

Original Article

Psychosocial working conditions and Burnout among Healthcare Professionals in a Tertiary Care Hospital in Karachi,

Pakistan.

Misha Irshad^(D), Farah Ahmad^(D) & Syed Hassan Danish^(D) Ziauddin University, Karachi-Pakistan.

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Abstract

Background: Healthcare professionals experience stressful working conditions that can lead to burnout. This study investigates the association between psychosocial working conditions and burnout among healthcare professionals in a tertiary care hospital in Karachi, Pakistan.

Methodology: This cross-sectional study was conducted at three different facilities of Dr. Ziauddin Hospital, Karachi, from July 2021 to December 2021. Two standardized surveys were used to assess the psychosocial working conditions and burnout. The selected participants were associated with the institutional healthcare facility and were working as house officers, residents, nurses, dentists, and allied health professionals.

Results: out of 384 distributed questionnaires, only 172 participants completed and returned the questionnaire. The mean score of burnouts was 46.24 with an SD value of 16.1 when assessed with the different levels of burnout (i.e., no burnout, stressed out, mild burnout, burned out, server burnout), it was found that the majority of the participants' n=56 (32.6%) had mild burnout and n=55 (32%) had burnout while severe burnout was found in n=22 (12.8%).

Conclusion: Our study results indicate that there is a significant increase in healthcare professionals' level of burnout in a tertiary care system.

Keywords

Psychosocial Working Conditions, Burnout, Working Conditions, Healthcare Professionals.



Introduction

In scientific literature, the term psychosocial is outlined within the context of psychological and social factors within the work arena. Psychological factors are perceptions and interpretations of work-related matters. In contrast, social factors involve the influence of the social context and social factors. In alternative words, psychosocial work environment pertains to interpersonal and social interactions that influence behavior and development in the workplace¹.

Healthcare professionals experience several psychosocial risk factors as a consequence of the type of their work (increased workload, work without boundaries, working alone, lack of social support, lack of free time, clarity of roles, violent, abusive, or demanding patients)². These risk factors affect their physical and emotional health. The detrimental effects of exposure to these psychosocial risk factors highlight a critical issue for both the physical and psychological health of doctors and nurses and the standard of care given to their patients³.

Burnout is described as a condition of physical, emotional, and mental fatigue that develops after a prolonged engagement in emotionally challenging work environments. It is a multifaceted condition that includes diminished self-worth, depersonalization, and emotional exhaustion^{4,5}.

Burnout is widely known to impact work performance, job satisfaction, interpersonal relationships, and vulnerability to illnesses⁶. In addition, the causes of burnout are related to psychosocial working conditions, i.e., excessive workload, lack of job control, less social support, lack of autonomy, time pressure, etc.) instead of personal factors^{3,7-9}. Burnout has been studied in relationship with prolonged social work-related stress and has been mentioned from varied views (e.g., within the field of medicine, surgery, neurology, occupational medicine, general internal medicine, family medicine, and health psychology). According to studies, medical students, residents, and nurses all experience significant levels of

burnout, with prevalence rates reaching up to 44.2, 45, and 50%, respectively¹⁰⁻¹².

In Pakistan, Burnout and stress are prevalent among house officers, residents, pediatric surgeons, and nurses operating in government institutes compared to those working in non-public hospitals because of low pay packages, excessive work, and lack of support from supervisors and colleagues¹³⁻¹⁵. In line with many studies, several factors are coupled with burnout that, includes; time pressure, role conflict, lack of support from coworkers, frequency of contact with inveterately and terminally sick patients, long operating hours, and frequency of on-call duties^{16,17}. The healthcare professionals, due to increased working hours and workload, healthcare professionals experience psychosocial stressors that create a stressful environment that contributes to physical and emotional exhaustion resulting in burnout syndrome and other maladaptive behaviors that compromise employee wellness and wellbeing and reduce his/her/her productivity¹⁸.

As far as the research on psychosocial working conditions and burnout is concerned, most studies focus solely on the prevalence of burnout and its related factors. To the best of our knowledge, no study in Pakistan has been conducted to assess the between psychosocial association working conditions and burnout. This study examines the psychosocial relationship between workina conditions and burnout among healthcare professionals at tertiary care hospital of Karachi, Pakistan.

