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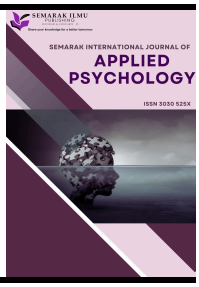

Understanding Mental Burnout in Hospital Raja Permaisuri Bainun: Prevalence and Coping Mechanisms among Healthcare Professionals

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ABSTRACT

Burnout is a significant and growing concern among healthcare professionals at Hospital Raja Permaisuri Bainun (HRPB), with doctors, nurses, and pharmacists particularly affected by high-stress demands. Burnout not only impacts the mental health and well-being of these professionals but also affects the quality of patient care, leading to issues such as medical errors, reduced productivity, and high staff turnover. Addressing burnout requires a comprehensive understanding of the factors contributing to it, as well as the coping mechanisms used by healthcare workers to manage this condition. Without this knowledge, it is challenging to design effective interventions that support mental health in high-pressure healthcare environments. The aim of this study is to examine the prevalence, associated factors and coping strategies related to burnout among healthcare professionals at HRPB. An analytic observational method with a cross-sectional design was employed, gathering data through online and printed questionnaires. Participants were recruited using non-probability convenience and snowball sampling methods. Descriptive statistics were used to analyse the prevalence and coping mechanisms of burnout, while Pearson's Chi-Square and inferential statistics identified associations between burnout and demographic factors such as age, gender, and educational background, with a significance level set at p-value < 0.05.The study found a moderate prevalence of burnout (54.7%) among healthcare professionals at HRPB, with personal and work factors (81.9%) and patient-related factors (85.5%) as the most frequent contributors. Among coping mechanisms, religion was the most frequently utilised strategy, suggesting its prominent role in resilience building. Conclusion: Burnout is moderately prevalent among healthcare professionals at HRPB and is significantly influenced by socio-demographic factors, such as age and professional status. Religion plays a primary role as a coping mechanism, pointing to the importance of spiritual support in mitigating burnout. These findings highlight the need for targeted interventions and training programmes within government institutions to support mental health, improve job satisfaction, and reduce burnout among healthcare professionals.

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1. Introduction

Healthcare is widely acknowledged as one of the most demanding professions, requiring considerable mental and psychological resilience to cope with its challenges. Research conducted by Nordin *et al*., [1] indicates that healthcare professionals working in hospitals are at a greater risk of experiencing burnout and stress compared to their counterparts in other settings. In Malaysia, hospital staff often endure long shifts and frequent on-call duties, while clinic personnel generally adhere to standard working hours with less intensive on-call responsibilities.

Burnout, as defined by the World Health Organisation (WHO) in 2019, is a chronic condition resulting from prolonged workplace stress [2]. The 11th International Classification of Diseases (ICD) describes burnout as a professional phenomenon characterised by fatigue and reduced efficacy due to job-related stress [3]. Persistent stress can lead to elevated cortisol levels, a primary stress hormone, which may have detrimental long-term effects on mental health [4].

A study by Roslan *et al*., [5] involving 893 healthcare professionals in Malaysia highlighted significant levels of burnout within this group. More than half of the respondents reported experiencing personal burnout, with 39.1% indicating work-related burnout and 17.4% attributing their burnout to patient-related factors. The findings revealed that personal burnout was most prevalent among pharmacists and medical staff in hospitals, while health inspectors and laboratory personnel reported higher levels of work-related burnout; paramedics and hospital healthcare workers experienced more patient-related burnout.

Globally, the prevalence of burnout among healthcare professionals varies significantly. Rotenstein *et al*., [6] documented a range of burnout from 0% to 80.5% among practitioners in 45 countries. In the Middle East, Chemali *et al*., [7] found that between 40% and 60% of healthcare providers experience burnout, while Dubale *et al*., [8] noted high levels of burnout among Sub-Saharan African healthcare workers, particularly nurses.

Healthcare professionals face intense pressures due to demanding schedules, on-call duties, and exposure to distressing situations [9]. In Malaysia, a staffing crisis exacerbates these challenges, contributing to exhaustion and burnout among healthcare workers. Factors such as long working hours, limited time with family, and inadequate compensation further intensify the risk of burnout.

This study focuses on healthcare professionals at Hospital Raja Permaisuri Bainun (HRPB), aiming to explore how they manage stress and develop resilience. Although the research is limited to HRPB due to time constraints, its findings are intended to be representative of broader healthcare contexts in Malaysia. By identifying factors contributing to burnout and effective coping strategies, this research seeks to enhance the well-being of healthcare professionals at HRPB and improve patient care, providing insights for mitigating burnout across the healthcare sector.

