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Original Article

Frequency of Burnout and its Factors among Nurses Working at Tertiary Care Hospital Lahore

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ABSTRACT

Nurses experience a high rate of burnout, which may be attributed to the physically and mentally exhausting profession. Consequently, it leads to a decrease in the quality of care. **Objectives:** The present study was employed to determine the frequency of burnout and its contributing factors among nurses. **Methods:** A cross-sectional study was conducted at the Mayo Hospital, Lahore. Both male and female nurses and at least one year of job experience were included in the study. Nurses who were working in management posts were excluded from the study. A self-administered, pre-tested, and validated questionnaire "Copenhagen Burnout Inventory" was used to assess burnout. **Results:** Most of the nurses reported moderate levels of personal, professional, and client-related burnout. Gender was significantly and negatively associated with emotional burnout (β -.182; p=0.004), and rotation of duty was also found to be significantly and negatively related to personal burnout (β -0.271; p<0.01) among nurses. Similarly, work-related burnout, gender (β -0.198; p=0.002), and rotation (β -0.175 p=0.006) were found to be negatively and significantly associated with burnout, while duty shift was significantly positively (β=0.169; p=0.010) related to work-related burnout. Age was positively associated (β=0.096; p=0.029) with client-related burnout, while residence (β -0.17; p=0.022, and rotation (β -0.617; p=0.004) were found to be negatively and significantly associated with client-related burnout. **Conclusions:** A high frequency of burnout was recorded among study participants. The long duty shifts and rotations had a significant impact on nurses' burnout in the present study.

INTRODUCTION

Nurses are considered as the backbone and frontline healthcare workers of the healthcare system. Nurses are more prone to develop burnout due to direct contact with patients than other healthcare professionals [1]. Burnout is a feeling of physical and emotional exhaustion, helplessness, and depression with a negative attitude toward others [2]. It is established by current research that Intensive Care Unit (ICU) nurses experience life-threatening situations, shortage of proper personal protective equipment, the fear of being ill and making others sick, and family access limitations. These challenges expose nurses to profound psychological concerns [3]. In addition, a lack of family support and financial crisis can negatively impact the work productivity of the nurses. Inconducive working environment and lack of family support are vital for causing burnout among nurses [4]. Burnout affects 59.1% of clinical nurses, and social, environmental, and personal factors may increase the severity of burnout [5]. It is demonstrated anxiety and depression is associated with 77.1% and 84% respectively [6]. Copenhagen Burnout Inventory (CBI) is a tool that measures burnout in three dimensions, including personal burnout, work-related burnout, and client-related burnout in hospital settings [7]. A recent research study found that personal burnout affects 44.6% of healthcare professionals, work-related burnout affects 26.9%, and

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pandemic-related burnout affects 52.8% [8]. Nurses, as frontline healthcare workers, particularly during the time of COVID-19, might have had moral stress regarding their work ethics, sense of responsibility, and obligation. They feel more worried about contracting an infection. Nurses have considerable responsibilities of having close contact with patients, a higher risk of infection, and a twofold increase in physical or mental stress. A study conducted in Hubei Province in China found that 92.68% of nurses have psychological difficulties after two weeks of COVID-19 [9]. The prevalence of burnout syndrome is rising dramatically across the globe. It is possible to acknowledge burnout syndrome as an occupational disease that exists in 39% of countries [10]. Burnout can harm the quality of care rendered by the nurses [11]. Burnout has a detrimental impact on the quality of nursing care and raises the rate at which nurses leave this profession. According to a World Health Organization assessment from 2006, a nurse shortage will hinder national and international efforts to improve the world population's health and well-being [12]. Therefore, this study aimed to determine the frequency of burnout and contributing factors of burnout among nurses working in a public sector hospital in Lahore.

