



OPEN ACCESS



BURNOUT IN DOCTORS WORKING IN TERTIARY CARE HOSPITAL IN PESHAWAR, PAKISTAN

Shahzadi Saima Hussain, Qudsia Qazi, Shandana Bawar✉

Department of Obstetrics and Gynaecology, Lady Reading Hospital Peshawar- Pakistan

Address for correspondence: Shandana Bawar
Department of Obstetrics and Gynaecology, Lady Reading Hospital Peshawar- Pakistan

E-mail:
shandanabawar@hotmail.com

Date Received:
December, 15th 2021

Date Revised:
October, 12th 2022

Date Accepted:
October, 12th 2022

This article may be cited as

Hussain SS, Qazi Q, Bawar S. Burnout in Doctors Working in Tertiary Care Hospital in Peshawar, Pakistan. *J Postgrad Med Inst* 2022;36(4):253-58. <https://doi.org/10.54079/jpmi.36.4.3031>.

ABSTRACT

Objective: To determine the frequency of burnout in postgraduate doctors working in a Tertiary Care Hospital in Peshawar, Pakistan

Methodology: This cross-sectional study was conducted in tertiary care hospital in Peshawar from June 2019 to December 2019. Using the Non-probability convenient sampling technique 252 doctors from different specialties participated in this study, by filling out the questionnaire. The questionnaires had three parts, questions related to Socio-demographic data, questions related to the workplace, and Maslach Burnout Inventory (MBI). For analysis of data related to MBI, we added up each component (emotional exhaustion, depersonalization, and reduced personal accomplishment). The values obtained were interpreted according to reference values of the Center of Advanced Studies on Burnout Syndrome (NEPASB). Data was analysed using SPSS 20.

Results: In this study, out of these 252 doctors 25.39% were having high burnout while 32.93% were found to be at high risk of burnout. On the MBI scale 34.92% % showed a high score for Emotional exhaustion, 95.23 % of doctors scored high in Depersonalization, and 95.63% % scored low in Personal accomplishment. Amongst specialties burnout score was highest in orthopedics (80.14) followed by obstetricians and Gynecologists (75.35). Burnout was reported in 68.85% of young doctors aged 25-30, females (71.58%) were affected with burnout more as compared to male gender.

Conclusion: This study concluded that about one-third of doctors were at high risk of developing burnout, while 25% were already affected by burnout.

Keywords: Burnout; Depersonalization; Emotional Exhaustion; Personal Accomplishment

INTRODUCTION

The healthcare system is under immense pressure than ever for the provision of better and more efficient services, this has indirectly translated into severe burden and stress on healthcare providers, that leads to Burnout, which is a state of emotional, physical, and mental exhaustion caused by excessive and prolonged stress.¹

Burnout is now categorized as a "syndrome" that results from "chronic workplace stress that has not been successfully managed," according to the World Health Organization's International Disease Classification (ICD-11) —the official compendium of diseases. It is characterized by three dimensions:

Feeling of energy depletion or exhaustion, increased mental distance from one's job, or feelings of negativism or cynicism related to one's job; and reduced professional efficacy.^{2,3}

In developed countries like UK, burnout is reported in one in every 3rd doctor (31%).⁴ In China burnout rate among doctors was reported 66.5% to 76.9%.⁵ While a study conducted in Lahore report a burnout rate of 33% among doctors.⁵ Burnout does not occur on its own, but certain factors or conditions precipitate it, e.g. workload, long duty hours, stressful environment, lack of support from organization/supervisors, frequent litigation, high expectations, and limited resources and coping with serious patients, deaths and frequent one-sided media trials.⁶⁻⁸

It should be known that burnout is not due to a person's medical condition but is an occupational phenomenon.⁹ The triggering factor is an imbalance between workload and available limited resources, it is important to fix and improve the workplace environment rather than blaming the worker. There is an emphasis now to change the approach from 'improvement in health care service provision only' towards 'improvement in both, health care provision and well-being of healthcare providers. The latter aspect has a direct

impact on patient satisfaction, compliance with treatment and follow-up visits.^{10,11} In the medical profession burnout is a serious entity, affecting the health and productivity of medical professionals leading to various disorders, deteriorating academic and clinical performance, and impairment in learning abilities, if the condition is not addressed in time, it can lead to suicide.¹²

