Please tick the boxes which best represent you.

What is your age?

 18-25     26-35     36-45     46-55     56+

What is your gender?

 Male     Female

What is your ethnic group?

 White     Asian  
 Mixed     Chinese  
 Black    Other \_\_\_\_\_

What is your job role?

 Qualified Nurse  
 Health Care Assistant/Support worker  
Other \_\_\_\_\_

How many years have you been in practice?

 0-3 years     4-7 years     8-11 years     12- 15 years     15 + years

How many hours of face to face contact with service users do you have on a daily basis?

 0 hours     1-3     3-5     5+

Are you a full time or bank member of staff?

 Bank     Full Time

## Appendix M

### State Empathy Measure: Adapted Interpersonal Reactivity Index

The following statements inquire about your thoughts and feelings about John. For each item, indicate how well it describes you by choosing the appropriate letter on the scale. When you have decided on your answer, fill in the letter next to the item number. **READ EACH ITEM CAREFULLY BEFORE RESPONDING.** Answer as honestly as you can.

A	B	C	D	E
DOES NOT			DESCRIBES ME	
DESCRIBE ME			VERY WELL	
VERY WELL				

1. I have tender, concerned feelings about John's case.
2. I find it difficult to see things from John's point of view.
3. I don't feel very sorry for the problems John is having in this case.
4. In emergency situations, I feel apprehensive and ill-at-ease.
5. I would look at everybody's side of a disagreement about John before I made a decision.
6. If John were being taken advantage of, I would feel protective towards him.
7. I sometimes feel helpless when I am in the middle of a very emotional situation.
8. I have tried to understand John better by imagining how things look from his perspective.
9. When I see someone get hurt, I tend to remain calm.
10. John's misfortunes do not disturb me a great deal.
11. If I were to see John being treated unfairly, I would not feel much pity for him.
12. Being in a tense emotional situation scares me.
13. I am usually pretty effective in dealing with emergencies.
14. I am quite touched by John's case.
15. I believe that there are two sides to John's story and try to look at them both.

16. I am soft hearted about John's case.
17. I tend to lose control during emergencies.
18. If I was upset with John, I would try to "put myself in his shoes".
19. When I see someone who badly needs help in an emergency, I go to pieces.
20. Before criticizing John, I would imagine how I would feel if I was in his place.
21. If I felt I was right about John, I wouldn't waste time listening to other people's arguments.

## Appendix N

### Trait Empathy Measure: Empathy Quotient

This appendix contains sample questions from the trait empathy measure utilized in the current study.

*Please fill in this information and then read the instructions below.*

#### ALL INFORMATION REMAINS STRICTLY CONFIDENTIAL

#### How to fill out the questionnaire

*Below are a list of statements. Please read each statement very carefully and rate how strongly you agree or disagree with it by circling your answer. There are no right or wrong answers, or trick questions.*

**IN ORDER FOR THE SCALE TO BE VALID, YOU MUST ANSWER EVERY QUESTION.**

#### Examples

- |  |   |   |  |  |
|--|---|---|--|--|
| E1. I would be very upset if I couldn't listen to music every day.   | strongly agree                                  | <input checked="" type="radio"/> slightly agree | slightly disagree                                  | strongly disagree                                  |
| E2. I prefer to speak to my friends on the phone rather than write letters to them.                                    | strongly agree                                  | slightly agree                                  | slightly disagree                                  | <input checked="" type="radio"/> strongly disagree |
| E3. I have no desire to travel to different parts of the world.  | <input checked="" type="radio"/> strongly agree | slightly agree                                  | slightly disagree                                  | strongly disagree                                  |
| E4. I prefer to read than to dance.  | strongly agree                                  | slightly agree                                  | <input checked="" type="radio"/> slightly disagree | strongly disagree                                  |
| 1. I can easily tell if someone else wants to enter a conversation.  | strongly agree                                  | slightly agree                                  | slightly disagree                                  | strongly disagree                                  |
| 2. I find it difficult to explain to others things that I understand easily, when they don't understand it first time. | strongly agree                                  | slightly agree                                  | slightly disagree                                  | strongly disagree                                  |
| 3. I really enjoy caring for other people.   | strongly agree                                  | slightly agree                                  | slightly disagree                                  | strongly disagree                                  |
| 4. I find it hard to know what to do in a social situation.  | strongly agree                                  | slightly agree                                  | slightly disagree                                  | strongly disagree                                  |

**Appendix O**

**Burnout Measure: Maslach Burnout Inventory (MBI)**

This appendix contains sample questions from the burnout measure administered in the current study. The author is unable to provide a full copy of the MBI as the authors have specified that this is not allowed in line with copyright requirements (see below).

“For Dissertation and Thesis Appendices: You cannot include an entire instrument in your thesis or dissertation, however you can use up to three sample items. Academic committees understand the requirements of copyright and are satisfied with sample items for appendices and tables. For customers needing permission to reproduce three sample items in a proposal, thesis, or dissertation the following page includes the permission form and reference information needed to satisfy the requirements of an academic committee.”

For use by Helen Wilkinson only. Received from Mind Garden, Inc. on June 8, 2015

**MBI-Human Services Survey**

How often:	0	1	2	3	4	5	6
	Never	A few times a year or less	Once a month or less	A few times a month	Once a week	A few times a week	Every day

- | How Often<br>0-6 | Statements:   |
|------------------|---|
| 1. _____         | I feel emotionally drained from my work.  |
| 2. _____         | I feel used up at the end of the workday.   |
| 3. _____         | I feel fatigued when I get up in the morning and have to face another day on the job. |

## Appendix P

### Unformulated Client Vignette

#### Vignette

##### Service User Information

**Name:** John

**Gender:** Male

**Age:** 26

**Index offense:** Violence against partner

**Status:** Prison Transfer

**Diagnosis:** Schizophrenia with traits of antisocial personality disorder

**Medication:** Olanzapine

John's mental health has deteriorated whilst in prison and he has committed seemingly unprovoked violence towards staff. The service user is experiencing auditory hallucinations and thought distortions. The staff at the prison report that he is often in segregation as a result of instigating fights with other prisoners. John has a history of substance misuse and presents as disheveled with poor attention to self-care. He is also reported to be self-harming. Due to his index offense and level of risk he has been transferred to a medium secure hospital.



## Appendix Q

### Formulated client vignette

This 26 year old male called John is prison transfer to a medium secure hospital. His index offence was violence towards his partner. Whilst in prison his mental health deteriorated and there were a number of seemingly unprovoked attacks on prison staff. John has a history of childhood abuse perpetrated by his father who was dependent on drugs and alcohol. His father left the family home when he was 5 leaving his mother who was experiencing mental health difficulties to care for him. At the age of 9 he was taken into care resulting in a string of 'failed placements' due to his aggressive behavior. John struggled with schooling and socialized with peers who were significantly older. He undertook risk taking and violent behaviors and started taking illicit drugs in his early teens as a way of managing his emotions.

John had been with his partner for around 2 years when he became suspicious that she was having an affair and that she was going to leave him. His adverse childhood experiences have resulted in attachment issues meaning he has difficulties with emotional regulation, developing relationships and has a poor sense of self. He is hyper vigilant of his surrounding and often responds in an unpredictable way.