Methodology

We carried out a cross-sectional study from July 2021 to December 2021. The study took place at three different facilities of Dr. Ziauddin Hospital, Karachi - Clifton, North Nazimabad, and Kemari (KDLB). The sample size was calculated as n=384, and the sampling was done through the convenience sampling technique. The sample size was calculated using the following formula = (z)2 p (1 - p) / d2 with the following conditions - prevalence of burnout was taken out at 50% with an absolute precision of 5% and confidence level

of 95%. Ethical approval for the study was taken from the institutional ethics committee. Consent was obtained and the participants were explained the data collection protocol, and their responses were included upon their consent. The principal investigator addressed all queries regarding questionnaires.

The selected participants were associated with an institutional healthcare facility with the following levels of designations - house officers, residents, nurses, dentists, and allied health professionals (non-academic staff). The participant were working full-time (minimum 8 hours per day) in the tertiary healthcare space. The participants had at least 2 years of working experience in a tertiary healthcare unit. The healthcare facility's administrative staff was not allowed to participate and individuals who refused participation in the research were also excluded.

Two standardized surveys were used to assess the psychosocial working conditions and burnout. The Danish psychosocial working environment questionnaire designed by Clausen et al. (2019). To gauge burnout, a questionnaire designed by Dr. Freudenberger – modified from "Symptoms of Burnout" (Freudenberger, H. Burnout.; Bantum, NY, NY; 1981) – was used.

Statistical analysis was performed via Statistical Package for Social Sciences (SPSS) Version 22.0. All

data were entered into Microsoft Excel and then transferred to SPSS for data analysis. Mean and standard deviation was taken out for numerical variables, and frequency and percentages were taken out for categorical variables. The normality of numeric data was checked through the Shapiro-Wilk test, and homogeneity through Levene's test. Spearman rank correlation was applied to find an association between burnout and the psychosocial working environment. A p-value less than 0.05 was taken as significant.

Results

Due to Covid -19, there was a high non-response rate; therefore, out of 384 distributed questionnaires, only 172 participants completed and returned the questionnaire.

The sample collected exhibits both gender representations (male and female) that are either single (54.7%), divorced (0.6%), or married. The respondents belonged to all the areas of the health sector, particularly academic (0.6%), emergency (17.4), laboratory (0.6%), neurophysiology lab (1.2%), orthodontics (1.2%), OT (surgery), in-patient department (IPD) (51.2%) and out-patient department (OPD) (9.3%). Most workers were female (61.6%) and were married (44.8%).

The details of the investigated participants are given in the following tables.

Parameters	Categories	n(%)	
	20 - 30 Years	151(65.7)	
	31 - 40 Years	19(28.3)	
Age	41 - 50 Years	03(6.1)	
	50 - 60 Years	-	
	Above 60 Years	-	
Conder	Female	106(61.6)	
Gender	Male	66(38.4)	
	Divorced	01(0.6)	
Marital Status	Married	77(44.8)	
Marital Status	Single	94(54.7)	
	Widowed	-	

Table 1: Demographic characteristics of respondent profile.

	0 to 1 year	59(34.3)	
Average Mark Experience	1 to 3 years	82(47.7)	
Average work Experience	3-5 years	19(11)	
	5 years and above	12(7)	
	10 hours	12(7)	
Average Working Hours	12 hours	62(36)	
	8 hours	98(57)	
	Day	53(30.8)	
Working Shifts	Night	106(61.6)	
	Both	13(7.6)	

Table 2: Descriptive Analysis - sub-domains of psychosocial working conditions.

