

Intersecta Minds Journal

Social Science and Management Science

ISSN: 3056-929X (Online)

Pacific Institute of Management Science

222/2 M.1 Phaholyothin Rd., Bantam, Mueang Phayao 56000

Phone +66(0)54 887-188, www.ipacific.ac.th

Factors Contributing to Stress and Burnout in Health Care Workers of Physicians in Developing Countries

Author & Corresponding Author*

1. Sneha Patnaik
2. Nandhini Selvanayagam
3. Fawziyyah Usman Sadiq*

Affiliation:

1-3. Department of Healthcare Administration, Asia University Taichung, Taiwan.

1. Email: sneha.patnaik@gmail.com
2. Email: nandhiniselvanayagam@gmail.com
3. Email: fawziyyahsadiq@gmail.com

Article history:

Received: 25/11/2023

Revised: 18/12/2023,

Accepted: 15/01/2024

Available online: 31/01/2024

How to Cite:

Patnaik, S., et al. (2024). Factors Contributing to Stress and Burnout in Health Care Workers of Physicians in Developing Countries. *Intersecta Minds Journal*, 3(1), 46-64.



INTERSECTA MINDS JOURNAL
SOCIAL SCIENCE AND MANAGEMENT SCIENCE

<https://so13.tci-thaijo.org/index.php/IMJ/index> | ISSN: 3050-929X (Online)

PACIFIC INSTITUTE OF MANAGEMENT SCIENCE

222/2 M.1 Phaholyothin Rd., Bantom, Mueang Phayao 56000 Phone +66(0)54 887-188, www.ipacific.ac.th



Original Research Articles

Factors Contributing to Stress and Burnout in Health Care Workers of Physicians in Developing Countries

Sneha Patnaik¹, Nandhini Selvanayagam², & Fawziyyah Usman Sadiq^{3*}

Abstract

Stress and burnout among doctors and other medical staff in underdeveloped nations were the focus of this research. Factors such as these include financial limitations, emotional strain, overburden, little resources, a bad working environment, and social demands. The study set out to alleviate stress, protect healthcare workers' well-being, and improve healthcare delivery in these nations sustainably by creating focused treatments, supporting policies, and systemic improvements. The COVID-19 epidemic has had a profound influence on burnout, a mental illness defined by emotional lethargy, pessimism, and a lack of efficacy. Problems with staff turnover, emigration rates, sick leave, patient safety, and treatment quality may result. Doctors experience burnout at a higher rate than the general population because they work longer hours and are less satisfied with their careers and lives overall. Because of variations in cultural and organizational variables, the precise prevalence of burnout differs among studies. A mere 34% of NHS workers in 2022 said they did not feel emotionally tired on the job, while 37.4% stated the exact opposite. The rates of burnout were most significant for those working in ambulance duties, among other healthcare professions. With the help of 831 medical professionals from different fields and 912 participants from primary healthcare clinics, this research sought to explore the complicated nature of stress and burnout among healthcare workers in developing nations. Over half of the working-age population experiences professional burnout. Factors that contribute to high levels of psychological distress include dealing with an infected family member, being in quarantine, having a dependent family member, and being exposed to a patient suspected or proven to have the infection.

Keywords: Burnout; Stress; WHO; Healthcare; Physicians

Introduction

A psychiatric condition defined by emotional tiredness, cynicism, and ineffectiveness, burnout is common among healthcare personnel. The intensification of this danger has impacted the health of organizations, patients, and practitioners due to the COVID-19 pandemic. Intervention options that are supported by research are crucial for preventing and managing burnout. Since burnout is a reaction to stress on the job, interventions should target both individuals and organizations (Doyle & Greenberg, 2023). Exhaustion, depersonalization, and a lack of confidence are symptoms of burnout, a kind of prolonged work stress. Because of the problems it causes with patient safety, care quality, sick leave, staff turnover, and emigration rates, it is a significant worry for healthcare professionals (Salvagioni, 2017). Direct and indirect expenses might both rise due to burnout. One of the World Health Organization's (WHO) top priorities for 2019 is ensuring that all people have access to quality primary health care in order to realize UHC (UHC, 2010). However, the people providing health services are ultimately accountable for how well they work. To achieve UHC, primary healthcare providers must take care of their physical and emotional health. There is evidence from high-income nations that burnout is more common in primary care, but it varies by specialization (Shanafelt, 2012).

A considerable number of physicians, 42% out of 15,000 in the U.S., experienced physician burnout in 2018. Physicians between the ages of 45 and 54, who usually have an excellent work-life balance, had the most significant prevalence. The numbers for 2019 are very similar: 44% of people reported feeling burned out, and 14% said they had thoughts of suicide (Medscape, 2019). Burnout symptoms are more common among doctors, who also tend to work longer hours and report lower levels of personal and professional satisfaction. Negative patient safety occurrences, worse quality treatment, lower patient satisfaction, and an increased risk of serious medical mistakes are all associated with burnout (Panagioti, 2018). Both turnover and expenses are exacerbated when primary care doctors experience burnout. Physician burnout and reduced productivity may worsen the anticipated shortage of 45,000 to 90,000 US doctors by 2025 (Shanafelt, 2016).

Burnout is common among healthcare workers; however, the exact incidence varies between research owing to differences in cultural and organizational factors. Only 34% of those surveyed in the NHS workforce in 2022 said they did not feel emotionally drained by their job, while 37.4% said the opposite. Those working in clinical professions reported higher rates of burnout, with ambulance roles having the highest rates. There have been more investigations on the frequency of burnout in various healthcare occupations (NHS, 2022).