This study is conducted to find out the frequency of burnout in doctors working in one of the Tertiary Care Hospitals in Peshawar, with emphasis on the cause and effects of Burnout like Depolarization, emotional exhaustion and personnel accomplishment, highlighting these issues will help us to know the burden of disease, formulate policies and to take measures to improve them and give due importance to the physical and mental health of health care providers.

METHODOLOGY

This cross-sectional study was conducted at the Department of Obstetrics and Gynaecology, Lady Reading Hospital, one of the Tertiary Care Hospitals in Peshawar, from June 2019 to December 2019 after obtaining approval from the hospital ethical committee (IRB 421/LRH). Non-probability convenient sampling technique was used in this study, 252 doctors participated by filling out the MBI questionnaire, and written consent was obtained beforehand. We included doctors across all specialties, postgraduate trainees and consultants were included while junior doctors (House officers) nurses and paramedic staff were excluded from the study. Data was collected about basic demographic features like age, gender, and

marital status were noted, precipitating factors like working hours per week, workload, equipment shortage and adequate time for the family were asked, and the respondents either agreed or disagreed with the given statement.

Maslach Burnout Inventory was used to assess the frequency and effect of burnout which is a standard tool to assess burnout and has three dimensions i.e. emotional exhaustion (feelings of being emotionally exhausted by one's work), depersonalization (impersonal response towards patients, treating them as objects), and personal accomplishment (feelings of competence and successful achievement in one's work). In total contain 22 items (questions). Each Item of MBI was scored on a Likert scale, ranging from 0 (never) to 6 (every day). These subscales were calculated for each respondent. Scores of these subscales were summed and then were transformed into low, moderate or high. The values obtained were interpreted according to reference values of the Center of Advanced Studies on Burnout Syndrome (NEPASB) as shown in Table 1.^{13,14}

All three dimensions were analyzed to assess the risk of the development of burnout syndrome. According to MBI, burnout is diagnosed if there are high scores for the emotional exhaustion and depersonalization dimensions and low scores for the professional achievement dimension. If the above criteria is full filled in all three dimensions it confirms burnout, if two out of three criteria is met, it means there is a high risk for its development.

For burnout score, the aggregate of each

dimension of MBI was performed. The reliability of the Maslach Burnout Inventory in the present sample was tested using Cronbach's alpha, overall, it was 0.807 which is highly significant. Cronbach's alpha was tested for individual dimensions too, for emotional exhaustion it was 0.88, for personal Accomplishment it was 0.76 and for depolarization was 0.82, which shows high reliability of all three dimensions. SPSS version 20 was used, Frequency and percentages were calculated for the categorical variables and mean and standard deviations (SDs) were calculated for discrete variables.

RESULTS

In this study, 60% of participants were between 25-30 years of age, with slightly more males (55.6%) than females, among all participants 51.2% were married. Burnout score was more frequent (68.85) in young doctors aged 25-30 as compared to others and the female gender was more affected (71.58) as compared to males. While there was not much difference in burnout between married and unmarried doctors (Table 2).

Regarding precipitating factors Duty hours of more than 80 hours per week had the highest Burnout score (69.96) (Table 2), overall, 79.4 % of participants were of the view that Patients served in one shift are beyond their capacity and equipment shortage is affecting their work 76.6% (Table 3).

