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Investigating the Relationship between Burnout, Workload, and Imposter Syndrome for Mental Health Nurses in the UK

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ABSTRACT

This study investigated the interrelationship between burnout, workload, and imposter syndrome among mental health nurses within the UK. Understanding their connections is crucial given the detrimental effects of these factors on workplace well-being. Despite extensive research on imposter syndrome in various healthcare professions, its exploration within nursing has been limited. This study aimed to address this gap by examining the relationships between these variables in a sample of registered mental health nurses. Correlational analyses revealed moderate to high levels of burnout, workload, and imposter syndrome among participants. While a significant positive correlation was found between burnout and workload, no significant associations were observed between burnout and imposter syndrome. These findings are discussed within the context of existing literature, and potential implications for future research are explored.

Introduction

Burnout, a prevalent occupational hazard, stems from chronic exposure to interpersonal and emotional stressors (Maslach, 1993). It negatively impacts productivity, absenteeism, job satisfaction, and care quality (Maslach et al., 2001; Dall'Ora et al., 2020). Meta-analyses consistently demonstrate burnout's prevalence among mental health nurses worldwide which highlights the importance of understanding this phenomenon (López-López et al., 2019; Coffey, 1999). Burnout frequently occurs among people who work in demanding jobs, like nursing, due to exposure to chronic emotional and interpersonal stressors such as high workload, role conflict and ambiguity, lack of autonomy, lack of social support, and lack of feedback (Maslach et al., 2001). It was originally characterized by three dimensions; emotional exhaustion, depersonalization, and reduced personal accomplishment (Maslach, 1993). Individual factors like age, experience, self-esteem, coping styles, and locus of control also influence burnout (Brewer & Shapard, 2004; Semmer & Meier, 2009).

According to research, mental health nurses experience higher burnout rates than general nurses (Imai et al., 2004). Several role-specific factors may contribute to this disparity. For example, mental health nurses may experience distress due to the emotional toll of suppressing their feelings (emotional restraint) and the constant exposure to the emotional vulnerability of their clients (Edward et al., 2017). Vicarious trauma, resulting from empathetic engagement with trauma survivors, is also a known risk factor for burnout (Isobel & Thomas, 2022). Moreover, mental health nurses face a significantly higher risk of workplace violence (Dean et al., 2021), which has been linked to increased burnout.

Several theories attempt to explain the causes of burnout (Edú-Valsania et al., 2022). The Job Demands-Resources Model (JD-R), a widely recognized theoretical framework, posits that high job demands and low job resources are the primary determinants of workplace burnout (Demerouti et al., 2001). This model is particularly applicable to mental health nursing, where overwhelming workload, time constraints, emotional labor, and inadequate staffing (Foster et al., 2021) create a high-risk environment for burnout. The JD-R measures two key dimensions of burnout: exhaustion, attributed to high demands, and disengagement, linked to low resources (Bakker & Demerouti, 2017). These dimensions reflect the conceptualization of burnout offered by Maslach et al. (2001), with exhaustion correlating with emotional exhaustion, and disengagement correlating with depersonalization (Le et al., 2023).

High workload and mental health

High workload, a longstanding challenge in nursing, has intensified in recent years (Simpson, 2005). While there's no universally agreed definition, Van Veldhoven et al.

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(2014) distinguishes between quantitative and qualitative job demands. Quantitative demands encompass the volume, speed, and physical or psychological effort required, while qualitative demands involve the skills and training needed for tasks. Nurses often grapple with both (Diehl et al., 2021). Staff shortages, a prevalent issue in UK nursing (Ford, 2023), often result in individual nurses assuming the responsibilities of multiple colleagues (Cranage & Foster, 2022), contributing to a high quantitative workload. The highly skilled nature of nursing, particularly mental health nursing, further exacerbates this. The qualitative workload is amplified by administrative tasks (Edwards et al., 2000), managing staff (Cranage & Foster, 2022), and building therapeutic relationships with service users (Jones & Wright, 2017; Tolosa-Merlos et al., 2023). Consequently, investigating the relationship between workload and other occupational hazards is a critical research priority.

In 2021, a UK-wide survey revealed that 63% of nurses could not take all their annual leave, 61.5% felt unable to provide adequate care, and 77.4% worked while ill (Royal College of Nursing, 2019). These challenges are particularly acute for mental health nurses, as understaffing increases the risk of violence and aggression, hindering therapeutic relationships (Care Quality Commission, 2022). Chronic high workload negatively impacts nurses' mental and physical health (Bailey & West, 2021), underscoring the need to better understand its causes and consequences.