The significant effects have been changes in sleeping patterns, heightened arousal, sorrow, anxiety, and depression, which are worse in those who have a history of depression. Overwhelming patient demand and inadequate staffing levels have contributed to health professionals' already heavy workloads. Workers' mental health has been negatively affected, leading to the development of burnout syndrome due to the highly contagious virus and the absence of personal protective equipment (PPE). Workers who experience prolonged, unmanaged stress on the job are at risk for developing burnout syndrome, a mental illness characterized by feelings of emotional tiredness, depersonalization, and diminished personal achievement. Low morale among healthcare workers, subpar treatment, impaired patient safety,

more adverse events, prescription mistakes, infections, and falls are all results of burnout (WHO, 2021).

Medical professionals and healthcare workers in underdeveloped nations endure tremendous stress that takes a toll on their emotional, psychological, and physiological well-being. The health of these workers and the long-term viability of healthcare delivery are both put at risk when these experts succumb to the burnout that results from dealing with so many stresses. Focusing on the specific challenges of low resources, heavy patient loads, and insufficient infrastructure support, this article investigates the elements that lead to stress and burnout among healthcare professionals and doctors in developing nations.



Figure 1 Factors associated with burnout among health workers (Murthy, 2022)

When healthcare providers feel powerless owing to a lack of resources or external factors beyond their control, they may experience moral distress, a condition that may overlap with burnout (LeClaire, 2022). Moral harm, the result of ongoing moral pain, may have far-reaching psychological effects, including but not limited to emotions of shame, guilt, wrath, and others. Many healthcare professionals may still suffer moral harm in the absence of further systemic improvements, despite the fact that education, training, and professional experience may equip them for emotionally taxing circumstances (PTSD, 2020). According to the National Academy of Medicine, there needs to be a conversation about moral distress, more research into the topic, effective interventions, a better understanding of what factors either help or hinder moral strength, and changes made to systems and organizations to make sure that health workers do not experience moral distress and can instead focus on building their moral strength (Ulrich, 2019).

In order to recognize the difficulties healthcare professionals encounter and to develop practical solutions and support systems, it is essential to understand the complex nature of stress and burnout. In order to improve healthcare delivery in these areas and ensure the safety of healthcare workers, it is necessary to identify and resolve these problems. The health and safety of healthcare professionals in underdeveloped nations is an essential factor in the long-term viability of healthcare systems, not to mention an issue of personal concern. The success and sustainability of healthcare delivery in these neglected areas depend on our ability to address the causes of stress and burnout.

Objective

The objective of this research was to identify risk factors for burnout and to provide an estimate of its frequency among primary healthcare workers in low- and middle-income nations. The narrative review included 60 articles from 20 countries, while the meta-analysis included 31 research from the same countries. The search was carried out across nine databases up to February 2022.

Literature Review

Wright et al. (2022) studied the extreme emotional weariness was reported by 28.1% of respondents, depersonalization by 16.4%, and diminished personal achievement by 31.9%, with the total single-point prevalence of burnout ranging from 2.5% to 87.9%. Patient safety, service quality, and workforce planning are all affected by the high rates of burnout among primary healthcare providers in low- and middle-income nations, according to the study's findings. Especially in South and Southeast Asia and Africa, more cross-sectional research is required to provide answers backed by data. The results stress the need for more studies to resolve the problem of healthcare worker burnout in these nations.

Yates (2020) was convinced every year, millions of lives are lost due to avoidable medical mistakes. Worries about the effects of burnout on healthcare workers have been voiced in response to recent medical developments. Burnout is not only bad for patients; it is also bad for healthcare workers' mental and physical well-being. A further area of worry is the anticipated

severe shortages in the medical workforce. Medical professionals may be untreated for burnout and depression because they fail to notice the signs. If you are a doctor looking to boost your job happiness, this article will show you how to avoid burnout and what causes it. Because so many people do not know how to use them properly, it stresses the need to wear oxygen masks before helping others.

Prasad et al. (2021) mentioned a poll measuring stress levels among 20,947 healthcare professionals from 42 organizations found that the COVID-19 pandemic had dramatically elevated stress levels. The results showed that 61% of respondents were afraid of being exposed or having the virus transmitted to them, 38% were anxious or depressed, 43% were overwhelmed by work, and 49% were burned out. Nursing assistants, medical assistants, and social workers reported the most significant levels of stress, along with inpatient workers compared to outpatient workers, women against males, and Black and Latinx workers over White workers. Housekeepers and Black and Latinx employees often had more purpose and meaning in their employment, in contrast to nursing assistants and other employees who were afraid of being exposed. In multilevel models, the likelihood of burnout was 40% lower in cases where workers reported feeling appreciated by their employers. Stress is associated with mental health and workload, but it decreases when people feel valued, according to the research.

Zhou et al. (2020) found physicians undergoing conventional postgraduate training were the subjects of this research, which sought to quantify the relationship between various stresses and burnout/stress. Men made up 52% of the population, and the median age was 29 years old in the 48 research studies that made up the meta-analysis. Using odds ratios (O.R.s) and 95% confidence intervals (C.I.s), the primary outcome was the relationship between burnout/stress and variables connected to or unrelated to employment. According to the results, trainee doctors are more likely to experience burnout and stress due to non-work-related and non-modifiable variables like age and grade than due to work-related reasons. These results lend credence to the idea that organizational measures are necessary to reduce medical trainee burnout. The likelihood of burnout and stress rose in relation to job demands, worries about patient care, an unpleasant work environment, and an inadequate work-life balance. Burnout and anxiety were more likely among those who reported or perceived poor mental or physical health, were female, worried about money, and had low self-efficacy; however, there was no significant association between being younger and being in a lower grade. The results indicate that developing focused treatments to alleviate burnout and stress among medical trainees might be aided by a deeper comprehension of the essential variables linked to these conditions.