It was noted that among all 34.92% of doctors showed a high score for Emotional exhaustion, 95.23 % of doctors scored high in Depersonalization, and 95.63% % scored low in Personal accomplishment. Overall,

Table 1: The values obtained were interpreted according to reference values of the Center of Advanced Studies on Burnout Syndrome

Dimension (level)	Low	Medium	High
Emotional Exhaustion	0-15	16-25	26-54
Personal Accomplishment	0-33	34-42	43-48
Depersonalization	0-2	3-8	9-30

Total burnout score: 1. High ≥68 2. Moderate 61-67 3. Low ≤ 60

Table 2: Demographic features for Burnout

		Number	Emotional exhaustion Mean with Standard deviation (±)	Depersonalization Mean with Standard deviation (±)	Personal accomplishment Mean with Standard deviation (±)	Total score
Age in Years	25-30	152 (60.3%)	23.05±10.31	30.74±10.05	15.06±8.33	68.85
	31-40	75 (29.8%)	18.41±10.85	35.06±9.69	13.02±8.92	66.49
	41 and above	25 (9.9%)	16.20±10.29	33.01±9.09	11.83±10.92	61.04
Gender	Male	140 (55.6%)	18.17±10.22	33.28±10.44	12.88±9.36	64.33
	Female	112 (44.4 %)	24.56±10.50	31.31±9.25	15.71±7.86	71.58
Marital Status	Unmarried	123 (48.8 %)	22.07±10.58	31.14±9.75	14.74±7.88	67.95
	Married	129 (51.2%)	19.99±10.95	33.62±10.04	13.56±9.63	67.17
Duty Hours	40-59		17.86±9.88	34.01±9.72	11.92±8.81	63.29
	60-80		24.53±10.40	30.93±9.38	16.27±8.22	61.73
	>80		23.24±11.54	29.65±12.01	17.07±9.18	69.96

Table 3: Precipitating factors for Burnout

		Frequency	Percentage	Combined Percentage
Patient Served in One Shift are Beyond my Capacity	Strongly agree	102	40.5%	79.4
	Agree	98	38.9%	
	Disagree	39	15.5%	20.7
	Strongly disagree	13	5.2%	
	Total	252	100.0%	
Too Much Documentation Drain me Out	Strongly agree	71	28.2%	59.5
	Agree	79	31.3%	
	Disagree	85	33.7%	40.4
	Strongly disagree	17	6.7%	
	Total	252	100.0%	
Equipment Shortage Affect my Work	Strongly agree	108	42.9%	76.6
	Agree	85	33.7%	
	Disagree	21	15.1%	23.4
	Strongly disagree	38	8.3%	
	Total	252	100.0%	
Have Enough Time for Family	Strongly agree	10	4.0%	24.2
	Agree	51	20.2%	
	Disagree	99	39.3%	75.8
	Strongly disagree	92	36.5%	
	Total	252	100.0%	

Table 4: Speciality and Burnout score (Mean ± SD)

MBI based results			
Dimension (level)	Low	Medium	High
Emotional Exhaustion	39.2% (n=99)	25.79% (n=65)	34.92% (n=88)
Depersonalization	0 %	4.76 % (n=12)	95.23 % (n=240)
Personal Accomplishment	95.63% (n=241)	3.17% (n=8)	1.19% (n=3)

Table 5: Speciality and Burnout score (Mean \pm SD)