Imposter syndrome

Imposter Syndrome (IS) is characterized by feelings of internal inadequacy despite external success (Clance & Imes, 1978). IS has detrimental consequences, including mental health issues (Freeman & Peisah, 2022), reduced job satisfaction (Vergauwe et al., 2015), heightened sensitivity to criticism (Dudău, 2014), and hindered career progression (Fitzpatrick & Curran, 2014). Although not formally defined medically, Clance (1985) identified six key components of IS: the imposter cycle (over-preparation or procrastination before a task, and a lack of long-term sense of achievement upon its completion), perfectionism, super-heroism (the need to be the best), atychiphobia (fear of failure), denial of competence and capability, and achievemephobia (fear of success). These characteristics are interlinked, and feed into each other, thereby maintaining the feeling of IS.

While IS has traditionally been argued to primarily impact women (Clance & Imes, 1978) and ethnic minorities (Peteet et al., 2015) recent conceptualizations of IS have moved beyond the individual and have attributed it to environmental factors (Feenstra et al., 2020). These include institutional biases, the way people are treated by peers, or social hierarchies (Feenstra et al., 2020). Therefore, studying IS across multiple professions is important, to assess how different occupational responsibilities and environments impact its manifestation.

Imposter syndrome in nurses

Although research on Imposter Syndrome (IS) among nurses is limited, consistent findings among doctors (Thomas & Bigatti, 2020; Shanafelt et al., 2022) suggest its potential in nursing. Many risk factors identified in doctors, including lack of support, high responsibility, and perfectionism (Gottlieb et al., 2020; Arleo et al., 2021; Chodoff et al., 2023), are also prevalent among mental health nurses (Melrose, 2011; Chang, 2017; Cranage & Foster, 2022).

Gender

Gender, a known risk factor for IS in nursing (Villwock et al., 2016; Kogan et al., 2020), is particularly relevant due to the profession's female-dominated nature (Nursing & Midwifery Council, 2023). However, female leadership (Feenstra et al., 2020) may mitigate this effect. Studying IS among mental health nurses offers a unique opportunity to explore these dynamics.

Perfectionism

Perfectionism, a core component of IS, can lead to setting unattainable goals and standards, and increasing workload (Clance, 1985). This can contribute to workplace martyrdom, a tendency to sacrifice personal interests for the greater good (Huecker et al., 2022). For nurses, this often manifests as excessive time and energy expenditure (Rhodes, 2023). The "nurse as hero" narrative, prevalent since COVID-19, may exacerbate this phenomenon, pressuring nurses to exceed expectations (Mohammed et al., 2020, p 2).

Career progression

Studies suggest a high prevalence of IS among nursing students (Aubeeluck et al., 2016; Christensen et al., 2016), often linked to feelings of unpreparedness for practice (Smythe & Carter, 2022). While early career stages are particularly vulnerable, IS may persist or intensify as nurses advance. Increased responsibilities, visibility, and leadership demands can contribute to feelings of inadequacy (John, 2019; Cartwright, 2022). While evidence exists for IS in more advanced clinical nursing students (Ares, 2018), direct studies on qualified nurses are needed (Barrow, 2019; Peng et al., 2022).

Triadic relationship

Research indicates that imposter Syndrome (IS) and workload are interconnected in several ways, both directly and indirectly contributing to burnout in mental health nursing. Direct links include perfectionism, a core component of IS, which often leads to setting unrealistic goals and standards. This can increase workload as nurses strive to meet these excessive expectations, potentially leading to overworking and burnout. Additionally, the fear of failure associated with IS may hinder nurses from delegating tasks or seeking support, further exacerbating their workload. Indirect links include IS leading to self-doubt and decreased job satisfaction, which are significant risk factors for burnout. The self-critical nature of IS can contribute to feelings of emotional exhaustion and depersonalization, two core components of burnout. Furthermore, the "Nurse as Hero" narrative, prevalent since COVID-19, may intensify the pressure on nurses to be perfect, potentially exacerbating IS and burnout.

The present study

This study aims to explore the relationship between burnout, workload, and Imposter Syndrome (IS) among mental health nurses. While evidence suggests a connection between burnout and IS (Bravata et al., 2020), studies specifically examining this relationship in nurses are lacking (Edwards-Maddox, 2023). Given the correlation between these variables among mental health professionals (Clark et al., 2022), mental health nurses are a suitable population for this research.