METHODS

This cross-sectional study was carried out at Mayo Hospital, Lahore for periods of three months from July 2021 to September 2021. The calculated sample size was 246. It was calculated with OpenEpi version 3.01 online sample size calculator by taking 80% prevalence of burnout [13]. Nurses were recruited through a non-probability consecutive sampling technique. Charge nurses of both genders, working at the bedside and having at least one year of job experience were included in the study. While, nurses who were working management positions and contractual job holders were excluded from the study. Before data collection, study protocols were approved by the Graduate Nursing Review Committee (GNRC) at Ziauddin University Faculty of Nursing and Midwifery, Karachi. Moreover, approval for data collection was also granted by the Medical Superintendent of the hospital vide letter No.ND/14452/MH dated October 13, 2021. After that, written informed consent was obtained from all participants for their voluntary participation. The questionnaire was explicitly explained to all subjects and the confidentiality of the data was assured. The Copenhagen Burnout Inventory Scale was used to collect the data. It is accessible online for researchers and in the public domain. CBI comprises 19 questions about burnout including personal, work-related, job satisfaction, health status perception, and intention to leave a job. Questions from one to six were about personal burnout, seven to thirteen were about work-related burnout and questions from fourteen to nineteen measured burnout related to clients [7]. Responses were made on a five-point Likert scale ranging from 1 (never) to 5 (always). The total score in this burnout tool of burnout is 95. Less than a 25% score was considered as no burnout. Above a 25% score means burnout is present. If it exists, then burnout status was categorized as mild, moderate, and severe burnout based on scores. The score ranges from 25-50% was considered mild, 50-75% moderate, and >75% was counted as severe burnout. The data were entered and analyzed on Statistical Package for Social Sciences version 22.0. The descriptive analysis was computed in frequency and percentages. The correlation analysis was performed to measure the relation of various parameters such as age, gender, marital status, residence, duty shift, rotation, job experience, and education status with burnout. P-value ≤0.05 was considered as a level of significant.

RESULTS

In the current study, majority 232 (93.9%) of the participants were female nurses. Almost half 133 (53.8%) of the study subjects were married. 112 (45.3%) were working in morning shifts, 79 (32.0%) in the evening, and 56 (22.7%) did the night shift. 102 (41.3%) participants were aged between 23-28 years, 73 (26.9%) participants were of 29-32 years, 54 (21.9%) were in the age group of 33 to 37 years, and 18 (7.3%) were aged above 38 years. 108 (43.7%) participants were general nursing diploma holders, 49 (19.8%) completed Post RN BS Nursing. Almost one-fourth 190 (76.9%) participants had 2-7 years of work experience. Table 1 represents the frequency of personal burnout. The frequency of "Often" was highest, 103 (41.7%), against "Feel tired." The frequency of "Sometimes" was highest against "Physically exhausted" 121 (49.0%), "Emotionally exhausted" 153 (61.9%), "Fatigued" 107 (43.3%), and "I cannot take it anymore" 136 (55.1%). The response against "susceptibility to illness was found as Seldom 76 (30.8%) Sometimes, 71 (28.7%), and Often 76 (30.8%).

Table 1: Frequency of Personal Burnout

Questions	Never	Seldom	Sometimes	Often	Always
	Frequency (%)				
How often do you feel tired?	9 (3.6)	64 (25.9)	65 (26.3)	103 (41.7)	6 (2.4)
How often you are physically exhausted?	3 (1.2)	47 (19.0)	121 (49.0)	73 (29.6)	3 (1.2)
How often you are emotionally exhausted?	4 (1.6)	22 (8.9)	153 (61.9)	67 (27.1)	1 (0.4)
How often do you think: "I think I cannot take it anymore"?	7 (2.8)	38 (15.4)	136 (55.1)	65 (26.3)	1 (0.4)
How often do you feel fatigued?	3 (1.2)	50 (20.2)	107 (43.3)	84 (34.0)	3 (1.2)
How often do you feel weak and susceptible to illness?	10 (4.0)	76 (30.8)	71 (28.7)	76 (30.8)	14 (5.7)

Table 2 reveals the frequency of professional burnout. The frequency of "Sometimes" was highest against "feel worn out" 105 (42.5%), "exhausted in the morning" 125 (50.6%),

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"every working hour is tiring" 127(51.4%), "enough energy for family and friends "122(49.4%), "emotionally exhausting" 99 (40.1%), "work frustrates you" 113(45.7%) and "feel burnt out because of your work" 120(48.6%).