Characteristics	Mean±SD
Quantitative Demand	50.15±27.02
Workplace	59.34±28.49
Emotional Demand	61.48±27.37
Demand To Conceal Feelings	70.50±21.12
Cognitive Demand	72.30±20.22
Work Without Boundaries	47.82±25.63
Influence On Work	56.88±30.56
Influence On Working Hour	50.64±25.43
Possibility Of Development	64.78±19.33
Role Clarity	71.12±19.46
Role conflict	55.85±21.53
Social Support from Colleagues	66.73±21.94
Cooperation	69.69±20.61
Trust Between Colleagues	66.93±19.54
Social Support	69.04±21.54
Quality Leadership	62.37±22.99
Cooperation With Immediate Supervisor	63.74±20.39
Justice In the Workplace	57.33±24.30
Involvement Of Employees	56.72±25.53
Experience Of Meaning at Work	64.10±23.41
Commitment to The Workplace	63.97±23.78
Job Security	45.65±28.60
Conflict Between Work Life and Private Life	55.72±24.85
Burnout	46.24±16.13

Analysis of the above data indicated that the overall score range ranges from 45.6 to 72.3 with a minimum standard deviation of 16.1 and maximum standard deviation of 28.5 for all variables mentioned. The mean value represents the average response of respondents and how diverse respondents are represented by standard deviation. Further analysis indicated that cognitive demand scored the highest mean, 72.30, with a standard deviation of 20.7, while job security indicated the lowest mean value of 45.65, with a standard deviation of 28.7.

The mean score of burnout was 46.24 with a standard deviation of 16.1. When assessed with the different levels of burnout (i.e., no burnout, stressed out, mild burnout, burned out, server burnout). It was found that the majority of the participants' n=56 (32.6%) had mild burnout and n=55 (32%) had burnt-out while severe burnout was found in n=22 (12.8%). However, stress out was present in n=25 (14.52%), whereas no burnout was seen in n=14 (8%) participants only.

Characteristics	Burnout
Workplace	0.305**
Emotional demand	0.389**
Demand to conceal feelings	0.173**
Cognitive demand	0.102**
Work without boundaries	0.252**
Influence on work hours	-0.163
Possibility of development	0.239**
Involvement of employees	-0.142**
Justice in the work place	-0.075
Cooperation with immediate supervisor	-0.2**
Quality leadership	-0.139
Social support	-0.148**
Trust between colleagues	-0.048

Table 3: Correlation between psychosocial working domains and burnout.

**significant at p<0.01

In accordance with the results, it can be inferred that there is a significant but weak association between burnout and the subdomains of the psychosocial working environment of the study participants. Results also showed that when burnout was correlated with each of the psychosocial working conditions questionnaire subdomains. It was observed that – for the "workplace domain," the coefficient of correlation was 0.03, which indicated a weak correlation, but it was significant. Likewise, for the "emotional demands domain," the correlation coefficient was 0.38; the correlation was weak but significant. Similarly, for subdomains – "Demands to conceal feelings," the coefficient of correlation was 1.73; for "cognitive demands," the coefficient of correlation was 0.12 and for "work without boundaries," the coefficient of correlation was 0.25; therefore, the correlation was weak but significant in the following subdomains. A negative correlation was observed for the subdomains "influence in work hours" and "involvement of employees" with burnout, which indicated a weak but significant correlation. However, no correlation with burnout was observed for the subdomain "justice in the workplace." To find the association of burnout with different levels of designation chi-square test was applied, which revealed that most n=29 residents experience Burnout 52.7% with a p-value of 0.006.

Table 4: Association of designation levels with levels of burnout.

		Levels of Burnout					
Variables		No Burnout	Stressed Out	Mild Burnout	Burned Out	Severe Burnout	values
Levels of designation	Residents	5(35.7)	3(12)	27(48.2)	29(52.7)	11(50.0)	0.006*
	(n=75)						
	House Officers	8(57)	10(40)	20(357)	9(16)	4(18)	- 0.000
	(n=51)	0(01)	10(10)	20(00.1)	3(10)	.(10)	

**significant at p<0.05

In essence, burnout does not have a strong association with the subdomains', workplace, emotional demand, work without boundaries, and the possibility of development. On the contrary, a number of attributes share negative correlations with burnout; however, the values are found to be statistically significant. These include involvement of employees, justice in the workplace, cooperation with immediate supervisor, quality leadership, social support, and trust between colleagues. Furthermore, psychosocial factors such as workplace pressure, emotional demands, work without boundaries, and the possibility of development might be potential factors for burnout among healthcare providers.

