



Burnout among Gynaecological and Obstetrical Resident Doctors in Tertiary Health Care Settings of Pakistan

Mohammed EyanKhan¹, Hamd E Yazdaan¹, Naeemullah², Muhammad Imran Marwat^{3*}, Khushal Khan¹, Syed Mohammad Omair¹

¹Khyber Medical College, Peshawar Pakistan

²Department of Community Medicine, Saidu Medical College, Swat

³Department of Community Medicine and Public Health, Khyber Medical College, Peshawar, Pakistan

ABSTRACT

OBJECTIVE: To assess the prevalence and degree of burnout among resident doctors of gynaecological and obstetrical units in tertiary care hospitals of district.

*For Correspondence

METHODOLOGY: A cross sectional study was implied by using Maslach Burnout Inventory questionnaire as a validated study tool to analyse the 3 dimensions of burnout. Data was collected from resident doctors of various category tertiary care hospitals including public, private and autonomous hospitals in district Peshawar. Non-probability convenience type of sampling technique was used and the residents were selected irrespective of gender or age. Three levels of burnout dimensions were calculated and comparison was made among residents of different category hospitals.

Dr. Muhammad Imran Marwat

Assistant Professor, Department of Community Medicine and Public Health, Khyber Medical College, Peshawar, Pakistan

Email: imranmarwat_30@kmc.edu.pk

Submission date: 19th June 2023

Acceptance date: 31st Oct 2023

Publication date: 31st Dec 2023

RESULTS: Of the 212 distributed self-administered questionnaires, 147 were returned (69% response rate). Highest prevalence of high burnout levels were recorded among the study participants in Emotional Exhaustion component with 62 percent followed by 39 percent in Depersonalization and 26 percent in reduced personal accomplishment. Autonomous public hospitals recorded the highest levels of emotional exhaustion and depersonalization whereas reduced personal accomplishments levels were the highest among residents in public hospitals..

CONCLUSION: Results revealed high burnout with high levels of emotional exhaustion in all hospitals. Similarly high levels of reduced personal accomplishment had the lowest prevalence. Proper patient referral system and greater number of doctor (in order to improve the doctor patient ratio) are needed in order for adequate patient load distribution. Screening programs for early detection, interventions and proper stress management programs to better cope with the hectic routine.

KEY WORDS: Burnout syndrome, emotional exhaustion, depersonalization, reduced personal accomplishment, resident doctors

INTRODUCTION

The WHO defines burnout as a syndrome conceptualized as resulting from chronic workplace stress that has not been successfully managed¹. It is characterized by three dimensions according to WHO and Maslach, feelings of energy depletion or exhaustion/emotional exhaustion (EE), increased mental distance from one's job, or feelings of negativism or cynicism related to one's job/depersonalization (DP), reduced personal efficacy/ reduced personal accomplishment (PA). It is an occupational phenomenon².

Resident doctors burnout has been significantly researched in

the West, however there is a lack of research in South Asian settings i.e. countries having a majority of their population in the lower income category³. In countries like Pakistan, with major proportion of its population being dependent on public funded health care services, there is high patient load per doctor and occupational stress⁴. Evidence from the US and Europe show that burnout in Gynaecology and Obstetrics to be among the highest of any specialty with nearly half the residents showing burnout symptoms⁵. Burnout assessment is important as high levels of burnout have been linked to deterioration of high quality health care, increased frequency of medical errors, early retirement as well as having an adverse impact on physician's

This Article may be cited as; Khan EM, Yazdaan EH, Ullah N, Marwat IM, Khan K, Omair MS. Burnout Among Gynaecological and Obstetrical Resident Doctors in Tertiary Health Care Settings of Pakistan. *Adv Basic Med Sci*.2023;7(2):43-47. DOI: <https://doi.org/10.35845/abms.2023.2.285>

individual health⁶⁻⁸.