Migina et al. (2023), research showed that primary care doctors and nurses often experience emotional weariness and burnout as a result of their work. The information was gathered via a sociological survey that was administered to 612 urban and 244 rural primary health care professionals throughout eight regions of Kazakhstan. Emotional tiredness was reported by 57.4% of participants, depersonalization by 64.6%, and personal accomplishment by 65.0%. Working in an urban or rural setting, being a doctor or nurse, and being employed by a company were all significant predictors of emotional exhaustion. Working for a less noisy workplace was associated with higher levels of personal success. Still, status and whether or not the employment was full-time or permanent were associated with lower levels of

depersonalization. Significant determinants of personal accomplishment also included gender, employment location, and alcohol usage. In light of current events, the research emphasizes the significance of mental and psychological health concerns. Exhaustion, depersonalization, and a lack of personal accomplishment were symptoms of professional burnout indicated by more than 50% of the research group. Emotional tiredness was shown to be significantly related to employment location, employee status, depersonalization, and employee position and status, according to the research. Factors associated with workplace location were gender and personal accomplishments. The emotional weariness of doctors was greater than that of nurses.

Montgomery (2014), gave a reason as because of the concealed curriculum that reinforces maladaptive behaviours in healthcare organizations and the structure of medical education, physician burnout is an unavoidable result. Therefore, burnout is a good measure of the organization's health. This research will primarily focus on how much the performance gap and physicians' health are the fault of the organizational structures. Despite healthcare's heavy "lip service" to systemic methods, individual physicians are still highly valued, both for their successes and failures. Therefore, it is necessary to resolve this inconsistency.

Conceptual Framework

This research aims to investigate the factors contributing to stress and burnout among health care workers, particularly physicians, in developing countries. The focus is on exploring the relationship between sociodemographic factors and key indicators of mental health, such as anxiety, burnout, stress, and depression. The conceptual framework integrates both quantitative and qualitative approaches to provide a comprehensive understanding of the complexities involved.

1. **Sociodemographic Factors:** This dimension considers various sociodemographic factors that may influence the mental health of physicians in developing countries. These factors include age, gender, marital status, educational background, years of experience, and workload. The research aims to analyze how these variables contribute to variations in anxiety, burnout, stress, and depression levels among health care workers. This dimension explores key sociodemographic variables such as age, gender, marital status, educational background, and years of experience. The objective is to understand how these factors may interact with COVID-19 related stressors to influence mental health outcomes among physicians in developing countries.

2. **Key Mental Health Indicators:** The study will specifically focus on COVID-19 related mental health indicators, including anxiety, burnout, stress, and depression among health care workers. Standardized scales and questionnaires will be utilized to measure these variables. The research will employ validated scales to measure anxiety, burnout, stress, and depression among health care workers. One-way analysis of variance (ANOVA) will be utilized to statistically assess the differences in mental health indicators based on sociodemographic variables. This quantitative approach provides a structured analysis to identify significant associations.

3. **Workload and Job-related Stressors:** In addition to sociodemographic factors, the study will explore the impact of workload and job-related stressors on the mental health of physicians. This includes factors such as long working hours, patient load, administrative tasks, and resource constraints. Qualitative methods, such as interviews and focus group discussions, will

complement the quantitative analysis by providing a nuanced understanding of how these factors contribute to stress and burnout. Examining the work environment, the research will investigate the impact of COVID-19-related stressors, including increased workload, exposure to infectious cases, resource constraints, and uncertainty, on the mental health of physicians.

4. Coping Mechanisms and Support Systems: The research will investigate the coping mechanisms employed by health care workers and the availability of support systems within the workplace. This includes the role of mentorship, peer support, and institutional policies aimed at addressing mental health issues. Understanding these aspects will contribute to developing targeted interventions and support structures. The study will explore the coping mechanisms employed by health care workers to manage stress and burnout during the pandemic. Additionally, the resilience of health care systems and support structures, such as peer support and organizational policies, will be examined to identify factors that contribute to mitigating the impact of stress.

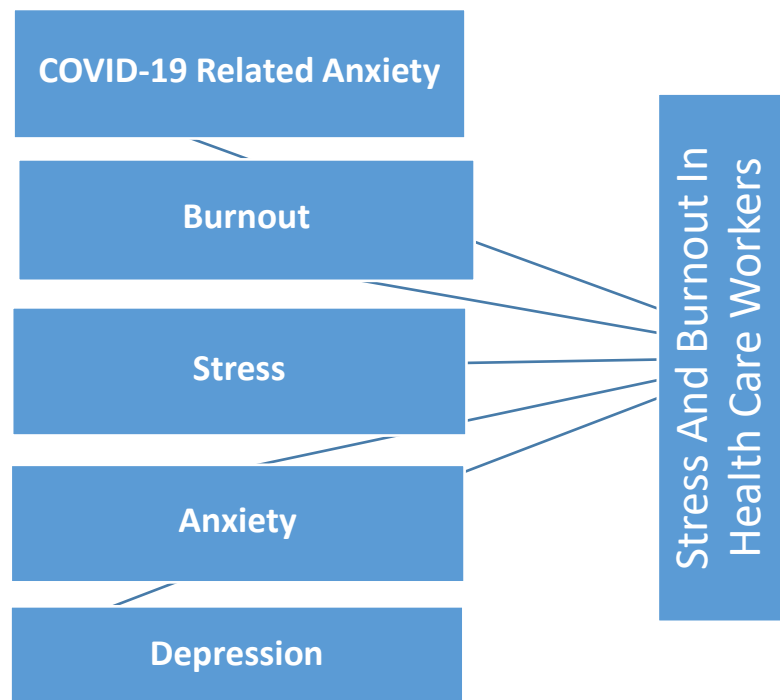


Figure 2 Conceptual Framework

By integrating quantitative data, this research seeks to provide a comprehensive understanding of the complex interplay between sociodemographic factors and COVID-19-related mental health indicators among physicians in developing countries. The findings aim to inform targeted interventions and support strategies to enhance the resilience and well-being of healthcare workers in the face of ongoing challenges.

