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ABSTRACTS

Systematic Review of the Literature

Title: The Relationship Between Professional Identity and Burnout in Healthcare Staff: an integrated mixed-methods systematic review.

Introduction

Burnout is a widespread problem in healthcare staff, which can lead to problems with health, patient safety, and staff retention. Research has aimed to identify protective factors to mitigate this. One example is professional identity (PI), which is protective in other professions, such as teachers.

Aims

This review aimed to systematically synthesize research on the relationship between PI and burnout in healthcare professionals, to investigate the presence of a relationship, and any causality.

Methods

A mixed-methods convergent systematic review was conducted.

Results

Thirty studies were included: twenty-four used quantitative data, three used qualitative, and three used mixed methods. Varied professional groups were represented. Twenty-eight studies were cross-sectional, two were longitudinal.

Most included studies found a negative relationship between PI and burnout. There were some discrepancies in association between PI and burnout for some burnout dimensions and in some professions. As most studies were cross-sectional, causality in this relationship cannot be concluded. Some studies offer suggestions as to the directionality of this relationship by referring to ‘crises’ of PI leading to burnout, and burnout compromising PI. However, it is also clear that other factors contribute to burnout in this group.

Conclusion

This review adds to literature by showing PI has a relationship with burnout in healthcare staff – however, further research is required to identify mechanisms and causality in this relationship. Potential implications for research, including the need for a consistent definition of PI and for longitudinal studies, are discussed.

Service Improvement Project

Title: Staff Wellbeing in the Pharmacy Team in South Warwickshire NHS Foundation Trust.

Project permanently redacted in line with dispensation from consultation embargo.

Theory-Driven Research Project

Title: Work Related Psychological Wellbeing and Help-seeking in NHS Staff: the roles of self-stigma and psychological safety within teams.

Introduction

Despite high levels of reported work-related mental health problems in NHS staff, this population report difficulty in seeking help. Theory suggests that help-seeking intention can be affected by self-stigma about having a mental health problem, as put forward in a model by Corrigan and colleagues (2014). However, this relationship has not been investigated in NHS staff.

Aims

The present study tested whether, in NHS staff experiencing a work-related mental health problem, help-seeking intention differed between groups experiencing high and low self-stigma. Secondary analysis tested whether this relationship was moderated by psychological safety within teams.

Method

A mixed-methods cross-sectional survey was completed by 133 NHS staff across a range of professions. Measures of psychological safety, self-stigma, help-

seeking intention and distress were completed, alongside qualitative questions relating to help-seeking at work.

Results

There were significant correlations between team psychological safety and self-stigma, and distress and self-stigma. There were no significant differences in help-seeking intention between groups experiencing high and low self-stigma. Team psychological safety did not moderate the relationship between self-stigma and help-seeking intention.

Discussion

Though the quantitative results did not find significant differences in the main analysis, relationships between distress, psychological safety, and self-stigma warrant further investigation. Qualitative results in the present study highlight the importance of considering alternative factors when investigating help-seeking intention in NHS staff, such as identity as ‘helper’ and practical barriers to help-seeking.

SYSTEMATIC REVIEW OF THE LITERATURE

THE RELATIONSHIP BETWEEN PROFESSIONAL IDENTITY AND BURNOUT IN HEALTHCARE STAFF: AN INTEGRATED MIXED-METHODS SYSTEMATIC REVIEW.

WORD COUNT: 7721

SUPERVISOR: DR. JANE GREGORY

PROPOSED JOURNAL: Journal of Occupational and Organizational Psychology

Justification: this journal accepts papers that aim "to increase understanding of people and organisations at work".

May 2025

Abstract

Introduction

Burnout is a widespread problem in healthcare staff, which can lead to problems with health, patient safety, and staff retention. Research has aimed to identify protective factors to mitigate this. One example is professional identity (PI), which is protective in other professions, such as teachers.

Aims

This review aimed to systematically synthesize research on the relationship between PI and burnout in healthcare professionals, to investigate the relationship between them.

Methods

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Results

Thirty studies were included: twenty-four used quantitative data, three used qualitative, and three used mixed methods. Varied professional groups were represented. Twenty-eight studies were cross-sectional, two were longitudinal.

Most included studies found a negative relationship between PI and burnout. There were some discrepancies in association between PI and burnout for some burnout dimensions and some professions. As most studies were cross-sectional, causality in this relationship cannot be concluded. Some studies offer suggestions as to the directionality of this relationship by referring to ‘crises’ of PI leading to burnout,

and burnout compromising PI. It is also clear that other factors contribute to burnout in this group.

Conclusion

This review adds to literature by showing PI has a relationship with burnout in healthcare staff. Further research is required to identify mechanisms in this relationship. Potential implications for research, including the need for a consistent definition of PI, are discussed.

Keywords

Professional identity, burnout, healthcare staff, workplace wellbeing.

Introduction

Burnout in healthcare staff

Burnout has three key symptoms: (1) feeling emotionally spent (‘emotional exhaustion’); (2) a detachment from others (‘depersonalisation’); (3) a low sense of work efficacy (‘reduced personal accomplishment’) (Maslach et al., 2001) . It is a well-documented problem in healthcare staff, for example in recent NHS staff surveys (NHS Staff Survey, 2022). Burnout is associated with negative health outcomes, such as increased risk of depression, musculoskeletal problems and diabetes (Salvagioni et al., 2017). Burnout in clinical professions can also impact patient safety and staff retention (Garcia et al., 2019; Hodkinson et al., 2022).

Professional identity and theoretical models

To ameliorate negative outcomes of burnout, research is investigating how to protect staff against it. Studies have aimed to differentiate between staff who experience burnout and those who do not, identifying individual protective factors (Fiabane et al., 2021; Gilleen et al., 2021). One such factor is professional identity (PI) – defined as the extent to which an individual feels that their profession, and the values, attributes and ethics associated with it, aligns with their identity, and identifies with that profession, and their colleagues within it (Fitzgerald, 2020).

The idea of a strong PI as protective to wellbeing is rooted in Social Identity Theory (Tajfel & Turner, 1979). The theory states that stronger identification with a

group is protective of wellbeing, as individuals in the group experience positive feelings towards others in the group, and a sense of pride in group membership (Tajfel & Turner, 1979). In a workplace context, a stronger identification with an individual's profession whether through identification with colleagues or a felt sense of what it 'means' to be in that profession would therefore improve wellbeing. Studies have demonstrated that where this identification is compromised, wellbeing is affected negatively (Dunning et al., 2024).

Existing reviews and current project

Several existing reviews have synthesised research on how PI is formed in healthcare professionals, with the assumption that a strong PI will be protective (Cornett et al., 2023; Walder et al., 2022). However, no review has been conducted to investigate whether stronger PI is protective against burnout across healthcare professions.

The present project aimed to systematically review current research on the relationship between PI and burnout across healthcare professions. Research questions were as follows:

- Is there a relationship between professional identity (PI) and burnout in healthcare professionals?
- Is there a causal relationship between professional identity (PI) and burnout in healthcare professionals?

Methods

Design

The review protocol was designed in line with the Preferred Reporting Items of Systematic Review and Meta-Analyses (PRISMA) guidelines (Page et al., 2021). The review was also prospectively registered in PROSPERO (code: CRD42024599969).

Due to the complex and novel nature of the question being studied, a pragmatist epistemological stance was adopted. This allowed for the flexible use of appropriate approaches to answer the research question at hand (Allemang et al., 2021). This stance was also deemed appropriate in relation to the concepts being studied: both burnout and PI are complex phenomena linked to individual experience, and are therefore difficult to objectively measure (Guyon et al., 2018). Therefore, quantitative studies were included to assess the degree of association between these concepts, and qualitative studies were included to allow for understanding through the lens of those with experience. It was considered important to retain this context by inclusion of qualitative data, allowing for sensitivity to the differences between types of data being synthesised and the nuances this reveals within results (Gillespie et al., 2024). This is in keeping with the pragmatist stance that qualitative and quantitative data are synergistic, and can be used concurrently to answer questions in a way that would not be possible relying on either data type alone (Gillespie et al., 2024).

In line with this stance, a mixed-methods systematic review of the literature was conducted following guidelines published by Stern and colleagues (Stern et al., 2020). This is a method of conducting mixed-methods systematic reviews that has been used in previous studies on healthcare professional wellbeing (Ryan et al., 2023). No meta-analysis was possible due to heterogeneity of included studies, particularly in differing conceptualisations of burnout and PI.

There is a risk of bias when adopting a mixed methods design, especially when data have been transformed (Cornish, 2015; Gillespie et al., 2024). To mitigate this, interpretations were discussed with co-researchers, and alternate explanations invited at qualitizing, synthesising, and write-up stages, to ensure agreement in interpretation.

Search strategy

A systematic search was conducted on 29.11.24 across relevant databases: PsycINFO, Medline, Embase, CINAHL, and Scopus. Search strategy creation was supported by librarians at Oxford Health NHS and the Bodleian Library, University of Oxford. Searches were not limited by publication date.

Search strategies were structured around a PEO (Population, Exposure, Outcome) framework (Munn et al., 2018). Searches were structured around the concepts of ‘professional identity’ (e.g. “professional identit*” or “occupational identit*”), ‘burnout’ (e.g. “burnout” or “burn-out”), and ‘healthcare staff’ (e.g. “healthcare professional*” or “healthcare staff”) as well as specific professions (e.g.

“nurse*” or “doctor*” or “psychotherapist*”), Full search strategies can be seen in Appendix A.

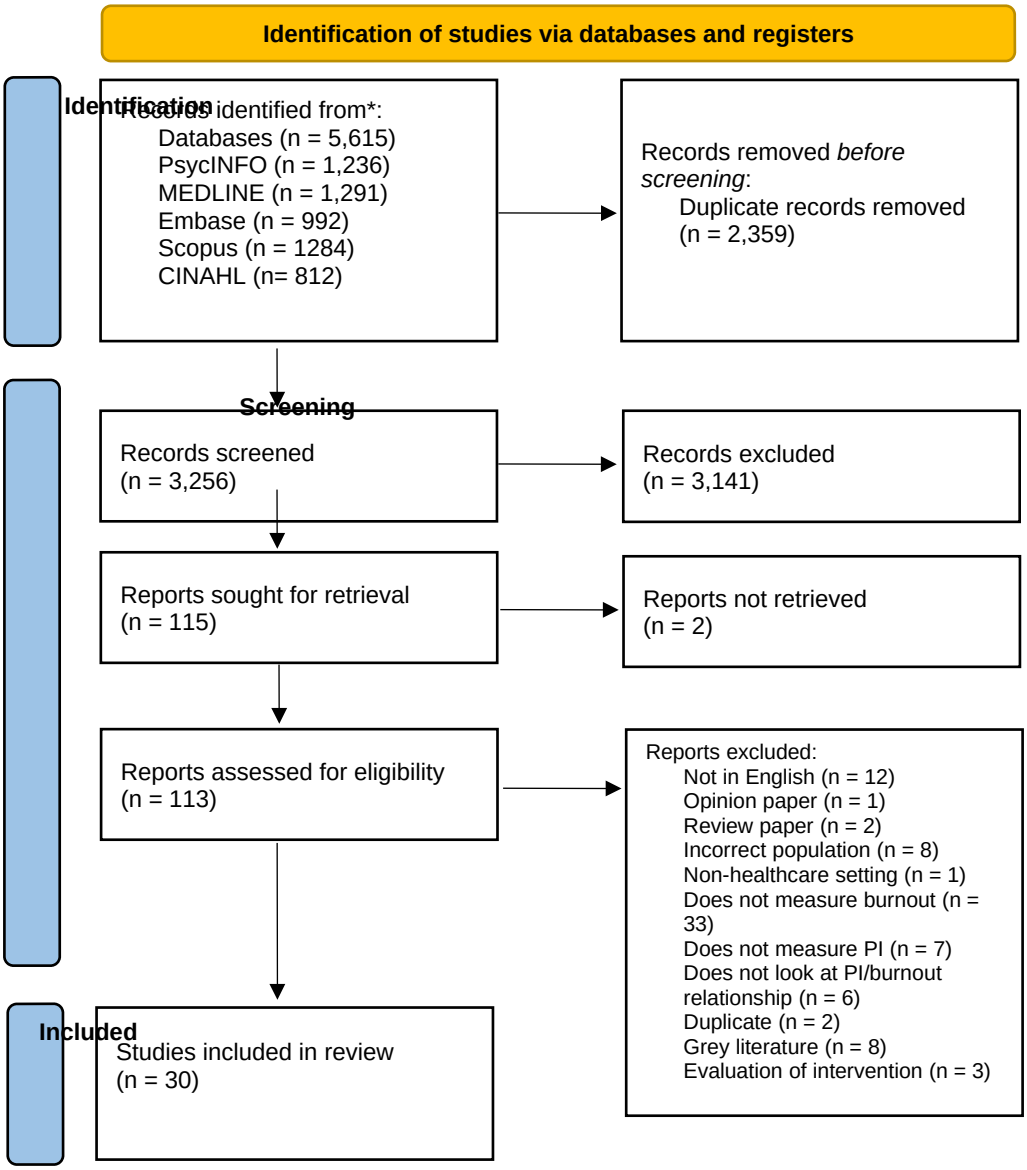
A repeat search using the same strategy was completed on 09.04.25. Extra papers in this new search were identified by the first author, RM, and these were subject to the same screening, extraction, and quality analysis as detailed below. Eligibility diagrams below show figures for the full set of papers included at the end of the review process.

Study eligibility

A flowchart in line with the Preferred Reporting Items for Systematic Reviews and Meta-Analysis is listed below (Page et al., 2021).

Figure 1.

PRISMA diagram



Professional identity was defined as strength of identification with the behaviours and values of, and other people within, one's own profession (Fitzgerald, 2020). Burnout was defined as a state of physical, mental, and emotional exhaustion, caused by chronic stress at work, as measured by a standardised

measure of burnout (Maslach & Jackson, 1981). ‘Healthcare staff’ was defined as any professional in any clinical role working in healthcare.

Using these definitions, studies were eligible for inclusion based on the following criteria:

Table 1.

Study Inclusion and Exclusion Criteria

Inclusion Criteria	**Exclusion Criteria**
i. The main aim is to investigate a link or where a key outcome that emerged from the study is a link (in any direction) between ‘professional identity’ and ‘burnout’, as defined above.	iv. Studies that focus only on identity development.
ii. The main participants in the study are employed staff in any country working in any clinical healthcare role.	v. Studies that only look at students.
iii. Papers in English.	vi. Studies that only evaluate an intervention.
	vii. Studies where participants are not working in a healthcare setting, eg. detention facilities, schools.
	viii. Review papers, letters, books, comments or responses.
	ix. Grey literature.

The title and abstract of all studies were screened for eligibility against these criteria by RM; 20% were independently screened by a second rater, MS. Inter-rater reliability checks showed substantial agreement ($\kappa = 0.75$); discrepancies were resolved through discussion.

Studies that appeared eligible at this stage were screened using full texts; RM screened all potentially eligible papers, with MS independently screening 25%. Where studies were deemed not eligible here, reasons were noted. Inter-rater

checks showed substantial agreement (κ = 0.93). Discrepancies were resolved through discussion.

Quality assessment

Quality of the included studies were assessed using the Standard Quality Assessment Criteria for Evaluating Primary Research Papers from a Variety of Fields tool (Kmet & Lee, 2004). This tool provides a standardised criteria for assessing qualitative, quantitative, and mixed methods studies.

First author RM conducted quality appraisals for all included studies; MS conducted independent appraisals for 30% of included studies. Inter-rater reliability analysis showed substantial agreement (κ = 0.81). Discrepancies were resolved through discussion. Studies were not excluded based on low-quality to include all available information, due to the novelty of the topic.

Data extraction

A standardised form was used to extract data, based on guidelines (Lizarondo, 2024) (Appendix B). All data were extracted from all included studies by RM, with MS independently extracting from 50% of papers. Discrepancies were resolved through discussion.

Data extracted included: source (i.e. authors), geographical location, demographics and size of sample, professionals included, measure of professional

identity, measure of burnout, analysis completed, variables controlled, and any other relevant findings.

As recommended, results for relevant statistical analysis in quantitative studies were extracted verbatim (Appendix B; Lizarondo et al., 2025). Where these statistical results lacked sufficient context, summaries were added to explain them. Where possible, this involved copying text verbatim from the paper (Lizarondo et al., 2025). In instances where no narrative from authors were present (for example, if data were only presented in a table or diagram), a short summary contextualising the statistical result was included written by first author RM, as recommended by Lizarondo et al (2025). Author's interpretations of these results from discussion sections were also extracted verbatim to preserve the author's original perspective.

For qualitative studies, key themes were extracted from papers in full where they discussed the relationship between professional identity and burnout. Authors' conclusions on this relationship were also extracted.

Synthesis

Convergent synthesis was conducted using guidelines for mixed-methods systematic reviews (Stern et al., 2020). For qualitative data, results relevant to the present study were extracted verbatim for analysis, including both primary data and author interpretation where possible (Stern et al., 2020).

Following data extraction as above, quantitative data were ‘qualitized’, following guidelines (Stern et al., 2020). This involved combining extracted narratives of statistical data with other relevant data (demographics, author conclusions) into summaries. These summaries were compiled by first author RM – verbatim explanations of statistics were included where possible and direct statistical results were always included where reported to mitigate bias. To further mitigate bias, half of all qualitized data summaries were checked for accuracy by second reviewer, MS.

This method of qualitizing was chosen above ‘quantitizing’ qualitative data as it is reported as less prone to human error in reviews of the methodology (Stern et al., 2020; Lizarondo et al., 2025). This also allowed for results to be presented in a qualitative narrative – the aim was to prevent interpretation of results of objective, as qualitative data carries with it more subjectivity.

The data were then analysed as one dataset using thematic synthesis (Thomas & Harden, 2008). Data were initially sorted into codes, which were then grouped into broader themes, developed inductively, to produce integrated findings (Lizarondo et al., 2025; Thomas & Harden, 2008).

Results

Study characteristics

Thirty studies were included in the synthesis: twenty-four quantitative, three qualitative, and three mixed methods. Study characteristics are reported in Table 2.

Twenty-eight studies used cross-sectional designs (Buckley et al., 2022; Cao et al., 2016; Cao et al., 2015; Caricati et al., 2022; Correia & Almeida, 2020; Devery et al., 2018; Edwards & Dirette, 2010; Feng et al., 2023; Feng et al., 2022; Finan et al., 2021; Goliroshan et al., 2021; Jiang et al., 2024; Kaiser et al., 2025; Liu et al., 2025; Lynner et al., 2024; Manomenidis et al., 2017; Qu et al., 2023; Rayner et al., 2025; Ren et al., 2021; Saberi et al., 2022; Scanlan & Hazelton, 2019; Sun et al., 2022; Turnbull & Rhodes, 2021; Yang et al., 2023; Yulia et al., 2025; Zhang et al., 2021; Zhang et al., 2022; Zhang & Li, 2023). Two were longitudinal (Dunning et al., 2024; Monrouxe et al., 2017).

Thirteen studies were conducted in China (Cao et al., 2016; Cao et al., 2015; Feng et al., 2023; Feng et al., 2022; Jiang et al., 2024; Liu et al., 2025; Qu et al., 2023; Ren et al., 2021; Sun et al., 2022; Yang et al., 2023; Zhang et al., 2021; Zhang et al., 2022; Zhang & Li, 2023). Four were conducted in Australia (Devery et al., 2018; Rayner et al., 2025; Scanlan & Hazelton, 2019; Turnbull & Rhodes, 2021). Four were conducted in the USA (Buckley et al., 2022; Edwards & Dirette, 2010; Kaiser et al., 2025; Lynner et al., 2024). Two studies were conducted in Iran (Goliroshan et al., 2021; Saberi et al., 2022). Two were conducted in the UK (Dunning et al., 2024; Monrouxe et al., 2017). Remaining studies were conducted in Greece, Ireland, Italy, Israel, and Portugal (Caricati et al., 2022; Correia & Almeida, 2020; Finan et al., 2021; Manomenidis et al., 2017; Yulia et al., 2025).

Fifteen studies were conducted with nurses (Buckley et al., 2022; Cao et al., 2016; Cao et al., 2015; Correia & Almeida, 2020; Dunning et al., 2024; Goliroshan et

al., 2021; Jiang et al., 2024; Kaiser et al., 2025; Liu et al., 2025; Manomenidis et al., 2017; Ren et al., 2021; Saberi et al., 2022; Sun et al., 2022; Yulia et al., 2025; Zhang & Li, 2023). Six studies were conducted with doctors (Correia & Almeida, 2020; Feng et al., 2023; Feng et al., 2022; Monrouxe et al., 2017; Qu et al., 2023; Zhang et al., 2021). Five studies were conducted with Occupational Therapists (OTs) (Devery et al., 2018; Edwards & Dirette, 2010; Lynner et al., 2024; Rayner et al., 2025; Scanlan & Hazelton, 2019). Two were conducted with psychological professionals (Finan et al., 2021; Turnbull & Rhodes, 2021). Three were conducted with nonspecific 'health professionals' (Caricati et al., 2022; Yang et al., 2023; Zhang et al., 2022).

Six quantitative studies aimed to investigate the relationship between PI and burnout via other mediating or moderating variables (Cao et al., 2015; Caricati et al., 2022; Goliroshan et al., 2021; Manomenidis et al., 2017; Zhang et al., 2021; Zhang et al., 2022). Three studies investigated PI as the mediator or moderator between burnout and another variable, including job satisfaction, work-family support, and organisational support (Cao et al., 2016; Feng et al., 2023; Yang et al., 2023). Four studies investigated burnout as the mediator or moderator variable between PI and turnover intention (Feng et al., 2022; Qu et al., 2023; Yulia et al., 2025; Zhang et al., 2021).

Three mixed-methods studies aimed to understand experiences of burnout and professional identity in nurses and OTs (Devery et al., 2018; Dunning et al., 2024; Kaiser et al., 2025). All qualitative studies explored experiences of burnout (Buckley et al., 2022; Finan et al., 2021; Turnbull & Rhodes, 2021).

Key findings are summarised in Table 3, using ‘qualitized’ summaries written by RM.

Table 2.