Discussion

In the current study, we performed an in-depth analysis to determine the effect of psychosocial factors on work environment and burnout among healthcare professionals in a tertiary care hospital in Karachi, Pakistan. In the respective study, we aimed to reveal insights on the factors that can potentially cause negative psychological effects (including depression and/or distress and burnout) amongst healthcare workers¹⁹. Doctors are favored in advancing general wellbeing, propelling medication studies, and passing the light of information to the following age doctors²⁰. Sadly, a plethora of research has pointed toward the disturbing levels of doctor burnout and occupational satisfaction^{19,21}.

There is developing proof of the expanded pervasiveness of mental issues (stress, misery, nervousness, and substance misuse) and sensations of burnout among clinical experts all around the world, and this has been demonstrated to be related to slips in persistent consideration²². Burnout among healthcare workers is induced as a result of occupational stress, which can significantly affect the physical and mental health of the practitioners.

Following the research conducted in developed countries, extreme burnout is reported with a significant increase ranging from 25% to 70% of doctors. For instance, Burnout in a Canadian-based ICU went from 36% to 65%, with the most significant burnout among intensive care unit staff members trailed by attendants, respiratory specialists, and ICU doctors²². In France, approximately 35% of nursing staff and ~50% of doctors showed elevated degrees of burnout in the emergency unit. The studies emphasized that medical healthcare providers wanted to resign from their duties²³. The present study's findings revealed the prevalence of burnout among healthcare professionals in a tertiary care hospital in Karachi as 46%.

In the given scenario, it can be inferred that working conditions would be extremely stressful. In addition to this, not only healthcare practitioners are expected to provide supreme care to patients and/or cater to multiple patients simultaneously. Moreover, it is essential for healthcare providers to actively take part in academic enrichment programs and/or research plans. A study by Grover et al. 2018, emphasized the outcomes of burnout among medical healthcare professionals. The principal investigator reported the healthcare providers were generating errors in the medicine prescriptions, were performing misdiagnoses, exhibiting life-endangering errors towards the patients, causing a significant decrease in the level of empathy towards the patients, and mistreating patients, colleagues, and/or seniors, and most importantly an overall decrease in the standard of care for patients²⁴.

In the current review, among the two occupants and employees, higher negative mental results (i.e., sadness, stress, and burnout) were related to the long working hours. Studies from developed countries and underdeveloped countries have detailed comparable affiliations likewise. The high pervasiveness of negative mental results (i.e., misery, stress, and burnout) among occupant specialists and employees demonstrate that they experience higher work pressure^{25,26}. Likewise, there is a need to evaluate specialists for wretchedness occasionally and diminish their functioning hours to cut down the business-related pressure. Furthermore, endeavors should be made to show abilities and survival techniques to the clinical experts to oversee pressure and work pressure²⁷.

In light of it, several attributes mentioned above are directly correlated with the workplace, emotional demand, work without boundaries, and the possibility of development. Many studies have been dedicated to analyzing and documenting workplace-associated stressors in a hospital setting^{22,28}. These studies have summed up the workplace-associated stressors that are mentioned hereafter - Career related issues; Clinical obligations, Deadlines; Inadequate leadership; Ineffective teamwork; Job ambiguity; Job demands; Job satisfaction; Prolonged working shifts; Role clarity; Work-related political Workload²⁹.

Emotional demand and/or emotional exhaustion are associated with an exorbitantly segregated demeanor towards patients for a healthcare practitioner and unnecessary time-to-time selfassessment leading to low self-achievement. It might prompt adverse results like clinical mistakes, sadness, distress, and, most importantly, the desire to quit the job. It was observed that emotional demands have a weak but significant correlation with burnout. In addition, various investigations have exhibited a solid relationship between job struggle and emotional exhaustion, which is a crucial aspect of burnout. Similarly, workplace mistreatment includes discrimination, verbal assault, physical abuse, and/or unlawful sexual contact. Overall, workplace mistreatment can potentially lead to high levels of Burnout amongst Healthcare Professionals^{30,31}. However, it was observed in this current study that mistreatment has a weak correlation with burnout among subjects who participated in this research.

Furthermore, role conflict and job ambiguity can be the utmost stressors causing occupational stress. They might relate to burnout amongst people working in the tertiary healthcare system, and the results of this study revealed that these factors share a weak but significant association with burnout.