In Pakistan a lack of proper patient referral system being in place may result in tertiary care hospitals having to take majority of the work burden and patient load⁹. While past studies¹⁰⁻¹² have all focused on assessing burnout in hospitals, during literature search the authors were not able to retrieve studies which made comparisons between public and private hospitals especially in Pakistan's health sector setting. Thus in depth look was needed to further breakdown the burnout levels faced by the residents working in different hospitals of the city. This study aimed to determine the prevalence of burnout among gynecology and obstetrics residents in 3 types of tertiary care hospitals functioning in district Peshawar i.e., Public, Autonomous and Private Hospitals.

METHODOLOGY

This was a cross sectional study conducted in the city of Peshawar, which is a capital district in Khyber Pakhtunkhwa province of Pakistan. The research was conducted in 3 different level of tertiary care hospitals including autonomous hospitals (Khyber Teaching Hospital, Hayatabad Medical Complex and Lady Reading hospital) private hospitals (Mercy Teaching Hospital, Kuwait Teaching Hospital, Rehman Medical Institute and Northwest Teaching Hospital) and public sector hospitals (Naseer Ullah Babar City Hospital and Molvi Ameer-ud-Din Memorial Hospital). The data was collected through self-administered validated structured questionnaire i.e Maslach Burnout Inventory to analyse the 3 dimensions of burnout among residents of gynaecological and obstetrical departments of different category tertiary care hospitals.

After taking verbal consent the questionnaire was distributed among conveniently selected 212 residents of which 147 returned the filled questionnaire. All residents of Gynecology and Obstetrics wards working in tertiary care hospitals were included except newly recruited residents having spent less than 1 year, residents who were on long term leave and who refused to take part in the survey. All the residents were treated with respect and confidentiality of the data collected was the top priority. Answers were in the form of options from 0-7 to determine the level of burnout from low to moderate to high. The data was analyzed using Statistical software SPSS Volume 22 and presented with the help of charts, tables and graphs. Ethical approval for this research was taken from the Institutional Review and Ethical Board of Khyber Medical College.

RESULTS

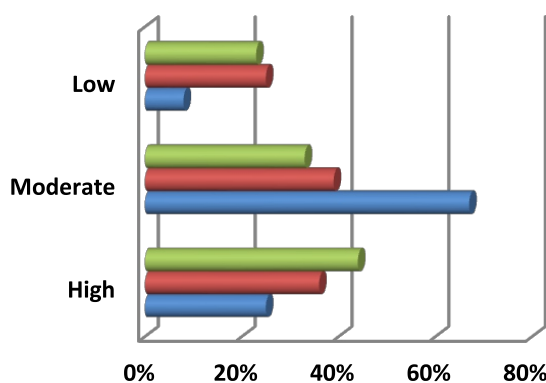
Burnout analysis depends on the analysis its 3 dimensions namely emotional exhaustion (EE), depersonalization (DP) and

reduced personal accomplishment (PA). The 3 dimensions were evaluated separately according to the Maslach² Burnout inventory in order to ascertain burnout levels among health professionals. Of the 212 questionnaires distributed among the residents of various public and private hospitals of the city of Peshawar, 147 were filled giving a response rate of 69.3 percent. Within the population, 98.5% percent of the study participants were females and 1.5 percent were males. The mean age of the participants was 29.24 Among the 147 study participants, 24 were from public hospitals, 79 from autonomous public hospitals and 43 from private hospitals of the city of Peshawar. The overall burnout levels in all the residents of each hospital are shown in the table below.

Levels	Degree of burnout in study participants		
	Emotional Exhaustion	Depersonalization	Reduced Personal Accomplishments
Low	24 (16%)	31 (21%)	74 (50%)
Moderate	32 (22%)	59 (40%)	35 (24%)
High	91 (62%)	57 (39%)	38 (26%)
Total	147 (100%)	147 (100%)	147 (100)

Table 1: Different Levels of Burnout among Study Participants

Professional Burnout scores among the study participants showed that Emotional Exhaustion was high in 2/3rds of the participants whereas 1/3rd of the participants showed low to moderate levels of burnout. Further analysis revealed that emotional exhaustion levels were much higher in autonomous public hospitals and private hospitals of the city with 2/3rds of the residents suffering from high levels of burnout as compared to only 43.2 percent or a little over 1/3rd of the residents in public hospitals.