The robust correlation between burnout and workload (Van Bogaert et al., 2013; Konstantinou et al., 2018) justifies a triadic investigation of these variables to acknowledge the potential for a direct relationship between workload and IS. This approach allows for a comprehensive understanding of the interplay between these factors and their impact on mental health nurses.

Aims and hypothesis

This quantitative study aims to investigate the relationship between Imposter Syndrome (IS), burnout, and workload among mental health nurses in the UK. Based on the current literature, the following hypothesis is proposed:

Hypothesis 1: A triadic relationship will be found between Burnout, Workload, and Imposter Syndrome among mental health nurses in the UK.

Methods

Design

This study employed a cross-sectional, within-subjects design. Participants completed the Oldenburg Burnout Inventory (Demerouti et al., 2003), the Quantitative Workload Inventory (Spector & Jex, 1998), and the Clance Imposter Phenomenon Scale (Clance, 1985). These measures assessed burnout, workload, and imposter syndrome, respectively. The estimated completion time for the survey was around 5–10 min.

Participants

Participants were recruited from a convenience sample of registered mental health nurses currently employed full-time or part-time in the United Kingdom. Before recruitment, ethical approval was obtained (ethics code: 955). Participants were recruited through social networking platforms such as

Table 1.	Demographic	characteristics	of	participants.

Characteristic	n	Percentage	
Gender			
Female	59	83.1%	
Male	11	15.5%	
Non-binary	1	1.4%	
Race/Ethnicity			
White British	63	86.3%	
White Irish	2	2.7%	
Mixed White and Black Caribbean	1	1.4%	
Mixed White and Black African	1	1.4%	
Indian	1	1.4%	
African	1	1.4%	
White Scottish/African American	1	1.4%	
Portuguese	1	1.4%	
Russian	1	1.4%	
Other mixed ethnic background	1	1.4%	
Age			
20–30	26	35.6%	
31–40	29	39.7%	
41–50	11	15.1%	
51–60	6	8.2%	
61–70	1	1.4%	
Years qualified as a nurse			
0–5	38	52.1%	
6–10	20	27.4%	
11–15	6	8.2%	
16–20	4	5.3%	
21–25	2	2.7%	
26+	3	4.1%	
Years in current role			
0–5	64	90.1%	
6–10	5	7.0%	
10+	2	2.8%	

Facebook, Twitter, and LinkedIn. This voluntary approach allows nurses to complete the survey at their convenience, especially given the time constraints they often face at work. To enhance anonymity and honesty, data was collected anonymously. To see the full demographic characteristics of participants see Table 1.

Apparatus and materials

To assess burnout, the Oldenburg Burnout Inventory (OLBI) (Demerouti et al., 2003) was employed. Aligned with the JD-R theory of burnout, the OLBI addresses the psychometric limitations of the Maslach Burnout Inventory. It includes reverse-scored items to mitigate agreement bias and enhance engagement. The OLBI consists of 16 statements related to burnout, rated on a 4-point Likert scale. It measures emotional exhaustion and depersonalization. Previous studies have demonstrated acceptable retest reliability and factorial, convergent, and discriminant validity (Halbesleben & Demerouti, 2005), including among nurses and nursing students (Bulfone et al., 2022; Xu et al., 2022).

Workload strain was assessed using the Quantitative Workload Inventory (QWI) (Spector & Jex, 1998). This 5-item scale measures the frequency of workload-related difficulties. The QWI is widely used in nursing research (Cho et al., 2022) and has demonstrated high validity and reliability (Keser et al., 2017).

Imposter syndrome was measured using the Clance Imposter Phenomenon Scale (CIPS) (Clance, 1985). This 20-item scale, rated on a 5-point Likert scale, is commonly used to assess imposter syndrome and has shown high construct validity (Chrisman et al., 1995). Permission to use the CIPS was obtained from Dr. Pauline Clance directly through e-mail.

Procedure

Data collection was conducted using Qualtrics, an online survey platform. This platform allowed for flexibility, enabling participants to complete the survey using computers or smartphones. The survey was open from July 19, 2023 to August 12, 2023.

