RESEARCH ARTICLE

Occupational burnout among obstetrics and gynaecology healthcare professionals in a public hospital in Islamabad, Pakistan

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Abstract

Objective: To assess burnout by the extent of exhaustion and disengagement, and to compare the two elements among obstetrics and gynaecology healthcare professionals.

Method: The cross-sectional study was conducted at the Federal Government Polyclinic Hospital, Islamabad, Pakistan, in July and August, 2020 during the coronavirus disease-2019 pandemic, and comprised healthcare professionals from the obstetrics and gynaecology department. Data was collected online using the 25-item Oldenburg Burnout Inventory. Data was analysed using SPSS 26.

Results: Of the 142 individuals approached, 102(71.83%) responded; 55(53.92%) doctors, 43(42.15%) nurses and 4(3.92%) operation theatre technicians. Overall, there were 98(96.1%) females, and 67(65.7%) married subjects. Mean exhaustion score was 2.53±0.54 and disengagement score was 2.14±0.57. Burnout was found in 40(39.2%) participants, 83(81.4%) were exhausted, 44(43.1%) were disengaged, and 4(3.1%) were disengaged but not exhausted. Participants aged >50 years were significantly more exhausted and disengaged than the younger ones (p<0.05). Those with work hours >60 per week were significantly more exhausted and disengaged than the rest (p<0.05).

Conclusion: Healthcare professionals in obstetrics and gynaecology teams showed considerably high burnout levels during the coronavirus disease-2019pandemic in Pakistan.

Keywords: Burnout, Caregiver exhaustion, Healthcare, Professional, Psychological. (JPMA 73: 1837; 2023)

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Introduction

Although the term burnout had been introduced in 1974,[1] it got recognised by the World Health Organisation (WHO) as recently as May 2019 and defined as an occupational phenomenon in the 11th revision of the International Classification of Diseases (ICD-11)[2] as follows: "Burnout is a syndrome conceptualised as resulting from chronic workplace stress that has not been successfully managed. It is characterised by three dimensions: (a) feelings of energy depletion or exhaustion, (b) increased mental distance from one's job, and (c) reduced professional efficacy."[2]

During the coronavirus disease-2019 (COVID-19) pandemic, "stress" was labelled as the hidden pandemic in general, especially for healthcare workers.[3,4] This stress expresses itself in the form of insomnia, anxiety, guilt, bereavement, avoidance of returning to the healthcare setting, intrusive thoughts, and depression, which may lead to burnout, if left unaddressed.[5,6] Unaddressed burnout predisposes healthcare workers to decline in physical and mental health, increased workplace conflicts and absenteeism.[5,6] The substandard performance further leads to frequent medical errors, litigation, shaming and intolerance, risking mental health.[7]

Ever since the conceptualisation of the burnout phenomenon, constant efforts are being made towards maintaining wellbeing and building resilience in the healthcare staff.[8,9]

The healthcare professionals' wellbeing and burnout literature from Pakistan comprises isolated studies on doctors from different departments,[10,11] or studies on nurses in varying disciplines.[12-14] Although burnout in obstetrics and gynaecology (OB-GYN) healthcare professionals has been studied previously,[11,15] burnout characteristics in team members during the pandemic remains an area particularly under-explored in Pakistan.

The job demands and resources (JD-R) model[16] was used as the theoretical grounding of this study, and a conceptual framework was established (Figure). The dependent variables of exhaustion and disengagement were measured by using OLBI. The relationship of exhaustion and disengagement with the independent variables was established. Independent variables were the resources (education, salary, job title) and demands (age, gender, marital status, and work experience).

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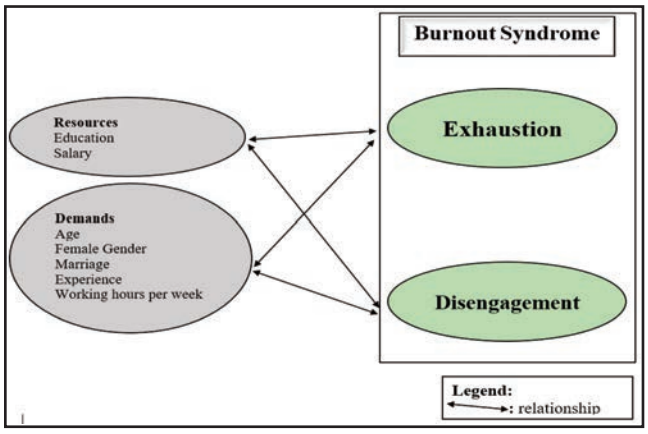

Figure: Conceptual Framework of Burnout based on the JD-R Model.