Materials and Methods

Study Design

Quantitative Analysis: Surveys and standardized questionnaires will be distributed to health care workers, focusing on COVID-19 related mental health indicators. One-way ANOVA will be employed to analyze the relationship between sociodemographic factors and mental health outcomes.

Population and Sampling

The 912 participants were part of a cross-sectional study at primary healthcare clinics throughout the developing world. In all, 831 medical professionals from different areas were considered for inclusion in the study a reflection taking into account the entire population of primary health facilities. Being prepared to take part, working as a primary care physician or nurse, and being free of mental illness symptoms were all factors in the selection process. The research did not include doctors and nurses who were on maternity leave, sick leave, yearly basic leave, or who declined to participate. In the healthcare profession' stress, depression, anxiety, and burnout were evaluated using a cross-sectional, descriptive, and correlative research methodology. Additionally, we looked at the correlations between stress, anxiety, depression, burnout, and stress.

Instrument

Psychologists Christina Maslach and Susan E. Jackson created a questionnaire to measure burnout in the workplace called the Burnout Inventory (MBI). It evaluates feelings of emotional weariness, depersonalization, and individual success. The three parts of the MBI—the Emotional Exhaustion Scale (with 9 points), the Depersonalization Scale (with 5 points), and the Personal Achievement Scale (with 8 points)—take around 10 to 15 minutes to complete. Emotional burnout is more severe with higher scores and less painful with lower levels. Individuals and organizations may benefit from using the MBI to evaluate burnout.

Data collection and analysis

An online self-report questionnaire in the research gathered data on employees, marital status, number of children, present job, duration of service, and cigarette and alcohol consumption were among the sociodemographic variables included in the survey. The purpose of this study was to assess the relevance of statements from the MBI scale to the participants' current emotional state. Emotional tiredness, depersonalization, and individual accomplishments were the three components that made up the burnout scale. The quantitative and qualitative data were analyzed statistically using SPSS version 23.0. We used descriptive and inferential statistics, as well as the Kolmogorov-Smirnov test, to examine the distribution's normality. The frequencies of binary categorical variables were compared between participants with and without burnout using a chi-square test. The association between demographic characteristics and MBI scores was investigated using logistic regression models, both binary and multinomial. For statistical purposes, a p-value below 0.05 was deemed significant. The research

analyzed data on stress, anxiety, depression, and burnout using IBM SPSS version 22. Described statistics were used to investigate data distribution, outliers, and missing values. In order to identify connections between these variables, Pearson's correlation was used. To compare means across demographics, we employed an independent t-test and a one-way ANOVA.

Results

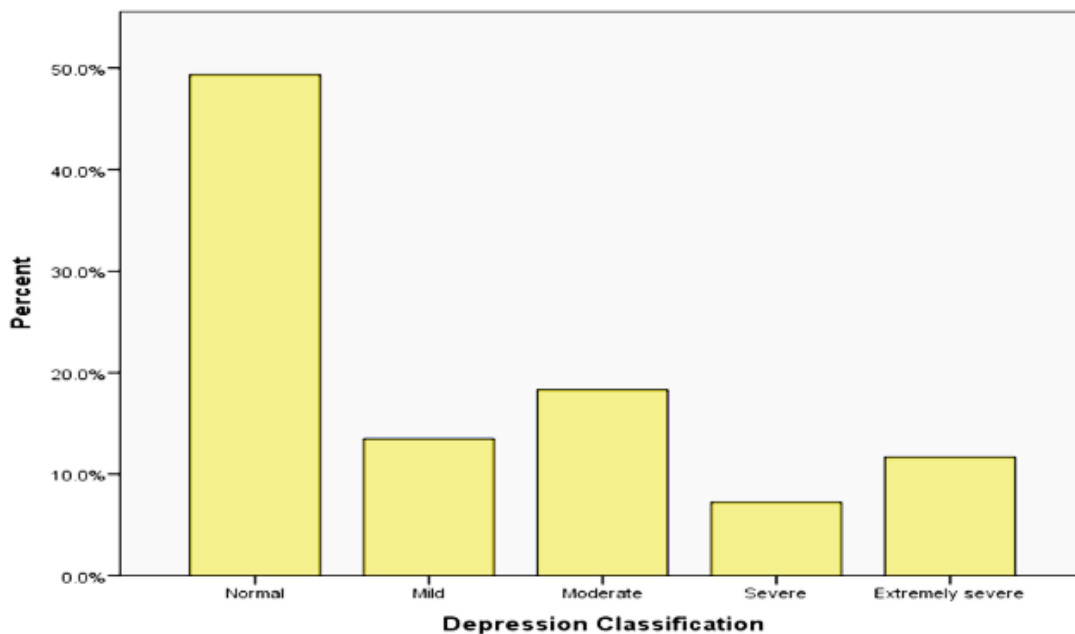
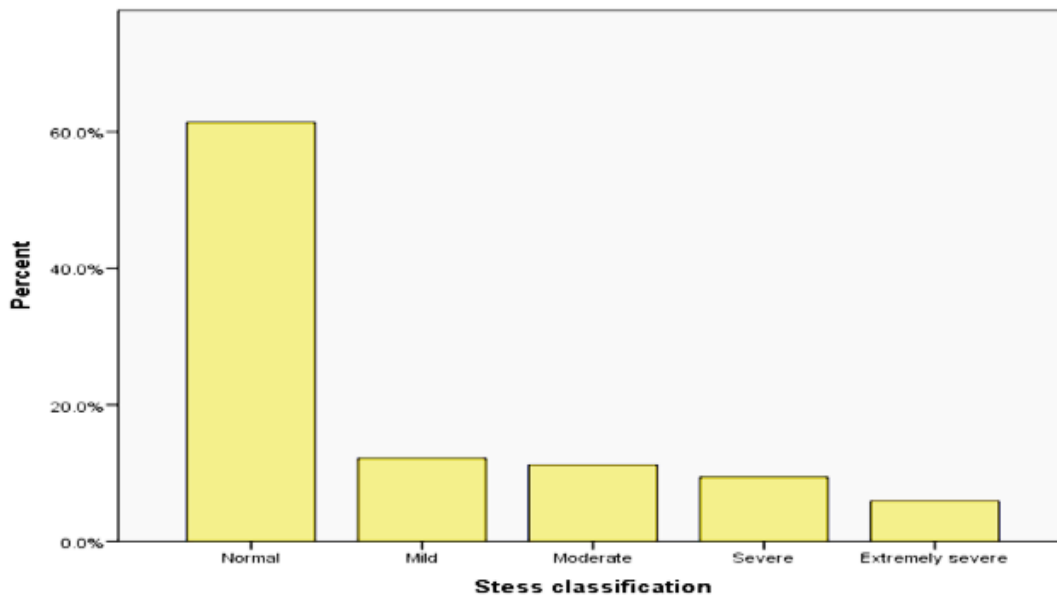
The participant demographics for the research on "Factors Contributing to Stress and Burnout in Health Care Workers of Physicians in Developing Countries" with a total sample size (N) of 831 are outlined as follows:

Table 1 Participants' demographics (N = 831).

Variables		n (%)
Gender	Male	115 (13.8)
	Female	716 (86.2)
Age	≤ 25	17 (2)
	26 – 30	196 (23.6)
	31 – 35	239 (28.8)
	> 35	379 (45.6)
Marital Status	Single	309 (37.2)
	Married	495 (59.6)
	Widow	11 (1.3)
	Divorced/Separated	16 (1.9)
Do you have children?	Not Applicable	20 (2.4)
	Yes	493 (59.3)
	No	318 (38.3)
Work Category	Clinical	735 (88.4)
	Academic	23 (2.8)
	Both	73 (8.8)
Professional Tittle	Nurse	726 (87.4)
	Physician	35 (4.2)
	Allied Health Professional	70 (8.4)
Area of Work	ICUs	146 (17.6)
	EDs	158 (19)
	Outpatient	89 (10.7)
	Inpatient	319 (38.4)
	ORs	12 (1.4)
	Other (please specify)	107 (12.9)

With females making up the majority at 86.2%, the dataset reveals a notable gender imbalance among the group. The age distribution is somewhat varied, with those over the age of 35 making up the biggest group. Married people make up the vast majority of the sample (59.6%). The second largest group consists of people who have never been married, with a lesser

percentage having been widowed or divorced. While 38.3% of the group does not have children, 59.3% do. A tiny rate (2.4%) chose "Not Applicable," which might mean that there is a subset of people for whom the issue of having children is irrelevant for a variety of reasons. The clinical employment category employs the vast majority of people (88.4%), with nurses making up the most significant number (87.4%). In addition to showing the distribution of professionals across different job sectors, the dataset also reveals that the 'Inpatient' settings have the most significant presence at 38.4%. The remaining 12.9% are comprised of other defined areas and expertise.



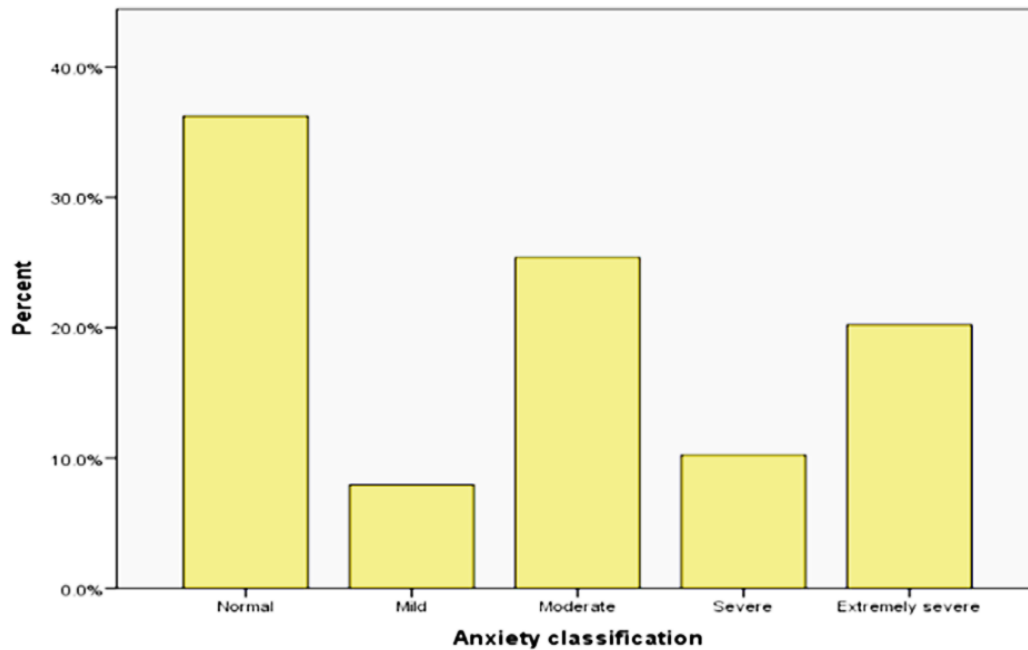


Figure 2 Severity levels of stress, anxiety, and depression (N = 831).