This study sheds light on the prevalence and coping mechanisms of burnout among healthcare professionals at HRPB; however, several research gaps and limitations warrant further exploration. A key limitation is the study's focus on a single institution, which restricts the generalisability of the findings to other healthcare settings. Future research should consider a larger and more diverse sample, encompassing healthcare professionals from various hospitals and regions, to enhance the applicability of the results. Additionally, while the quantitative approach used in this study provides valuable data, it lacks the depth that qualitative methods, such as interviews or focus groups, could offer. Incorporating such methods in future research would provide richer insights into the lived experiences and personal perspectives of healthcare professionals, further elucidating the complexities of burnout and coping mechanisms.

Moreover, this study did not evaluate the effectiveness of the coping strategies identified. Assessing which strategies lead to the most favourable outcomes would be crucial for developing

targeted interventions. Longitudinal studies are recommended to track changes in burnout levels and coping strategies over time, offering a more dynamic understanding of the issue. Finally, although the study highlights religion as a prominent coping mechanism, further exploration into the effectiveness of this and other strategies, such as emotional and informational support, could guide future interventions aimed at mitigating burnout and enhancing resilience among healthcare professionals.

2. Methodology

2.1 Study Participants

This study utilised an analytic observational approach with a cross-sectional design, employing both online and printed questionnaires for data collection. The study population consisted of healthcare professionals from Hospital Raja Permaisuri Bainun (HRPB) in Ipoh, Perak. Approval for the study was granted by the Medical Research & Ethics Committee (NMRR ID-24-00041-NF5), and written informed consent was obtained from all participants.

2.2 Research Instrument and Scoring Method

The questionnaire was structured into four sections (A, B, C, and D), comprising a total of 39 questions:

1. *Section A: Participant Information and Informed Consent*

This section provided essential information, including the researcher's name, the study's title and purpose, and the estimated time required to complete the questionnaire. It assured participants of the confidentiality and anonymity of their responses and socio-demographic data, alongside obtaining their consent to participate in the research.

2. *Section B: Socio-Demographic Profile*

Participants were asked to provide socio-demographic information such as nationality, gender, age, marital status, professional status, and education level through multiple-choice questions.

3. *Section C: Prevalence of Burnout*

This section was adapted from the Copenhagen Burnout Inventory (CBI) scale [5] and included 17 questions designed to assess burnout prevalence among healthcare professionals at HRPB. The CBI evaluates burnout across three dimensions: personal-related burnout (5 items), work-related burnout (6 items), and patient-related burnout (6 items).

4. *Section D: Coping Mechanisms for Burnout*

This section was adapted from the Brief Coping Orientation to Problems Experienced Inventory (Brief-COPE) [10] and consisted of 16 questions aimed at exploring how healthcare professionals at HRPB cope with burnout. Participants indicated how frequently they employed various coping strategies on a 4-point Likert scale ranging from 1 ("I had not been doing this at all") to 4 ("I had been doing this a lot"). The coping strategies were categorised into two main styles:

- Avoidant Coping: This included self-distraction, denial, substance use, behavioural disengagement, venting, and self-blame.
- Approach Coping: This encompassed active coping, seeking emotional support, using informational support, positive reframing, planning, and acceptance.

Additionally, humour and religion were assessed but not classified under either coping style. Total scores for each coping style were converted into percentages, with higher percentages indicating a greater reliance on that particular coping style. Collectively, these sections provided comprehensive insights into participants' demographic backgrounds, burnout levels, and coping mechanisms employed to manage burnout.

2.3 Data Analysis

Data analysis was performed using IBM Statistical Package for the Social Sciences (SPSS) for Windows version 29.0 software. Descriptive statistical analysis was conducted to examine the prevalence of mental and psychological burnout among healthcare professionals at HRPB alongside their socio-demographic profiles. Pearson's Chi-Square test and inferential statistics were employed to identify associations between burnout prevalence and demographic factors (age, gender, education). A P-value of ≤ 0.05 was deemed statistically significant. Descriptive analysis summarised frequency counts, means, and standard deviations. Brief COPE scores were utilised to evaluate the coping strategies adopted by healthcare professionals at HRPB in alleviating mental and psychological burnout. Quantitative variables were presented as means with standard deviations while qualitative variables were reported as counts and percentages.

3. Results

3.1 Prevalence of Burnout among Healthcare Professionals at HRPB

Our study investigated burnout among 382 healthcare professionals in Malaysia, focusing on three dimensions: personal-related, work-related, and patient-related burnout, as measured by the CBI scale. The findings revealed that 54.7% of respondents reported experiencing moderate levels of burnout. Specifically, personal-related burnout was identified in 81.9% of participants, work-related burnout in 81.4%, and patient-related burnout in 85.5% (Table 1).