Speciality	Number of respondents	Emotional Exhaustion Mean with Standard deviation (\pm)	Depersonalization Mean with Standard deviation (\pm)	Personal accomplishment Mean with Standard deviation (\pm)	Total burnout score
Psychiatry	15	13.00 \pm 10.20	40.46 \pm 9.00	10.26 \pm 8.10	63.72
Emergency Medicine	27	17.61 \pm 10.69	35.51 \pm 10.38	6.03 \pm 5.60	59.15
Medicine and Allied	14	14.92 \pm 6.60	31.28 \pm 11.76	10.57 \pm 7.56	56.77
Obs & Gynae	68	28.01 \pm 9.28	30.30 \pm 9.60	17.04 \pm 6.76	75.35
Pediatrics	29	20.31 \pm 11.29	31.31 \pm 8.82	17.03 \pm 11.017	68.65
Orthopedics	7	23.57 \pm 9.86	34.57 \pm 10.16	22.00 \pm 10.26	80.14
Dentistry	7	13.50 \pm 7.17	33.00 \pm 7.61	9.57 \pm 9.30	56.07
General Surgery	20	24.36 \pm 8.76	31.95 \pm 8.25	16.00 \pm 6.41	72.31
Ophthalmology	3	21.33 \pm 18.87	23.00 \pm 7.93	19.33 \pm 9.76	63.66
Anesthesia	5	13.00 \pm 4.63	39.00 \pm 5.00	9.80 \pm 4.14	61.80
Dermatology	4	22.66 \pm 16.44	20.25 \pm 6.94	21.50 \pm 11.61	64.41
Pulmonology	9	18.55 \pm 10.32	27.22 \pm 12.14	14.44 \pm 8.41	60.21
Cardiology	26	18.46 \pm 9.09	32.50 \pm 11.27	13.38 \pm 7.56	64.34
Urology	7	19.85 \pm 8.97	39.71 \pm 3.59	12.71 \pm 7.52	72.27
Nephrology	9	13.55 \pm 6.61	30.55 \pm 12.01	10.77 \pm 6.37	54.87
Pathology	2	9.50 \pm 4.94	28.00 \pm 11.31	9.50 \pm 10.24	47.00

25.39% of doctors were found to have burnout while 32.93% were found to be at high risk of burnout. In this study highest emotional exhaustion was seen in obstetrics and Gynaecology mean of 28.01 \pm 9.28 followed by doctors in general surgery at 24.36 \pm 8.76. Depersonalization was highest in psychiatry at 40.46 \pm 9.01 followed by urology at 39.71 \pm 3.59. The lowest personnel accomplishment was seen in emergency medicine 6.03 \pm 5.60 followed by pathologists. Overall burnout score was highest in orthopedics (80.14) followed by obstetricians and gynaecologists (75.35) (Table 4).

DISCUSSION

Burnout in the medical profession is a dangerous entity, it has a detrimental effect on individuals' first subsequently affecting patient care and organization adversely.^{15,16} This study showed 25.39% of doctors were having high burnout. These results are similar to a local study in the military hospital where 27% of doctors had high burnout, while another local study reported 33% burnout.^{6,8}

In this study, burnout was more frequent in females, which can be seen in the context of the extra burden of social responsibilities on females. In local studies as well as study by Houkes et al concluded that females score high in EE while males scored higher in Depersonalization^{17,18}

This study burnout was significantly higher in young doctors, these findings are consistent with most of the related studies, and the probable reason is the sudden exposure of these young people to the stressful environment after graduation without any proper training in handling stressful situations, long duty hours and lack of professional support in a crisis situation.¹⁹⁻²²

The working environment is extremely important in job satisfaction, duty hours being most relevant, in this study it was concluded that doctors working for more than 80 hours were more affected by burnout, similar findings were reported in previous local and international studies.^{6,23}

In this study Overall burnout was most

frequent in orthopedic and obstetrics, burnout score was 75.5 in Obstetrics and Gynaecology, as well as other related national²⁴ and international²⁵ studies also reported high burnout in Gynaecology and obstetrics. Long duty hours, frequent litigations, workload, unbooked patients & shortage of staff all these factors contribute to burnout in Obstetricians.^{8,26}

This study concluded that 34.92% had high Emotional exhaustion, the most probable reason can be workload, constrained organization, and bullying. Another study at the same institute showed that 83% of doctors are overworked and 86% were bullied in one form or other, which explains this high EE. Another study in military hospitals reported figures lower than ours (21.8%)^{6,27}

In this study, it was found that 95.20 % of doctors reported high depolarization. In local studies high depolarization was found in 16.6% and 32.3% The possible reasons can be abrupt changes in hospital management and policies, implementation of new medical act, rapid changes in the mode of service

delivery and shortage of equipment, heavy clerical work, Lack of support from the organization. General public ambience towards doctors, and making doctors accountable for even those things which are not their responsibility. Another important aspect is doctors own passion and commitment towards the profession, level of stress tolerance and resilience.^{6,8,28}