Study characteristics

Author, year	***Sample size***	***Population***	***Data type***	***Measures/ data collection***	***Aims and methods***	***Design***	***Quality score***
Buckley et al, 2022	18	Paediatric critical care nurses, USA 72% nurses had under 10 year experience. All had a bachelor's degree.	Qualitative	Interviews	To explore paediatric nurses' experiences of their work environment, work attitudes, and burnout. Interviews were conducted and analysed using grounded theory.	Cross-sectional interviews	**0.95**
Cao et al, 2016	456	Community Health Nurses; China 95.4% of the sample were female; ages ranged from 19-52. The average years of experience were 13.48 (SD = 6.33). Most respondents were married (69.5%) and had an	Quantitative	Maslach Burnout Inventory (Maslach et al., 1997) Nurses Self-Concept Questionnaire (Cowin, 2001) Perceived Organisational Support (Rhoades & Eisenberger, 2002)	To investigate the relationship between perceived organisational support and burnout in nurses, and whether this relationship was mediated by professional self-concept.	Cross-sectional questionnaire.	**0.95**

Author, year	*Sample size*	*Population*	*Data type*	*Measures/ data collection*	*Aims and methods*	*Design*	*Quality score*
		associate degree (63.4%).					
Cao et al, 2015	485	Community Nurses; China All respondents were female; the majority were aged under 30 (83.7%) and had an associate degree (47.8%). The average years of work experience were 5.31 (SD = 3.80). Most respondents were single, divorced or widowed (57.5%). The majority of respondents were staff nurses with no management position (94.7%).	Quantitative	Maslach Burnout Inventory (Maslach et al., 1997) Nurses Self-Concept Questionnaire (Cowin, 2001) Organisational Commitment Scale (Meyer & Allen, 1991)	The aim of the study was to examine the relationship between professional self-concept, organisational commitment and burnout; looking specifically at the mediating role of organisational commitment on the relationship between professional self-concept and burnout in nurses.	Cross-sectional questionnaire.	**0.86**
Caricati et al, 2021	174	Healthcare workers; Italy 84.5% participants were female. 29% were under 35 years old, 40% were under 50. 83% participants were nurses.	Quantitative	Burnout measured using professional quality of life subscale (Stamm, 2010) Non-standardised PI scale. Rosenberg Self-Esteem Scale (Rosenberg, 1965)	This study was inspired by a changing attitude to healthcare workers in Italy over the Covid-19 pandemic – related to a fear of infection by healthcare workers. It is therefore quite specific to time and place. The aim of the study was to investigate the relationship between stigmatisation in the context of Covid as above and burnout, and whether this	Cross-sectional questionnaire.	**0.65**

Author, year	*Sample size*	*Population*	*Data type*	*Measures/ data collection*	*Aims and methods*	*Design*	*Quality score*
					relationship could be mediated by professional identification – therefore putting forward professional identity as a protective factor.		
Correia et al, 2020	497	Physicians and nurses; Portugal 52% of physicians were female, and the average age was 36.54 years (SD: 10.72). On average, they had 11.23 years of experience (SD: 10.65) 73% nurses were female, and the average age was 34.96 (SD: 9.52). On average, they had 11.72 years of experience (SD: 9.24).	Quantitative	Oldenburg Burnout Inventory (Demerouti, 1999) PI measured with one, non-standardised question. Workload measured with single item from Areas of Work Life Scale (Leiter & Maslach, 2004) Procedural Justice Scale (Rego, 2000)	The aim of the study was to investigate protective factors against burnout in Portuguese doctors and nurses, based on those identified in previous research. One of these proposed protective factors was professional identity.	Cross-sectional questionnaire.	**0.6**
Devery et al, 2018	10 (quantitative) and 8 (qualitative)	Occupational therapists working in eating disorders; Australia All participants were female.	Mixed methods	Quantitative questionnaire was distributed, using: Oldenberg Burnout Inventory (Demerouti, 1999) Professional Identity Questionnaire	The aim of the study was to explore, via mixed methods, the challenges faced by occupational therapists working in eating disorders, and their sense of professional identity, burnout, and job satisfaction.	Cross-sectional questionnaire /interviews	**0.94**

Author, year	*Sample size*	*Population*	*Data type*	*Measures/ data collection*	*Aims and methods*	*Design*	*Quality score*
				(Edwards & Dirette, 2010) This was then followed by qualitative interviews.			
Dunning et al, 2024	38 survey participants; 53 interview participants	Nurses, UK On average nurses had 16.68 years of experience (SD: 10.05). 83.8% participants were female. 79% were white, and 79% had trained in the UK.	Mixed methods	Quantitative questionnaire: Oldenburg Burnout Inventory (Demerouti, 1999) General Health Questionnaire-12 (Williams & Goldberg, 1988) Nurse Performance Scale (Greenslade & Jimmieson, 2007) Turnover Intention Scale (Kim et al., 2020) Qualitative data were gathered through semi-structured interviews.	The aim of the study was to understand how nurses 'made sense' of redeployment during the Covid-19 pandemic; and how this related to burnout, psychological distress, turnover intention, and perceived performance. Qualitative and quantitative data were collected together at each time point. In analysis, first, researchers used qualitative interview data to construct 'pen portraits' of each participant and grouped their sense making experiences into three categories. They then used these three categories to compare outcomes on quantitative measures.	Longitudinal design: questionnaires were administered at three time points; interviews were conducted at T1 and T3.	**0.6** (quant) **1.0** (qual)
Edwards & Dirette, 2010	126	Occupational Therapists; USA	Quantitative	Maslach Burnout Inventory (Maslach & Jackson, 1981)	The study aimed to look at the relationship between professional identity and burnout in occupational	Cross-sectional questionnaire.	**0.70**

Author, year	*Sample size*	*Population*	*Data type*	*Measures/ data collection*	*Aims and methods*	*Design*	*Quality score*
		Most participants were female (91.3%), with a mean of 17.4 years in practice SD: 8.76) and a mean age of 44.5 (SD: 8.78).		PI measure written for this study (and used in later studies).	therapists.		
Feng et al, 2023	3236	GPs; China Most participants were female (63.84%), aged 31-40 (45.40%) and had a bachelor's degree or above (71.63%).	Quantitative	Maslach Burnout Inventory (Maslach et al., 1997) Professional Identity Scale (Wu, 2012; Zhao, 2010) Job Satisfaction Scale (Shi et al., 2014) Turnover Intention Scale (Li, 2000)	This study looked at the relationship between job satisfaction, burnout, professional identity and turnover intention in GPs in China.	Cross-sectional questionnaire.	**0.85**
Feng et al, 2022	533	Emergency doctors; China Most participants were male (64.9%), aged 31-40 (46.9%) and had a bachelors' degree (65.9%) with <5 years	Quantitative	Professional Identity Scale (Chen, 2012) Job burnout scale (Li, 2003) Turnover intention measured by single	The aim was to look at overall levels of professional identity, burnout and turnover intent, and the relationships between them, in pre-hospital emergency physicians in Beijing, China.	Cross-sectional questionnaire.	**0.85**

Author, year	*Sample size*	*Population*	*Data type*	*Measures/ data collection*	*Aims and methods*	*Design*	*Quality score*
		experience (55.7%).		question.	Social identity theory was used as the basis for the hypothesis that professional identity would negatively affect turnover intention and burnout.		
Finan et al, 2021	8	Psychotherapists, Ireland 7 participants were female, 1 male. They ranged in age from 39-58 years, and had between 2 and 16 years experience.	Qualitative	Interviews	The study aimed to investigate and document the experience of burnout in private practitioner psychotherapists.	Cross-sectional interviews	**0.85**
Goliroshan et al, 2001	308	Nurses; Iran Participants' mean age was 35.59 +/- 7.35 years.	Quantitative	Maslach Burnout Inventory (Maslach et al., 1997) Nurses Self-Concept Questionnaire (Cowin, 2001) Job Embeddedness Scale (Adams et al., 2010)	The study aimed to investigate professional self-concept (and job embeddedness) as a potential protective factor against burnout.	Cross-sectional questionnaire.	**0.90**
Jiang et al, 2021	520	Nurses over the age of 40; China	Quantitative	Maslach Burnout Inventory (Maslach & Jackson, 1981) Professional identity scale (Liu et al.,	The study aimed to look at burnout in older nurses in China; aimed to investigate correlations between burnout, professional identity, and stress in this	Cross-sectional questionnaire.	**0.85**

Author, year	*Sample size*	*Population*	*Data type*	*Measures/ data collection*	*Aims and methods*	*Design*	*Quality score*
		Participants were aged 40-60 (mean age = 45.89 years, SD = 4.64) and were mostly female (98.3%). The average number of years of work experience was 25.16 (SD = 5.35). 84.3% of participants had intermediate or senior professional titles. 79.2% of participants had one child, 17.3% of the nurses had two or more children.		2011)	population.		
Kaiser et al, 2025	312 (quantitative) 36 (qualitative)	Nurses (USA) 33.4% nurses had under 10 years experience. 96% nurses were registered nurses, the remaining were advanced practice registered nurses.	Mixed methods	Professional Identity in Nursing Scale (Landis, 2023) Focus groups.	The study aimed to assess the experience of nurses' professional identity over Covid-19, included over deployment during this time.	Cross-sectional questionnaire and focus groups.	**0.85**
Liu et al, 2025	761	Operating room nurses; China The mean age of participants was 34.62 (SD = 6.41). Average	Quantitative	Maslach Burnout Inventory (Maslach et al., 1997) Professional Identity Scale (Liu et al.,	The study aimed to investigate the relationships between professional mission and turnover intention in operating room nurses, and whether this could be	Cross-sectional questionnaire.	**0.95**

Author, year	*Sample size*	*Population*	*Data type*	*Measures/ data collection*	*Aims and methods*	*Design*	*Quality score*
		years of work experience was 11.33 years (SD = 6.82		2011) Turnover intention scale (Yang et al., 2017)	mediated by professional identity and burnout.		
Lynner et al, 2025	400	Occupational therapists; USA 65.8% participants were female. 73.3% were White. 73% had under 5 years experience.	Quantitative	Copenhagen Burnout Inventory (Kristensen et al., 2005) Professional identity in counselling scale (adapted from Woo (2014)).	The study aimed to identify contributors to job burnout in occupational therapists, and whether 'job crafting' could reduce burnout. As part of this, the authors looked at the role of professional identity in predicting burnout.	Cross-sectional questionnaire.	**0.85**
Manomenidis et al, 2017	183	Nurses, Greece 15.8% of respondents were male, 79.9% had more than ten years of work experience, and 73.4% were married	Quantitative	Maslach Burnout Inventory (Maslach & Jackson, 1981) Rosenberg self-esteem scale (Rosenberg, 1965) Non-standardised professional identity index. Non-standardised measure of	The aim of this study was to look at the relationship between self-esteem and other factors including professional identity on nurses' burnout in Greece.	Cross-sectional questionnaire.	**0.65**

Author, year	*Sample size*	*Population*	*Data type*	*Measures/ data collection*	*Aims and methods*	*Design*	*Quality score*
				inter-/intra-professional collaboration.			
Monrouxe et al, 2017	125	Junior Doctors; UK At the final time point, 69.6% participants were female, and 78.4% were aged under 24 years.	Quantitative	Copenhagen Burnout Inventory (Kristensen et al., 2005) Professional Identity Scale (Adams et al., 2006)	This study aimed to look at how burnout changes across the transition from medical student to junior doctor in the UK, and how this links to professional identity (and team understanding, anxiety, and whether the individual's first role as a junior doctor aligned with their training role).	Longitudinal: questionnaires were distributed over four time points.	**0.95**
Qu et al, 2023	3244	GPs; China 63.8% participants were female; the average age was 39.47 years for men and 36.26 years for women. There	Quantitative	Maslach Burnout Inventory – Human Services (Maslach & Jackson, 1981) Professional Identity Scale (Wu, 2012) Turnover Intention Scale (Michaels & Spector, 1982)	The study aimed to investigate factors that affect turnover intention in GPs in China – specifically, they looked at the relationship between professional identity and turnover intention, and whether this could be mediated by job burnout.	Cross-sectional questionnaire.	**0.80**
Rayner et al, 2025	32	Occupational therapists; Australia The average age of participants was 30.78 years (SD = 4.82). 91% were female.	Quantitative	Oldenberg Burnout Inventory (Demerouti, 1999) Professional Identity Questionnaire (Scanlan & Scanlan, 2018)	The study looked at professional wellbeing in occupational therapists in Australia – this included accounting for their professional identity and work-related burnout.	Cross-sectional questionnaire.	**0.90** (quant) **0.85** (qual)

Author, year	*Sample size*	*Population*	*Data type*	*Measures/ data collection*	*Aims and methods*	*Design*	*Quality score*
				Job Demands Resource Scale (Scanlan et al., 2013) Turnover Intention Scale (Shah, 2010)			
Ren et al, 2021	1009	Nurses, China 58.8% nurses reported experiencing burnout. Most participants were female (94.9%), under 30 (55.4%) and held a bachelor's degree (78.1%). Nurses came from a variety of departments.	Quantitative	Maslach Burnout Inventory (Maslach et al., 1997) Professional Identity Scale (Zhao, 2010) Organisational Justice Scale (Colquitt, 2001) Psychological Capital Questionnaire (Luthans et al., 2006)	The study aimed to describe the status of job burnout and investigate psychological capital and professional identity as potential mediators on the relationship between organisational justice and job burnout.	Cross-sectional questionnaire.	**0.85**
Saberi et al, 2022	160	Nurses; Iran. Most participants were female (91.4%), under 30 (91%) and had less than ten years work experience (63.6%).	Quantitative	Maslach Burnout Inventory – Human Services (Maslach & Jackson, 1981) Nurses Self-Concept Questionnaire (Cowin, 2001)	The study aimed to evaluate the relationships between burnout, anxiety (specifically about Covid-19), and professional self-concept in nurses in Iran during Covid-19.	Cross-sectional questionnaire.	**0.70**

Author, year	*Sample size*	*Population*	*Data type*	*Measures/ data collection*	*Aims and methods*	*Design*	*Quality score*
				Covid Disease Anxiety Scale (Alipour et al., 2020)			
Scanlan & Hazelton, 2019	118	Occupational Therapists; Australia Most participants were female (93.2%), aged under 34 (66.1%) and had under 10 years' experience as an OT (69.5	Quantitative	Oldenberg Burnout Inventory (Demerouti, 1999) Professional Identity Questionnaire (Edwards & Dirette, 2010)	The study aimed to investigate relationships between job satisfaction, burnout, meaningfulness of work activity and professional identity in occupational therapists.	Cross-sectional questionnaire.	**0.85**
Sun et al, 2022	245	Nurses; China All participants held a bachelor's degree, and most participants were women (89.4%). The average age in the sample was 25.28 years (SD = 1.526).	Quantitative	Maslach Burnout Inventory – Human Services (Maslach & Jackson, 1981) Professional Identity Scale for Nurses (Liu, 2009) Quality of Work Life Scale (Brooks, 2001) Utrecht Work Engagement Scale (Schaufeli et al., 2006)	The study aimed to look at the relationship between quality of work life and work engagement in nurses in China, and whether this relationship could be mediated by job burnout or career identity.	Cross-sectional questionnaire.	**0.85**

Author, year	*Sample size*	*Population*	*Data type*	*Measures/ data collection*	*Aims and methods*	*Design*	*Quality score*
Turnbull et al, 2021	17	Psychologists, Australia The group who had experienced burnout ranged in age from "early 30s to over 60". The non-burned out group ranged in age from "30 to late 30s".	Qualitative	Semi-structured interviews	The study aimed to qualitatively explore experiences of burnout in Australian psychologists, with a view to supporting the development of future research and interventions for burnout in this group.	Cross-sectional interviews	**0.75**
Yang et al, 2023	8135	Primary Healthcare Workers; China Most participants were female (67.8%), aged between 26 and 55 years (89.9%) and held college diplomas or bachelors' degrees (79.6%).	Quantitative	Maslach Burnout Inventory (Maslach et al., 1997) Professional Identity Scale for Nurses (Liu et al., 2011) Professional identity scale for Medical Staff (Wu, 2012)	The study aimed to look at the relationships between job burnout and work-family support, and career identity as a potential mediator, in primary healthcare workers in China.	Cross-sectional questionnaire.	**0.80**
Yulia et al, 2025	338	Nurses; Israel Most participants were female (80.8%) and the mean age was 44.6 years. 48.5% of participants held a bachelor's degree, with the rest holding a masters'	Quantitative	Maslach Burnout Inventory (Maslach & Jackson, 1981) Professional Identity Scale for Nursing Students (Hao et al., 2014) Turnover Intention Scale (Bothma &	The study aimed to investigate the relationships between professional identity, occupational stress, and turnover intention, and whether these relationships could be mediated by burnout and job satisfaction.	Cross-sectional questionnaire.	**0.95**

Author, year	*Sample size*	*Population*	*Data type*	*Measures/ data collection*	*Aims and methods*	*Design*	*Quality score*
		degree, PhD, or a qualification as a licensed practitioner. Most nurses held a junior position (54.1%).		Roodt, 2013) Minnesota Satisfaction Questionnaire (Weiss, 1967)			
Zhang & Li, 2023	394	Nurses working in institutions for the elderly; China Most participants were female, aged between 29-53.	Quantitative	Maslach Burnout Inventory (Maslach & Jackson, 1981) Elderly Caregiver Professional Identity Scale (de Oliveira et al., 2013)	The study aimed to investigate the effect of professional identity and 'health behaviours' on job burnout in healthcare workers/nurses in an institution for the elderly in China.	Cross-sectional questionnaire.	**0.65**
Zhang et al, 2021	3236	GPs; China Most participants were female (63.8%), under 40 (66.7%) and had under 10 years experience (80.4%). Older	Quantitative	Maslach Burnout Inventory (Maslach & Jackson, 1981) Nurses' Professional Identity Scale (Zhao, 2010)	The study aimed to test whether job satisfaction and burnout could mediate the relationship between professional identity and turnover intention in GPs in China.	Cross-sectional questionnaire.	**1.0**
Zhang et al, 2022	1244	Public health service providers; China The average age of participants was 45.3 years (SD = 7.2), most had secondary school education	Quantitative	Maslach Burnout Inventory (Maslach et al., 1997) Non-standardised PI measure.	The study looked at the effects of professional identity, job satisfaction, and burnout on turnover intention of village public health providers in China, in the context of the Covid-19 pandemic. Specifically, it evaluated the mediating effect of job satisfaction and burnout on the relationship between professional identity and turnover	Cross-sectional questionnaire.	**0.75**

Author, year	*Sample size*	*Population*	*Data type*	*Measures/ data collection*	*Aims and methods*	*Design*	*Quality score*
		(66.3%).			intention.		

Table 3.

Key findings

Author, year	***"Qualitized" narratives/summary of relevant findings.***
Buckley et al, 2022	All nurses identified prevalence of burnout in their career. In terms of the link with identity – nurses felt that their role in critical care paediatrics was unique, and should be treated as such. This meant that it was sometimes difficult to identify with or be supported in the same way as other nurses. Nurses mentioned that 'floating' between different teams contributes to burnout directly because it does not fit in with their sense of identity as a PICU nurse – *'I was born and raised an ICU nurse, so for me going in and floating the wards… I think that also contributes to burnout'*. Nurses spoke about 'finding meaning' in their work as protective of burnout – *'I think the little things are what brings me the most fulfilment'.* Lastly, nurses spoke about a difference in their own personal perception of their role and professional identity, and the perception of 'nurses as heroes' from the public: *"The superhero stuff, none of us buy into it, it's for the public"* **Conclusions:** Critical care nurses' professional identity can be protective, particularly when it links to a sense of 'unit cohesion' with other, similar, nurses in their team. The practice of 'floating' was identified as harmful to patients and nurses. It was recommended that critical care nurses' specific identity be taken into account when organising support specific to them.
Cao et al, 2016	No differences were reported between different demographic groups. Every subscale of professional self-concept was significantly and negatively related to every subscale of burnout (r ranged from -0.16 to -0.47, p< 0.001). Within a mediation analysis, professional self-concept had a significant direct negative effect on burnout (standardised regression weight = -0.34, p< 0.001), and professional self-concept had a

Author, year	*"Qualitized" narratives/summary of relevant findings.*
	significant mediating role in the relationship between perceived organisational support and burnout (standardised regression weight = -0.18, p<0.001). Perceived organisational support and professional self-concept jointly accounted for 38.3% of the variance in burnout. **Conclusions:** Professional self-concept and burnout were negatively correlated. Higher perceived organisational support significantly predicted higher professional self-concept, and lower perceived organisational support significantly predicted higher burnout. Professional self-concept partially mediated the relationship between perceived organisational support and burnout. Higher professional self-concept significantly predicted lower burnout.
Cao et al, 2015	No significant differences in outcome variables based on demographics were reported. All subscales for professional self-concept correlated negatively with all subscales of burnout (r ranged from -0.16 to -0.45, p<0.001). In the structural equation model, higher professional self-concept resulted in lower levels of burnout (standardised path coefficient = -0.84, p < 0.001). Organisational commitment partially mediated this relationship (indirect path coefficient = 0.22 (p < 0.001). **Conclusion:** Overall, the study shows a high level of burnout in nurses. High burnout was directly linked to lower professional self-concept, and this relationship was strong. Here this is used as evidence for stress and coping theory, as it is thought to show that self-concept as a cognitive variable can impact individual 'stress reaction' (ie. burnout). Organisational commitment also partially mediated the relationship between professional self-concept and burnout; this was seen both to be a potential consequence of stronger professional self-concept but also a potential protective factor against low professional self-concept, suggesting a bidirectional relationship.
Caricati et al, 2021	Professional identity showed a moderate negative correlation with burnout (r = 0.54, p<0.01); this was also confirmed through regression analysis (β = -0.249, SE = 0.035, p < 0.001). There was no significant difference between genders. Self-esteem partially mediated the relationship between professional identity and burnout (β = -0.069, SE = 0.023, p = 0.003). Professional identity did not moderate the relationship between stigmatisation and burnout (β = 0.006, SE = 0.072, p = 0.932).

Author, year	*"Qualitized" narratives/summary of relevant findings.*
	Conclusion: The paper concludes that professional identity may be a 'resource for healthcare workers' wellbeing' due to its negative relationship with burnout. The mediation analysis shows a potential mechanism for this, in that professional identity contributes to self-worth, which in turn has a beneficial effect on wellbeing – note that these are circumstantial findings; moderation analysis recommended by researchers. Though professional identity could be seen as somewhat of a protective factor for burnout, it did not moderate the relationship between stigma and burnout. These results should be used with caution, as the study was conducted during the Covid-19 pandemic.
Correia & Almeida, 2020	Age, gender, and years of professional experience were controlled for because previous research showed a link between these and burnout. Significant correlations found between professional identification and exhaustion for physicians (r = -0.26, p<0.001) and nurses (r = -0.13, p<0.05), and between professional identification and disengagement for physicians *(*r = -0.41, p <0.001) and nurses (r= -0.45, p<0.001). Regression analyses were also conducted to clarify relationships between variables. In physicians, higher professional identification significantly predicted lower exhaustion (β = -0.22, p <0.001), and lower disengagement (β = -0.31, p <0.001). In nurses, higher professional identification predicted lower disengagement (not exhaustion) (β = -0.28, p<0.001). In terms of demographics, sex significantly affected physicians' disengagement (β = -0.15, p<0.01). Income significantly affected nurses' exhaustion (β = -0.16, p<0.01) and disengagement (β = -0.10, p<0.01. Physicians' exhaustion was also significantly predicted by workload (β = 0.24, p<0.001). There was no mediation effect found in model testing professional identity as a mediator on the relationship between 'procedural justice' and burnout. There was also no mediation effect found in model testing workload as mediator between professional identity and burnout. **Conclusion:** The study concludes that professional identity can be protective against burnout in both doctors and nurses; however, the exact subscales that showed a link between burnout and professional identity were different between the two professions. Demographics and other factors (eg. workload) also significantly impacted burnout in both physicians and nurses: PI alone cannot predict burnout.
Devery et al,	Quantitatively, professional identity significantly positively correlated with exhaustion (r = 0.67, p<0.05). No significant differences based on demographics were reported.