The specific objectives of this research were:

1. To assess the extent of burnout as determined by the domains of exhaustion and disengagement, among the healthcare professionals in obstetrics & gynaecology department of a public hospital in Islamabad, Pakistan.

2. To compare the means of level of (a) exhaustion and (b) disengagement between male and female, married and unmarried participants, among participants of different age groups, educational qualifications, years of work experience, working hours per week, and with different monthly salaries.

Subjects and Methods

The cross-sectional study was conducted at the Federal Government Polyclinic Hospital (FGPH), Islamabad, Pakistan, in July and August, 2020 during the COVID-19 pandemic. The hospital is one of the four public tertiary care hospitals in Islamabad, providing medical facilities to more than 2 million people every year from Rawalpindi, Islamabad, Azad Jammu and Kashmir (AJK), federally administered tribal areas (FATA), Khyber Pakhtunkhwa (KP) and Gilgit-Baltistan (GB).

After approvals from ethics review committees (ERC) of FGPH and the University Malaya, Kuala Lumpur, Malaysia, the job demands and resources (JD-R) model[16] was used as the theoretical grounding of the study, and a conceptual framework was established (Figure). The sample size was calculated using Cochrane's formula[17] for categorical data with 5% margin of error, and 95% confidence level.

Those included were healthcare professionals working in the OB-GYN department, including house surgeons, postgraduate trainees (PGTs), medical officers, specialists, nurses, student nurses, midwives and operation theatre (OT) technicians. Undergraduate medical students and healthcare professionals working as observers for a short term (<3 months) were excluded.

The subjects were invited to participate through email. Adhering to the COVID-19 precautions, the survey was administered through online Google Form. Two reminders were sent five days apart. The survey responses were completely anonymous and voluntary participation was emphasised.

The dependent variables of exhaustion and disengagement were measured by using the Oldenburg Burnout Inventory (OLBI),[8] which has 8 items for measuring each of the two domains of burnout: disengagement (items 1, 3, 6, 7, 9, 11, 13, 15), and exhaustion (items 2, 4, 5, 8, 10, 12, 14, 16). For each of the two domains, there are 4 items that are negatively phrased, and 4 that are positively phrased. The positive and negative items for exhaustion and disengagement are presented in mixed order. This sort of framing of items makes the presentation of the content as important as the content itself, aiding in reduced chances of a biased response. Each item is in the form of a statement responded to on a four-point Likert scale from 1 (strongly agree) to 4 (strongly disagree). Eight items are reverse scored: items 2, 3, 4, 6, 8, 9, 11 and 12 (scored as 1=4, 2=3, 3=2, 4=1). The reliability and factorial validity of OLBI have been determined by earlier studies with Cronbach's alpha (α) for both exhaustion and disengagement >0.7.8 The relationship of dependent variables (disengagement and exhaustion) was studied with independent variables which were the resources (education, salary, job title) and demands (age, gender, marital status and work experience). Burnout was defined as scores of both exhaustion and disengagement being above the OLBI threshold.

The collected data was exported from Google Forms to Excel spreadsheets to be cleaned, prepared, and examined for outliers. Variables were renamed, and coded. The responses to items with reverse scoring were transformed and encoded as new variables for analysis with reversed scoring. Data was analysed using SPSS 26. The first stage comprised descriptive statistics expressed as median, mode, mean, standard deviation, range, frequencies and percentages, as appropriate.

The second stage comprised inferential analysis. Mean item scores of ≥2.25 on the exhaustion scale and ≥2.10 on the disengagement scale were considered high.[18]

Data was tested for normality using the Q-Q scatter plots, and box and whisker plots. Univariate analysis was performed for normally distributed data using one-way analysis of variance (ANOVA) for variables with more than two groups (age, education, experience, salary, work hours). Bonferroni correction was used for post-hoc multiple comparisons. The independent variable of marital

status had only two groups, therefore independent samples t-test was used to analyse the relationship of single or married participants with disengagement and exhaustion. P<0.05 was considered statistically significant.