The study's strength is that we encompassed all the departments from the tertiary healthcare system, from clinicians to nurses to allied health professionals. This provided us with a fair idea that most residents experience burnout. Moreover, regarding the burnout amongst individuals at any and/or every level of the healthcare sector. Secondly, we explored all the psychosocial factors associated with burnout among healthcare practitioners.

For Future directions, we recommend that study be conducted at a higher level, including all the tertiary care hospitals in Karachi. On a similar note, longitudinal studies should be conducted, and healthcare professionals should be interviewed face to face by authorities to identify the issues and make adequate effects to eradicate them. Hospital management should be guided and/or instructed by the city authorities to take adequate steps that could decrease the levels of burnout amongst clinicians and non-clinical staff. In addition, necessary steps should be taken to promote team building, and justice should prevail at all levels to reduce burnout, increase job satisfaction and enhance healthcare professionals' well-being.

The present study has the following limitations -The utilization of cross-sectional questionnaires and this strategy fails to present true correlations among variable attributes and factors. In addition, this exploration configuration permits connections between factors to be recognized in one place in particular. It doesn't permit causal connections among factors to be laid out and made primarily from one specific medical facility.

Conclusion

Our study results indicate that there is a significant increase in healthcare professionals' level of burnout in a tertiary care system. Herein, the drastic increase in the levels of occupational stress, distress, depression, and finally exhaustion is related with psychosocial factors, chiefly workassociated stress and/or workplace related stressors, emotional demands, decreased chances of promotions at work, and finally, work without boundaries with colleagues.

Conflicts of Interest

The authors have no conflicts of interest to declare.

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References

- Shahzad A, Ali SA, Fatima U, Erum H, Munawar R. Level of occupational stress and its associated factors among house officers of Dow University of Health Sciences. JJEHSR .2019;7(1):33-38.
- Wahab Q, Din Z, Jahanzeb M, Ullah S, Abbas M. Assessment of Burnout Syndrome and Physical Activity of the University Teachers – A cross-sectional Observational Study. APP.2022;9(1):17.
- 3. A, Shehbaz L, Nasir S, Jataoi S, Asim SJ, Rajput AH. Burnout among emergency medicine residents. APP. 2021;8(1):43-48.
- 4. Freudenberger HJ. Staff burn out. J Soc Issues. 1974;30(1):159-165.
- 5. Maslach C, Jackson SE. The measurement of experienced burnout. J Organ Behav. 1981;2(2):99-113.
- Chemali Z, Ezzeddine FL, Gelaye B, Dossett ML, Salameh J, Bizri M, Dubale B, Fricchione G. Burnout among healthcare providers in the complex environment of the Middle East: a systematic review. BMC public health. 2019;19(1):1-21.