Table 2: Frequency of Professional Burnout

Questions	Never	Seldom	Sometimes	Often	Always
	Frequency (%)				
Do you feel worn out at the end of the working day?	3 (1.2)	59 (23.9)	105 (42.5)	76 (30.8)	4 (1.6)
Are you exhausted in the morning at the thought of another day at work?	9 (3.6)	35 (14.2)	125 (50.6)	77 (31.2)	1 (0.4)
Is every working hour tiring for you?	8 (3.2)	36 (14.6)	127 (51.4)	72 (29.1)	4 (1.6)
Do you have enough energy for your family and friends during leisure time?	3 (1.2)	45 (18.2)	122 (49.4)	71 (28.7)	6 (2.4)
Is your work emotionally exhausting?	8 (3.2)	57 (23.1)	99 (40.1)	79 (32.0)	4 (1.6)
Does your work frustrate you?	9 (3.6)	53 (21.5)	113 (45.7)	68 (27.5)	4 (1.6)
Do you feel burnt out because of your work?	7 (2.8)	54 (21.9)	120 (48.6)	61 (24.7)	5 (2.0)

Table 3 exhibits the frequency of frequency of client-related burnout. The assessment of client-related burnout through the frequency of never, seldom, sometimes, often, and always indicates that the frequency of "Sometimes" was highest against "find hard to work with clients" 113 (45.7%), "drain energy to work with clients" 122 (49.4%), "frustrating" 119 (48.2%), "feel that you give more than you get back" 102 (41.3%), "tired of working" 168 (68.0%) and "wonder how long you will be able to continue" 153(61.9%).

Table 3: Frequency of Client-related Burnout

Questions	Never	Seldom	Sometimes	Often	Always
	Frequency (%)				
Do you need help to work with clients?	5 (2.0)	49 (19.8)	113 (45.7)	73 (29.6)	7 (2.8)
Does it drain your energy to work with clients?	5 (2.0)	39 (15.8)	122 (49.4)	80 (32.4)	1 (0.4)
Do you find it frustrating to work with clients?	9 (3.6)	34 (13.8)	119 (48.2)	81 (32.8)	4 (1.6)
Do you feel you give more than you get back when working with clients?	5 (2.0)	52 (21.1)	102 (41.3)	86 (34.8)	2 (0.8)
Are you tired of working with clients?	5 (2.0)	21 (8.5)	168 (68.0)	52 (21.1)	1 (0.4)
How long will you be able to continue working with clients?	4 (1.6)	29 (11.7)	153 (61.9)	58 (23.5)	3 (1.2)

Table 4 discloses the association of demographic variables with burnout among nurses. It was found that gender was significantly and negatively associated with emotional burnout, and rotation of duty was also significantly (p-value=0.004) and negatively (β -.182) related to personal burnout among nurses. Similarly, for work-related burnout, gender and rotation were found to be negatively (β -.198, (β -.175) and significantly (p-value=0.002, and p-value=0.006) associated with burnout, while duty shift was significantly positively related to work-related burnout. Age, residence, and rotation were positively and significantly associated with client-related burnout.

Table 4: Association of demographic variables with burnout among nurses

Parameters	Personal Burnout		Work-Related Burnout		Client-Related Burnout	
	β	P-Value	β	P-Value	β	P-Value
Age	-.051	.549	.038	.662	.096	.029
Gender	-.182	.004	-.198	.002	-.148	.252
Marital Status	-.048	.558	-.047	.571	.000	.995
Residence	.092	.220	-.104	.173	-.174	.022
Duty Shift	.084	.195	.169	.010	.009	.814
Rotation	-.271	<0.01	-.175	.006	-.617	.004
Job experience	.090	.243	.023	.773	-.027	.682
Education status	-.089	.165	-.054	.400	-.035	.138

β= standardized coefficient, p-value ≤0.05 level is considered significant.