Author, year	*"Qualitized" narratives/summary of relevant findings.*
2018	Qualitatively, participants spoke about identification as an occupational therapist as protective of wellbeing; seeing occupational therapy as 'a missing piece of the puzzle' for the work they were doing. Being part of a group of similar professionals also was anecdotally protective of wellbeing. Participants also spoke about pressure to work in 'generalist' approaches and a 'lack of clear role' for OTs: one respondent spoke about how she had to "*go above and beyond… to build in some OT stuff*" in her work with patients, which could contribute to exhaustion. Participants spoke about their experiences of being pressured to work in generalist ways as the only OT in a multi-disciplinary team: "*you run the risk when you're the only OT working in a multidisciplinary team of being sucked into the vortex of psychology . . . doing psychology training and speaking like a psychologist*"; this was referred to as "*role blurring*". Within this context some participants also spoke about feeling 'undervalued': "*I will continue to fight for our cooking group, because it's always the first to get the chop"*. **Conclusion:** There is some suggestion here, then, that in professions that are 'underrepresented' in a team (ie. here – OTs in eating disorders, which is psychology dominated) a strong professional identity might be linked to higher burnout. This was explained through a mechanism of feeling 'undervalued' alongside a strong belief that their work/profession was vital to supporting the patients they were working with. There was also mention of needing to work outside of role due to this 'undervalue', which could therefore increase burnout (going against own professional identity).
Dunning et al, 2024	The authors identified three 'sensemaking journeys' – 'organisational identification and professional identity maintained' through redeployment; 'devaluation of organisational identification, maintenance of professional identity' through redeployment; and 'devaluation of organisational identification and professional identity' through redeployment. They then used these three categories to compare outcomes on quantitative measures. Nurses in the first group were said to be able to make sense of their mental health harm by attributing it to factors outside their organisation, potentially because they identified with their organisation. Specific parts of 'being a nurse' were seen as protective here – for example, stoicism: *"I've chosen to be a nurse. I've chosen this career, so and it's not hunky-dory all the time, it's not all, you know, roses that. It never will be because it's the job".* Importantly though – nurses in the second group highlight the importance of professional identity *and* organisational identity as protective. Though nurses in the second group maintained personal professional identity, they reported feeling 'like an object'/'undervalued' by the organisation – *"Before they used to care about you, you know, like you're a person emotionally and professionally what you're doing…now it's just like numbers…They don't care."* Researchers linked this to a sense of 'injustice' as damaging to wellbeing. Still, they remained more resilient than

Author, year	*"Qualitized" narratives/summary of relevant findings.*
	the third group, and researchers put this down to their maintenance of professional identity: *"I've chosen to be a nurse. I've chosen this career, so and it's not hunky-dory all the time, it's not all, you know, roses that. It never will be because it's the job"/ "I would just do it. That's what nurses do, and I guess that's what nurses will always do. That's what I would do".* Their professional identity was conceptualised as a 'lens' through which they could make an 'appropriate response'. For the third group of nurses, the researchers highlight the key difference as disruption of professional identity: *"nursing, it was all I ever wanted to do, and I got into nursing […] stretched too far, pushed too far it's put me off nursing really […] my opinion of nursing's not very good at the moment." / "it's dread of going to work and it's awful because, you know, patients still need you and everything…but I just don't feel that you think you can do as well as what you could have done previously".* It should be noted though, that all of the nurses in the last group were redeployed to high-risk areas – all of these differences can't be put down to only their professional/organisational identity. **Conclusions:** Professional identity and burnout are linked: over time, where professional identity is maintained, burnout tends to be lower. However, organisational identity (ie. connection to one's specific organisation, not just one's profession) is also important – where professional identity was maintained but organisational identity was compromised, burnout was higher. However, this study was conducted during the Covid pandemic specifically about experiences of redeployment, and location of redeployment (i.e. to high-risk areas) also appears to have affected burnout, not just professional/organisational identity.
Edwards & Dirette, 2010	There were no significant correlations between any demographics and any subscale of the professional identity questionnaire or any burnout subscale. A significant, moderate, negative correlation is reported between total scores of PI and burnout (r = -0.580, p<0.001). The researchers also looked at the relationship between specific questions on their questionnaire (created just for this study) and found that higher scores on questions about 'wishing that [they] had chosen a different profession', not feeling 'confident in defining the OT role' and a 'conflict in role perception and others' expectations' correlated with higher burnout scores. Higher scores on questions relating to feelings that 'patients recognised and appreciated occupational therapy as a unique treatment' and a 'positive relationship with insurance companies and third-party payers' correlated with lower burnout. **Conclusions:** The authors conclude that lack of professional identity plays a significant role in the experience of burnout in occupational therapists. They highlighted that where occupational therapists work as 'gap fillers' for other professionals, professional identity can be lower, which can be linked to burnout. They recommend clarification of the occupational therapist role and

Author, year	*"Qualitized" narratives/summary of relevant findings.*
	promotion of this. However, directionality cannot be inferred as the study is correlational.
Feng et al, 2023	There were no significant differences on outcome measures based on demographics reported. Professional identity was significantly negatively correlated with emotional exhaustion (r = -0.142, p<0.001), depersonalisation (r = -0.255, p<0.001) and reduced personal achievement (r = -0.339, p<0.001). **Conclusion:** Here professional identity is significantly related to all burnout subscales. The authors explain this by hypothesizing that a higher professional identity allows GPs to see value in their work, even when emotionally exhausted.
Feng et al, 2022	Analysis to look at differences between these groups for professional identity or burnout were not reported, this was only done for turnover intention. Professional identity subscales were all significantly correlated with all burnout subscales. Professional treatment identity negatively correlated with emotional exhaustion (r = -0.601, p<0.01) and low personal achievement (r = -0.380, p<0.01). Professional meaning identity negatively correlated with emotional exhaustion (r = -0.240, p<0.01) and low personal achievement (r= -0.342, p<0.01). Professional ability identity significantly negatively correlated with emotional exhaustion (r = -0.517, p<0.01) and low personal achievement (r= -0.485, p<0.01). In structural equation modelling analysis, professional treatment identity significantly predicted emotional exhaustion (β = -0.59,, CI [-0.71, -0.46], p<0.001.) Professional treatment identity, professional meaning identity and professional ability identity all significantly predicted low personal achievement (β = -0.28,, CI [-0.40, -0.15], p<0.001, β = -0.27, CI [-0.40, -0.12, p<0.001, and β = -0.24,, CI [-0.38, -0.10], p = 0.001) Emotional exhaustion mediated the relationship between professional treatment identity and turnover intention (β = -0.24, CI [-0.32, -0.16], p<0.001). **Conclusion:** This study looks at different subscales and different types of professional identity, and finds negative correlations between them and emotional exhaustion and reduced personal achievement. It highlights one particular path of interest – the idea that the relationship between the sense that 'what I do works' (ie. professional treatment identity) and turnover intention is

Author, year	*"Qualitized" narratives/summary of relevant findings.*
	mediated by emotional exhaustion specifically. However, it did not find a significant correlation between professional identity and depersonalisation.
Finan et al, 2021	The study defines burnout as 'a psychological syndrome emerging as a prolonged response to chronic interpersonal stressors on the job' the authors debate whether this is high in psychotherapists at all, or if more often people experience 'transient feelings of doubt'. Participants speak about a directionality in the relationship between burnout and professional identity – that first, they notice burnout, and then this has a detrimental impact on their identity as a psychotherapy and the meaning they are able to find in their work. This is when they notice thoughts eg. '*maybe I don't have what it takes'*. Participants linked this with feelings of shame and inadequacy. There was a sense that this is maybe especially important as someone in a helping profession, as the loss of purpose in the role perhaps compromised ability to empathetically connect with clients: *"I was kind of saying things to myself [with reference to clients] … 'get a grip' you know? It's not really that bad.. and I hadn't really had those kinds of thoughts before".* **Conclusions:** The authors conclude that burnout can be transformative in terms of professional identity, noting a 'loss' of the purpose and value of participants' work following burnout. The authors note a sense of "pressure to be perceived as professionals impervious to vulnerability" as particularly difficult, leading to increased self-doubt and vulnerability to distress.
Goliroshan et al, 2001	Structural equation modelling showed that the direct effect of professional self-concept on burnout was confirmed at the 99% confidence level: (β = -0.503, p<0.001). An indirect model of professional self-concept > job embeddedness > burnout was also confirmed (β = -0.347, p<0.001) – job embeddedness therefore partially mediated the relationship between professional self-concept and burnout. **Conclusion:** Professional self-concept directly affects burnout. This relationship can be mediated by 'job embeddedness', as defined by how connected someone feels to their job. The authors explain this by theorising that a higher sense of professional self-concept allows an individual to develop increased knowledge, communication and leadership skills, and confidence in their role, which then decreases burnout. They also theorise that professional self-concept may allow for a different interpretation of work-related stressors.
Jiang et al, 2021	Between groups analysis showed a significant difference in burnout among participants based on age (F – 4.211, p =0.03), where older nurses had a lower level of burnout. There was also a significant difference in burnout based on gender, where men had higher levels of burnout (t=5.464, p=0.02). Nurses with a senior job title were significantly more likely to report a higher level of burnout than those with a junior job title (F=7.948, p=0.000). Burnout also significantly differed by number of years of work experience, where nurses who had worked for longer showed lower burnout (F=10.0.69, p=0.000). Nurses with a higher income also had lower burnout (F=6.141, p=0.000). Lastly, nurses with one child had lower job burnout than nurses with no or two

Author, year	*"Qualitized" narratives/summary of relevant findings.*
	children (*F*=12.399, *p*=0.000). Professional identity total was correlated with reduced personal accomplishment and the burnout total score (RPA: *r*=-0.564, *p*<0.001, total score: *r*=-0.398, *p*<0.001). All subscales of the professional identity scale used here also correlated with RPA and the total burnout score (*r* ranged from -0.279 - -0.563, *p*<0.001). In a multiple regression analysis, burnout was significantly predicted by working years, number of children, hospital grade, nursing profession and work problems, time allocation and workload, patient care issues, management and interpersonal problems, professional identity evaluation, and professional frustration (F = 16.700, *p*= 0.000, R2 = 0.447, adjusted R2 = 0.421, *p* < 0.05). All factors were also significant independent predictors of burnout. **Conclusion:** Total professional identity score was significantly correlated with total burnout score. Along with other factors, professional identity predicted burnout in a multiple regression model – important to note, therefore, that whilst professional identity is associated with burnout, it is not the only factor that contributes to it.
Kaiser et al, 2025	The quantitative arm consisted only of a measure of professional identity in nursing, and showed no significant differences in PI between demographics including experience and location of work. Within focus groups, however, themes that illuminated relationships between PI and burnout were drawn out. Nurses discussed ideas of 'polarities in identity' that came out over the pandemic; specifically, they spoke about a tension between the identity of 'caring and compassion' that they identified as being core to 'nurse', and 'burnout/burdened', that arose during the pandemic. ("*beforehand, you would always enter a room having this open mind of compassion and. . . ready to listen. even though I know this is a difcult patient, I'm gonna walk into this room with a good attitude. Ten after that phase of all those patients being so skeptical of healthcare. . .I would feel defensive before I even walked in the room. Having that feeling of, what are they going to argue with me about? What are they going to say to try to demean me? And have that mistrust. It put me in a diferent perspective of this is not who I want to be as a nurse*"); "*Te feelings of burnout and burden contributed to a sense of identity antithetical to the caring and compassion that defnes nurses.*". **Conclusions:** The qual data here therefore suggests that experience of burnout is incompatible with nursing, and potentially wider healthcare, professional identity – and therefore burnout

Author, year	*"Qualitized" narratives/summary of relevant findings.*
	perhaps affected professional identity, which went on to further affect burnout and wellbeing.
Liu et al, 2025	No significant differences in professional identity or burnout on the basis of any demographics were reported. Negative correlations were found between total professional identity and total job burnout (r=-0.469, p<0.001). All three concepts were then put into a structural equation model, with professional identity and burnout as mediators, to test their effect on turnover intention as a key output; the model showed a good fit (χ2/df=2.965, RMSEA = 0.073, CFI = 0.962, NFI = 0.945, TLI = 0.950, IFI = 0.963, GFI = 0.923). Multiple mediation analyses showed that together professional identity and job burnout mediated the relationship between professional mission and turnover intention, but effects were small (β =-0.028, 95%CI[-0.043, -0.015]). **Conclusions:** The authors conclude that professional mission indirectly affects turnover intention via professional identity and burnout – it is hypothesised that professional mission leads to higher professional identity, which in turn leads to lower burnout, and then lower turnover intention. However, this cannot be confirmed by this cross-sectional analysis. The authors conceptualise professional identity as an intrinsic 'resource' within the job demands/resource model of burnout.
Lynner et al, 2025	Limited demographic information was reported: however, burnout significantly differed between different job titles and workplace settings. Notably, community OTs reported lower levels of burnout than those in acute hospital wards, and paediatric OTs reported higher burnout than those in mental health or home health settings. Results showed that professional identity was strongly correlated burnout – in particular, professional identity strain (misidentification by others – conceptualised as a job demand) was strongly related to personal burnout (r=0.48, p<0.05) and work-related burnout (r=0.43, p<0.05), and less strongly related to client-related burnout (r = 0.18, p<0.05). Professional identity engagement (association with the field) was negatively associated client-related burnout (r=-0.35, p<0.05). Relative weights analysis showed that professional identity strain could predict 11% of personal burnout and 8% of work-related burnout.

Author, year	*"Qualitized" narratives/summary of relevant findings.*
	Conclusions: The authors conclude that professional identity strain can act as a job demand and contribute to burnout; professional identity – engagement with the field – can act as a protective factor for some subscales of burnout, but not all. Professional identity strain was one contributor to burnout, but could only account for 11% of variance of personal burnout and 8% of work-related burnout, showing that other factors are important in this relationship.
Manomenidis et al, 2017	Scores on the emotional exhaustion subscale of burnout differed significantly between genders (t(181)=2.58, *p*=0.002) and based on years of experience (*r*=-0.245, *p*=0.001). Scores on the professional identity index differed significantly based on level of education (t(181)=2.116, *p*=0.026). Professional identity significantly correlated with PA (which was not reverse scored, so higher scores showed higher burnout: *r*=0.319, *p*<0.01), but not other burnout subscales. However, the lack of relationship between professional identity and emotional exhaustion / depersonalisation should be interpreted with caution here, as the professional identity scale used was created for this study and had low reliability (α = 0.67). In hierarchical regression models, professional identity, self-esteem and inter-/intra-professional collaboration accounted for 41% of the variance in emotional exhaustion (F(4,178)=6.152, p=0.000) and 43% of the variance in personal accomplishment (F(4,178) = 13.140, p=0.00). **Conclusion:** Professional identity significantly correlated with one subscale of burnout; this also predicted burnout in hierarchical regression models when combined with self-esteem and interprofessional collaboration.
Monrouxe et al, 2017	Burnout scores differed significantly based on gender within the 'personal burnout' (β=-5.8, *p*<0.001) and 'patient-related burnout' (β=-2.14, *p*<0.05) subscales. Women reported higher personal burnout, but lower patient-related burnout, than men. Professional identity remained stable over four time points (χ2 = 2.18, p>0.05). Burnout increased over four time points (personal burnout χ2 = 17.29, p<0.01, work-related burnout χ2Time = 34.1, p<0.001). Over time, individuals with low self-reported professional identity reported greater personal burnout (B = -0.41, p<0.01), work-related burnout (B = -0.62, p<0.001) and patient related burnout (B = -0.41, p<0.001)

Author, year	*"Qualitized" narratives/summary of relevant findings.*
	Professional identity remained stable over the first year of work for junior doctors in this study. Burnout (personal and work related) increased over this time. **Conclusion:** Over time, lower professional identity predicted increased personal and work-related burnout. The authors use this as justification to recommend medical education includes intervention to build professional identity.
Qu et al, 2023	There were significant differences in burnout and professional identity when the sample was split by gender, and based on different regions within China. Structural equation modelling was used to look at relationships between professional identity and turnover intention, with job burnout as mediator. The model showed a good fit. Results showed a direct relationship between professional identity and job burnout (factor loading =-0.372, p<0.01) and a direct relationship between job burnout and turnover intention (factor loading =0.540, p<0.01), but no direct relationship between PI and turnover intention (factor loading =-0.015, p=0.47). **Conclusions:** The authors conclude that professional identity has an indirect effect on turnover intention, via job burnout, which is a partial mediator. They advise that developing GP professional identity could therefore lower high turnover rates.
Rayner et al, 2025	Burnout was not significantly affected by gender, age, or work role – but non-salaried hours worked per week significantly correlated with exhaustion (r=0.443, p<0.05) and professional identity (r=-0.406, p<0.05). Qualitative data did not specifically talk about the relationship between PI and burnout. However, quantitative data showed a significant, moderate correlation between PI and both burnout subscales: disengagement (r = -0.533, p=0.006) and exhaustion (r=-0.507, p=-0.002). In a multiple regression model, burnout, along with job resources, job satisfaction, and turnover intention, significantly predicted professional identity (R^2 = 0.49, Adj. R^2 = 0.392, F(5, 26) = 5.00, p <0.002). Together, they accounted for 39.2% of the variance in professional identity. However, this is cross sectional, and so causality cannot be concluded. **Conclusions:** The authors conclude that there is a relationship between burnout and professional identity in OTs. However, the exact direction or nature of this relationship cannot be

Author, year	*"Qualitized" narratives/summary of relevant findings.*
	confirmed. Burnout acted as a predictor for professional identity in multiple regression, along with several other factors, suggesting that it alone cannot predict burnout level. Based on practical factors (eg. number of hours worked) also predicting burnout, the authors put forward a theory that reducing job demands could leave time for more professional development which could therefore decrease burnout and increase professional identity.
Ren et al, 2021	Burnout differed significantly based on gender, age, education and years of work experience – though statistics for this were not reported. All correlations were statistically significant at p<0.001. Professional identity (sense of control) correlated with emotional exhaustion (r = -0.29), depersonalisation (r=-0.398), and personal accomplishment (r = 0.484). Professional identity (sense of agreement correlated with emotional exhaustion (r = -0.443), depersonalisation (r = -0.487), and personal achievement (r=0.497). Professional identity (sense of meaning) correlated with emotional exhaustion (r = -0.288), depersonalisation (r=-0.352), and personal achievement (r = 0.497). Professional identity (sense of self-potency) correlated with emotional exhaustion (r = -0.301), depersonalisation (r = -0.382) and personal achievement (r=0.504). Professional identity (sense of self-decision making) correlated with emotional exhaustion (r= -0.337), depersonalisation (r= -0.300) and personal achievement (r = 0.393). Professional identity (sense of organisational influence) correlated with emotional exhaustion (r = -0.192), depersonalisation (r = -0.066) and personal achievement (r=0.186). Professional identity (sense of patients' influence) correlated with emotional exhaustion (r = -0.213), depersonalisation (r = -0.221), and personal achievement (r =0.370). Organisational justice was directly associated with professional identity (β = 0.232, *p*<0.001) and job burnout (β = -0.184, *p*<0.001). Professional identity was directly negatively related to job burnout (β = −0.613, p < .001). Professional identity partially mediated the association between organisational justice and job burnout (Effect = 0.232 x (-0.613) = -0.142). 'Psychological capital' also partially mediated this relationship. **Conclusion:** The authors conclude that professional identity has a significant effect on burnout, and can mediate the relationship between organisational justice and burnout.
Saberi et al, 2022	Emotional exhaustion was higher in people who were single (t=3.20, p=0.01) and those with less than ten years experience (t=2.21, p=0.02). Women reported lower personal accomplishment (t=-2.43, p=0.01). Professional identity was negatively correlated with emotional exhaustion (*r*=-0.269, *p*<0.001), and positively correlated with personal accomplishment, which was not reverse scored (*r*=0.205,

Author, year	*"Qualitized" narratives/summary of relevant findings.*
	p<0.015). It is not clear from reporting whether the relationship between depersonalisation and professional identity was significant. In multiple linear regression, professional identity predicted lower depersonalisation when combined with years of work experience and degree of covid-related anxiety (**β**= -0.188, p<0.010). **Conclusion:** Professional identity is in some way related to burnout, though this is inconsistent across subscales. However, multiple linear regression shows that demographics and practicalities of work are important in predicting burnout levels too. The results from this study should also be generalised with caution as the study was conducted only during the Covid-19 pandemic.
Scanlan & Hazelton, 2019	No differences in outcome variables based on demographics were reported. Higher levels of professional identity were associated with lower levels of disengagement (*r* = -0.42, *p*<0.001) and exhaustion (*r* = -0.37, *p*<0.001). There was no difference in burnout scores or professional identity scores based on whether participants were in generalist or specific OT roles. **Conclusion:** Higher professional identity is associated with lower burnout. This study questions whether 'generalist' work is harmful and leads to increased burnout, as suggested in some other studies, as there were no significant differences in burnout or professional identity in generalist or specialist OTs.
Sun et al, 2022	There were no significant differences reported in outcome variables based on demographics. Career identity was negatively correlated with burnout (*r*=-0.576, *p*<0.001). Burnout and career identity mediated the relationship between quality of work life and engagement. A positive relationship was reported between quality of work life and engagement (β = 0.644, *p*<0.001) which was mediated by burnout (β = 0.199, *p*<0.01) and career identity (β = 0.303, *p*<0.01). **Conclusions:** The authors conclude that career identity and burnout mediate the relationship between quality of work life and work engagement. They link this to social identity theory and

Author, year	*"Qualitized" narratives/summary of relevant findings.*
	propose that time is spent building career identity in new nurses and reducing burnout in order to improve work engagement.
Turnbull et al, 2021	Ten participants identified themselves as having experienced burnout, seven did not. Participants spoke about an increase in self-doubt in their own skill as a result of burnout: *"Am I really making a difference?"*. Participants also spoke about aspects of their own self-image and the broader perception of psychologists among psychologists as contributing to their burnout: "*As a profession, there is not enough talking about when therapists are struggling"/"Being yourself is drummed out of you during training"* . Some participants noted that their experiences of burnout lead to a change in their personal identity: "*when going through burnout I realised I didn't have hobbies. I wasn't a person outside my caring role"*. Recovery from burnout sometimes included acknowledgement of vulnerability: *"I'm only human and it's ridiculous to be thinking that you are totally bulletproof*". **Conclusions:** Participants in this study spoke about burnout and how it affected their identity, and how the identity of 'psychologist' as defined by society (in Australia) may have led to their burnout. They spoke about the idea of therapists as invulnerable as an unhelpful part of professional identity that left them vulnerable to burnout, and spoke about their experiences of burnout as transformative to their professional and personal identity.
Yang et al, 2023	Career identity was influenced by gender, age, professional title, years of experience, average annual income, and average daily working hours ($p<0.05$). Burnout was influenced by age, education level, professional title, years of experience, average annual income, and average daily working hours ($p<0.05$). Career identity was negatively correlated with job burnout ($r = -0.48$, $p<0.01$). Career identity partially mediated the relationship between work-family support and job burnout ($\beta = -0.0574$, $p<0.001$). **Conclusions:** The authors highlight the importance of other factors such as daily working hours, years of experience in contributing to burnout as well as career identity and work-family support. They conclude that work-family support (ie. support from both work-based and home-based networks) may increase professional identity (ie. increasing connection with and