- Saleem Y, Noushad S, Kazmi SU, Shaikh S, Noor N, Asim M. Bullying; A Psychosocial Stressor. APP.2018;5:17-26.
- 8. Maslach C, Schaufeli WB, Leiter MP. Job burnout. Annu Rev Psychol. 2001;52(1):397-422.
- 9. Escribà-Agüir V, Martín-Baena D, Pérez-Hoyos S. Psychosocial work environment and burnout among emergency medical and nursing staff. Int Arch Occup Environ Health. 2006;80(2):127-133.
- Frajerman A, Morvan Y, Krebs MO, Gorwood P, Chaumette B. Burnout in medical students before residency: a systematic review and meta-analysis. Eur Psychiatry. 2019;55:36-42.
- Rodrigues H, Cobucci R, Oliveira A, Cabral JV, Medeiros L, Gurgel K, Souza T, Gonçalves AK. Burnout syndrome among medical residents: A systematic review and meta-analysis. PloS one. 2018;13(11):e0206840.
- Molina-Praena J, Ramirez-Baena L, Gómez-Urquiza JL, Cañadas GR, De la Fuente El, Cañadas-De la Fuente GA. Levels of burnout and risk factors in medical area nurses: A meta-analytic study. IJERPH. 2018;15(12):2800.
- Liaqat N, Dar SH, Waheed K. Burn out among the paediatric surgeons of Pakistan. J Pak Med Assoc. 2019;69(11):1730-1733.
- Qureshi MF, Sadiq S, Mohammad D, Lakhani M, Shah M, Tariq N. Does sector matter in House Officers performances?; A Cross sectional study. MedEdPublish. 2019;8(135):135.
- 15. Mazhar SB, Gilani S, Ain QT, Khan S. High burn out among doctors working in a tertiary care hospital; a wakeup call. J Pak Med Assoc. 2019;69:349.
- Chaudhry MA, Khokhar MM, Waseem M, Alvi ZZ, ul Haq Al. Prevalence and associated factors of burnout among military doctors in Pakistan. Pak Armed Forces Med J. 2015;65(5):669-673.
- 17. Ahmed S, Noushad S. Sorts and sources of stress in Pakistan; A comprehensive outlook. IJEHSR 2013;1(1):4.
- Gómez MA, Sabbath E, Boden L, Williams JA, Hopcia K, Hashimoto D, Sorensen G. Organizational and psychosocial working conditions and their relationship with mental health outcomes in patientcare workers. J Occup Environ Med. 2019;61(12):e480e485.
- Melnyk BM, Kelly SA, Stephens J, Dhakal K, McGovern C, Tucker S, Hoying J, McRae K, Ault S, Spurlock E, Bird SB. Interventions to improve mental health, wellbeing, physical health, and lifestyle behaviors in physicians and nurses: a systematic review. Am J Health Promot. 2020;34(8):929-941.
- 20. Ahmed S, Noushad S, Shahzad S, Azher SZ, Aziz A, Saleem MT. Post-traumatic Stress Disorder in

Karachites due to random events of violence. IJEHSR 2014;2(1):42-45.

- Baruah A, Das S, Dutta A, Das B, Sharma T, Hazarika M. Degree and factors of burnout among emergency healthcare workers in India. Int J Sci Res. 2019;8(4):41-45.
- 22. Gray P, Senabe S, Naicker N, Kgalamono S, Yassi A, Spiegel JM. Workplace-based organizational interventions promoting mental health and happiness among healthcare workers: A realist review. ljerph. 2019;16(22):4396.
- 23. Schütte S, Chastang JF, Malard L, Parent-Thirion A, Vermeylen G, Niedhammer I. Psychosocial working conditions and psychological well-being among employees in 34 European countries. Int Arch Occup Environ Health. 2014;87(8):897-907.
- 24. Grover S, Adarsh H, Naskar C, Varadharajan N. Physician burnout: A review. J Mental Health Human Behav. 2018;23(2):78.
- Atefi N, Abdullah KL, Wong LP, Mazlom R. Factors influencing registered nurses perception of their overall job satisfaction: a qualitative study. Int nurs rev. 2014;61(3):352-360.
- 26. Wong K, Chan AH, Ngan SC. The effect of long working hours and overtime on occupational health:

a meta-analysis of evidence from 1998 to 2018. ljerph. 2019;16(12):2102.

- 27. Moreno Fortes A, Tian L, Huebner ES. Occupational stress and employees complete mental health: a cross-cultural empirical study. IJERPH. 2020;17(10):3629.
- 28. Andolsek KM. Physician Well-Being: Organizational Strategies for Physician Burnout. FP essentials. 2018;471:20-24.
- 29. Shanafelt TD, Gorringe G, Menaker R, Storz KA, Reeves D, Buskirk SJ, et al. Impact of organizational leadership on physician burnout and satisfaction. Mayo Clin Proc. 2015;90(4):432-440.
- Malik MA, Inam H, Martins RS, Janjua MB, Zahid N, Khan S, Sattar AK, Khan S, Haider AH, Enam SA. Workplace mistreatment and mental health in female surgeons in Pakistan. BJS open. 2021;5(3):zrab041.
- Hu YY, Ellis RJ, Hewitt DB, Yang AD, Cheung EO, Moskowitz JT, Potts III JR, Buyske J, Hoyt DB, Nasca TJ, Bilimoria KY. Discrimination, abuse, harassment, and burnout in surgical residency training. New Eng J Med. 2019;381(18):1741-1752.