Personnel accomplishment was evaluated in 95.63%, who reported low personnel accomplishment, which again is the lowest reported compared to other related regional studies, 20.4% and 25.6%. While a study conducted in Brazil reported 47.7%. The possible explanation can be increased workload beyond their capability and long duty hours, persistent exposure to stressful environment and inability to cope with it, lack of criteria or system in hospital to identify burnout in doctors so it gets worsening, all this results in adversely effecting doctors' own passion and commitment towards profession and patients, making them less sensitive to patients.^{6,8,28}

Once identified, there is a need to develop therapeutic strategies like Stress management programs, communication skills workshops, seminars on how to support colleagues, plenary sessions on problem-solving and decision-making, and taking a timeout for rest and exercise. Every hospital should establish a professional body that can identify the stressor and affected individuals and provide them with adequate support and guidance.

CONCLUSION

About one-third of doctors are at high risk of developing burnout, while 25% are already affected by burnout. The problem should be recognized and proactive interventions should be taken at individual and institutional levels to curb this syndrome.

REFERENCES

- Hooper C, Craig J, Janvrin DR, Wetzel MA, Reimels E. Compassion satisfaction, burnout, and compassion fatigue among emergency nurses compared with nurses in other selected inpatient specialties. *J Emerg Nurs.* 2010;36(5):420-7. DOI:10.1016/j.jen.2009.11.027.
- Health workforce burn-out. *Bull World Health Organ.* 2019;97(9):585-586. DOI:10.2471/BLT.19.020919.
- World Health Organization. Burn-out an "occupational phenomenon": International Classification of Diseases. World Health Organization. Available From URL: https://www.who.int/mental_health/evidence/burn-out/en. 2019 May 28.
- Denis Campbell . Third of UK doctors report burnout and compassion fatigue. *The Guardian.* 2020;Jan 23.
- Lo D, Wu F, Chan M, Chu R, Li D. A systematic review of burnout among doctors in China: a cultural perspective. *Asia Pac Fam Med.* 2018;17:3. DOI: 10.1186/s12930-018-0040-3.
- Chaudhry MA, Khokhar MM, Waseem M, Alvi ZZ, ul Haq AI. Prevalence and associated factors of burnout among military doctors in Pakistan. *Pak Armed Forces Med J.* 2015;65(5):669-73.
- Kumar S. Burnout and doctors: prevalence, prevention and intervention. *Healthcare.* 2016;4(3):37. DOI:10.3390/healthcare4030037
- Khan WA, Khan SA, Khattak H, Shah SH, Tanoli ZK, Ashraf B, Afridi SR, Afridi IU, Khan M, Hassan Z. Professional burnout among doctors in rehman medical institute, peshawar, khyber pakhtunkhwa. *J Med Stud.* 2016;2(1).
- Berg S. WHO adds burnout to ICD-11. What it means for physicians. *Am Med Assoc Physician Health.* 2019. [Cited October 2, 2020]. Available from URL: <https://www.ama-assn.org/practice-management/physician-health/who-adds-burnout-icd-11-what-it-means-physicians>
- The Lancet. Physician burnout: a global crisis. *Lancet.* 2019;394(10193):93. DOI: 10.1016/S0140-6736(19)31573-9.
- Rich A, Viney R, Needleman S, Griffin A, Woolf K. 'You can't be a person and a doctor': the work-life balance of doctors in training-a qualitative study. *BMJ Open.* 2016;6(12):e013897. DOI:10.1136/bmjopen-2016-013897.
- Mahmood K. Time to Act - Alarming Rise in Suicides Among Medical Professionals in Pakistan. *J Coll Physicians Surg Pak.* 2016;26(12):947-9.
- Schaufeli WB, Leiter MP. Maslach burnout inventory manual. *J Organ.* 1996.
- Tamayo MR, BT Tróccoli. Construction and factorial validation of the Burnout Characterization Scale (ECB). *Psychology Studies (Natal).* 2009;14:213-21.
- Saini R, Kaur S, Das K. Assessment of stress and burnout among intensive care nurses at a tertiary care hospital. *J Ment Health Hum Behav.* 2011;16(1)
- Shirazi RR, Bciki Y, Zamanian F, Esapour K. Study of the relationship between organizational commitment and job Burnout among physical education teachers of Golestan province, Iran. *Aust J Basic Appl Sci.* 2011;5(10):1379-1384.
- Aftab N, Shah AA, Mehmood R. Relationship of self efficacy and burnout among physicians. *Int J Acad Res.* 2012; 2(2): 539-48.
- Houkes I, Winants Y, Twellaar M, Verdonk P. Development of burnout over time and the causal order of the three dimensions of burnout among male and female GPs. A three-wave panel study. *BMC Public Health.* 2011;11:240. DOI:10.1186/1471-2458-11-240.
- Al-Dubai SA, Rampal KG. Prevalence and associated factors of burnout among doctors in Yemen. *J Occup Health.* 2010;52(1):58-65.