Author, year	*"Qualitized" narratives/summary of relevant findings.*
	identification with colleagues) which in turn reduces burnout.
Yulia et al, 2025	The authors controlled for gender, employment status, marital status, years of experience, and how frequently participants treated Covid patients in later analysis. Results showed that PI was directly negatively associated with burnout (β = −0.26, p < 0.001). Mediation analyses showed that job satisfaction and burnout mediated the relationship between professional identity and turnover intention (95% CI [−0.05, −0.01]) and decreased burnout (95% CI [−0.13, −0.06]).". **Conclusions:** The authors conclude that it is important to foster strong professional identity in nurses, as it plays a role in mitigating burnout and, subsequently, turnover intention.
Zhang & Li, 2023	There were significant differences between the high professional identity group low professional identity group in terms of age (χ^2 = 5.271, *p*=0.022), education level (χ^2 =9.692, *p*=0.002), monthly income (χ^2 =13.904, *p*=0.196), working hours (χ^2 = 8.631, *p*=0.013), and professional qualification (χ^2 = 8.334, *p*=0.040). There was a negative correlation between professional identity and burnout (*r* = -0.392, *p*<0.05). **Conclusions:** A stronger professional identity is associated with lower burnout; various demographic characteristics were found to influence professional identity.
Zhang et al, 2021	Older GPs were more likely to have higher professional identity (F = 6.97, *p*<0.001) and lower burnout (F=29.05, *p*<0.001). Men reported higher burnout than women (t(1169) = 1.98, *p*=0.04). People with higher education reported lower burnout (F=8.32, *p*<0.001). Those on a lower income reported higher burnout (F=25.17, *p*<0.001) and lower professional identity (F=27.69, *p*<0.001). Junior staff were more likely to experience higher burnout (F = 6.57, *p*<0.001) and lower professional identity (F = 5.54, *p*<0.01). Professional identity was separated into subscales: professional value (perception on social value and meaning of work; 'the work I do is important to the health of the patient') and professional efficacy (perception of personal accomplishment and honour in regard to their profession; 'others praise my profession, just like praise to me'). Professional value correlated with PA (r = 0.364, p<0.001), DP (r = -0.286, p<0.001), EE (r = -0.171, p<0.001). Professional efficacy correlated with PA (r = 0.207, p<0.001), DP (r = -0.162,

Author, year	*"Qualitized" narratives/summary of relevant findings.*
	p<0.001) and EE (r = -0.054, p <0.001). Effect of professional identity on turnover intention was mediated by burnout and job satisfaction (β = − 0.27, 95%CI: [− 0.32 to − 0.23]). Job satisfaction mediated relationship between professional identity and burnout (β = − 0.15, 95%CI: [− 0.18 to − 0.12]). **Conclusions:** Professional identity was related to burnout – the authors hypothesize due to the mediating effect found here that professional identity increases an individual's ability to devote time and effort to their work, which may increase job satisfaction, which may then reduce burnout. They hypothesize that a stronger professional identity may help individuals handle stress.
Zhang et al, 2022	Professional identity correlated with burnout (*r* = -0.24), however significance was not reported. There was no direct effect between professional identity and burnout, but there was an indirect effect reported (β = -0.070, 95%CI [(-0.114) – (-0.027)]). Job satisfaction had significant partial mediating effects between professional identity and burnout [95%CI: (−0.216)–(−0.077)] . **Conclusions:** Professional identity may be correlated with burnout, but the significance level was not reported. Job satisfaction significantly mediated the relationship between professional identity and burnout.

Synthesis

A summary of synthesised findings organised by theme is shown in Table 4.

Table 4.

Summary of themes

Theme		Subthemes	Explanation	Quotes	Studies included
1	Professional identity is protective against burnout	*Cross-sectional negative relationships between PI and burnout* *PI protecting against burnout over time*	There is, generally, a negative correlation between PI and burnout, shown in cross-sectional studies. Limited studies suggest that this relationship could be causal through use of longitudinal designs; qualitative data also references individual experiences of identity as a healthcare professional as protective against burnout. Through use of mediation analysis, studies suggest potential mechanisms for this relationship, by including other factors such as organisational commitment, job embeddedness and self-esteem.	"*That's what nurses do, and I guess that's what nurses will always do*."	Caricati et al., 2022; Edwards & Dirette, 2010; Liu et al., 2025; Sun et al., 2022; Yang et al., 2023; Yulia et al., 2025; Zhang & Li, 2023; Cao et al., 2016; Cao et al., 2015; Goliroshan et al., 2021; Qu et al., 2023; Monrouxe et al., 2017; Dunning et al., 2024.

2	PI and specific burnout dimensions	*Discrepancies in burnout subscales*	Some studies show a discrepancy in whether PI is associated specifically with the 'depersonalisation' dimension of burnout; even where other dimensions correlate with PI, sometimes depersonalisation does not, suggesting something different about this dimension in this population.		Manomenidis et al. (2017) Feng et al. (2022)
3	Professional identity can contribute to higher burnout	*Working outside of one's own role and burnout* *Individuals' conceptions of PI can contribute to burnout*	In contrast, some studies suggest that professional identity can contribute to higher burnout – this is shown in one quantitative study, but largely referenced in qualitative data. In particular, feeling undervalued within a multi-disciplinary team or being forced to work outside of one's own role when PI is high is thought to contribute to burnout. Similarly, qualitative data suggest that specific types of PI or conceptualisations of what it is to be a 'healthcare professional' appear to also increase burnout risk.	"*...you run the risk when you're the only OT working in a multidisciplinary team of being sucked into the vortex of psychology . . . doing psychology training and speaking like a psychologist*" "*As a profession, there is not enough talking about when therapists are struggling*"	Devery et al., 2018 Buckley et al., 2022 Lynner et al. (2024) Edwards and Dirette (2010) Finan et al., 2021 Turnbull & Rhodes, 2021
4	Inconsistent definitions of PI		Across all studies, the definition of professional identity varied between a sense of identifying with others in the profession, a felt sense of what it means to be in that profession, and a sense that the work in the		All studies

			profession has value. This makes it difficult to identify what specifically about the concept of professional identity is linked to burnout.		
5	The experience of burnout compromises professional identity	*Burnout as transformative* *Burnout as incompatible with 'healthcare' PI*	Qualitative studies investigating experiences of burnout show a potential relationship between PI and burnout in the opposite direction – that is, that experiencing burnout can affect PI. Some participants in these studies described their experience of burnout as transformative to their professional and personal identities, whilst others described burnout symptoms as incompatible with being a healthcare professional, which then compromised their sense of PI.	"*this is not who I want to be as a nurse*"	Finan et al., 2021 Turnbull & Rhodes, 2021 Kaiser et al., 2025
6	Other factors also contribute to burnout	*Demographic variation* *PI as one of many burnout predictors*	PI is not the only factor illuminated in these studies as contributory to burnout. Burnout levels differ in several studies according to demographic variables such as gender, age, and years of experience. Some studies also highlight PI as one of several 'predictors' of burnout – along with practical job factors such as workload and hours worked.		Correia & Almeida, 2020; Jiang et al., 2024; Lynner et al., 2024; Monrouxe et al., 2017; Qu et al., 2023; Rayner et al., 2025; Ren et al., 2021; Saberi et al., 2022; Yang et al., 2023; Zhang et al., 2021

7	Professional identity and burnout are smaller parts of a wider model	*PI/burnout as mediators/moderators of other relationships*	In understanding mental health and burnout at work in healthcare professionals, it is clear that we cannot only look at PI and burnout, however – several studies include PI and burnout as mediators or moderators of other factors, such as turnover intention and work/family support.	Feng et al. (2022) Zhang et al. (2021) Qu et al. (2023) Yulia et al. (2025) Sun et al. (2022) Liu et al. (2025)

1. *Professional identity is protective against burnout*

Cross-sectional negative relationships between PI and burnout

Studies in this review generally found that stronger PI was associated with lower burnout, and found small-moderate effect sizes (Caricati et al., 2022; Edwards & Dirette, 2010; Liu et al., 2025; Sun et al., 2022; Yang et al., 2023; Yulia et al., 2025; Zhang & Li, 2023). Within structural equation models, studies also found direct negative relationships between PI and burnout (Cao et al., 2016; Cao et al., 2015; Goliroshan et al., 2021; Qu et al., 2023).

PI protecting against burnout over time

Two studies used longitudinal designs. Monrouxe et al. (2017) tracked the PI and burnout of newly-qualified UK doctors over four time points in their first year post-qualification; they found that PI stayed stable, but burnout increased. Through regression analyses, they report that doctors who reported higher PI experienced less of an increase in burnout over time than those with low PI (Monrouxe et al., 2017). The authors conclude that a stronger sense of self-reported PI facilitates an increased capacity to cope with stressful events and therefore leads to lower burnout over time (Monrouxe et al., 2017). This finding is echoed in Dunning et al. (2024), which showed that nurses whose sense of PI was maintained over their experience of redeployment in the Covid-19 pandemic experienced lower burnout over time. Participants spoke to their PI allowing them to interpret the situation around them

differently, which may have facilitated lower burnout: "*That's what nurses do, and I guess that's what nurses will always do.*" (Dunning et al., 2024).

Mechanisms of this relationship

Several studies investigated mechanisms between PI and burnout, largely using mediation analyses. One study identified 'organisational commitment' as a partial mediator of the relationship between PI and burnout – this was defined as an employee's 'positive emotional attachment' to their organisation (Cao et al., 2015). The authors concluded that there could be a link between PI and organisational commitment in either direction but that both were associated with lower burnout. Two studies identified 'job satisfaction', or the degree to which an individual feels fulfilled by their job, as a partial mediator in the relationship between PI and burnout (Zhang et al., 2021; Zhang et al., 2022). The authors suggest that PI may allow for increased job satisfaction, which may then reduce burnout (Zhang et al., 2021; Zhang et al., 2022). However, these studies were only conducted in China, limiting their generalisability to other contexts.

'Job embeddedness', or the extent to which an individual feels 'connected' to their job, was also identified in one study as a partial mediator between PI and burnout (Goliroshan et al., 2021). The authors suggest that higher PI allows for a stronger sense of job embeddedness, which then reduces burnout (Goliroshan et al., 2021). However, the factors that contribute to 'embeddedness' remain vague (Goliroshan et al., 2021). One study also identified self-esteem as a partial mediator of this relationship (Caricati et al., 2022). The author puts forward that PI contributes

to overall self-worth, which then reduces burnout (Caricati et al., 2022). However, the directionality of any of these relationships cannot be confirmed by the present cross-sectional studies.

2. PI and specific burnout dimensions

Where results were split into burnout dimensions, the relationship between PI and burnout remained mostly consistent. Eight studies found small-moderate correlations between PI and all subscales of the Maslach Burnout Inventory, Oldenburg Burnout Inventory, and Copenhagen Burnout Inventory (Cao et al., 2016; Cao et al., 2015; Feng et al., 2023; Jiang et al., 2024; Rayner et al., 2025; Ren et al., 2021; Scanlan & Hazelton, 2019; Zhang et al., 2021).

However, three studies showed discrepancies in the association between PI and the burnout dimension of ‘depersonalisation’ in the Maslach Burnout Inventory – defined as a sense of detachment from one’s work. Manomenidis et al. (2017), Feng et al. (2022), and Saberi et al. (2022) found no significant correlation between PI and this dimension. This suggests that at the individual dimension level, there is some variation as to whether PI and burnout are linked.

3. PI can contribute to higher burnout

Working outside of one’s own role, and increased burnout

In contrast to studies that show a negative relationship between PI and burnout, Devery et al. (2018) report a positive moderate-strong correlation between PI and the 'exhaustion' subscale of the Oldenberg Burnout Inventory in a study of 10 Occupational Therapists (OTs) working in Eating Disorder services. The authors explain this relationship by referencing qualitative findings in the same study, wherein OTs report feeling 'undervalued' in services dominated by other professions, and needing to work outside of their role as a result (Devery et al., 2018). Some OTs spoke about how this challenged their PI: "*you run the risk when you're the only OT working in a multidisciplinary team of being sucked into the vortex of psychology . . . doing psychology training and speaking like a psychologist*" (Devery et al., 2018). The authors conclude that when PI is strong, being forced to work outside of one's own role is linked to higher burnout. This was also evidenced in a study with nurses, where participants spoke about how working in different wards contradicted their PI, and contributed to burnout: "*I was born and raised an ICU nurse, so for me going in and floating the wards… I think that also contributes to burnout*" (Buckley et al., 2022).

However, this was not consistent across all studies - Scanlan and Hazelton (2019) did not find a significant difference in burnout between OTs working in 'specialist' and 'generalist' roles, though there was limited exploration of how these roles affected their PI.

Individuals' conceptions of PI can contribute to burnout

Where PI was split into subscales, two studies offered insight into what specific aspects of PI may correlate more strongly with burnout. Lynner et al. (2024) reported that in their sample of OTs, ‘professional identity strain’, defined as being ‘misidentified’ in their profession, was more strongly correlated with burnout than other aspects of PI. Edwards and Dirette (2010) showed that where OTs scored higher on questions about ‘wishing [they] had chosen a different career’, ‘feeling undervalued and disrespected by colleagues’, or that ‘the scope of occupational therapy [was] too broad’, they had higher burnout.

In qualitative studies, participants spoke about specific conceptualisations of identity within their profession (that is, what it ‘means’ for them to be in that profession) as leaving them susceptible to burnout. This included the idea of healthcare staff as ‘heroes’ or ‘invulnerable’: “*As a profession, there is not enough talking about when therapists are struggling”* (Buckley et al., 2022; Finan et al., 2021; Turnbull & Rhodes, 2021).

Taken together, these studies suggest that it is not only the general concept of PI that can link to burnout, but that it matters how the individual defines that PI for themselves. For this reason, it is important both to look at individual dimensions of PI, and to think qualitatively about how and individual is conceptualising what it means for them to be in their profession, as both of these can contribute to higher burnout.

4. Inconsistent definitions of PI

Throughout all studies, the definition of PI was inconsistent; this made it difficult to identify what, specifically, within ‘PI’ was related to burnout. A full outline of all definitions of PI in included studies can be seen in Appendix C.

Six studies defined PI as identification with the group of other people within one’s profession, in line with Social Identity Theory (Caricati et al., 2020; Correia & Almeida, 2020; Lynner et al., 2024; Manomenidis et al., 2017; Monrouxe et al., 2017; Qu et al., 2023; Tajfel & Turner, 1979). Nine studies defined PI as relating to a belief that the work being done within that profession is of value, and recognised by others (Jiang et al., 2021; Liu et al., 2025; Lynner et al., 2024; Rayner et al., 2025; Ren et al., 2021; Saberi et al., 2022; Sun et al., 2022; Yang et al., 2023; Zhang et al., 2021). Six studies defined PI as a more idiosyncratic concept, relating to an individual’s own general perception of themselves as a member of their profession – that is, as a ‘nurse’, or a ‘therapist’ (Cao et al., 2016; Cao et al., 2015; Devery et al., 2018; Dunning et al., 2024; Goliroshan et al., 2021; Kaiser et al., 2025). Lastly, one study defined PI as the degree to which an individual felt attached to, or liked, their work, and therefore their willingness to continue in that work (Zhang & Li, 2023). Though these definitions are related, they are different. This compromises our ability to confidently conclude what, experientially, may link to burnout.

5. *The experience of burnout compromises professional identity*

As most studies are cross-sectional, the directionality of the relationship between PI and burnout cannot be confirmed. It is therefore important to consider a relationship where burnout affects PI, rather than vice versa.

Burnout as transformative

In qualitative studies with psychological professionals, participants spoke about their experience of burnout as transformative to their PI (Finan et al., 2021; Turnbull & Rhodes, 2021). Participants spoke of a direct negative effect on their PI following burnout, where burnout became linked to feelings of inadequacy, meaning they no longer identified as competent within their profession: "*maybe I don't have what it takes*" (Finan et al., 2021). Other participants spoke about how burnout challenged their personal identity, too: "*When going through burnout I realized… I wasn't a person outside my caring role*" (Turnbull & Rhodes, 2021)

Burnout as incompatible with healthcare PI

Some studies offered reasons for this challenge to PI following a burnout experience: a sense that burnout felt 'incompatible' with healthcare PI. In a study with nurses, participants spoke about how pre-burnout they would "*enter a room having this open mind of compassion*", but how after experiencing burnout they felt "*defensive*", noting that "*this is not who I want to be as a nurse*", suggesting a direct challenge to their PI as a result of having burned out (Kaiser et al., 2025). Similarly, other professionals noted that their experience of burnout challenged their ability to connect empathetically with patients, leading them to question their PI: *"I was kind of*

saying things to myself [with reference to clients] … 'get a grip' you know? It's not really that bad.. and I hadn't really had those kinds of thoughts before" (Finan et al., 2021). For these participants, burnout and PI appear linked because the experience of burnout directly challenged their PI as a healthcare worker, especially the empathy associated with this.

6. *Other factors also contribute to burnout*

Though PI was shown to be associated with burnout, it was one of several factors that were.

Demographic variation

Ten quantitative studies reported an interaction between demographics and burnout. Studies found significant differences when samples were split according to gender, age, income, years of working experience, seniority of role, education level, number of children/marital status, location of work, and number of hours worked (Correia & Almeida, 2020; Jiang et al., 2024; Lynner et al., 2024; Monrouxe et al., 2017; Qu et al., 2023; Rayner et al., 2025; Ren et al., 2021; Saberi et al., 2022; Yang et al., 2023; Zhang et al., 2021). More years of professional experience, income, and education, and older age was associated with lower burnout. Some studies showed higher burnout for women, on specific subscales of 'reduced personal accomplishment' within the Maslach Burnout Inventory and 'career-related burnout' on the Oldenburg Burnout Inventory (Monrouxe et al., 2017; Saberi et al., 2022).

Other studies showed higher burnout in men, particularly on ‘patient-related burnout’ subscales (Jiang et al., 2021; Monrouxe et al., 2017; Zhang et al., 2021).

Twenty-nine papers did not report on ethnicity characteristics in their samples (Buckley et al., 2022; Cao et al., 2016; Cao et al., 2015; Caricati et al., 2022; Correia & Almeida, 2020; Devery et al., 2018; Edwards & Dirette, 2010; Feng et al., 2023; Feng et al., 2022; Finan et al., 2021; Goliroshan et al., 2021; Jiang et al., 2024; Kaiser et al., 2025; Liu et al., 2025; Lynner et al., 2024; Manomenidis et al., 2017; Monrouxe et al., 2017; Qu et al., 2023; Rayner et al., 2025; Ren et al., 2021; Saberi et al., 2022; Scanlan & Hazelton, 2019; Sun et al., 2022; Turnbull & Rhodes, 2021; Yang et al., 2023; Yulia et al., 2025; Zhang et al., 2021; Zhang et al., 2022; Zhang & Li, 2023). One paper collected ethnicity information: their final sample was 79% white (Dunning et al., 2024). However, these ethnicity statistics were reported only across the whole sample, not within groups, and interaction effects between ethnicity and PI and burnout were not reported. As such, it is not possible based on these papers to determine differences in PI and burnout and the interaction between these based on ethnicity.

Higher workload and more hours worked were also associated with higher burnout (Rayner et al., 2025). Burnout also differed based on work setting – including staff in higher risk settings during the Covid-19 pandemic being more vulnerable to burnout (Dunning et al., 2024; Lynner et al., 2024).

PI as one of many burnout predictors

Four studies used multiple regression analyses to test if PI could predict burnout along with other factors. Correia and Almeida (2020) showed that PI could predict burnout when combined with workload, affective empathy, and procedural justice in doctors, and when combined with years of experience, income, trust in policies, workload, affective empathy, and procedural justice in nurses (and all independently were associated with burnout). Jiang et al. (2021) showed that burnout was predicted by PI when combined with years of experience, number of children, hospital grade, nursing specialism and work problems, time allocation and workload, patient care issues, management and interpersonal problems, and professional frustration. Again, all factors also independently associated with burnout (Jiang et al., 2021). Manomenidis et al. (2017) reported that PI, self-esteem and inter/intra-personal collaboration could significantly predict burnout subscales of emotional exhaustion and personal accomplishment, independently and combined. Saberi et al. (2022) showed that higher PI predicted lower scores on the depersonalisation subscale of the MBI when combined with years of experience and degree of Covid-related anxiety, and that these independently predicted burnout, too.

These results show that though PI can be significantly related to burnout, it is not the only factor that contributes to burnout in healthcare staff.

7. *Burnout and PI are smaller parts of a wider model*

Several studies put forward that PI and burnout were only two parts of wider models explaining wellbeing in the workplace for healthcare professionals.

Support

Two studies report that PI can partially mediate the relationship between different kinds of support (from one's own organisation, and from work and family) and burnout (Cao et al., 2016; Yang et al., 2023). The authors theorize that increased support (from organisations, family, and colleagues) leads to an enhanced PI, which then protects against burnout, though their results are cross-sectional.

Similarly, one mixed-methods study showed that nurses whose sense of 'organisational identity' (that is, allegiance to their specific organisation) and sense of PI remained high over redeployment during the Covid-19 pandemic experienced lower burnout over time than nurses who retained high PI but whose organisational identity was compromised (Dunning et al., 2024). Within qualitative data, participants explained this by citing that continuing to feel supported was integral to their maintenance of organisational identity, or to it being compromised: *"I did feel valued … they sat up and they understood how much had been given during that time"* (Dunning et al., 2024).

Turnover intention and job engagement

Three studies reported that burnout could mediate the relationship between PI and turnover intention (Qu et al., 2023; Yulia et al., 2025; Zhang et al., 2021). Across these studies, authors concluded that fostering PI in doctors and nurses may protect against turnover intention, even when burnout is high. Liu et al. (2025) also show via sequential mediation that PI and then burnout partially mediate the relationship

between ‘professional mission’ and turnover intention in operating room nurses; the authors conclude that a strong sense of ‘professional mission (or: the belief that one’s profession ‘gives life meaning’) leads to a stronger PI, which thereby lowers burnout, and then turnover intention; they arrive at the same conclusion as other studies, that a strong PI lowers turnover intention through lowering burnout.

In a similar analysis, Feng et al. (2022) report that emotional exhaustion (a burnout subscale) moderates the relationship between ‘professional treatment identity’ (feeling rewarded for effort put in) and turnover intention. They theorise from cross-sectional results that a lower sense of reward from one’s own work leads to a sense of emotional exhaustion, which then increases turnover intention. This suggests that as well as a high PI protecting against turnover intention by lowering burnout, a low PI could increase burnout risk, which then could lead to higher turnover. It is important to note, however, that studies looking at turnover intention and its relationship to PI and burnout were only conducted in China, and so their results may not be generalisable across contexts.