DISCUSSION

In the current study, it was found most of the nurses were reported moderate level of personal, professional, and client-related burnout since the study participants responded "sometimes" against each question specific for emotional burnout, professional and client-related burnout. These findings are consistent with the previous reports in which a moderate level of burnout was observed among nurses working in the ICU ward . Similar findings were also observed by Butera *et al* [14]. This study found that nurses in intensive care units and emergency departments were at risk of burnout. With the addition of pandemic situations, this study also revealed nurses' experience during the coronavirus disease 2019 pandemic was quite different and increased the risk of burnout. The present study found a moderate level of personal, professional, or client-related burnout among nurses. Burnout in healthcare workers is multifactorial and has been presented as the basis of harmful effects during pandemics. During the first pandemic of the century, SARS, a questionnaire-based assessment of employees working in the emergency department shown considerably high levels of concern among nursing staff, doctors, and healthcare assistants [15]. The anxiety of infection due to the contagious nature of the disease, worry for self and family, job stress, interpersonal isolation, perceived stigma, fear of undertaking foreign labor, and other variables have all been associated with psychological distress among HCWs working in pandemics [16]. The pandemic's impact can also be enduring. Maunder *et al.*, investigated the long-term psychological consequences of the SARS outbreak in Canadian healthcare workers after 1–2 years. The nurses in Canada reported substantially greater burnout, psychological distress scores, and posttraumatic stress scores than their colleagues who did not care for SARS patients [16]. A previous study showed some associated factors with nurse burnout. These factors

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included gender, age, marital status, timings/shifts, healthcare designation, administrative tasks, and healthcare service areas [17]. The present study observed that gender and rotation were significantly and negatively associated with personal and work-related burnout. The negative association of gender with personal and work-related burnout was not prominent, and it may be due to the discrepancy in the distribution of gender; most of the participants were female. Recent research have discovered a link between overwork in critical care and emergency services and a higher likelihood of burnout among nurses [18]. According to current research study findings conducted during the COVID-19 pandemic, the additional work during the pandemic led to increased burnout among nurses. The results of the present study are consistent with these reports and reveal that the rotation of duties may not lead to burnout. In contrast, rotation consistency may contribute to burnout among nurses [19, 20]. Age, residence, and rotation were positively and significantly associated with client-related burnout in the current study. Many situations may lead to nurse burnout, for example, being away from their homes and families continuously resulting in a sensation of helplessness to spend appropriate energy in family, a disturbance of circadian rhythms, and acute exhaustion [21]. A study among nurses in Lahore, Pakistan, found more incredible burnout and a worse quality of life among nurses working in gynecology and surgical departments, particularly those nurses who did longer shifts [21]. In the current study, the scenario of the study population was quite different. As they worked in the COVID ICU, their insecurity and helplessness increased while dealing with the patient during this pandemic. The current study found the association of burnout with years of job experience was insignificant. Contradictory findings were observed from a previous study in Karachi, Pakistan, in which a significant association of burnout with job experience was found and revealed by Ahmed *et al.*, that a moderate level of burnout was seen as higher in participants who had professional experience of 3-5 and 6-10 years [22]. Furthermore, those with more than ten years of work experience were shown to have a higher level of burnout. A previous study found that more incredible years of job experience lowered burnout levels among nurses. These nurses are also less likely than those with fewer years of experience to abandon their positions. However, it was exhibited that nurses with less work experience are less likely to adjust to the obstacles of their profession and, as a result, get irritated. Since the study participants were working during COVID, the working protocol and environment were new for each participant; therefore, there was an insignificant correlation between work experiences and burnout.

CONCLUSIONS

The study concluded that nurses were experienced moderate levels of personal, professional, and client-related burnout. It is, therefore, summarized that the COVID-19 epidemic affected burnout rates due to increasing demands on the workforce. Policies that promote optimal staffing ratios are the critical component of a holistic approach. To decrease or eliminate burnout among frontline nurses and strive toward happier clinicians, better health, better treatment, and lower costs.

Authors Contribution

Conceptualization: ZP
Methodology: R, B
Formal analysis: ZP, R
Writing, review and editing: R, B

All authors have read and agreed to the published version of the manuscript.

Conflicts of Interest

The authors declare no conflict of interest.

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