Several severity degrees of stress, anxiety, and depression are used to classify people in the dataset. 'Normal' pressure is experienced by 61.4% of the population. 'Extremely severe' anxiety accounts for 20.2% of all anxiety levels, which is an equal distribution across severity categories. 'Normal' depression accounts for 49.3% of all cases, making it the most common kind of depression. According to the statistics, this demographic has an exceptionally high percentage of moderate to severe symptoms across all of these mental health domains. People going through different degrees of emotional or mental pain must have their mental health issues addressed and the right treatments and support systems put in place. The research emphasizes the need to tackle mental health issues and put suitable therapies and support systems in place for those going through different degrees of suffering.

Table 2 Severity Level of stress, anxiety, and depression (N = 831)

Variable	n (%)	
Stress classification	Normal	510 (61.4)
	Mild	101 (12.2)
	Moderate	93 (11.2)
	Severe	78 (9.4)
	Extremely severe	49 (5.9)
Anxiety classification	Normal	301 (36.2)
	Mild	66 (7.9)
	Moderate	211 (25.4)
	Severe	85 (10.2)
	Extremely severe	168 (20.2)
Depression Classification	Normal	410 (49.3)
	Mild	112 (13.5)
	Moderate	152 (18.3)
	Severe	60 (7.2)
	Extremely severe	97 (11.7)

Table 3 Anxiety, burnout, stress, anxiety, and depression as determined by one-way analysis of variance for sociodemographic factors.

Outcome Variables	Independent Variables	n	Mean ± SD	df	F value	P-value
	Age Group/Years	-	-	3, 827	-	-
COVID-19 related anxiety	≤25	17	16.12 ± 4.08		2.406	0.066
	26 – 30	196	18.16 ± 4.74			
	31 – 35	239	17.22 ± 4.87			
	> 35	379	17.13 ± 5.12			
Burnout	≤25	17	19.65 ± 6.51		7.936	0.000***
	26 – 30	196	21.61 ± 6.23			
	31 – 35	239	20.70 ± 6.23			
	> 35	379	19.08 ± 6.27			
Stress	≤25	17	11.88 ± 8.38		2.850	0.037*
	26 – 30	196	15.62 ± 11.42			
	31 – 35	239	13.64 ± 9.67			
	> 35	379	13.18 ± 9.55			
Anxiety	≤25	17	10.28 ± 7.42		3.886	0.009**
	26 – 30	196	13.94 ± 10.57			
	31 – 35	239	11.42 ± 8.82			
	> 35	379	11.27 ± 9.29			
Depression	≤25	17	12.12 ± 11.72		4.431	0.004**
	26 – 30	196	14.10 ± 12.22			
	31 – 35	239	12.03 ± 9.99			
	> 35	379	10.70 ± 10.06			

Anxiety levels connected to COVID-19 differ across age groups, according to the research. Those aged 25 and younger had somewhat lower levels (16.12 ± 4.08). People over the age of 35 have the most excellent rates of burnout, while it is most prevalent among those between the ages of 26 and 30. Those between the ages of 26 and 30 had significantly greater stress levels (15.62 ± 11.42) compared to those over the age of 35. Anxiety and depression levels also vary considerably by age group, with the 26–30 age range showing the highest levels. Rather than COVID-19-related worry, the research found that younger people may have more substantial mental health issues as a result of specific stresses or life stage variables. Those between the ages of 26 and 30 may be more vulnerable to severe mental health issues, according to the results.

Table 4 Variables linked to social burnout and their correlation matrix.

	COVID-19 related anxiety	Burnout	Stress	Anxiety	Depression
COVID-19 related anxiety	1	-	-	-	-
Burnout	0.482**	1	-	-	-
Stress	0.348**	0.634**	1	-	-
Anxiety	0.377**	0.571**	0.858**	1	-
Depression	0.321**	0.623**	0.901**	0.842**	1

There is a robust positive association between COVID-19 anxiety and stress, burnout, anxiety, and depression, according to the matrix. A perfect correlation is represented by a correlation of 1, which is always the case. Stress levels rise in tandem with COVID-19-related anxiety. Anxiety levels connected to COVID-19 are moderately correlated with stress levels, indicating that greater anxiety levels are somewhat linked to higher stress levels. It seems that those who are anxious often report greater levels of anxiety overall since anxiety levels rise in tandem with pressure. Elevated anxiety levels are also associated with high depression levels. Based on the data in the matrix, it seems that there is a substantial correlation between greater degrees of burnout, anxiety, stress, and depression.

Discussion

Healthcare professionals in Saudi Arabia were the subjects of this research, which sought to measure their levels of stress, depression, anxiety, and burnout in the context of developing nations. This study used a bigger sample size, tertiary centre sampling, and it covered all healthcare staff. Research has shown that healthcare professionals are more likely to have mental health issues such as anxiety, depression, stress, burnout, addiction, and post-traumatic stress disorder (El-Hage, 2019). A variety of reactions to stress, anxiety, despair, and burnout were shown by the sociodemographic statistics. Possible explanations for the gender gap in reported pressure and depression levels include differences in social support, history of mental illness, and access to mental health services. Burnout, stress, anxiety, and depression were all substantially associated with older age groups, especially those between 26 and 30 years old (Kisely, 2020).