In a related concept, Sun et al. (2022) looked at PI and burnout in a wider model of ‘job engagement’. They report that PI and burnout both mediate the relationship between quality of work life and job engagement. This suggests that both are important concepts when understanding workplace wellbeing for healthcare workers, but that solely looking at the relationship between them is not sufficient, as there are wider models at play – including other concepts such as quality of work life, job engagement, and turnover intention. Nonetheless, synthesising these findings is made difficult by inconsistent definitions of these concepts, and the use of cross-

sectional designs.

Discussion

The present review investigated the relationship between PI and burnout in healthcare professionals. It adds to the literature by collating existing research and showing a link between these concepts. However, the causality of the relationship cannot be confirmed, and the relationship may not be consistent across contexts.

Relationships between PI and burnout

Most studies in this review found a negative relationship between PI and burnout. This was found across different populations, including nurses, doctors, and allied health professionals. This mirrors research with other occupations, such as teachers (Lin et al., 2022). There are tentative indications that lower PI over time leads to lower burnout (Dunning et al., 2024; Monrouxe et al., 2017). This can also be seen in qualitative data, where staff spoke about their identity as a healthcare professional as a way of conceptualising the work they needed to do, facilitating an ability to handle stress, summing up: “*that’s what nurses do*” (Dunning et al., 2024). This theory is supported by limited intervention studies where improving the PI of nurses led to a reduction in burnout over time (Sabanciogullari & Dogan, 2015). However, most studies in the present review are cross-sectional, so causality cannot be confirmed.

This relationship was, however, inconsistent. Studies with OTs found that higher levels of PI were associated with higher levels of burnout (Devery et al., 2018). The study attributes this positive correlation to the experiences OTs reported of feeling ‘undervalued’ and needing to work outside their role (Devery et al., 2018). This is mirrored in other studies in the present review, which suggest that when healthcare professionals are asked to work outside of their role or feel that their role is misunderstood, they are more likely to experience burnout (Buckley et al., 2022; Edwards & Dirette, 2010; Lynner et al., 2024). This perhaps provides evidence for the use of Social Identity Theory (SIT) to understand the relationship between PI and burnout. SIT states that strong identification with and connection to an ‘in-group’ is supportive of wellbeing – at work, then, a strong PI would be associated with lower burnout (Tajfel and Turner, 1979). However, where this identification with others at work is not possible, for example due to feeling undervalued, working outside one‘s own role, or not feeling part of the relevant ‘in-group’, then this identity is no longer protective. This theory has been used to explain links between high PI and low burnout in other professions (Krug et al., 2021). The present review suggests it may be helpful to understand this link in healthcare professionals, also.

Another discrepancy in results in studies included in the present review is the inconsistency in whether the ‘depersonalisation’ subscale of burnout is associated with PI (Feng et al., 2022; Manomenidis et al., 2017; Saberi et al., 2022). This is mirrored in some research which shows that when healthcare professionals experience burnout, they are less likely to report high depersonalisation (Brady et al., 2020). This can perhaps be explained by high empathy in healthcare professionals, which is important to patient care (Nembhard et al., 2023). Depersonalisation within

burnout is defined as a ‘detachment’ from other people, and empathic concern has a negative relationship with depersonalisation (Delgado et al., 2023). The inconsistency in the results here, then, can perhaps be explained by inconsistency in experience of depersonalisation in healthcare professionals (Singh et al., 2020). This highlights the importance of using smaller burnout dimensions when investigating burnout experience in this group.

Unanswered questions

Though studies included in this review suggest a link between PI and burnout, questions remain about which aspects of PI are connected to burnout in healthcare staff. Inconsistent definitions of PI cause difficulty in understanding what specifically and experientially within ‘PI’ is linked to burnout. Some quantitative studies give clues to this by including PI subscales – highlighting the importance of ‘feeling undervalued’, ‘being able to define the scope of [one’s] role’ and being ‘misidentified’ as contributing to higher burnout (Edwards & Dirette, 2010; Lynner et al., 2024). Qualitatively, healthcare staff linked specific conceptualisations of what it means to be a ‘healthcare professional’ as contributing to burnout – for example, the idea of healthcare professionals as ‘invulnerable’ (Buckley et al., 2022; Finan et al., 2021; Turnbull & Rhodes, 2021). The idea of specific aspects of identity as contributing to burnout in healthcare professionals is echoed in research highlighting that healthcare professionals’ identity as ‘caregiver’ may contribute to workplace stress (Painter et al., 2003; Siebert & Siebert, 2007). Nonetheless, this requires further investigation.

The papers included in the present review also are limited in their cross-cultural generalisability. Included papers largely did not include information on the ethnicity of their participants, and where this was reported, no analysis was carried out on interactions between this and PI and burnout. This limits our understanding of how experience of PI and burnout may differ between staff of different ethnicities. This is particularly important given mixed research on whether healthcare staff of minoritized ethnicities experience higher rates of burnout, potentially linked to higher risk of experience of discrimination at work (Lawrence et al., 2022). Similarly, 13 out of 30 papers included here were conducted in China (Cao et al., 2016; Cao et al., 2015; Feng et al., 2023; Feng et al., 2022; Jiang et al., 2024; Liu et al., 2025; Qu et al., 2023; Ren et al., 2021; Sun et al., 2022; Yang et al., 2023; Zhang et al., 2021; Zhang et al., 2022; Zhang & Li, 2023). Experiences of PI and burnout specifically relevant to the Chinese healthcare system are therefore overrepresented here. This is important as burnout has been reported as different across countries (Naji et al., 2021).

Similarly, the mechanism of the proposed link between PI and burnout remains unclear. Studies suggest several mediators and moderators between PI and burnout, such as job satisfaction, organisational commitment, and job embeddedness (Caricati et al., 2022; Goliroshan et al., 2021; Zhang et al., 2022; Zhang et al., 2023). Several studies also put both concepts into wider models, including other factors such as turnover intention, support from colleagues and family, and job satisfaction (Feng et al., 2023; Feng et al., 2022; Qu et al., 2023; Yang et al., 2023; Yulia et al., 2025). Perhaps most revealingly, studies showed that burnout could be predicted by PI along with other factors, including workload

(Correia & Almeida, 2020; Jiang et al., 2024; Manomenidis et al., 2017; Rayner et al., 2025; Saberi et al., 2022). This is also shown in other research – consistently, studies show that long hours of work, lack of resources, and high workload leads to burnout in healthcare professionals (Taranu et al., 2022). These findings are important, showing that though PI may be important in protecting healthcare professionals from burnout, it cannot be the only focus: changes must be made to the practicalities of healthcare work at the system level.

Limitations of the present review

Though this review adds to our understanding of the relationship between PI and burnout, there are some limitations. No meta-analysis was possible due to the heterogeneity of included studies. Most studies are cross-sectional, and so conclusions about the causality of the relationship between PI and burnout are limited.

Though both quantitative and qualitative data were included in this review to allow for consideration of key research questions from different angles, this required data transformation to complete convergent analysis. This qualitization comes with bias, as data have been interpreted by the primary researcher (Lizarondo et al., 2025). Therefore, results should be interpreted with caution, and may not be generalisable across contexts.

Furthermore, the present review did not include studies not in English, or studies only about students or trainees. This means that results cannot be

extrapolated to these other populations. Included papers also did not report on interactions between ethnicity and PI or burnout, and studies from China are overrepresented in the papers included here. This limits our ability to generalise these findings across cultures.

Similarly, studies evaluating an intervention to strengthen PI were excluded – this was done to establish relationships that exist between the two concepts in a without manipulation, due to questions about the direction of the relationship. It was hoped that the review could then point to where intervention would be helpful. Though there is some indication from longitudinal studies that PI may be the variable to be manipulated, questions remain about whether it is a concept that can be changed.

Future research

Future research should establish a consistent definition of PI. This would allow differentiation of what specifically about PI links to burnout, and may be supported by qualitative research on how staff from different professions would define what it ‘means’ to work in their field, and what qualities they see as important.

Using these definitions, research should include a range of healthcare professions. Further studies not during the Covid-19 pandemic would also be beneficial, as results from studies completed at this time may not be generalisable outside of times of emergency.

Similarly, research should capture and report on demographic information within their samples, for example, ethnicity. This will allow for further analysis of any interaction effects between ethnicity, PI, and burnout. This should also include research conducted in different countries, or across countries. This would help to address the potential skew in the current dataset to studies in China.

Research should then focus on longitudinal and prospective studies to establish causality. This may involve testing interventions that aim to build PI, to investigate whether this can mitigate burnout. This should be done using separated dimensions of burnout due to differences between subscales. Studies should also control for other factors such as workload; research can then investigate the relative impact of PI on burnout compared to other factors. This will assist with further answering the question about whether PI is a factor that is important to increase in healthcare staff in the context of other factors such as high workload.

Clinical/Policy Implications

The tentative link between PI and burnout suggests that developing a positive PI can be protective against burnout in healthcare professionals. Though the definition of PI requires specification by further research, educators of healthcare professionals should consider the kind of PI they instil in trainees: that is, what it ‘means’ to be a nurse, for example. This is especially pertinent given findings here that some kinds of PI (namely the idea of healthcare workers as ‘invulnerable’) may be linked to higher burnout.

Another key finding here is that though PI could be protective against burnout, it is not the only linked factor. Workload, for example, was highlighted as a risk factor for burnout (Correia & Almeida, 2020; Jiang et al., 2024; Manomenidis et al., 2017; Rayner et al., 2025; Saberi et al., 2022). For policymakers, this highlights that to support healthcare staff wellbeing it is crucial to consider systemic factors (such as workload), as highlighted in other research (Taranu et al., 2022). Policymakers cannot effectively mitigate high burnout in healthcare staff without effective practical changes such as addressing high workload and establishing safe staffing.

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SERVICE IMPROVEMENT PROJECT

STAFF WELLBEING IN THE PHARMACY TEAM IN SOUTH WARWICKSHIRE NHS FOUNDATION TRUST.

WORD COUNT: 5485

INTERNAL SUPERVISOR: Dr. Myra Cooper

EXTERNAL SUPERVISOR: Dr. Becci Dow

PROPOSED JOURNAL: British Journal of Pharmacy

Justification: As this service improvement project was conducted within a Pharmacy team, a Pharmacy journal was deemed most appropriate, to aid with dissemination to other Pharmacy professionals.

May 2025

Project permanently redacted in line with dispensation from consultation embargo.

THEORY-DRIVEN RESEARCH PROJECT

WORK RELATED PSYCHOLOGICAL WELLBEING AND HELP-SEEKING IN NHS STAFF: THE ROLES OF SELF-STIGMA AND PSYCHOLOGICAL SAFETY WITHIN TEAMS.

WORD COUNT: 5469

INTERNAL SUPERVISOR: Dr. Matthew Hotton

EXTERNAL SUPERVISOR: Dr. Carmen Chan

PROPOSED JOURNAL: Journal of Occupational and Organizational Psychology

Justification: this journal accepts papers that aim "to increase understanding of people and organisations at work".

May 2025

Abstract

Introduction

Despite high levels of work-related mental health problems in NHS staff, this population report difficulty in help-seeking. Theory suggests that help-seeking intention can be affected by self-stigma about having a mental health problem, as suggested by Corrigan and colleagues (2014). However, this has not been investigated in NHS staff.

Aims

The present study tested whether, in NHS staff experiencing work-related psychological distress, help-seeking intention differed between groups experiencing high and low self-stigma. Secondary analysis tested whether this relationship was moderated by team psychological safety.

Method

A mixed-methods cross-sectional survey was completed by 132 NHS staff across a range of professions. Measures of psychological safety, self-stigma, help-seeking intention and distress were completed, alongside qualitative questions.

Results

There were significant correlations between team psychological safety and self-stigma, and distress and self-stigma. There were no significant differences in help-seeking intention between groups experiencing high and low self-stigma. Team psychological safety did not moderate the relationship between self-stigma and help-seeking intention.

Discussion

Though the main analysis did not find significant differences, relationships between distress, psychological safety, and self-stigma warrant further investigation. Qualitative results in the present study highlight the importance of considering alternative factors when investigating help-seeking intention in NHS staff.

Keywords

Healthcare staff; self-stigma; workplace wellbeing; psychological safety

Introduction

Wellbeing in healthcare staff

Anxiety and depression are the most common reason for staff absence in the NHS, accounting for 520,470 workdays lost in January 2023 (*NHS Sickness Abscence Rates*, 2023). This highlights an increasingly recognised problem in the NHS workforce: work-related psychological distress (NHS Staff Survey, 2022). Despite this, NHS staff report difficulty in seeking help for their mental health at work (Zaman et al., 2022). Research into the reasons for this disparity in distress and help-seeking is important, as high levels of anxiety, depression and stress are associated with poorer health, patient care, and staff retention (Garcia et al., 2019; Hodkinson et al., 2022; Salvagioni et al., 2017). Help-seeking should therefore be encouraged in this population to protect wellbeing and service delivery.

Stigma & help-seeking in healthcare staff

Models by Corrigan and colleagues suggest a key barrier to help-seeking is self-stigma about having a mental health problem (Corrigan et al., 2014). Self-stigma refers to the internalisation of negative attitudes about people within a certain group (here, people with mental health problems) (Corrigan et al., 2014; Gärtner et al., 2022). Research demonstrates that self-stigma acts as a barrier to help-seeking in various populations, including military personnel (Clement et al., 2015).

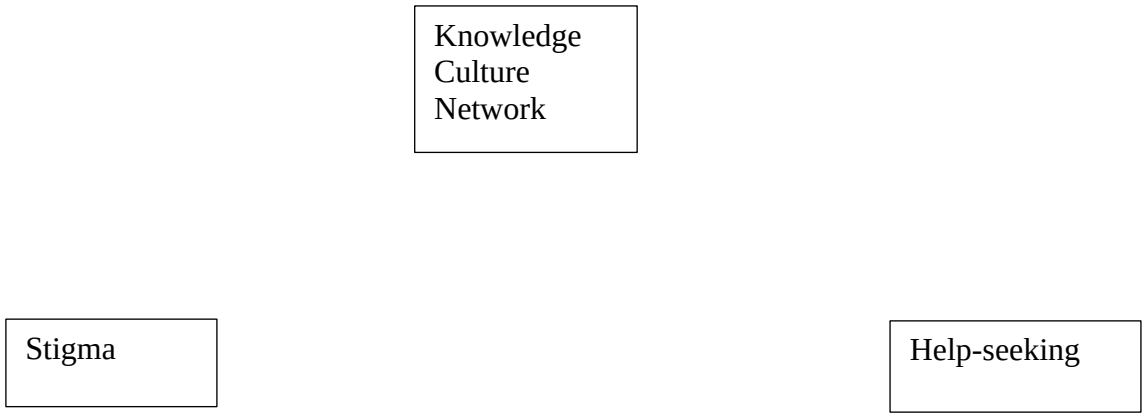
Qualitative research also suggests that help-seeking for work-related psychological distress is low in NHS staff due to concerns about the impact on one's career (Henderson et al., 2012). This could indicate self-stigma about experiencing work-related psychological distress (Clement et al., 2015; Cohen et al., 2016). However, this has not been investigated quantitatively.

Moderators between self-stigma and help-seeking

Corrigan's model also suggests potential moderators between high self-stigma and low help-seeking (Figure 1).

Figure 1.

Corrigan's model of stigma and help-seeking



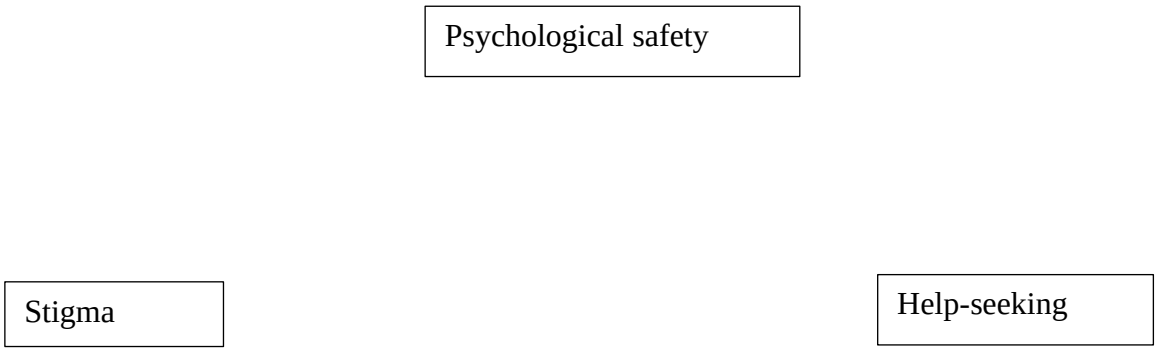
Here, knowledge is conceptualised as having sufficient understanding of mental illness. 'Network' is defined as perceived stigmatising views within close relationships, and the possibility of support from those relationships.

When utilising Corrigan's model within a workplace context, the concept of 'culture' extends to represent the culture within the workplace. Norms within that workplace culture will be more relevant in impacting likelihood of seeking help for a workplace-related problem: for example, qualitative research indicates a culture of categorising healthcare workers as 'invincible' prevents help-seeking (Bannatyne et al., 2023).

One factor relevant to workplace culture is the concept of 'psychological safety' (PS) within teams. This refers to the presence of an environment safe for 'interpersonal risk taking', wherein individuals feel able to raise difficulties (Edmondson, 1999). This has been evidenced as a protective factor against turnover intention and burnout in healthcare staff (Hebles et al., 2022). Including this concept as part of workplace culture, it follows from Corrigan's model that PS could moderate the relationship between self-stigma and help-seeking (figure 2).

Figure 2.

Corrigan's model as applied to a workplace context.



Aims:

The current project aimed to understand the relationship between self-stigma about mental illness and help-seeking at work in NHS staff experiencing work-related psychological distress, and whether this relationship was moderated by team PS. A further aim was to explore relationships between team PS, distress, self-stigma, and help-seeking in this population.

The research questions were as follows:

1. What are the relationships between self-stigma, PS and distress in NHS staff experiencing work-related psychological distress?
    a. This will be investigated through exploratory correlational analysis.

2. In NHS staff experiencing work-related psychological distress, does intention to seek help differ significantly between those experiencing high and low self-stigma about mental health problems?
    a. Hypothesis: staff who are experiencing high self-stigma will report significantly lower levels of help-seeking intention.
3. Does team psychological safety moderate the relationship between stigma about mental health problems and help seeking intention?
    a. Hypothesis: PS will moderate this relationship; where PS is high, intention to seek help will remain high, regardless of self-stigma.
4. What are the barriers and facilitators of this help-seeking and experiences of self-stigma at work?
    a. As investigated via a qualitative questionnaire.

Methods

Co-production

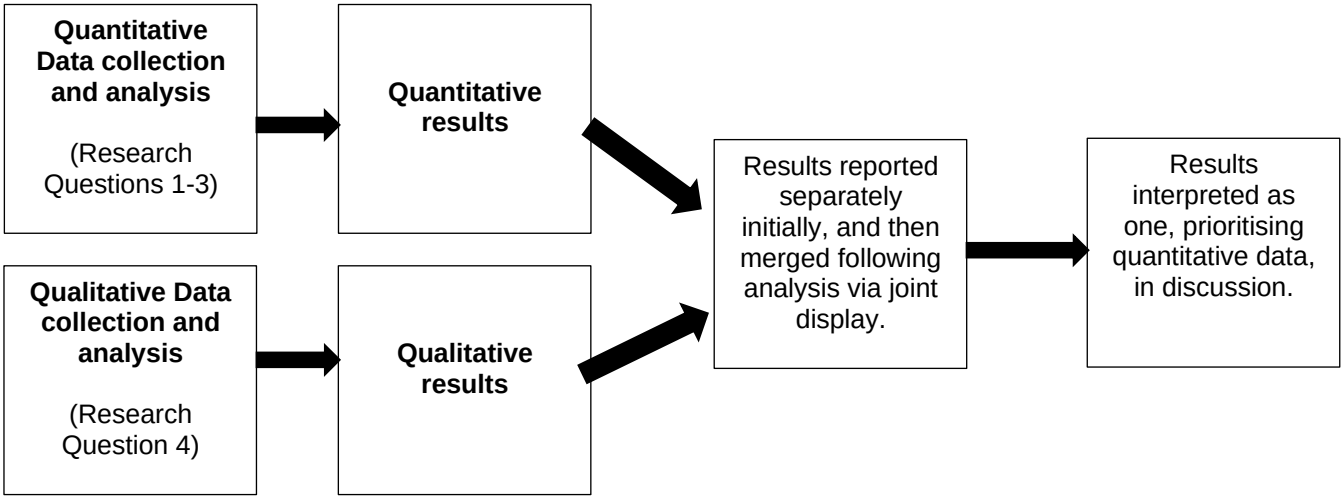
NHS staff from different disciplines were consulted as experts by experience (EBEs) to review the study and scales used (Appendix H). Qualitative questions were co-created and the order of questions decided in conjunction with these EBEs.

Design

A cross-sectional, mixed methods, convergent parallel design was used to gather perspectives on help-seeking and self-stigma in NHS staff (figure 3). This involved the collection of quantitative and qualitative data concurrently, with no data merging until end of data collection (Fetters et al., 2013). A pragmatist stance was adopted in line with this, allowing for the use of both qualitative and quantitative data to provide answers to the same problem: that is, help-seeking in NHS staff (Gillespie et al., 2024).

Figure 3.

Mixed-methods convergent parallel design.



Whilst the design adopted was convergent, the study research questions prioritised quantitative data (in line with research questions 1-3). Qualitative data were therefore collected as supplementary, intended to be used to illuminate subjective experience of the concepts being measured quantitatively. Through collecting this supplementary data, researchers can assess for relationships or contradictions between the data types (Fetters et al., 2013). A contiguous approach

was therefore taken to data integration, wherein results are analysed and outlined separately, then integrated through joint display (i.e. via a diagram) (Fetters et al., 2013).

For quantitative data, differences in help-seeking attitudes were compared between groups, as defined by high and low stigma about mental illness. For the qualitative section, open-ended questions were distributed via the same survey.

Ethics

Ethical approval was sought from the Central University Research Ethics Committee at Oxford University, reference R94431/RE001 (Appendix J).

Participants and procedure

A priori power analysis using G*power indicated a required sample of 128 to achieve a medium effect size (d=0.5), where α = 0.05 and power is 80%. A sample of 172 would be required to achieve 90% power. An aim was thus set to recruit no fewer than 128 participants, but up to a maximum of 172.

For qualitative data, consideration was also given to information power. For the present study, less-rich qualitative data was collected via short text responses in an online survey, requiring a higher number of responses (Malterud et al., 2016). As qualitative data were collected as supplementary to quantitative data, and as qualitative research questions were exploratory, the aim was to collect as much

qualitative data as feasible. Practically, this meant an aim matching the quantitative aim: a minimum of 128.

Participants were recruited via social media sites (Facebook, Reddit, X). Participants were eligible if they were current employees of the NHS in any role, 18 years old or over, self-identified as experiencing work-related psychological distress, and able to complete the questionnaire in English. Those currently in treatment for work-related wellbeing were not eligible.