- DOI:10.1539/joh.o8030.
20. Gabbe SG, Melville J, Mandel L, Walker E. Burnout in chairs of obstetrics and gynecology: diagnosis, treatment, and prevention. *Am J Obstet Gynecol.* 2002;186(4):601-12. DOI: 10.1067/mob.2002.122391.
 21. Campbell DA Jr, Sonnad SS, Eckhauser FE, Campbell KK, Greenfield LJ. Burnout among American surgeons. *Surgery.* 2001;130(4):696-702; discussion 702-5. DOI:10.1067/msy.2001.116676.
 22. Ozyurt A, Hayran O, Sur H. Predictors of burnout and job satisfaction among Turkish physicians. *QJM.* 2006;99(3):161-9. DOI:10.1093/qjmed/hcl019.
 23. Klersy C, Callegari A, Martinelli V, Vizzardi V, Navino C, Malberti F, et al; Working Group on Burnout and Dialysis. Burnout in health care providers of dialysis service in Northern Italy--a multicentre study. *Nephrol Dial Transplant.* 2007;22(8):2283-90. DOI: 10.1093/ndt/gfm111.
 24. Waheed K, Liaqat N, Ejaz S, Khanum A, Ijaz S, Butt A, Randhawa FA, Naheed I, Javed Set al. Burnout among gynaecological residents in lahore, Pakistan: A cross-sectional survey. *J Pak Med Assoc.* 2017;67(9):1318-1322.
 25. Ghetti C, Chang J, Gosman G. Burnout, psychological skills, and empathy: balint training in obstetrics and gynecology residents. *J Grad Med Educ.* 2009;1(2):231-5. DOI:10.4300/JGME-D-09-00049.1.
 26. Arora M, Diwan AD, Harris IA. Prevalence and factors of burnout among Australian orthopaedic trainees: a cross-sectional study. *J Orthop Surg (Hong Kong).* 2014;22(3):374-7. DOI: 10.1177/230949901402200322.
 27. Hussain SS, Rahim R. Bullying of post-graduate medical trainees in tertiary care hospitals. *J Postgrad Med Inst.* 2014;28(3).
 28. Fred HL, Scheid MS. Physician Burnout: Causes, Consequences, and (?) Cures. *Tex Heart Inst J.* 2018;45(4):198-202. DOI:10.14503/THIJ-18-6842.
 29. Magalhães E, Oliveira AC, Govêia CS, Ladeira LC, Queiroz DM, Vieira CV. Prevalência de síndrome de burnout entre os anesthesiologistas do Distrito Federal [Prevalence of burnout syndrome among anesthesiologists in the Federal District]. *Rev Bras Anesthesiol.* 2015 Mar-Apr;65(2):104-10. Portuguese. DOI:10.1016/j.bjan.2013.07.016.

Author's Contribution

SSH conceived the idea, designed the study, and performed data analysis and final write-up for the manuscript. QQ and SB contributed in the collection of data and final write up for the manuscript. Authors agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

Conflict of Interest

Authors declared no conflict of interest

Grant Support and Financial Disclosure

None

Data Sharing Statement

The data that support the findings of this study are available from the corresponding author upon reasonable request.