Results

Of the 142 OB-GYN health workers, 102(71.8%) responded; 55(53.9%) doctors, 43(42.1%) nurses, and 4(3.9%) OT technicians. Majority of participants 98(96.1%) were females, 35(34.3) were aged 20-29 years and 67(65.7) were married (Table 1). Mean score for disengagement was 2.14±0.54 and for exhaustion it was 2.53±0.57 (Table 2).

Table-1: Demographic data (n=102).

Demography	n (%)
Age(years)	
20-29	35 (34.3)
30-39	28 (27.5)
40-49	29 (28.4)
> 50	10 (9.8)
Gender	
Male	4 (3.9)
Female	98 (96.1)
Marital Status	
Single	35 (34.3)
Married	67 (65.7)
Level of Education	
Student	6 (5.9)
Diploma	12 (11.8)
Bachelor's Degree	44 (43.1)
Master's Degree	40 (39.2)
Work Experience in Years	
1-5	43 (42.2)
6-10	9 (8.8)
11-15	23 (22.5)
16-20	12 (11.8)
>20	15 (14.7)
Average Working Hours per Week	
40-50	45 (44.1)
50-60	30 (29.4)
>60	27 (26.5)
Monthly Salary (PKR)	
<60,000	18 (17.6)
60,001-80,000	42 (41.2)
80,001-100,000	21 (20.6)
>100,000	21 (20.6)
Job Title	
Doctors	55 (53.9)
House Surgeon	8 (7.8)
Medical Officer	5 (4.9)
Postgraduate Trainee	23 (22.5)
Specialist	13 (12.7)
Consultant	6 (5.9)
Nurses	43 (42.1)
Student Nurse	21 (20.5)
Staff Nurse	12 (11.7)
Charge Nurse	10 (9.8)
Operation Theatre (OT) Technicians	4 (3.9)

Table-2: Exhaustion and disengagement scores.

	n	Mean±SD
Exhaustion	102	2.53±0.54
Disengagement	102	2.14±0.57

SD: Standard deviation.

Table-3: Extent of burnout (n=102).

Burnout	n (%)
No burnout (no disengagement, no exhaustion)	15 (14.7)
Burnout (disengaged and exhausted)	40 (39.2)
Disengaged but not exhausted	4 (3.9)
Exhausted but not disengaged	43 (42)
Disengaged	44 (43.1)
Exhausted	83 (81.4)

Burnout was found in 40(39.2%) participants, while 15(14.7%) reported no burnout. Majority 83(81.4%) participants were found to be exhausted, while 44(43.1%) were disengaged, and only 4(3.1%) were disengaged but not exhausted (Table 3).

Since 98(95%) participants were females, the relationship of gender with the study outcomes was not explored. The association of exhaustion and disengagement was explored with age, marital status, academic qualifications, professional experience, work hours, and monthly salary (Table 4).

Discussion

Although the importance and effectiveness of teamwork in healthcare have always been emphasised,[19] little work has been done to study burnout in OB-GYN professionals as a team.

The current study reported several noteworthy findings. The mean exhaustion and disengagement levels in the OB-GYN professionals were 2.53+0.54 and 2.14+0.57, respectively. These levels were above the threshold,[18] indicating that on average, the study participants were suffering from burnout. Regarding the extent of burnout, approximately 40% of the participants were experiencing both exhaustion and disengagement, while around 15% did not show burnout at all. Most earlier studies have been isolated research on doctors, nurses or midwives,[11,12,14,15] and that, too, before the pandemic. As such, the results were not aptly comparable to the current study. However, somewhat similar burnout rates of 40-60% have been reported in doctors, nurses and other medical professionals in the Middle East,[20] the United States[21] and in Spain.[22] A 2016 study in Pakistan revealed that 83% of the nurses experienced burnout, and OB-GYN nurses had the highest scores.[13]

Another major finding was that above 80% of the participants were exhausted, whereas disengagement was present in 44%. A 2017 study in Lahore, Pakistan, reported 70% exhausted and 50% disengaged OB-GYN residents, showing that exhaustion is a more sensitive measure of burnout.[11]

The current finding that more than 96% of the participants were females is supported by the fact that 95% of women in Pakistani society prefer female physicians, nurses, and midwives.[23] The reasons for this preference include religious beliefs, cultural norms, and family pressure.[23] Also, women professionals are found to be at higher risk of burnout than their male counterparts,[21] further supporting the high burnout rate in the study sample.