To complete the study, participants used a link which led them to an information sheet. Consent to participate was sought via this link, along with a declaration that the participant met inclusion criteria. Participants were required to complete a CAPTCHA page to prevent automated responses. Participants were then directed to standardised quantitative measures and qualitative questions. Following completion, participants were directed to a debrief page, detailing sources of support.

Measures

Demographic questions included age, gender identity, ethnicity, job role and setting, time in role, time working in NHS, if the individual had sought help previously for their work-related mental health, and where this support was from.

Standardised measures used were as follows (Appendix K):

- The Depression, Anxiety and Stress Scale (DASS-21) was used to measure overall distress. This is a 21 item self-report questionnaire with subscales for depression, anxiety and stress. It has demonstrated high reliability and validity and has been used with several different populations, including healthcare staff (Hammond et al., 2021; Henry & Crawford, 2005). This measure showed good internal consistency in the current study (α = 0.933).
- The Brief Internalised Stigma of Mental Illness Scale (ISMI-9) is a unidimensional self-report measure used to measure internalised stigma towards mental illness. It has demonstrated good consistency, validity and reliability (Hammer & Toland, 2017). This has been chosen over other versions of the ISMI (29 or 10 item scales) due to its unidimensional structure (thereby focusing only on internalised stigma, as opposed to other kinds of stigma) and as it has been found to have better internal consistency than the 10-item scale (Hammer & Toland, 2017). The measure showed good internal consistency in the current study (α = 0.827).
- The first part of the General Help-seeking Questionnaire (GHSQ) was used to measure help-seeking intention from informal and professional sources (Wilson et al., 2005). This consisted of 12 items, with higher scores indicating a higher intention to seek help (Wilson et al., 2005). This was adapted to make it specific to work-related problems as done previously within other workplace contexts (King et al., 2023). It is a widely used measure of help-seeking intention, and has been used with healthcare staff (Wulf, 2022). The measure showed moderate internal consistency in the current study (α = 0.655).

- The ‘team psychological safety’ section of Psychological Safety Scale was used to measure psychological safety in participants’ direct teams (Edmondson, 1999). The scale contains 7 items, wherein a higher score indicates higher psychological safety. This measure has shown good reliability and consistency including with healthcare staff (Alingh et al., 2019). This measure also showed good internal consistency in the present study (α = 0.860).

Participants were able to respond to qualitative questions using free-text response boxes (Appendix I).

Data analysis

Quantitative data were analysed using SPSS version 21. Using cut offs as recommended by guidance for using the ISMI, the sample was split into ‘high stigma’ and ‘low stigma’ groups (Hammer & Toland, 2017).

Data were first checked for missing values and assumptions of normality and heterogeneity. Following this, exploratory correlations were used to investigate relationships between variables and identify covariates for later analysis.

Means for the DASS-21 were compared to general population norms. It was not possible to compare levels of PS, self-stigma and help-seeking intention to established norms from previous research. The ISMI is often used with specific clinical populations, and so no population norms were available for comparison.

Similarly, no appropriate population norms were available for the PSS for comparison with the current sample. The GHSQ was adapted for use in the present study, as has been done in previous research, and so there were no appropriate norms for comparison (King et al., 2023).

The main research question was tested using an ANCOVA analysis controlling for any variable where there was a significant difference between the two groups. The secondary research question was tested using a moderation analysis, using the PROCESS add-on (Hayes, 2022).

Qualitative data were analysed using thematic analysis, a method of analysis which aims to identify themes across individual experiences with an aim to understand those experiences to answer a question (Kiger & Varpio, 2020). The aim was to provide descriptive, categorical themes. This was in response to the lower information power provided by qualitative survey data, and as qualitative data were collected as supplementary to answer an exploratory research question (research question 4). Descriptive themes have also been found to be useful in describing lived experience of groups including healthcare professionals (Sundler et al., 2019).

To create these themes, Braun and Clarke's six step method was used, with a primary reliance on inductive, semantic codes (Braun & Clarke, 2019). Steps included (1) familiarisation with data, (2) generating initial codes, (3) generating themes, (4) reviewing potential themes, (5) defining and naming themes, and (6) producing the report (Braun & Clarke, 2019).

Reflexive positioning

As the primary researcher takes an active role through the process of thematic analysis, their identity influences decisions made through analysis. Here, the primary researcher was an NHS employee conducting a project focusing on the experiences of NHS employees. It was important to minimise overidentification with data where possible, to minimise effect on themes. A reflexive log was kept through analysis, and initial codes were checked to ensure credibility and validity.

Results

Quantitative analysis

Data checking

No missing data were present in the sample; 133 whole responses were recorded. Data were checked for genuine responses by checking for unusual response patterns, evaluating the face validity of the qualitative data, and cross-checking age with number of years working in NHS.

Following these checks, one response was identified as potentially not genuine due to unlikely discrepancy between years worked in NHS and age of participant. This response was removed from further analysis, leaving a sample of 132.

Demographics

The final sample included 132 participants. The sample was mostly female (80.3%), white (85.6%), and working in physical health settings (57.6%). The average age was 33.64 years (SD: 9.55 years). The average time working in the NHS was 6.39 years (SD: 6.22 years), and in role was 3.69 years (SD: 4.96 years). Using cut offs as recommended in guidance for the ISMI-9, the sample was split into ‘low stigma’ (n=63) and ‘high stigma’ groups (n=69) (Hammer & Toland, 2017).

Table 1

Demographic information.

	Whole sample (n=132)	**Low stigma group (n=63)**	**High stigma group (n=69)**
Age, in years	Mean: 33.64 (SD = 9.55)	Mean: 34.59 years (SD = 10.55)	Mean: 32.77 years (SD = 8.52)
Gender			
Male	22 (16.7%)	11 (17.5%)	11 (15.9%)
Female	106 (80.3%)	51 (81%)	55 (79.7%)
Non-binary	4 (3.0%)	1 (1.6%)	3 (4.3%)
Ethnicity			
White (Welsh/English/Scottish/Northern Irish/British):	113 (85.6%)	52 (82.5%)	61 (88.4%)
White Irish:	4 (3.0%)	1 (1.6%)	3 (4.3%)
Any other White background:	3 (2.3%)	2 (3.2%)	1 (1.4%)

Mixed/multiple ethnic groups (White and Black Caribbean):	1 (0.8%)	1 (1.6%)	0
Any other mixed/multiple ethnic background:	1 (0.8%)	0	1 (1.4%)
Asian/Asian British (Indian):	1 (0.8%)	1 (1.6%)	0
Asian/Asian British (Pakistani):	3 (2.3%)	2 (3.2%)	1 (1.4%)
Asian/Asian British (Chinese):	1 (0.8%)	0	1 (1.4%)
Any other Asian background:	1 (0.8%)	1 (1.6%)	0
Black/African/Caribbean/Black British (African):	1 (0.8%)	1 (1.6%)	0
Black/African/Caribbean/Black British (Caribbean):	1 (0.8%)	1 (1.6%)	0
Other ethnic group (Arab):	1 (0.8%)	0	1 (1.4%)
Any other ethnic group:	1 (0.8%)	1 (1.6%)	0
Main role			
Ambulance staff	10 (7.6%)	5 (7.9%)	5 (7.2%)

Administration & Estates	22 (16.7%)	9 (14.3%)	13 (18.8%)
Healthcare assistants & support staff	12 (9.1%)	4 (6.3%)	8 (11.6%)
Medical staff	8 (6.1%)	4 (6.3%)	4 (5.8%)
Nursing staff	32 (24.2%)	15 (23.8%)	17 (24.6%)
Midwifery staff	1 (0.8%)	1 (1.6%)	0
Health visiting staff	1 (0.8%)	0	1 (1.4%)
AHPs	33 (25.0%)	20 (31.7%)	13 (18.8%)
Healthcare science staff	1 (0.8%)	0	1 (1.4%)
Student/visiting staff	5 (3.8%)	4 (6.3%)	1 (1.4%)
Other	7 (5.3%)	1 (1.6%)	6 (8.7%)
Time in role, in years	Mean: 3.69 (SD: 4.96)	Mean: 4.25 years (SD: 6.08)	Mean: 3.17 years (SD: 3.61)
Time in NHS, in years	Mean: 6.39 (SD: 6.22)	Mean: 7.33 (SD: 7.34)	Mean: 5.54 (SD: 4.89)

Previous help sought?			
Yes	50 (37.9%)	23 (36.5%)	27 (39.1%)
No	82 (62.1%)	40 (63.5%)	42 (60.9%)
Main area of work			
Physical health	76 (57.6%)	32 (50.8%)	44 (63.8%)
Mental health	44 (33.3%)	25 (39.7%)	19 (27.5%)
Neither (eg. HR, admin)	12 (9.1%)	6 (9.5%)	6 (8.7%)

Exploratory analysis

Normality tests showed assumptions for parametric tests were met. Descriptive statistics and tests to compare means were used to check for significant differences in demographics and all measures between the two groups. Mean scores for each scale across groups can be seen in table 2.

Table 2.

Descriptives for all scales (GHSQ (General Help-seeking Questionnaire), PSS (Psychological Safety Scale), DASS (Depression, Anxiety and Stress Scale), ISMI (Internalised Stigma of Mental Illness Scale)).

	Whole sample Mean (SD)	**No stigma group** Mean (SD)	**Stigma group** Mean (SD)	**Normed data**
ISMI	2.03 (0.53)	1.58 (0.28)	2.44 (0.30)	Not available
GHSQ	44.34 (9.27)	44.92 (8.41)	43.81 (10.02)	Not available
PSS	29.68 (9.08)	32.43 (8.36)	27.17 (9.05)	Not available
DASS-21	24.02 (13.11)	17.94 (9.67)	29.58 (13.43)	9.43 (9.66)

Descriptive statistics were compared, where possible, to norms. Distress in the present sample as measured by the DASS-21 was significantly higher than a

general UK population ($t(131) = 12.79$, $p = <0.001$, $d = 1.11$), using norms published by Henry & Crawford (2005).

Following this, between-group comparisons were completed between high and low stigma groups. When comparing gender across the groups, four individuals identified as non-binary; their inclusion in this step of the analysis would violate the assumption of a chi-square test (expected value > 5). Non-binary people were therefore excluded from this step.

Significant differences were found between high and low stigma groups in distress (t (129.977) = 3.47, p <0.001, d = -0.99), and psychological safety (t (131) = 3.525, p <0.001, d = 0.60). These variables were identified as covariates in later analysis. There were no other significant differences between groups.

Correlations were run prior to the main analysis to investigate relationships between key variables (table 3).

Table 3.

Correlation matrix; GHSQ (General Help-seeking Questionnaire), PSS (Psychological Safety Scale), DASS (Depression, Anxiety and Stress Scale), ISMI (Internalised Stigma of Mental Illness Scale) - * = correlation is significant at the 0.01 level (2 tailed).

	GHSQ	PSS	DASS	ISMI

GHSQ	1	0.064	-0.117	-0.107
PSS		1	-0.079	-0.252*
DASS			1	0.553*
ISMI				1

Significant correlations were found between PS and stigma *(r*(130) = -0.252, *p* = 0.004) and general distress and stigma *(r*(130) = 0.555, *p* <0.001). No significant correlations were found between help-seeking and any other variable.

Main analysis

No significant differences were found between the high and low stigma groups in help-seeking, as tested via ANCOVA (F(1, 128) = 0.007, *p* = 0.934, *η2* = 0.17).

Though the main relationship in the model (ie. stigma – help-seeking) was non-significant, further analysis was conducted to test if this relationship was moderated by psychological safety. Moderation analysis revealed no significant effect of stigma on help-seeking intention, and no moderation effect when PS was included in the model (R^2 = 0.158 F(3, 128) = 0.683, *p* = 0.564).

Qualitative analysis

Full results from qualitative analysis can be seen in Table 4.

Table 4.

Qualitative themes and subthemes.

Theme	Theme description	Subthemes	Quote
Help-seeking is possible	Some staff felt able and willing to seek help from external support services if they felt it was required. This help-seeking was facilitated by previous positive experiences of support, clear pathways, and supportive management.	i. Feeling able to seek help. ii. Positive past experiences iii. Specific types of helpful support.	*"...open to it, in my NHS trust there are quite a lot of options available for help"* *"I found it helped me tremendously and meant I was able to stay at work*" *"It really helped, made me feel like I wasn't alone in how i was feeling,"* *"having debriefs when something awful happens helps me a lot"*
Workplace relationships	Workplace relationships are highly important in willingness to seek help at work. Relationships can be supportive, meaning external help is perhaps not required.	i. Team support and manager support ii. Psychological safety iii. Unsupportive teams and	*"I have spoken to my supervisor when I have struggled and she has been incredibly supportive"* *"Fear of stigma, being seen as "the depressed one""*

	Alternatively, some respondents highlighted negative or stigmatising relationships and team dynamics at work increasing reluctance to reach out for help.	management iv. Normalising wellbeing.	*"…possibility that staff would use my own mental health diagnosis against me"* *"Barriers would be unsupportive management. Facilitators would be normalising discussions around staff wellbeing"*
Existing support is not helpful	Some respondents had concerns that external 'staff support' as currently exists in the NHS is not always seen as helpful by the staff it is designed for. Respondents spoke about inaccessibility of services, support offered not feeling appropriate for context, and a sense that 'nothing could change'.	i. External help is practically inaccessible ii. External help is not helpful iii. Uncertainty about the purpose of help-seeking.	*"The therapy I was offered would not work around shifts"* *"…when I have tried to seek help I've been met with long waiting lists, or told "I don't fit the criteria"…"* *"I'm not sure if the help they offer would be any help at all in the long term"*
Helpers shouldn't need help	This summarises a 'just get on with it' culture within the NHS: that stress at work is expected, that personal wellbeing ranks behind	i. Needing help is failing. ii. "Just get on with it" culture. The role itself affecting wellbeing.	*"I think I would feel like a* failu*re. I would prefer to keep my work and health separate"* *"I would be fearful that this makes me look less able or resilient in my*

	patients' wellbeing, and that requiring help meant failing or letting the team down.	iii.	Patients come first.	*role"* *"there is a culture that seems to expect us to* just *accept that NHS staff are on the whole overworked, burnt out, and underpaid"* *"…made to feel like stress and poor wellbeing is a natural part of working for the NHS"* *"I also find it quite difficult to ask/say I need help from others, and notice I feel more comfortable in the 'helper' role."*
The problems are not within the individual	Many of the difficulties affecting staff wellbeing in the NHS are not able to be 'fixed' in a therapy room, meaning that staff do not feel that seeking help from a psychological service will be helpful for them.	i. ii.	Problems are practical. NHS-level issues	*"I feel I'm so limited by time constraints that's it's not even on the agenda"* *"my wellbeing is primarily impacted by my workload"* *"the support available is focused around resilience, which I find to be insulting to NHS staff. Poor wellbeing at work is a result of systems issues, not individual* fail*ings."*

1. *'Help-seeking is possible'*

Many respondents reported *feeling able to seek help* from external services, facilitated by *positive past experiences*. *Specific types of helpful support* included post-incident support and reflective spaces. Staff spoke about the utility in being able to process a traumatic event, and appreciated the acknowledgment of the difficulty of dealing with such things through the offer of tailored support. This was felt to be particularly helpful if it led to practical changes in duties.

2. *'Workplace relationships'*

Many survey respondents highlighted the importance of relationships at work in their willingness to seek support as facilitators or barriers. With regards to direct *team and manager support*, staff spoke about a preference for informal support within their team rather than external support. Many staff described their team as sources of support, pointing to a sense of *psychological safety*, shared understanding, and use of humour. In some cases, staff did not feel that reaching out for external help would be necessary due to this support.

However, the opposite effect was also seen. Respondents spoke about *unsupportive teams and managers* as a barrier to help-seeking. Staff described not wanting their manager to be aware of their distress, reducing their willingness to seek help. They also spoke about needing managers to make referrals to support

services, meaning that an unsupportive manager could act as gatekeeper. Whilst supportive managers appeared to link to higher wellbeing and less need to seek help, less supportive managers left staff feeling ‘done to’ rather than ‘done with’, reducing wellbeing and help-seeking intention.

This negative effect of workplace relationships on willingness to seek help was also seen in wider team dynamics. Where staff had witnessed stigmatising comments from colleagues about patients being treated for their mental health, they felt less able to talk about their own wellbeing, and less able to seek help. Some respondents spoke about a desire to *normalise talking about wellbeing* within their team, citing that the topic felt ‘taboo’, reducing help-seeking as an option.

3. *‘Existing support is not helpful'*

Though respondents were often aware that external support for their wellbeing existed, these services were not always seen as helpful. Practically, staff spoke about *support services as inaccessible*, citing unclear pathways and a lack of flexibility in the timing of appointments. Some respondents felt that the *support itself is not helpful* within an NHS context: support offered felt generic, leading to a lack of feeling understood. Concerns about confidentiality and long waitlists also reduced likelihood to seek help. Combined, these factors left some staff *uncertain about the purpose of seeking help*, unconvinced of the utility of doing so, and concerned about being ‘taken seriously’.

4. *‘Helpers shouldn’t need help’*

Another common reason given for reluctance to seek help for work-related mental health problems was a sense that help “shouldn’t” be needed. Staff spoke about concerns that needing help would mean failure, whether in the eyes of others or their own perception of themselves. Respondents feared that colleagues would no longer see them as competent, and that this would have a bad impact on their career. Generally, a *‘just get on with it’ culture* was apparent – a sense that high stress, traumatic events, and even abuse were expected, and to be endured. Some staff spoke about a rolling sense of ‘it will get better soon’. Overall, individual wellbeing tended to be seen as *less important than patient wellbeing* or, often, team need. This meant that respondents did not always feel able to reach out for wellbeing support as a healthcare professional, where resilience was sometimes conceptualised as not ever requiring help.

5. *‘The problems are not within the individual’*

Several respondents spoke about not reaching out for external help not due to stigma, or a sense that existing support wouldn’t be helpful, but because *the problems that they faced were practical*, and therefore not able to be ‘fixed’ by psychological intervention. When asked about what improved wellbeing at work, staff spoke about access to cool water, fresh air, and desk space. Several staff pointed to high workloads, feeling underpaid or undervalued, and being stretched outside of their training as detrimental to wellbeing; they did not feel that psychological support

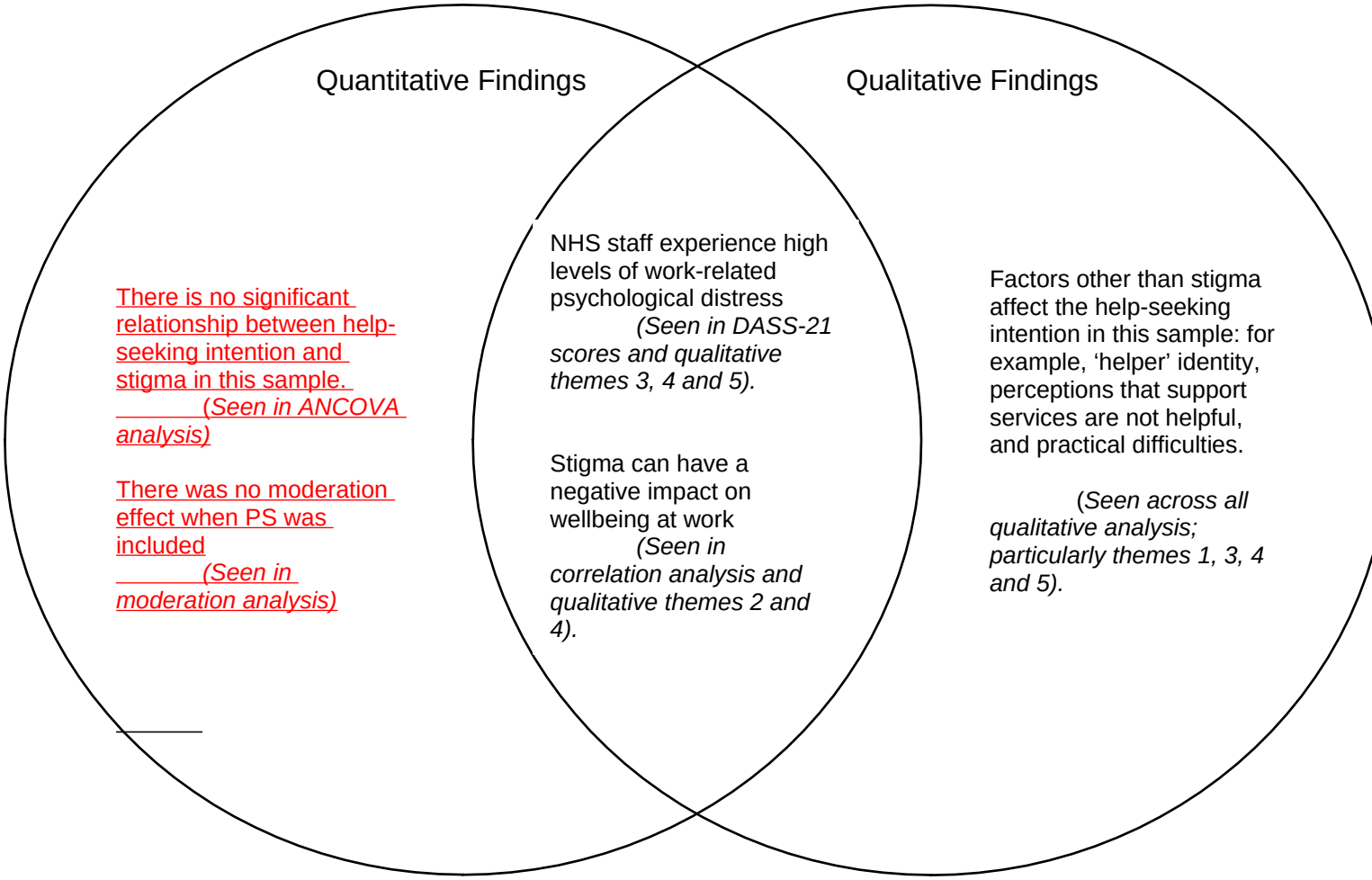
would be helpful for this. They highlighted that their difficulties were more located at the *NHS-wide level* than the individual – whether through a sickness tracking system experienced as punitive, or a changing societal perception of NHS staff. In these cases, locating a difficulty within an individual was seen as actively unhelpful, and seeking individual psychological support was not seen as an efficient way of 'fixing' difficulties, thereby reducing help-seeking intention.

Results integration

In line with a convergent parallel design, similarities and differences between quantitative and qualitative results have been presented diagrammatically below (figure 4).

Figure 4.

Representation of convergence/divergence in qualitative and quantitative results.



Quantitative findings that NHS staff experience high distress (as illuminated by DASS-21 scores), and that stigma can impact wellbeing at work (shown in correlations between PSS, ISMI-9, and DASS-21 measures), are also shown in qualitative data. These can be seen in theme 2 ("workplace relationships"), where participants explained they had a "*Fear of stigma, being seen as "the depressed one"*", and in theme 4 ("helpers shouldn't need help"), where participants described

distress as expected: "*there is a culture that seems to expect us to just accept that NHS staff are on the whole overworked, burnt out, and underpaid*".