	High	Moderate	Low
Autonomous	44%	33%	23%
Private	36%	39%	25%
Public	25%	67%	8%

Figure 2: Comparison of Depersonalization between different category hospitals

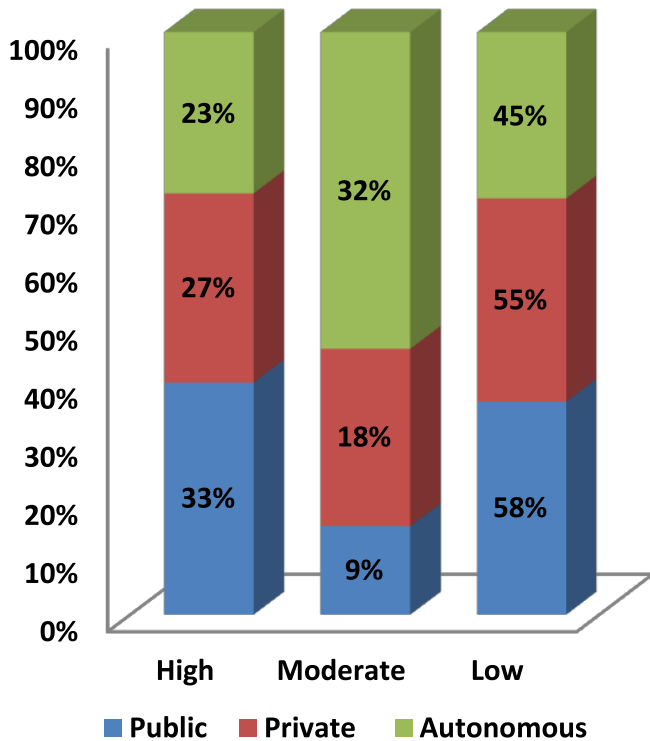


Figure 3: Reduced Personal Accomplishment comparison between different category hospitals

Of the 147 study participants depersonalization was high in 39 percent (n=57) of the study population, moderate in 40 (n=59) percent of the study population and 21 (n=31) percent of the study population. Further analysis revealed that depersonalization levels were much higher in Autonomous public and public hospitals as compared to private hospitals with close to half the residents suffering from in autonomous public hospitals suffering from depersonalization as compared to only a quarter of their counterparts in private hospitals.

High levels of Reduced Personal Accomplishment were seen in 25.9 percent (n=38) of the study population. Similarly moderate levels of reduced personal accomplishment 23.8 percent (n=35) of the study population and low levels in 50.3 percent (n=74) of the study population. An in-depth analysis revealed that reduced personal accomplishment levels were generally lower as compared to the other burnout dimensions in the residents of all 3 types of hospitals. Highest levels were seen in Public hospitals with a third of the residents suffering from high levels of reduced personal accomplishment with about a quarter of the residents in Autonomous public hospitals and private hospitals facing the same problem.

DISCUSSION

Burnout is on the rise globally with high prevalence of burnout recorded in gynaecology and obstetrics medical specialties¹³.

Thus, learning about burnout becomes imperative in order to better develop stress management strategies in order to curb the high burnout rates present in work intensive medical specialties like gynaecology and obstetrics. The percentage of moderate to high burnout level was reported in our study across all the 3 dimensions especially in emotional exhaustion and depersonalization (where it was over 60 percent and around 50 percent in reduced personal accomplishment) in gynaecology and obstetrics with similar findings in other studies both nationally and internationally.

Our study reported extremely high burnout rates with 2/3rds of the participants showing high emotional exhaustion levels and 80 percent of the participants falling within the high to moderate burnout levels. Similar studies conducted in Canada and Lahore revealed similar results with 60 percent of the gynecology and obstetrics residents suffering from high emotional exhaustion levels in the former study and more than 60 in the latter^{10,14}. However a previous study conducted in 8 Spanish university hospitals yielded different results to ours with figures ranging from 18 to 75 percent¹⁵. The response rate however in the study was around 35 percent as opposed to 70 percent in ours which maybe a significant cause of introducing selection bias into the survey as there may be a differential risk in non-respondents. A very extensive national study in the Netherlands of resident doctors revealed general high to moderate burnout levels of only 21 percent as opposed to ours¹⁶.