Increased stress, despair, worry, and burnout among healthcare professionals are associated with fears of contracting the virus, passing it on to children and families, and losing loved ones. Depression, anxiety, burnout, stress, and confirmed or suspected instances of COVID-19 were much more common among participants. There was a strong correlation between self-isolation and quarantine and increased rates of psychological discomfort as well as both acute and chronic mental health issues (Wu PE, 2020). Emergency and critical care nurses reported the highest rates of burnout, psychological load, and psychopathology, whereas nurses overall reported the highest levels of anxiety. Vicariously traumatized non-frontline healthcare personnel exhibited higher rates of depression and burnout (Rossi, 2020).

In order to effectively react to epidemics and natural catastrophes, clinical expertise was crucial. Anxiety, burnout, and sadness were all strongly connected with participants' clinical experiences in this research. This provides further evidence that psychopathology and mental health issues, as well as a lack of preparedness for health services, are the result of a lack of education, training, and experience (Saqlain, 2020). Among healthcare professionals, the investigation confirmed positive connections between anxiety, burnout, stress, anxiety, and depression (Alnazly, 2021).

Limitations And Recommendations

A cross-sectional methodology, decreased involvement of doctors and allied health professionals, and a single-site design are some of the drawbacks of the research on stress and burnout among healthcare workers in poor nations. Due to cultural, economic, and organizational variations, the study's findings may only be applicable in the particular locations or healthcare settings in which it was conducted. There may be biases in understanding the presence and effect of stressors due to limited access to representative samples. Results may be skewed due to cultural variations in perception or self-reporting preferences in data collecting. It is possible that variables such as changing healthcare policy, socioeconomic situations, and external influences like pandemics may not provide a reliable representation of stressor variations. A more complete picture of healthcare worker stress and burnout might be revealed by longitudinal studies that follow healthcare professionals throughout time. Limited resources may hinder data collecting, analysis, and intervention implementation in need of more.

It is critical to make sure that hospitals have the tools they need to treat coronavirus infections, as well as administrative, psychological, and emotional support to help prevent job-related stress and burnout when infectious illnesses arise. Protective Motivation Theory (PMT) is one evidence-based strategy that may be used to combat burnout. Reducing night shifts, updating on epidemic circumstances, preparing nurses for emergency and fever clinics, and enhancing protection are all effective methods. Uncertainty and dread may be mitigated via strong leadership that communicates openly and honestly. When people have access to sufficient resources and mental health support, they are able to feel more capable and confident. In order to detect and lessen the dangers of psychological stress at work, people must work together.

Conclusion

Professional burnout, defined as extreme tiredness, detachment from one's work, and a generalized loss of pride in one's accomplishments, affects more than half of the working-age population, according to recent research. There was a strong correlation between emotional weariness and factors such as position, depersonalization, employment location, and employee status. Place of employment was also associated with gender and personal accomplishments. The emotional weariness of doctors was greater than that of nurses. Policies aimed at preventing mental health disorders should take risk factors into account, according to the research. We suggest further studies with more extensive samples to find other main factors that predict professional burnout. Mental health issues, both immediate and long-term, as well as physical and psychological symptoms, are some of the psychosocial effects of burnout on healthcare personnel. Some factors that may contribute to high levels of psychological distress and burnout include having a dependent family member, dealing with an infected family member, being in quarantine, and being exposed to a patient who is either suspected or proven to have the infection. On a global scale, work satisfaction is a stronger predictor of burnout than health in general. Workers in the healthcare industry are vulnerable to the adverse effects of stress, despair, anxiety, and burnout on their performance and efficiency.

Suggestion

For the Public and Healthcare Institutions

1. Develop mental health prevention policies tailored to high-risk groups.
2. Establish confidential psychological counseling services.
3. Offer institutional assistance for workers with dependent or infected family members.
4. Recognize burnout as an occupational health priority.

For Future Research

1. Examine how burnout develops over time and identify causal pathways rather than correlations.
2. Future research may incorporate biomarkers of stress (e.g., cortisol levels) to combine psychological and physiological assessments of burnout.

Declaration of Interests

I affirm my commitment to academic integrity and the rigorous pursuit of truth. The research will be conducted with transparency, honesty, and adherence to ethical guidelines, ensuring the reliability and credibility of the findings.

Ethical Considerations

Everyone who took part was wholly anonymous and gave their informed permission before being examined, including primary care physicians and nurses. Participants were given detailed information in the leaked consent document about the study's nature, purpose, aims, involvement, and their ability to withdraw at any time. Information was disclosed discretely and expressed as percentages and entire figures. Subjects were apprised of the study's anonymity and confidentiality policies, as well as their ability to voluntarily withdraw from participation at any time without penalty to their present or future employment. Participants were invited to fill out a survey and were recruited in the research if they were granted their permission.

Acknowledgements

I am grateful for the support received from the Department of Healthcare Administration at Asia University, Taichung, Taiwan. The academic environment, resources, and collaborative spirit within the department have been instrumental in shaping the research and its outcomes. This research would not have been possible without the collective efforts and collaboration of all those involved. Your commitment to the betterment of healthcare systems and the well-being of healthcare workers is truly commendable.

Definition of Conflicts of Interest

A conflict of interest arises when personal, financial, or professional relationships could influence the objectivity of the research or its outcomes. I commit to promptly disclosing any conflicts of interest that may arise during the course of the research to the research team, relevant oversight committees, and in publications.