Table 1
Prevalence of personal, work and patient-related burnout among healthcare Professionals in HRPB (n=382)

	Total score of prevalence, n (%)		
Demographic Characteristics	**Personal-Related Burnout**	**Work-Related Burnout**	**Client (Patient)-Related Burnout**
Gender			
Female Male	256 (82.8) 57 (78.1)	254 (82.4) 59 (80.8)	272 (88.0) 63 (86.3)
Age(years)			
18-25	9 (64.3)	12 (85.7)	12 (85.7)
25-35	169 (79.3)	169 (79.3)	186 (87.3)
35-55	134 (87.0)	131 (85.1)	136 (88.3)
>55	1 (100)	1 (100)	1 (100)
Marital status			
Married	218 (82.3)	219 (82.6)	230 (86.8)
Single	88 (80.0)	87 (79.1)	99 (90.0)
Divorced	7 (100)	7 (100)	6 (85.7)
Overall	**313(81.9)**	**313(81.9)**	**335 (85.5)**
Professional status			
Doctor	61 (72.6)	53 (63.1)	71 (84.5)
Nurse	135 (85.4)	139 (88.0)	139 (88.0)
Pharmacist	41 (74.5)	47 (85.5)	48 (87.3)
Physiotherapist	14 (93.3)	14 (93.3)	14 (93.3)
Medical Assistant	18 (90.0)	18 (90.0)	17 (85.0)
Pharmacist Assistant	5 (83.3)	4 (66.7)	5 (83.3)
Radiotherapist	2 (66.7)	1 (33.3)	2 (66.7)
Others:	**37 (90.2)**	**37(90.2)**	**39 (95.1)**
Microbiologist	1 (100)	1 (100)	1(100)
Pathologist	2 (100)	2 (100)	2 (100)
Medical Lab Technologist	28 (87.5)	28 (87.5)	31 (96.9)
Dietitian	6 (100)	6 (100)	5 (83.3)
Educational status			
PhD	1(100)	1(100)	1(100)
Master's Degree Bachelor	25(69.4)	25(69.4)	32(88.9)
Diploma	130(81.8) 157(84.4)	125(78.6) 162(87.1)	139(87.4) 163(87.6)

3.2 Coping Mechanism

Table 2 outlines the coping strategies employed by healthcare professionals at HRPB, based on 16 questions with four response options: 'I have not been doing this at all', 'a little bit', 'a medium amount', and 'I have been doing this a lot'. For example, 61 respondents (16%) indicated that they did not use work or activities to distract themselves at all, while 135 (35.3%) reported using such distractions a little, 120 (31.4%) a medium amount, and 66 (17.3%) a lot. Similarly, 343 respondents

(89.8%) stated they did not resort to alcohol or drugs to improve their mood, with 14 (3.7%) using them a little, 17 (4.5%) a medium amount, and 8 (2.1%) a lot.

The study categorised coping strategies into avoidant, approach, humour, and religious methods. Religion emerged as the most frequently utilised coping strategy, with 92.4% of participants engaging in it, followed by approach coping at 85.8%, and humour at 79.6%. Avoidant coping strategies were less prevalent but included behaviours such as self-distraction (88.6%) and venting (69.8%). Within the approach coping category, strategies like planning, acceptance, and positive reframing were notably prominent, with over 87% of respondents employing these methods.

Table 2
Respondent's coping mechanism among healthcare professionals in HRPB, Ipoh (n=382)

	n (%)			
Coping mechanisms	**I have not been doing this at all**	**A little bit**	**A medium amount**	**I have been doing this a lot**
1. I have been turning to work or other activities to take my mind off things.	61 (16)	135 (35.3)	120 (31.4)	66 (17.3)
2. I have been using alcohol or other drugs to make myself feel better.	343 (89.8)	14 (3.7)	17 (4.5)	8 (2.1)
3. I have been getting emotional support from others.	82 (21.5)	135 (35.3)	118 (30.9)	47 (12.3)
4. I have been giving up trying to deal with it.	166 (43.5)	137 (35.9)	62 (16.2)	17 (4.5)
5. I have been taking action to try to make the situation better.	50 (13.1)	103 (27)	150 (39.3)	79 (20.7)
6. I have been refusing to believe that it has happened.	186 (48.7)	140 (36.6)	50 (13.1)	6 (1.6)
7. I have been saying things to let my unpleasant feelings escape.	130 (34)	147 (38.5)	81 (21.2)	24 (6.3)
8. I have been getting help and advice from other people.	74 (19.4)	153 (40.1)	104 (27.2)	51 (13.4)
9. I have been criticising myself.	157 (41.1)	137 (35.9)	67 (17.5)	21 (5.5)
10. I have been trying to come up with a strategy about what to do.	44(11.5)	115(30.1)	145(38)	78(20.4)
11. I have been looking for something good in what is happening.	44 (11.5)	80 (20.9)	148 (38.7)	110 (28.8)
12. I have been making jokes about it.	78 (20.4)	137 (35.9)	118 (30.9)	49 (12.8)

4. Discussion

4.1 Prevalence of Burnout among Healthcare Professionals at HRPB

Our study demonstrated that healthcare professionals at HRPB experienced significant levels of burnout, with 81.9% reporting personal and work-related burnout, and 85.5% indicating client-related burnout. These results are consistent with a previous study in Malaysia by Pang *et al*., [11], which reported a high prevalence of work-related burnout at 72%. However, that study noted lower rates for personal-related (44%) and client-related (60%) burnout, categorising both as moderate levels of burnout. This comparison suggests that while work-related burnout remains consistently high across various studies, there may be differences in the levels of personal and client-related burnout depending on the specific healthcare setting.