Prior to participation, participants were presented with an information sheet detailing the study's aims and information on IS. Informed consent was obtained through a clear statement, with participants redirected to the end of the survey if they declined. To be eligible, participants had to be over 18 years old and registered mental health nurses currently employed in the UK. General nurses, mental health nursing students, nursing administrators, and allied health professionals were excluded. A declaration form ensured participants met these criteria. Following consent, participants provided demographic information (age, gender, ethnicity, years of experience, current role, and banding). They then completed the Oldenburg Burnout Inventory (OLBI), Clance Imposter Phenomenon Scale (CIPS), and Quantitative Workload Inventory (QWI). Upon completion, participants were thanked and provided with links to relevant online resources for further support.

Statistical analysis

To address the research question, correlational analysis was employed, given the hypothesis' lack of a true dependent variable, rendering regression analysis unsuitable. Pearson's correlation and Pearson's partial correlation were used for variables meeting normality assumptions. For non-normal variables, appropriate transformations were applied. If transformations were unsuccessful, non-parametric Spearman's rank correlation was used. The effect size was assessed using Cohen's standard (Cohen, 1988), a suitable measure for Pearson's correlation, Pearson's partial correlation, and Spearman's coefficient (Statistics Solutions, 2022). Statistical analyses were conducted using SPSS version 28.0.1.1. A priori power analysis using G*Power (Faul et al., 2007) determined that a sample size of 84 participants was needed to achieve 80% power to detect a medium (0.30) effect size (Cohen, 1988). An alpha level of 0.05 was maintained for all analyses.

Results

A total of 106 participants accessed the survey via the Qualtrics link. Data was transferred to SPSS for cleaning and analysis. Participants who did not complete all measures (OLBI, QWI, CIPS) or provided incorrect information (consent, role) were excluded, resulting in a final sample of N=73. Several participants provided non-numeric responses for years in their current role. These responses

were recoded into numeric values (e.g. "6 months" became 0.5 years). For responses indicating less than a year, one year was assumed.

Outlier analysis using boxplots in SPSS revealed no significant outliers. All inventories, including burnout subscales, demonstrated acceptable reliability (Cronbach's Alpha > 0.70).

Shapiro-Wilk tests indicated that workload (p < 0.001), IS (p = 0.030), years qualified (p < 0.001), and years in the current role (p < 0.001) did not meet normality assumptions. The square transformation was applied to IS to enable parametric testing (W = 0.985, p = 0.513). For workload, years qualified, and years in the current role, non-parametric testing was used.

Descriptive statistics

A total of 71 participants provided gender information. Of these, 59 (83.1%) identified as female, 11 (15.5%) identified as male, and 1 (1.4%) identified as non-binary. Most participants (63; 86.3%) self-reported as White British. The age range of participants was 23–62 years, with a mean age of 35.

Regarding professional experience, participants reported a range of 3 months to 13 years in their current roles, with a mean of 2.4 years. Additionally, the time spent qualified in their field varied from 10 months to 32 years, with a mean of 7.5 years.

Moderate to high levels of workload, burnout, and IS were found in the sample. The Workload Strain, as measured by the QWI (out of 25), was exceptionally high (M=21.27, SD=4.04). A significant majority (64.4%) scored above 21, with 31.1% reaching the maximum score of 25. IS scores were also elevated (M=64.81, SD=17.75). The CIPS categorizes IS levels: below 40 indicates few characteristics, 41–60 moderate IS, 61–80 frequent feelings, and 81–100 intense experiences (Clance, 1985). Notably, 89% of participants reported at least moderate levels of IS. Burnout scores, as measured by the OLBI (out of 32), were higher for exhaustion (M=23.20, SD=3.59) than for disengagement (M=20.03, SD=3.59).

Inferential statistics

Correlational analyses were conducted to examine relationships between exhaustion, disengagement, workload, and Imposter Syndrome (IS). Bivariate Pearson's correlation, Pearson's partial correlation, and Spearman's rank correlation were employed.

IS was found to be positively correlated with exhaustion (r(71) = 0.231, p=0.050) but not disengagement. Controlling for confounding factors, this relationship remained non-significant. IS was negatively correlated with years qualified (r(71) = -0.244, p=0.038) and age (r(71) = -0.354, p=0.002), suggesting that more experienced and older nurses were less likely to experience IS. However, no significant relationship was found between IS and years spent in the current role.

Workload was positively correlated with both exhaustion (r(71) = 0.353, p=0.002) and disengagement (r(71) = 0.263, p=0.024). See Table 2 for Spearman's Rank correlations for all variables.