References

- Alnazly E, Khraisat OM, Al-Bashaireh AM, Bryant CL. (2021). Anxiety, depression, stress, fear and social support during COVID-19 pandemic among Jordanian healthcare workers. *PLoS One*; 16(3): e0247679.
- El-Hage W, Hingray C, Lemogne C, et al. (2020). Health professionals facing the coronavirus disease 2019 (COVID-19) pandemic: What are the mental health risks? *Encephale* 46(3S): S73-80. [<http://dx.doi.org/10.1016/j.encep.2020.04.008>] [PMID: 32370984]
- Kisely S, Warren N, McMahon L, Dalais C, Henry I, Siskind D. (2020). Occurrence, prevention, and management of the psychological effects of emerging virus outbreaks on healthcare workers: Rapid review and meta-analysis.
- LeClaire, M., Poplau, S., Linzer, M., Brown, R., & Sinsky, C. (2022). Compromised integrity, burnout, and intent to leave the job in critical care nurses and physicians. *Essential explorations of care*, 4(2). <https://doi.org/10.1097/CCE.0000000000000629>

- Medscape National Physician Burnout. (2019). *Depression & suicide report 2019*. Available at: <https://www.medscape.com/2019-lifestyle-burnout>. Published 2019. Accessed August 17, 2019.
- Medina, L., Myssayev, A., Meirmanov, S., & Uristemova, A. (2023). Professional burnout in primary health care workers of the Republic of Kazakhstan. *Clinical Epidemiology and Global Health*, 23, 101359. <https://doi.org/10.1016/j.cegh.2023.101359>
- Montgomery, A. (2014). The inevitability of physician burnout: Implications for interventions. *Burnout Research*, 1(1), 50–56. <https://doi.org/10.1016/j.burn.2014.04.002>
- National Center for PTSD. (2020). *Moral Injury in Health Care Workers*. Retrieved from https://www.ptsd.va.gov/professional/treat/cooccurring/moral_injury_hcw.asp
- NHS Workforce Survey. (2022). <https://www.nhsstaffsurveys.com/results/>
- Panagioti M, Geraghty K, Johnson J, et al. (2018). Association between physician burnout and patient safety, professionalism, and patient satisfaction. *JAMA Intern Med*;178(10):1317.
- Prasad, K., McLoughlin, C., Stillman, M., Poplau, S., Goelz, E., Taylor, S., Nankivil, N., Brown, R., Linzer, M., Cappelucci, K., Barbouche, M., & Sinsky, C. A. (2021). Prevalence and correlates of stress and burnout among U.S. healthcare workers during the COVID-19 pandemic: A national cross-sectional survey study. *EClinicalMedicine*, 35, 100879. <https://doi.org/10.1016/j.eclinm.2021.100879>
- Rossi R, Socci V, Pacitti F, et al. Mental health outcomes among [39] frontline and second-line health care workers during the coronavirus disease 2019 (COVID-19) pandemic in Italy. *JAMA Netw Open* 2020; 3(5), e2010185-. [<http://dx.doi.org/10.1001/jamanetwopen.2020.10185>] [PMID: 32463467]
- Salvagioni DAJ, Melanda FN, Mesas AE, González AD, Gabani FL, Andrade SM. (2017). Physical, psychological and occupational consequences of job burnout: a systematic review of prospective studies. *PLoS One*. 4;12(10), e0185781. doi: <http://dx.doi.org/10.1371/journal.pone.0185781> PMID: 28977041
- Saqlain M, Munir MM, Rehman SU, et al. (2020). Knowledge, attitude, practice and perceived barriers among healthcare workers regarding COVID-19: A cross-sectional survey from Pakistan. *J Hosp Infect*; 105(3), 419-23. [<http://dx.doi.org/10.1016/j.jhin.2020.05.007>] [PMID: 32437822]
- Shanafelt TD, Boone S, Tan L, Dyrbye LN, Sotile W, Satele D, et al. (2012). Burnout and satisfaction with work–life balance among U.S. physicians relative to the general US population. *Arch Intern Med*, 172(18):1377–85. doi: <http://dx.doi.org/10.1001/archinternmed.2012.3199> PMID: 22911330
- Shanafelt TD, Dyrbye LN, West CP, Sinsky CA. (2016). Potential impact of burnout on the U.S. physician workforce. *Mayo ClinProc*, 91 (11), 1667–1668.
- Ulrich, C. M. & Grady, C. (2019). Moral distress and moral strength among clinicians in health care Systems: A Call for Research. *NAM Perspectives*, 10.31478, 201919c. <https://nam.edu/moral-distress-and-moral-strength-among-clinicians-in-health-care-systems/>
- Universal Health Coverage (UHC). (2019). Geneva: World Health Organization; Available from: [https://www.who.int/news-room/fact-sheets/detail/universal-health-coverage-\(uhc\)](https://www.who.int/news-room/fact-sheets/detail/universal-health-coverage-(uhc)) [cited 2021 May 10].

-
- World Health Organization. (2021). *International Classification of Diseases for Mortality and Morbidity Statistics (ICD-11 MMS)*. Geneva: WHO.
- Wright, T., Mughal, F., Babatunde, O., Dikomititis, L., Mallen, C., & Helliwell, T. (2022). Burnout among primary healthcare professionals in low- and middle-income countries: Systematic review and meta-analysis. *Bulletin of the World Health Organization*, *100*(06), 385-401A. <https://doi.org/10.2471/BLT.22.288300>.
- Wu PE, Styra R, Gold WL. (2020). We are mitigating the psychological effects of COVID-19 on healthcare workers. *CMAJ* 2020; *192*(17): E459-60. [<http://dx.doi.org/10.1503/cmaj.200519>] [PMID: 32295761].
- Yates, S. W. (2020). Physician Stress and Burnout. *The American Journal of Medicine*, *133*(2), 160–164. <https://doi.org/10.1016/j.amjmed.2019.08.034>.
- Zhou, A. Y., Panagioti, M., Esmail, A., Agius, R., Van Tongeren, M., & Bower, P. (2020). Factors Associated with Burnout and Stress in Trainee Physicians: A Systematic Review and Meta-analysis. *JAMA Network Open*, *3*(8), e2013761. <https://doi.org/10.1001/jamanetworkopen.2020.13761>.