The further key quantitative findings of no significant relationship between help-seeking intention and stigma, and no moderation effect by PS, is supplemented by qualitative data. Within the qualitative results, themes such as "*helpers shouldn't need help*", "*existing support is not helpful*", and "*the problems are not within the individual*" suggest alternative reasons why NHS staff may not feel comfortable seeking help. Within these themes, participants highlight a 'helper identity' compromising acceptance of help ("*I also find it quite difficult to ask/say I need help from others, and notice I feel more comfortable in the 'helper' role")*, a sense that help will not be acceptable or accessible ("…*when I have tried to seek help I've been met with long waiting lists, or told "I don't fit the criteria"…"*), and a sense that the problems that require 'fixing' are not psychological ("*Poor wellbeing at work is a result of systems issues, not individual failings"*). This highlights that there are factors other than self-stigma that compromise NHS employees' help-seeking intention not captured within quantitative measures here.

Discussion

This study aimed to test whether, in NHS staff experiencing work-related psychological distress, help-seeking intention differed significantly between those experiencing high and low self-stigma about mental health problems, and whether team PS moderated this relationship. This tested a model of self-stigma and help-

seeking, which predicted that higher self-stigma about mental health problems would lower help-seeking intention, and that this effect would be moderated by culture – conceptualised as team PS (Corrigan et al., 2014). Supplementary to this, qualitative data explored subjective experiences of stigma, help-seeking, and work-related psychological distress.

The present study did not find a significant relationship between help-seeking intention and stigma, and no moderation effect when PS was included in analysis. This is in contradiction to existing research with other populations that show a negative relationship between self-stigma and help-seeking, and in contradiction to qualitative research which suggested that this may be relevant for NHS staff (Clarkson et al., 2023; Yu et al., 2023). This finding does, however, mirror research into the effect of self-stigma about seeking help in healthcare staff, where one study has shown no predictive relationship between this and help-seeking intention (Wulf, 2022). When taking the results from the present study and previous limited studies on different kinds of stigma and help-seeking in healthcare staff, it follows that Corrigan's model of self-stigma and help-seeking may not be applicable to this context (Corrigan et al., 2014).

Despite this, the present study offers other helpful findings. This sample of NHS staff presented as significantly more distressed as measured by the DASS-21 in comparison to a general population norm (Henry & Crawford, 2004). This is in keeping with recent statistics that that 3 in 4 NHS staff report having difficulty with their mental health in the last year (NHS Charities Together, 2024). This also mirrors research which shows high levels of common mental health problems in NHS staff

during and immediately following the Covid-19 pandemic (Roberts et al., 2021; Pollitt & Pow, 2022). The present finding that psychological distress remains high is important as the study was conducted 5 years after the start of the Covid-19 pandemic: this suggests that psychological distress in NHS staff is not particular to times of emergency, or that the effects of the pandemic are still felt.

Quantitative results also show correlations between team PS and self-stigma and between self-stigma and distress in this population. This was reflected in qualitative findings; staff spoke about stigma in their teams illuminated by whether their team spoke openly wellbeing, and cited this as contributing to their own wellbeing. This reflects research that links higher self-stigma about mental illness and burnout in healthcare staff (Mitake et al., 2019). Though there is limited research on the links between PS and self-stigma, emerging research on the concept of ‘workplace stigma’ (i.e. perceived stigmatising attitudes about mental illness from others in the workplace) shows a link between this and self-stigma, suggesting links between attitudes towards mental illness within teams and levels of self-stigma (Stuetzle et al., 2022). Present results combined with this research indicates potential important relationships between these concepts, though causality or directionality cannot yet be inferred.

Furthermore, exploratory qualitative data in the present study may offer insight as to what, if not self-stigma, affects help-seeking intention in NHS staff. Respondents highlighted a discrepancy between feeling able to seek help and participants’ perceptions of themselves as ‘helper’. This is also seen in research where in helping professions, strong ‘caregiver identity’ can act as a barrier to help-

seeking (Kotera et al., 2019; Siebert & Siebert, 2005; Siebert & Siebert, 2007). Alternatively, participants highlighted systemic factors as barriers to help-seeking – whether in accessibility of support, or in a sense that psychological support will not help with systemic difficulties. This mirrors existing research on staff experience of support services, where accessibility, flexibility and specificity of service provision to the NHS context is frequently highlighted as of paramount importance to its utility (Keyworth et al., 2022; Quirk et al., 2018). This also mirrors other research on staff wellbeing, where issues of appropriate work environments, high workloads, safe staffing levels and adequate resource are frequently highlighted as key contributors to poor workplace wellbeing (Daniels et al., 2021).

Limitations

A key limitation of the present study is the measures used. Previous papers have used the GHSQ to investigate help-seeking in healthcare staff (Wulf, 2022). However, in the present study, low Cronbach's alpha statistics showed poor internal consistency for the scale in the current study. It is possible that results were compromised by an inaccurate measure of help-seeking intention. This is indicative of wider problems with measuring help-seeking intention; though the GHSQ has demonstrated good predictive validity for help-seeking behaviour in some studies, research on help-seeking behaviour is limited, meaning that measures of intention may not accurately predict behaviour (Adams et al., 2022; Hammer & Spiker, 2018).

Furthermore, norms were not available to compare the averages from the GHSQ, PSS or the ISMI-9 in the present sample with. This means that the sample

here may be skewed, experiencing particularly low or high self-stigma, PS, or help-seeking intention. Results should therefore be interpreted with caution, and may not be extrapolated beyond this group. Future research should look to compare data in this sample to other UK-based multidisciplinary samples to illuminate this further.

A further limitation to the present study is within the sample. Due to low numbers, nonbinary individuals were removed from analysis assessing differences between groups. The sample is also majority white (85.7%), and female (80.5%). This is not representative of the NHS staff population; in 2023 statistics showed that 31% of NHS staff were from a non-white background, and 34.4% were men, though there were no statistics reported on the number of nonbinary staff (NHS Digital, 2023). Nonetheless, the disparity between these statistics and the current sample means that results may be biased and cannot be extrapolated to all NHS staff.

Future research and clinical implications

Based on these findings, future research could iteratively continue a mixed-methods research process, using gaps between quantitative and qualitative data highlighted here to inform future projects. For example, building on the finding of no relationship between self-stigma and help-seeking, future research could consider alternative factors that may influence help-seeking in NHS, informed by qualitative exploratory data presented here. This may include consideration of caregiver identity, the role of support between managers and employees, or the role of culture within the NHS.

When conducting this research, future projects should consider alternative recruitment methods rather than solely online, such as actively recruiting on NHS sites or through member networks. This may allow for the recruitment of a more diverse sample and mitigate the self-selection bias of online samples.

Clinically, staff support services must show awareness of the context in which their service users (ie. NHS staff) are in. This may include consideration of relational factors within teams that may affect wellbeing, or an awareness of practical barriers to accessing sessions, such as shifts. Services should use these considerations to design interventions that are flexible and specific to context, which may involve working with teams rather than individuals (Maben et al., 2024).

More broadly, policymakers aiming to support the wellbeing of NHS staff should show awareness of practical difficulties this workforce face when working to protect their wellbeing: namely staffing, appropriate environments, and high workloads. Without consideration of these practical problems, the benefit of psychological intervention will be limited. Present data suggest that consideration of these factors may improve wellbeing directly and willingness and ability to access support, as mirrored in previous research (Daniels et al., 2021).

Conclusion

The present study investigated the relationship between self-stigma about mental health and help-seeking in NHS staff. Though no relationship between these

variables was found, analysis showed correlations between stigma, distress, and psychological safety. Qualitative data point to the importance of other factors in encouraging help-seeking in NHS staff, such as personal and professional identity, positive team support, and accessibility of support services. Beyond this, practical difficulties such as safe staffing, appropriate work environments and equipment, and NHS sickness policies must also be considered when planning appropriate care for NHS staff wellbeing.

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CONNECTING NARRATIVE

Themes

My research has a common theme: Experiences of, and support for, healthcare staff. My interest in this area came from my time working clinically with NHS staff during the Covid-19 pandemic. I noticed at this time an important sense of community within this group – a sense of 'getting through' because 'that's what doctors do'. I also saw the toll this had on mental health for this group. Even though I worked within a staff support provision, we struggled sometimes to get people to come to us for help, or admit that they needed to. A lot of the team's work was in outreach, and in flexibly adapting to where we could offer support within busy NHS schedules.

As I moved into clinical psychology training I noted shifting perceptions of NHS staff – from the 'heroes' of the pandemic, to facing the brunt of long NHS waitlists and conversations about funding in the media. I wondered how this affected these staff that I had worked with, especially as support services started to close.

SIP

The idea for the SIP was presented to me as a question on placement – how best to support a team, external to the psychology team, that had spoke up that they were struggling? As my supervisor and I started to think about ideas – in this case,

Pharmacy – we quickly realised that there were more questions to be answered before support could be offered. This developed into a service improvement project to understand the difficulties in this team, so that support could be tailored.

I also did not have much experience of working with Pharmacists and, retrospectively, did not necessarily understand their work. I learned the importance of being with a team to understand their experiences, before offering intervention. This was emphasised in results – the recommendations that came from it were relatively complex, and could not have been caught under one intervention. One of the most interesting outcomes from the project for me has been that the team flagged the exact thing I struggled with – that other teams did not necessarily know what Pharmacy did. A personal outcome of this project, then, has been my own advocacy for Pharmacy staff and an interest in these teams that are perhaps less visible in healthcare workforces.

TDRP

For my TDRP, my supervisors and I returned to a key question– why were some NHS staff able to work without major effects on their wellbeing, and was this something we could foster, or support with? Was the difference that meant some felt able to seek help and be supported when things were difficult?

From this, my supervisor directed me to a model on stigma and help-seeking. Stigma was not necessarily something I'd been interested in before, but the themes

of the research about identity and help-seeking fitted well with my question. I was keen to make sure that the project could end up being practically helpful, and so I personally was particularly interested in the idea of a moderator in this relationship, and the concept of psychological safety.

Through the project, I learned about taking time to reflect on results, after the results did not match our hypothesis. Taking time to reflect on this with my supervisors was invaluable, before rushing to interpret. I also gained an appreciation for mixed-methods research, as the qualitative arm helped us to interpret the quantitative results.

SRL

My journey to my SRL was trickier – I had originally planned a different project, but when it came to start work, a paper had been published on a very similar topic.

By this point, I had completed my SIP, and I'd been interested in the idea that identification as a 'Pharmacist' had in some cases led to longer hours and higher stress. I was interested in and whether this could be extrapolated across other professions and teams.

From here, I learned about how 'professional identity' is sometimes a part of the education in healthcare professions. Existing reviews looked at how identity was constructed in these professions. However, there seemed to be an underlying

assumption that having this strong identity was a good thing. I therefore constructed a project around this question: was professional identity actually protective?

Overall, the SRL has been the project I have found most difficult. The process of constructing a search strategy to encapsulate all ‘healthcare staff’ was particularly challenging (for which I am grateful for the support of Oxford Health librarians). Again, though, I have gained an appreciation for mixed methods research. At the start of the project, I took a long time deciding whether to include qualitative papers at all. At the end of the project, I am glad that they are included. Including them, the review can highlight differences between professions, and potential directions for future research. If I were to do further research in this area, my first stop would be qualitative research – looking at the felt sense of what it ‘means’ to be a healthcare professional within different professions, and whether this can be broadened to an overall ‘healthcare’ identity.

Future aspirations

From these projects, I’ll be taking forward an appreciation for the importance of identity in mental health and wellbeing, both specifically in supporting NHS staff but also in general. I’ll be continuing to look at how individuals find meaning and conceptualise themselves within my clinical work.

More specifically, in my future work, I will in some way be working with NHS staff, whether specifically in staff support or alongside in multi-disciplinary teams. One key theme that I will take from all of these projects is the importance of locating problems

not just in the individual, but in the system, too. Consistently themes of workload, staffing, inadequate resource have arisen in every project looking at staff wellbeing here. This highlights to me the importance of not only supporting staff (and people more generally) psychologically, but also considering the context they're in, and not forgetting about the importance of practical support to people's wellbeing.

EXECUTIVE SUMMARY/DISSEMINATION DOCUMENT

Why this research was conducted: Staff in the NHS often report feeling stressed, burned out, or experiencing other mental health problems due to their work. However, research with this group also suggests that they might be unwilling to reach out for help with their psychological wellbeing, potentially due to worries about the impact on their career and stigma associated with struggling with wellbeing at work.

Theories suggest that someone's intention to seek help for a mental health problem might be affected by their internal self-stigma about having that mental health problem. This theory also suggests that this relationship might be affected by someone's culture – so, in a workplace context, where a team is seen as 'psychologically safe', they might be willing to seek help for their work-related mental health problem even if they have high self-stigma about having a mental health problem. This theory had not been tested, however, in NHS staff.

This project wanted to understand why some NHS staff might struggle to reach out for help with their psychological wellbeing. It was thought that understanding these reasons would be the first step in NHS Trusts offering new support for NHS staff that might be easier for them to access – in doing this, seeking help among NHS staff would increase, and their wellbeing might improve.

Specifically, this project tested whether someone's self-stigma about having a (work-related) mental health problem affected their intention to seek help for that problem, and whether this might be affected by how psychologically safe they see their direct team at work as. It was predicted that self-stigma would affect intention to seek help, and that higher self-stigma would lead to lower intention to seek help. It was also predicted that the role of psychological safety would be significant, and that even when someone's self-stigma was high, they would report feeling more able to seek help if they also had high psychological safety in their team at work.

What this project involved: 133 NHS staff who identified themselves as experiencing a work-related mental health problem completed an online survey which measured their general distress, their perceived psychological safety in their teams at work, their levels of self-stigma about having a mental health problem, and their intention to seek help for their mental health problem. They also provided their opinions on what helped their wellbeing at work, and what would make it more likely or more difficult for them to seek help for their mental health at work.

What this project found: Levels of self-stigma about having a mental health problem were significantly associated with levels of psychological safety within work teams. Levels of self-stigma about having a mental health problem were also significantly associated with how much psychological distress (depression, anxiety and stress) an individual was experiencing.

However, there was no association between levels of self-stigma about having a mental health problem and intention to seek help for a work-related mental health

problem. Team psychological safety had no effect on the relationship between self-stigma about having a mental health problem and intention to seek help for a work-related mental health problem.

Qualitative results found that though some staff did feel able to seek help for their work-related mental health if they needed it, others felt that they would not be able to, either due to practical issues like not having the time, because they felt like the support offered would not be helpful, or because they felt that because they were the "helpers" in their work role, they could not see themselves asking for help.

Conclusion: The statistical results of this study do not support the theory that self-stigma about having a mental health problem significantly affects intention to seek help for a work-related mental health problem in this sample of NHS staff. However, there are other interesting findings; particularly if we look at qualitative results for ideas about what else might affect someone seeking help for their work-related mental health if they work in the NHS.

Respondents to this survey spoke about how they saw themselves as 'helpers', and how this perception of their own identity could sometimes get in the way of them being able to ask for help themselves. Respondents also clearly spoke about how practical problems made it difficult for them to access help for their psychological wellbeing at work – for example, feeling like they did not have the time, or that the support offered wouldn't be helpful. They highlighted that the key things affecting their wellbeing at work were practical problems: safe staffing, appropriate environments, and high workloads. Respondents did not feel that psychological

support would be helpful for these issues, and so did not reach out for support – not because they did not think it would be helpful, or because of self-stigma, but because it did not match the problems they faced. Future research could look at this further, looking at whether someone's identity as a 'caregiver' might affect their intention to seek help, or looking further into the role of practical problems in NHS staff wellbeing.

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APPENDICES

Appendix A: SRL – Search Strategy

Please note, the below search is specifically for PsycINFO. The same search strategy was used across all databases, with only minor edits to match the mechanics of the other databases.

1. exp professional identity/ or exp social identity/
2. ("professional identit*" or "occupational identit*" or "work identit*" or "career identit*" or "professional self-concept").ab,id,ti.
3. 1 or 2
4. exp stress reactions/ or exp stress/ or exp emotional exhaustion/ or exp mental health/ or exp well being/ or exp mental disorders/ or exp trauma/
5. (burnout or "emotional exhaustion" or cynicism or depersonalisation or "personal achievement" or "compassion fatigue" or "moral injury" or depress* or anxiety or trauma or PTSD or "post traumatic stress" or "posttraumatic stress" or "vicarious trauma" or stress or distress or "mental health" or "mental disorder*" or wellbeing or well-being or wellness or psychosocial or psycho-social).ab,id,ti.
6. 4 or 5
7. exp health personnel/ or exp frontline employees/ or exp counselors/ or exp social workers/ or exp therapists/ or exp clinicians/ or emergency personnel/
8. ("healthcare staff" or "healthcare professional*1" or "healthcare worker*1" or "health care staff" or "health care professional*1" or "health care worker*1").ab,id,ti.
9. (nurse*1 or nursing or doctor*1 or physician* or medic*1 or medical or surgeon*1 or urologist*1 or ophthalmologist*1 or p?ediatrician*1 or neurosurgeon*1 or an?esthetist*1 or gastroenterologist*1 or cardiologist*1 or dermatologist*1 or oncologist*1 or obstetrician*1 or gyn?ecologist*1 or psychiatrist*1 or GP or "general practitioner*1" or dentist*1 or dental or "ambulance staff" or "ambulance worker*1" or EMT or "emergency medical technician*1" or paramedic*1 or "first respon*" or "healthcare assistant*1" or HCA or "support worker*1" or midwife or midwives or "health visitor*1").ab,id,ti.
10. ("allied health professional*1" or "allied healthcare professional*1" or "allied health care professional*1" or AHP or psychologist*1 or therapist*1 or psychotherapist*1 or PWP or "psychological practitioner*1" or "psychological wellbeing practitioner*1" or "clinical associate psychologist*1" or psychologist*1 or "occupational therapist*1" or "physical therapist*1" or physiotherapist*1 or physio or "speech and language therapist*1" or "speech therapist*1" or "art therapist*1" or "drama therapist*1" or "play therapist*1" or dietician*1 or dietetic or podiatrist*1 or phlebotomist*1 or osteopath*1 or orthoptist or "social worker*1" or "clinical social worker*1" or "therapy student*").ab,id,ti.
11. (pharmacist*1 or pharmacy or pharmaceutical or pathologist*1 or pathology or radiography or radiology or radiologist*1 or radiographer*1).ab,id,ti.
12. or/7-11
13. 3 and 6 and 12

Appendix B: SRL – Data extraction tool

Authors	Year	Quant/ qual	Design	Population	Country	No of participants	Demographics	Burnout Measure	Professional identity measure

Other measures	Analysis run	Results	Author conclusions	My interpretation

Appendix C: SRL – Definitions of professional identity in included studies

Study author, year	Definition of professional identity (verbatim)
Buckley et al, 2022	No specific definition provided (qualitative study)
Cao et al, 2015	"Self-concept is defined as the actual self-perception people hold of themselves that affects thoughts, emotions and behaviours". "Nurses' professional self-concept is conceptualised as a domain specific self-concept referring to self-evaluations of specific roles nurses play and is defined as the way in which nurses perceive themselves within their working environment".
Cao et al, 2016	"Self-concept is described as the general actual perceptions people hold of themselves…Self- concept is also defined as a multidimensional con- struct referring to people's self-assessment related to many characteristics such as academic and professional, and each of these characteristics is a research domain (i.e. academic self-concept or professional self- concept) in the larger spectrum of self-concept" "Nurses' professional self-concept is defined as the self-evaluation of specific roles that nurses play and is conceptualised as the way in which nurses perceive themselves within their working environment"
Caricati et al, 2021	"Professional identification could be defined as the extent to which people feel tied to their professional category"
Correia et al, 2020	"Tajfel (1978) defined social identity as "that part of an individual's self-concept which derives from his [or her] knowledge of his [or her] membership of a social group (or groups) together with the value and emotional significance attached to that membership" (p. 63). People belong to a variety of groups, and they may differ in the strength of the sense of membership, which is conceptualized as social identification (Turner et al., 1987). This strong sense of membership with a social group (that at the organizational level may be either the organization or the work team), has shown to be an important protector of health and well-being (Jetten et al., 2012)"
Devery et al, 2018	"Professional identity refers to therapists' perceptions about what it means to be and act as an occupational therapist"
Dunning et al, 2024	"…how they perceived themselves as professionals…"
Edwards & Dirette, 2010	No specific narrative definition provided; however, measurement of professional identity specifically constructed for this study, and included the following concepts:

	Commitment to education *Patients appreciation of OT as unique* *Belief that scope of OT is too broad* *Belief that insurance companies value OT Disrespected and undervalued by colleagues Understand and follow OT core values* *Wished had chosen profession with more prestige Believe that OT is unique* *Not confident in defining role of OT* *Conflict in role perception and others' expectations*
Feng et al, 2022	"PI refers to a person's views concerning a number of factors, such as the social value and goal of the work or task in which he or she is engaged, and this term indicates his or her recognition and understanding of the content, nature and value of this occupation (19). Niemi believes that PI is the self-concept of employees, which refers to the understanding of the nature, content and value of the occupation in the process of long-term engagement in a certain occupation. It is the psychological basis for employees to complete their own work (20). Schein believes that PI is an individual's understanding of his or her occupation and his or her recognition of self-ability development and professional value (21)."
	Subscales: "Professional treatment identification (PTI) refers to the identification of physicians on the matching degree between their efforts and gains in the current occupation, including patient identity, work reward, working environment, etc." "Professional meaning identification (PMI) is the opposite emotional experience to EE and DP. It is the positive perception of the purpose and value of work" "Professional ability identification (PAI) refers to physicians' recognition of their knowledge and skills in the medical profession."
Feng et al, 2023	No specific definition provided
Finan et al, 2021	No specific definition provided (qualitative study)
Goliroshan et al, 2021	"Professional self-concept means the understanding that nurses have of themselves in the nursing work environment [19]. Nurses' self-concept reflects the information and beliefs they have about their role, values, and behaviors, and is an attitude that enhances their sense of professional identity [10]."
Jiang et al, 2021	"The professional identity of nurses refers to their recognition of the goals, social values and other factors of the nursing occupation and affects their work enthusiasm and service quality"

Kaiser et al, 2025	“In 2019, the International Society for Professional Identity in Nursing (ISPIN) developed a conceptual model for nursing PI and established a standardized, contemporary defnition: “a sense of oneself, and in relationship with others, that is infuenced by the characteristics, norms, and values of the nursing discipline, resulting in an individual thinking, acting, and feeling like a nurse” [2]. Tis model defnes four domains of PI: knowledge, values and ethics, nurse as leader, and professional comportment [3].”
Liu et al, 2025	“It refers to nurses’ recognition of the goals, social value, and other aspects of their profession, which influences their work motivation and the quality of service provided [19].”
Lynner et al, 2025	“To measure professional identity, we adapted items from the Professional Identity Scale in Counseling (Woo, 2013) and generated some of our own. Psycho- metric assessment demonstrated that these items fit two dimensions: strain–misidentification by others and engagement–association with the field. The strain– misidentification dimension identified stressors associ- ated with professional identity that are related to others misunderstanding the field of occupational therapy. The engagement–association dimension iden- tified ways in which occupational therapy professionals identify with their field and others in their field.”
Manomenidis et al, 2017	“Professional identity refers to the characteristics that designate the role and function of a given profession (Seo and Kim, 2017) and is augmented by the “position within the society”, “interactions with others” and the “interpretation of the experiences”(Sutherland et al., 2010). That includes attitudes, values, knowledge, beliefs and skills that are shared with others within the professional context (Crossley and Vivekananda- Schmidt, 2009). Nurses’ professional identity is constructed through endurance of difficulties and evolves during their careers, whilst occupational choice is a core characteristic of identity as career choices may be in line with self- perception (Johnson et al., 2012).”
Monrouxe et al, 2017	“it has been argued that in order to behave as a fully functioning member of the medical profession, medical students need to develop a strong sense of them- selves as doctors.30–32 Thus, an essential part of becoming a doctor comprises students’ identification of themselves as being part of the medical profession:29 30 32 33 that is, developing an embodied professional identity that links them with the group.”
Qu et al, 2023	“Professional identity may be defined as the positive adoption of the attributes associated with a professional role by an individual, conforming to the social expectations, behaviors and functions associated with a particular occupational group, for which the individual is remunerated. The characteristic of a profession (as opposed to an occupation) is that a profession has a recognized body of knowledge with associated skills that are

	specialist and unique, prudent evidence-based decision-making based on this knowledge, a commitment to increasing the body of knowledge, in an environment where there is collegial oversight and review of professional practices”
Rayner et al, 2025	“Although definitions are varied, professional identity is typ- ically recognised as the values, knowledge, skills, beliefs, and attitudes of one’s role, within their profession.14 More broadly, professional wellbeing is conceptualised as experien- cing fulfilment, engagement, satisfaction and meaning within one’s work.”
Ren et al, 2021	“Professional identity is a self-concept that an individual under- stands the social influence of his/her profession and the importance of his/her work, which is the psychological foundation for people to complete their work excellently and realise organisational goals”
Saberi et al, 2022	“Nurses' self-concept is as information and ideas that they have about their role, values, and behaviors and is an attitude of experiences that promotes their professional identity (14). Nurses with a positive professional self-concept describe their profession as satisfactory and consider their competence to perform responsibilities, and are ready to accept more responsibilities in any situation (15).”
Scanlan & Hazelton, 2019	No specific definition given.
Sun et al, 2022	“The definition of a nurse’s professional identity in this study refers to an individual’s understanding of the social impact and the significance of their work in a profession”
Turnbull et al, 2021	No specific definition given
Yang et al, 2023	“Career identity is concerned with the social meaning and value of the work one engages in”
Yulia et al, 2025	No specific definition given
Zhang & Li, 2023	“Professional identity refers to the degree of love and attachment an individual has towards their profession. It is also an indication of their willingness to engage in and maintain their chosen occupation.”
Zhang et al, 2021	“one’s perception on social significance and value of works he/she engages”
Zhang et al, 2022	“Professional identity is a second-order structure composed of four dimensions: professional practice, professional affirmation, commitment identification and commitment reflection.”