With regards to depersonalization our study reported high burnout rate with 39% participants showing high depersonalization and 79 percent participants falling within the high to moderate burnout levels. Studies conducted in Texas and King Edward Medical University Lahore reported of high depersonalization 47.1% and 41.8% among gynecology residents respectively, similar to this study^{11,17}. The depersonalization rate was also found to be less among gynecology residents in Iran (16%) and Canada (13%) in contrast to this study findings^{14,18}. In addition to that, high levels of reduced personal accomplishment in 25.9% of the study population, moderate levels in 23.8% and low levels in 50.3% of the study population. Similar studies were conducted in Agha Khan University Karachi and CMH Lahore revealing lack of personal accomplishment in 32% and 25.6% of the physicians respectively^{12,19}. Whereas one was conducted in Texas in which 19.1% reduced personal accomplishment was reported¹⁷.

The reasons for the different study findings in some research could be due to different patient settings as many studies did not specify a tertiary care setting or public/private setting for the hospital/resident programs where the surveys were conducted. Also, in this research does not discriminate between residents in

early part of their career and those in later as well as age as some studies which divided the residents revealed that residents in different parts of their career may suffer from different levels of burnout levels with those in earlier parts or of a younger age suffering from significantly higher levels of burnout^{20,21}. Also the mean working hours and workload which vary greatly in different regions are a known contributing factor to high burnout levels with higher working hours working hours and higher workloads associated with higher burnout levels²⁰. Albeit the role of gender on burnout remains controversial with some studies exhibiting no correlation²² in this study almost all the participants were female as in both Pakistan and Khyber Pakhtunkhwa's conservative setting almost all of the gynecology and obstetrics practice is carried out by female medical professionals this differs from other countries where greater proportions of men also practice gynecology and obstetrics, and several studies have reported female gender as a risk factor for burnout²³. Most of the participants were also hesitant to share their personal life details such as age marital status and children which as some studies have shown are protective against high burnout levels²⁴.

Some of the limitation factors were hospital hesitance and lack of administrative cooperation which significantly hindered from getting a bigger sample size. The study population majorly consisted of young female residents (between 24 and 35 years of age) who were hesitant to share information especially regarding socio demographic factors due to the social reasons and conservative setup. COVID-19 circumstances also limited our accessibility to many residents and decreased our time decreasing our sample size.

CONCLUSION

The study concluded that there is high prevalence of high burnout levels among gynecology and obstetrics residents serving in tertiary care hospitals. A comparative analysis among different category hospitals revealed consistent findings that autonomous hospitals had the highest levels of depersonalization and emotional exhaustion whereas public hospitals revealed highest levels of reduced personal accomplishment. Proper patient referral system and greater number of doctor (in order to improve the doctor patient ratio) are needed for adequate patient load distribution as higher workloads lead to higher burnout levels. Administrative policies should be framed keeping in mind the residents as they take up the bulk of the work load. Less administrative interference and cordial work environment needs to be encouraged. Screening programs for early detection of burnout, intervention and proper stress management programs are necessary for the residents.

Conflict of Interest:

The authors declare no conflict of interest.

Funding:

It was a non-funded research work

REFERENCES

1. World Health Organization %J World Health Organization G, Switzerland. Burn-out an "occupational phenomenon": International Classification of Diseases. 2019. 2019.
2. Maslach C, Schaufeli WB and Leiter MPJArop. Job burnout. 2001; 52: 397-422.
3. Lancet TJL. Physician burnout: a global crisis. 2019, p. 93.
4. Bank TW. Physicians (per 1,000 people) - Pakistan 2022.
5. Moradi Y, Baradaran HR, Yazdandoost M, et al. Prevalence of Burnout in residents of obstetrics and gynecology: A systematic review and meta-analysis. 2015; 29: 235.
6. Wallace JE, Lemaire JB and Ghali WAJTI. Physician wellness: a missing quality indicator. 2009; 374: 1714-1721.
7. Shanafelt TD, Balch CM, Bechamps G, et al. Burnout and medical errors among American surgeons. 2010; 251: 995-1000.
8. Shanafelt T, Sloan J, Satele D, et al. Why do surgeons consider leaving practice? 2011; 212: 421-422.
9. Naseer M, Zahidie A and Shaikh BTJPH. Determinants of patient's satisfaction with health care system in Pakistan: a critical review. 2012; 2: 52.
10. Waheed K, Liaqat N, Ejaz S, et al. Burnout among gynaecological residents in lahore, Pakistan: A cross-sectional survey. 2017; 27.
11. Khan KA, Ejaz S, Khan AJJoAFM, et al. Burnout Syndrome and its Risk Factors among Gynecology Consultants: Burnout among gynecologist. 2020; 2: 17-21.
12. Chaudhry MA, Khokhar MM, Waseem M, et al.
13. Prevalence and associated factors of burnout among military doctors in Pakistan. 2015; 65: 669-673.
13. Bourne T, Shah H, Falconieri N, et al. Burnout, well-being and defensive medical practice among obstetricians and gynaecologists in the UK: cross-sectional survey study. 2019; 9: e030968.
14. Al-Ma'mari NaO, Naimi Al and Tulandi TJGS. Prevalence and predictors of burnout among obstetrics and gynecology residents in Canada. 2016; 13: 323-327.

15. Castelo-Branco C, Figueras F, Eixarch E, et al. Stress symptoms and burnout in obstetric and gynaecology residents. 2007; 114: 94-98.
16. Prins JT, Hoekstra-Weebers JE, Gazendam-Donofrio SM, et al. Burnout and engagement among resident doctors in the Netherlands: a national study. 2010; 44: 236-247.
17. Garza JA, Schneider KM, Promecene P, et al. Burnout in residency: a statewide study. 2004; 97: 1171-1174.
18. Kalani SD, Azadfallah P, Oreyzi HR, et al. Prevalence of burnout syndrome among the residents in Isfahan University of Medical Sciences, Isfahan, Iran. 2017; 35: 993-999.
19. Zubairi AJ, Noordin SJAom and surgery. Factors associated with burnout among residents in a developing country. 2016; 6: 60-63.
20. Amofo E, Hanbali N, Patel A, et al. What are the significant factors associated with burnout in doctors? 2015; 65: 117-121.
21. Alacacioglu A, Yavuzsen T, Dirioz M, et al. Burnout in nurses and physicians working at an oncology department. 2009; 18: 543-548.
22. Ozyurt A, Hayran O and Sur HJJotAoP. Predictors of burnout and job satisfaction among Turkish physicians. 2006; 99: 161-169.
23. Kuerer HM, Eberlein TJ, Pollock RE, et al. Career satisfaction, practice patterns and burnout among surgical oncologists: report on the quality of life of members of the Society of Surgical Oncology. 2007; 14: 3043-3053.
24. Liakopoulou M, Panaretaki I, Papadakis V, et al. Burnout, staff support, and coping in pediatric oncology. 2008; 16: 143-150.

CONFLICT OF INTEREST

Author declared no conflict of interest

GRANT SUPPORT & FINANCIAL DISCLOSURE

Author declared no specific grant for this research from any funding agency in the public, commercial or non-profit sectors

AUTHORS CONTRIBUTIONS

MEK: Conception, Design of the work, Data collection, and Drafting, Reviewed, Final approval, Agreement to be accountable.

HEY: Conception, Design of the work, Acquisition, Data Analysis, and Drafting, Reviewed, Final approval, Agreement to be accountable

NU: Conception, Design of the work, Interpretation of data for the work, and Drafting, Reviewed, Final approval, Agreement to be accountable.

MIM: Conception, Design of the work, Data collection, and Drafting, Reviewed, Final approval, Agreement to be accountable .

KK: Conception, Design of the work, Data collection, Data analysis and Drafting, Reviewed, Final approval, Agreement to be accountable.



This is an Open Access article distributed under the terms of the Attribution Non-Commercial 4.0 International