The current finding that participants aged >50 years were significantly exhausted and disengaged compared to the

Table-4: One-way analysis of variance (ANOVA) of mean exhaustion and mean disengagement scores among different groups.

	df	*SS*	*MS*	*F*	*p*-value
Age (years) of Participants 20-29, 30-39, 40-49, >50					
Mean Exhaustion					
Between groups	3	3.17	1.06	3.93	0.01
Within groups	98	26.39	0.27		
Total	101	29.57			
Mean Disengagement					
Between groups	3	4.30	1.43	4.83	0.00
Within groups	98	29.09	0.29		
Total	101	33.40			
Education of Participants Student, Diploma, Bachelor's Degree, Master's Degree					
Mean Exhaustion					
Between Groups	3	1.31	0.44	1.52	0.22
Within Groups	98	28.26	0.29		
Total	101	29.57			
Mean Disengagement					
Between Groups	3	2.51	0.84	2.65	0.05
Within Groups	98	30.89	0.32		
Total	101	33.40			
Experience of Participants (years) 1-5, 6-10, 11-15, 16-20, >20					
Mean Exhaustion					
Between Groups	4	1.62	0.40	1.40	0.24
Within Groups	97	27.96	0.29		
Total	101	29.57			
Mean Disengagement					
Between Groups	4	3.47	0.87	2.81	0.03
Within Groups	97	29.93	0.31		
Total	101	33.40			
Working Hours (per week) of Participants 40-50, 50-60, >60					
Mean Exhaustion					
Between Groups	2	2.39	1.195	14.35	0.015
Within Groups	99	27.18	0.275		
Total	101	29.57			
Mean Disengagement					
Between Groups	2	3.48	1.74	5.75	0.004
Within Groups	99	29.92	0.302		
Total	101	33.40			
Monthly Salary of Participants (PKR) <60,000; 60,001-80,000; 80,001-100,000; >100,000					
Mean Exhaustion					
Between Groups	3	3.40	1.13	4.25	0.007
Within Groups	98	26.17	0.27		
Total	101	29.57			
M**ean Disengagement**					
Between Groups	3	3.55	1.118	3.89	0.011
Within Groups	98	29.85	0.305		
Total	101	33.40			

df: Degrees of freedom, SS: Sum of squares, MS: Mean sum of squares, F: F-statistic, $p<0.05$.

younger participants corresponded to the conceptual framework of the study.[16] Age is a job demand, and older workers are more exhausted and disengaged, and eventually more burned out. Earlier studies have not shown a significant difference in burnout scores relative to the participants' age.[24,25] A 2017 Islamabad-based study in Pakistan found an overall reduced burnout and comparatively better personal accomplishment scores in older participants.[26]

The finding that those working >60 hours per week were significantly exhausted and disengaged than those working fewer hours was also congruent with the conceptual framework of JD-R model. The workload is an excessive job demand which contributes to job burnout.16 Another Islamabad-based descriptive study reported similar findings of high burnout as measured by the Maslach Burnout Inventory, in anaesthesia and OB-GYN residents with frequent duty rotations.[26]

The current finding that participants earning a monthly salary of >PKR 100,000 experienced greater exhaustion than those earning less is contrary to that reported in earlier studies done in Pakistan where salary had a role in job satisfaction, which, in turn, served to protect against burnout. This may be explained by the overwhelming employer expectations that come with higher salaries.[11,26]

The last major finding of the current study was that healthcare professionals with more than 20 years' experience were significantly more disengaged than those with less experience. Naz et al. also reported greater burnout and lower quality of life in experienced professionals,[13] which can again be attributed to the increased job demands with increasing experience and responsibilities.

The hypothesised model (Figure), although not completely, fairly reasonably explained the study findings.

The current study has its limitations. It started two months before getting prior to ERC approval. While all attempts were made to minimise any unintended changes to the study design or data collection procedures, the delay in ERC approval may have compromised the validity and generalisability of the findings. There is also a possibility of response bias because of the self-reporting questionnaire which could be subjected to emotional bias, time constraints and social desire. The quantitative survey also lacked depth. Future experimental designs and qualitative studies are recommended to build upon the quantitative findings of the current effort.

Conclusion

Healthcare professionals in OB-GYN teams showed considerably high burnout levels during the COVID-19 pandemic in Pakistan, predominantly in older participants, and those working longer hours, with exhaustion being a more sensitive measure than disengagement.

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