Table 2. Spearman's rank correlation coefficient for all variables.

	IS	Wld	Ex	Dis	Qul	Cr	Age	Gen	Eth
IS	1	-0.161	0.193	0.139	0.244*	-0.031	-354**	0.087	0.184
Wld	-0.161	1	0.353**	0.265*	-0.081	-0.183	-0.088	-0.075	-0.071
Ex	0.193	0.353**	1	0.590**	-0.202	-233*	-0.128	0.057	0.283*
Dis	0.139	0.265*	0.590**	1	-0.264*	-0.271*	-0.192	-0.115	0.214
Qul	-0.244*	-0.081	-0.202	-264*	1	-0.398**	0.631**	-0.065	-0.084
Cr	-0.031	-0.183	-0.233*	-0.271*	0.398**	1	0.283*	0.087	-0.116
Age	0.354**	-0.088	-0.128	-192	0.631**	0.283*	1	-0.259*	-152
Gen	0.087	-0.075	0.057	-0.115	-0.065	0.087	-0.259*	1	-0.099
Eth	0.184	-0.071	0.283*	0.214	-0.084	-116	-0.152	-0.099	1

N=73.

IS: impostor syndrome; WLD: workload; Ex: exhaustion; Dis: disengagement; Qul: years qualified as a mental health nurse; Cr: years spent in current role; Gen: gender; Eth: ethnicity.

*Correlation is significant at 0.05 level (two tailed).

**Correlation is significant at 0.01 level (two tailed).

Discussion

This study did not find a triadic relationship between burnout, workload, and Imposter Syndrome (IS). The absence of a correlation between workload and IS, despite theoretical expectations (Huecker et al., 2022), suggests that IS may not directly increase workload among mental health nurses. Consequently, the potential for IS to impact burnout through increased workload, as proposed by previous literature (Clark et al., 2022), is less likely in this context. Additionally, the lack of a direct relationship between IS and burnout, in contrast to findings among other healthcare professionals (Teke et al., 2023; Shanafelt et al., 2022), suggests that IS may influence mental health nurses differently.

While this study found a moderate positive correlation between workload and both dimensions of burnout, the lack of a triadic relationship highlights the complexities of these relationships and the potential for unique factors to influence the experience of Imposter Syndrome (IS) and burnout among mental health nurses.

Consistent with previous research (Edwards et al., 2000; Van Bogaert et al., 2013), this study found a moderate positive correlation between workload and both dimensions of burnout. The stronger correlation between workload and exhaustion aligns with existing findings (Konstantinou et al., 2018). Although slightly smaller than some prior studies (Jenkins & Elliott, 2004; Konstantinou et al., 2018), these correlations consistently demonstrate a robust association.

Contrary to expectations, this study found no significant correlation between Imposter Syndrome (IS) and workload, suggesting that IS does not directly increase workload among mental health nurses. Other cognitive distortions, such as perfectionism, may contribute to increased workload (Spagnoli et al., 2020). Future research could explore the link between perfectionism and workload in nursing.

While this study did not establish a direct relationship between IS and burnout, findings suggest a potential association between IS and exhaustion. This contradicts previous research linking IS to emotional exhaustion (Bravata et al., 2020). One explanation for the discrepancy could be the difference in participant populations. Previous studies often included doctors in training or early in their careers (Liu et al., 2022; Stelling et al., 2023), while this study focused on a broader range of mental health nurses. Self-doubt and questioning one's abilities, common among doctors in the early stages (Stelling et al., 2023), may not be as prevalent among mental health nurses.

Despite the lack of a triadic relationship, IS remains prevalent among mental health nurses, as evidenced by the high rates of moderate to severe IS in the sample. This highlights the need for further research into the impact of IS on mental health nurses, including its potential associations with other negative outcomes beyond burnout.

Limitations

The study's sample size of 73, while marginally below the power analysis target (N=84), increases the risk of Type II errors and may explain the absence of some expected correlations. Recruitment via social media might have been challenging for overworked nurses. The sample was predominantly female (83.1%) and white (89%), reflecting UK nursing demographics but limiting the representation of minority groups.

Future research should consider the nature of participants' roles (acute, older adults, psychiatric intensive care, liaison teams, and community), levels of nursing, organizations, and inclusion of non-NHS nurses. This would provide a more nuanced understanding of workload and its impact on mental health nurses.

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