Our findings revealed particularly high burnout rates among specific groups at HRPB, with 88.0% of 158 nurses and 85.5% of 55 pharmacists experiencing elevated levels of burnout. In contrast, only 63.1% of 84 doctors reported moderate levels of burnout. These results align with Carayon *et al*., [12], who found that up to 54% of nurses and physicians suffer from severe burnout. Conversely, Marôco *et al*., [13] reported different outcomes in Portugal, where 1,262 nurses exhibited moderate burnout levels, and 466 doctors had lower burnout rates, with only 21.6% indicating tolerable burnout. Additionally, Ghahramani *et al*., [14] noted that in Iran, 52% of pharmacists experienced moderate burnout, while 66% of participating nurses and doctors reported instances of burnout. These discrepancies underscore the varying prevalence and severity of burnout across different healthcare roles and geographical contexts.

Overall, these findings highlight the pressing issue of burnout among healthcare professionals, particularly among nurses and pharmacists who appear to be at greater risk than doctors. This indicates a need for targeted interventions to alleviate burnout, especially within high-risk groups, to safeguard the well-being of healthcare providers and maintain the quality of patient care.

4.2 Coping Mechanisms

Our study found that a significant majority of healthcare professionals at HRPB relied on religion as a primary coping strategy for psychological and mental burnout, with 92.4% of respondents engaging in religious practices. Additionally, 85.8% employed approach coping styles that included strategies such as acceptance, active coping, positive reframing, planning, and seeking informational and emotional support. This is consistent with findings from Perez *et al*., [15], who noted that relaxation techniques like prayer and mindfulness can effectively prevent burnout. Furthermore, our study indicated that 308 out of 382 healthcare professionals (80.7%) utilised informational support as a key coping strategy. This highlights the importance of approach coping methods that facilitate open discussions about mental health challenges, thereby enhancing communication and empathy among colleagues and supervisors. Such practices help healthcare professionals manage their emotions, acknowledge mistakes, and express concerns, fostering a sense of community and reducing the isolation often experienced in stressful situations [16].

In our results, active coping was reported by 87% of participants, making it the second most frequently used strategy for managing psychological burnout. A Canadian study found that individuals who employed active coping were less likely to experience burnout [17]. Additionally, Mellins *et al*., [18] discovered that professionals in surgical and anaesthesiology fields who received training tailored to their work environment and participated in mental awareness campaigns were better equipped to handle stressors related to their roles. In our study, 78.5% identified emotional support as one of the most effective ways to reduce the incidence of burnout; this is supported by Boland *et al*., [19], who highlighted peer support as a significant factor in lowering burnout levels. In contrast, Howlett *et al*., [17] suggested that emotional approach styles might contribute to increased burnout.

Our findings also indicated that substance use as an avoidant coping strategy was infrequently employed; only 39% of respondents reported using alcohol or drugs as a coping mechanism. This is corroborated by Güveli *et al*., [20], who identified substance use as an ineffective coping method.

Overall, these insights emphasise the critical role that effective coping strategies play in managing burnout among healthcare professionals at HRPB and suggest areas for further research and intervention development to enhance their resilience and well-being.

5. Conclusions

The prevalence of burnout among healthcare professionals at HRPB is moderate, affecting a range of roles including doctors, nurses, pharmacists, physiotherapists, medical assistants, pharmacy assistants, radiotherapists, and specialists such as microbiologists, pathologists, medical laboratory technologists, and dietitians. There exists a significant correlation between socio-demographic factors and the prevalence of burnout. Additionally, the findings indicate that religion serves as a vital coping mechanism for healthcare professionals at HRPB when dealing with burnout. The study also highlights that both age and professional status significantly impact the development of burnout, with moderate levels observed across these variables.

Given that this research focuses on healthcare professionals within a government setting, the results are expected to aid governmental institutions in developing training programmes or interventions aimed at alleviating burnout levels. Furthermore, the study proposes alternative strategies for healthcare professionals to effectively reduce the incidence of burnout. It is anticipated that these initiatives will provide essential support to healthcare workers, ultimately enhancing their well-being and job satisfaction.

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