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Appendix D: SIP – Survey

Project permanently redacted.

Appendix E: SIP – Interview Schedule

Project permanently redacted.

Appendix F: SIP - Likert data

Project permanently redacted.

Appendix G: SIP - Dissemination poster

Project permanently redacted.

Appendix H: TDRP - Experts by Experience

Three experts by experience were consulted for this project. They were aged 28-65, and came from different disciplines across the NHS, including admin & estates, clinical staff, and technical staff. All EBEs were female.

Appendix I: TDRP – Qualitative Questions

- What improves your wellbeing at work, and what makes it worse?
- How would you feel about seeking help for wellbeing at work?
- What would stop you from reaching out for help for your wellbeing at work, and what would make it easier?
- If you have sought help for your wellbeing at work, how did you find this?

Appendix J: TDRP - Ethical approval letter

MEDICAL SCIENCES INTERDIVISIONAL RESEARCH ETHICS COMMITTEE
Research Services, Boundary Brook House, Churchill Drive, Headington, Oxford, OX3 7GB
Tel: +44(0)1865 616575
ethics@medsci.ox.ac.uk

CONFIDENTIAL

Dr Matthew Hotton & Robyn Murphy
Oxford Institute of Clinical Psychology Training & Research (OxICPTR)
Isis Education Centre
Warneford Hospital
Oxford

25 July 2024

Dear Dr Hotton and Robyn,

Research Ethics Approval - CUREC 1

Ethics Approval Reference: R94431/RE001

Study title: Stigma, psychological safety, and help-seeking for work-related psychological wellbeing among NHS staff

Short title: Work Related Psychological Wellbeing and Help-seeking in NHS Staff

The above application has been considered on behalf of the Medical Sciences Interdivisional Research Ethics Committee (MS IDREC) in accordance with the University's procedures for ethical approval of all research involving human participants.

I am pleased to inform you that, on the basis of the information provided to the IDREC, the proposed research has been judged as meeting appropriate ethical standards, and approval has been granted from **25th July 2024** until **24th January 2026.**

Insurance-provided indemnity arrangements are in place for the duration of the approval stated above. It is your responsibility to ensure that you request an extension to the end date for indemnity to remain in place should you continue the research beyond the dates covered.

Amendments

Should there be any subsequent changes to the study, you should submit details to the MS IDREC for consideration and approval. Details of changes must be listed on an amendment form.

Yours Sincerely

DocuSigned by:
Leah Butts
9F14889D2BC549A...

Mrs Leah Butts
Research Ethics Administrator

for
Dr Helen Barnby-Porritt
Research Ethics Manager

Appendix K: TDRP – Survey

Stigma and Help seeking

Start of Block: Default Question Block

Start of Block: Information Sheet

Work related psychological wellbeing and help-seeking in NHS staff. CUREC Ethical Approval Reference: R94431/RE001 General Information Many factors influence how comfortable people feel about seeking help for their psychological wellbeing, whether at work or otherwise. We know that some researchers have found that healthcare staff may find it difficult to seek help for their own psychological wellbeing at work, and that some people might worry about the impact on their career if they do. The aim of this research is to learn more about what affects NHS staff psychological wellbeing, including why some NHS staff feel comfortable to seek support for their psychological wellbeing at work and some do not. We are also interested in understanding more about the role that support from colleagues can play in NHS staff psychological wellbeing. The research will therefore include some questions about your own thoughts on different aspects of your psychological wellbeing at work and what affects it. We appreciate your interest in participating in this survey. You have been invited to participate as you are an NHS employee aged 18 years and over, who has noticed a problem with their psychological wellbeing at work. Please read through this information before agreeing to participate (if you wish to) by ticking the 'yes' box below. You may ask any questions before deciding to take part by contacting the researcher (details below). The Principal Investigator is Dr Matthew Hotton, and the lead researcher is Robyn Murphy. Both are attached to the Oxford Institute of Clinical Psychology Training and Research at the University of Oxford. This research is also being completed under the supervision of Dr Carmen Chan (Oxford Health NHS Foundation Trust). You will be asked to complete a series of questionnaires about your psychological wellbeing at work. This should take about 20 minutes. No background knowledge is required. This anonymous data will then be analysed by the researcher, Robyn Murphy, and written up in partial fulfilment of the Doctorate in Clinical Psychology and for publication. Access will be granted to the MS IDREC (ethics committee) for the purposes of monitoring and/or audit of the research. No other third parties will have access to your data. **Do I have to take part?** No. Please note that participation is voluntary. If you do decide to take part, you may withdraw at any point for any reason before submitting your answers by closing the browser. **How will my data be used?** We will not collect any data that could directly identify you. Your IP address will not be stored. We will take all reasonable measures to ensure that data remain confidential. The responses you provide will be stored in a password-protected electronic file on University of Oxford secure servers and may be used in academic publications. Research data will be stored for 3 years after publication or public release of the work of the research and then securely deleted. **Who will have access to my data?** Qualtrics is the data controller with respect to your personal data and, as such, will determine how your personal data is used. Please see their privacy notice here: https://www.qualtrics.com/privacy-statement/. Qualtrics will only share anonymised data with the University of Oxford, for the purposes of research. The results will be written up for a doctorate degree in clinical psychology and for publication. **Who has reviewed this research?** This research has been reviewed by, and received ethics clearance through, a subcommittee of the University of Oxford Central University Research Ethics Committee, reference number R94431/RE001. **Who do I contact if I have a concern or I wish to complain?** If you have a concern about any aspect of this research, please speak to Robyn Murphy (robyn.murphy@hmc.ox.ac.uk) or their supervisor Dr. Matthew Hotton (matthew.hotton@hmc.ox.ac.uk). We will acknowledge your concern within 10 working days and give you an indication of how it will be dealt with. If you remain unhappy or wish to make a formal complaint, please contact the University of Oxford Research Governance, Ethics & Assurance (RGEA) team at rgea.complaints@admin.ox.ac.uk or on 01865 616480.the Chair of the Research Ethics Committee at the University of Oxford who will seek to resolve the matter as soon as possible: Medical Sciences Interdivisional

Research Ethics Committee; Email: ethics@medsci.ox.ac.uk; Address: Research Services, University of Oxford, Boundary Brook House, Churchill Drive, Headington, Oxford OX3 7GB **Please note that you may only participate in this survey if you are working in the NHS, are 18 years of age or over and are not currently actively seeking professional help (eg. from a doctor, occupational health team, or therapist) for work-related psychological wellbeing.**

O I certify that I am 18 years of age or older (1)

Q26

O I certify that I work in the NHS, in any role. (1)

Q7

O I certify that I am not currently seeking professional help for work-related psychological wellbeing. (1)

Q6 If you have read the information above and agree to participate with the understanding that the data you submit will be processed accordingly, please tick the box below to start.

O Yes, I agree to take part (1)

End of Block: Information Sheet

Start of Block: Block 9

Q23 Before proceeding to the rest of the survey, please complete the captcha below.

End of Block: Block 9

Start of Block: Demographics Questions

Q9 What is your age (in years)?

_____

Q8 What is your gender?

O Female (1)

O Male (2)

O Non-binary (3)

O Prefer not to say (4)

O Prefer to self-describe (5) _____

Q10 Is your gender identity the same as the sex you were assigned at birth?

O Yes (1)

O No (2)

O Prefer not to say (3)

Q11 What is your ethnic group? Please choose one group that best describes your ethnic group and background.

O White: Welsh/English/Scottish/Northern Irish/British (1)

O White: Irish (2)

O White: Gypsy or Irish Traveller (3)

O Any other White background, please describe (4)

_____

O Mixed/Multiple Ethnic Groups: White and Black Caribbean (5)

O Mixed/Multiple Ethnic Groups: White and Black African (6)

O Mixed/Multiple Ethnic Groups: White and Asian (7)

O Any other Mixed/Multiple Ethnic Background, please describe (8)

_____

O Asian/Asian British: Indian (9)

O Asian/Asian British: Pakistani (10)

O Asian/Asian British: Bangladeshi (11)

O Asian/Asian British: Chinese (12)

O Any other Asian background, please describe (13)

_____

O Black/African/Caribbean/Black British: African (14)

O Black/African/Caribbean/Black British: Caribbean (15)

O Any other Black/African/Caribbean background, please describe (16)

_____

O Other ethnic group: Arab (17)

O Any other ethnic group, please describe (18)

_____

Q12 What is your main job role?

- O Ambulance Staff (1)
- O Administration & Estates Staff (2)
- O Healthcare assistants & support staff (3)
- O Medical staff (4)
- O Dental staff (5)
- O Nursing staff (6)
- O Midwifery staff (7)
- O Health visiting staff (8)
- O Allied Health Professionals (or Scientific, Therapeutic and Technical Staff): please indicate discipline (9) _____
- O Healthcare Science Staff: please indicate discipline (10)
  _____
- O Voluntary staff (11)
- O Student/visiting staff: please indicate discipline (12)
  _____
- O Other, please specify (13) _____

Q13 Length of time in current role (in years)

_____

Q14 Length of time working in NHS (in years)

_____

Q15 Have you previously sought professional help for your work-related psychological wellbeing?

O Yes (1)

O No (2)

Q16 If yes, where from?

☐ Occupational health team (1)

☐ Psychologist/Psychiatrist (2)

☐ Other mental health professional (3)

☐ Employee Assistance Programme (4)

☐ Doctor/GP (5)

☐ Supervisor/Manager (6)

☐ Other colleague at work (7)

☐ Other, please describe (8) _____

Q17 What kind of service, ward or department you work in and/or which patient group do you support (for example emergency department, pharmacy, cardiology, adult mental health)?

_____

End of Block: Demographics Questions

Start of Block: Block 3

Q25 This next set of questions asks about your experiences of psychological wellbeing at work. Please answer by writing in the text boxes.

Q15 What improves your wellbeing at work, and what makes it worse?

Q16 How would you feel about seeking help for wellbeing at work?

Q17 What would stop you from reaching out for help for your wellbeing at work, and what would make it easier?

Q18 If you have sought help for your wellbeing at work, how did you find this?

End of Block: Block 3

Start of Block: Block 4

Q19 **General Help-Seeking Questionnaire (Wilson et al, 2005)**

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Q20 **Psychological Safety Scale (Edmondson, 1999)** These questions ask about psychological safety at work – psychological safety refers to how safe it feels to make mistakes at work and how supported you feel by your team. When answering these questions, please think about your direct team.

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End of Block: Block 5

Start of Block: Block 6

Q21 **Internalised Stigma of Mental Illness Inventory – 9 Item Version (ISMI-9; Hammer & Toland, 2017).** We are going to use the term 'mental illness' in the rest of this questionnaire, but please think of it as whatever you feel is the best term to reflect your experiences of difficulties with psychological wellbeing at work. For each question , please mark whether you strongly disagree (1), disagree (2), agree (3) or strongly agree (4).

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End of Block: Block 6

Start of Block: Block 8

Q22 **DASS-21 (Lovibond & Lovibond, 1995)** Please read each statement and indicate a number 0, 1, 2 or 3 which indicates how much the statement applied to you over **the past week**. There are no right or wrong answers. Do not spend too much time on any statement.

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Q27 **Please click below to complete the survey and submit your answers.**

End of Block: Block 8

Appendix L: Author Guidelines for British Journal of Pharmacy

About

British Journal of Pharmacy (ISSN 2058-8356) is an online peer-reviewed open access journal offering gold open access with no article processing charges (APCs). The Journal aims to publish original research papers, critical reviews and rapid communications on the latest developments in pharmacy.
The Journal accepts manuscripts highlighting novel research and development in pharmacy. The submission can be accepted from a wide array of pharmaceutical sciences, including the practice of pharmacy, novel therapeutic targets and molecular pharmacy, contemporary formulation strategies to improve drug delivery and targeting, industrial pharmacy, pharmaceutical and medicinal chemistry, pharmacokinetics and therapeutics, pharmacoeconomics, pharmacovigilance and innovations in teaching pharmacy.
British Journal of Pharmacy is indexed in the Directory of Open Access Journals.
To read more about the journal, please refer 'About BJPharm'.

Focus and Scope

The Journal accepts manuscripts highlighting novel research and development in pharmacy. The submission can be accepted from a wide array of pharmaceutical sciences, including the practice of pharmacy, novel therapeutic targets and molecular pharmacy, contemporary formulation strategies to improve drug delivery and targeting, industrial pharmacy, pharmaceutical and medicinal chemistry, pharmacokinetics and therapeutics, pharmacoeconomics, pharmacovigilance and innovations in teaching pharmacy.

Submission Checklist

As part of the submission process, authors are required to check off their submission's compliance with all of the following items, and submissions may be returned to authors that do not adhere to these guidelines.

1. The submission file is in OpenOffice, Microsoft Word, RTF, or WordPerfect document file format.
2. Where available, URLs and DOIs for the references have been provided.
3. The manuscript should be prepared using the appropriate template. The acceptable bibliographic style for the journal is Author Date – an EndNote referencing style is also available to help you format your bibliography according to the journal requirements. Manuscripts not prepared in the prescribed format will not be considered and shall be returned to the authors. Please read the guidance notes carefully before preparing and submitting your manuscript.
4. The manuscript should represent previously unpublished original research conducted by authors and should not be under consideration simultaneously elsewhere. All authors must be aware of and in

agreement with the content of the manuscript in full and share responsibility. Appropriate credit should be given to those who have contributed to the hypothesis, generation or interpretation of the data in the manuscript. The manuscript should acknowledge prior work and related publications by appropriate citation of the scientific literature. Authors should be aware that the manuscript may be subject to a plagiarism check using appropriate electronic tools. If a violation of scientific ethics is observed or reported, authors will be asked for an explanation which will be assessed by the editorial team and the manuscript will be rejected or retracted, as the case may be, on the discretion of the editorial board. In addition, the Editor-in-Chief also reserve the right to report such misconduct to authors affiliated institutions, furthermore, the authors may also be barred from any future publication in the journal.

5. Manuscripts containing data from animal or human experiments should declare the relevant Ethics Committee’s details approving the protocols used for the study under the experimental section. Any submission outlining research on animals or humans without details of approval from relevant bodies shall not be considered for publications.
6. The manuscripts should be written in clear and concise English and responsibility for all aspects of manuscript preparation rests with authors. Major changes or rewriting of the manuscript will not be undertaken by the editors unless recommended and notified during the review process.
7. Please use "Comments for the Editor" section to suggest potential reviewers to the editor, please refer 'Peer Review' section below for further information.
8. A cover letter addressed to the editor, may also be uploaded as a separate document, stating the novelty embodied in the manuscript or the novelty of research approach.
9. **Titles** should be clear, concise and underline the research presented in the manuscript. General and broad titles beyond the scope of the manuscript are not acceptable. Symbols, formulae or arbitrary abbreviations should be avoided, unless necessary for e.g., symbols for chemical isotopes.
10. **Abstract** should briefly present the key highlights of the manuscript as a single paragraph and should state the objectives, methods, results and conclusion without any headings. The abstract should not be more than 200 words, be self-explanatory and not use any citations, footnotes, undefined or arbitrary abbreviations or symbols.
11. **Keywords** reflecting the content of the manuscript should be provided. Authors shall provide no less than 5 keywords and must select a primary classification for the article. This will help in appropriate indexing and selection of appropriate referees for peer review.
12. **Acknowledgements** section should outline any financial support, technical assistance, or advice, gifts, etc. It is the authors’ responsibility to obtain necessary permissions and rights for reproduction of any content being submitted for publication, where applicable.

13. **Rapid Communications** If you have encountered any innovative finding behind the lens, which you cannot explain at the moment but would like to publish and share with scientific community to encourage further research to explore this further, ***rapid communications*** will be the best choice. A microscopic or digital image or an animated original video are examples of, but not limited to, potential contributions under this category and contributors are encouraged to send any proposal to the editors for consideration. The content must be original and not been already published or under consideration elsewhere and should contain an innovative finding. Image manipulation to improve legibility and enhance readers experience is permitted but must be disclosed and clearly described. Any modification, alteration and editing to conceal or obscure an image, or a part of, is not permitted in any circumstances and shall be treated as scientific misconduct. A brief commentary will also be required along with the multimedia content to explain precisely, in clear English, the findings and shall be appropriately referenced to justify novelty. The commentary should be restricted to a maximum of 200 words, unless deemed necessary and agreed by the editors. The submissions under this category should be submitted on specified template.
14. **2023 APS Special Issue** If you are submitting an abstract for presentation in 14th APS PharmSci International Conference 2023 and onward publication in APS Special in BJPharm, please make sure you have prepared your abstract using specified APS template and indicate this on the article information page so this can be processed accordingly.

Appendix M: Author Guidelines for Journal of Occupational and Organizational Psychology

JOOP AUTHOR GUIDELINES

Sections

Submission
Aims and Scope
Manuscript Categories and Requirements
Preparing the Submission
Editorial Policies and Ethical Considerations
Author Licensing
Publication Process After Acceptance
Post Publication
Editorial Office Contact Details

1. SUBMISSION

Authors should kindly note that submission implies that the content has not been published or submitted for publication elsewhere except as a brief abstract in the proceedings of a scientific meeting or symposium.

New submissions should be made via the Research Exchange submission portal. You may check the status of your submission at any time by logging on to submission.wiley.com and clicking the "My Submissions" button. For technical help with the submission system, please review our FAQs or contact submissionhelp@wiley.com.

All papers published in the *Journal of Occupational and Organizational Psychology* are eligible for Panel A: Psychology, Psychiatry and Neuroscience in the Research Excellence Framework (REF).

Data protection:

By submitting a manuscript to or reviewing for this publication, your name, email address, and affiliation, and other contact details the publication might require, will be used for the regular operations of the publication, including, when necessary, sharing with the publisher (Wiley) and partners for production and publication. The publication and the publisher recognize the importance of protecting the personal information collected from users in the operation of these services, and have practices in place to ensure that steps are taken to maintain the security, integrity, and privacy of the personal data collected and processed. You can learn more at https://authorservices.wiley.com/statements/data-protection-policy.html.

Preprint policy:

This journal will consider for review articles previously available as preprints. Authors may also post the submitted version of a manuscript to a preprint server at any time. Authors are requested to update any pre-publication versions with a link to the final published article.

2. AIMS AND SCOPE

The *Journal of Occupational and Organizational Psychology* aims to increase understanding of people and organisations at work including:

industrial, organizational, work, vocational and personnel psychology
behavioural and cognitive aspects of industrial relations
ergonomics and human factors
industrial sociology

Innovative or interdisciplinary approaches with a psychological emphasis are particularly welcome. So are papers which develop the links between occupational/organisational psychology and other areas of the discipline, such as social and cognitive psychology.

3. MANUSCRIPT CATEGORIES AND REQUIREMENTS

We welcome the following varieties of paper:

empirical research papers, containing new quantitative or qualitative data which address significant theoretical and/or practical concerns;
papers which offer new theory and conceptualisation, perhaps accompanied by a critique of existing approaches;
narrative and/or quantitative reviews of existing research which lead to new conclusions or insights into a field of research and/or practice (All systematic reviews must be pre-registered and an anonymous link to the pre-registration must be provided in the main document, so that it is available to reviewers. Systematic reviews without pre-registration details will be returned to the authors at submission.);
prescriptive articles advocating changes in research paradigms, methods, or data analytic techniques;
analyses of practice in occupational and organizational psychology, where such analyses are driven by theory and/or sound data.

Please refer to the separate guidelines for Registered Reports.

The word limit for papers submitted for consideration to JOOP is 8000 words and any papers that are over this word limit will be returned to the authors. The word limit does not include abstract, references, figures, and tables. Appendices however are included in the word limit. The Editor retains discretion to publish papers beyond this length in cases where the clear and concise expression of the scientific content requires greater length (e.g., a new theory or a new method). The authors should contact the Editor first in such a case.

Short Research Notes

In order to supplement innovative research produced in full paper format, the journal provides access to a wider range of investigation through the publication of research in Short Research Note format. Papers submitted as Short Research Notes will be subject to the normal double-anonymous review process. Short Research Notes should be largely empirical studies. Typically, they will do one of the following:
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