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# Determinants of Burnout Among Healthcare Professionals Working in the Labour Room of a Tertiary Care Hospital in South Punjab, Pakistan

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## ABSTRACT

***Objective:*** To find out the frequency and determinants of burnout among healthcare workers and staff working in a labour room of a Gynaecology unit of a tertiary care hospital in South Punjab, Pakistan.

***Study Design:*** Cross-sectional study.

***Place and Duration of the Study:*** Department of Obstetrics and Gynaecology, Shaikh Zayed Hospital, Rahim Yar Khan, Pakistan, from Mar to May 2022.

***Methodology:*** A total of 93 healthcare workers, including doctors and nurses from the labour room of the study centre, were included. Possible causes of burnout were noted. The 16-item instrument OLBI was utilized.

***Results:*** Of the 93 study participants, 35(37.6%) were post-graduate residents. High exhaustion was reported by 61(65.6%) study participants, while high disengagement was noted in 44(47.3%). Burnout was reported by 38(40.9%) study participants. Age ($p$=0.006), marital status as married ($p$=0.004), designation as post-graduate resident ($p$<0.001), patient expectations unfulfilled ($p$<0.001), litigation anxiety ($p$<0.001), lack of control of processes ($p$=0.017), role conflict ($p$=0.001) and communication gap among workers ($p$<0.001) were found to have a significant association with burnout.

***Conclusion:*** The frequency of burnout among healthcare professionals and nurses working in the labour room of a tertiary care hospital in a developing country was high. Age, marital status as married, post-graduate residents, patients' expectations unfulfilled, litigation anxiety, lack of control of processes, role conflict and communication gap among workers were found to have a significant association with burnout.

**Keywords:** Anxiety, burnout, Communication gap, Labour room, Post-graduate residents.

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## INTRODUCTION

In a developing country like Pakistan, the current healthcare system often carries excessive and complex workloads. The frequency of burnout syndrome (BOS) among healthcare professionals ranges between 25-60% and is perceived to affect personal and professional performance.[1,2] Among support staff, including nurses and/or midwives, the frequency of BOS is estimated to affect individuals between 15 and 85%.[3,4] The researchers have also portrayed that the proportion of burnout can vary between physicians, healthcare workers or support staff of different specialities.[5] However, nurses are consistently reported to have the highest frequency of BOS. A multicenter study evaluating BOS frequency among healthcare professionals in Spain revealed that 39.8% of the study participants had high levels of burnout.[6]

In the past, "The Maslach Burnout Inventory (MBI)" has been considered the best instrument for evaluating burnout. However, more recently, the Oldernburg Burnout Inventory (OLBI)" has been adopted to measure burnout, especially among healthcare workers, as it carries good validity.[7,8] More and more evidence has come out supporting OLBI in recent decades.[9] The OLBI measures BOS in two aspects, namely exhaustion and disengagement.[10] The present study was planned to determine the frequency and determinants of burnout among healthcare workers and staff working in a labour room of a Gynaecology unit of a tertiary care hospital in South Punjab, Pakistan. The findings of this study were expected to highlight important aspects of the burden and extent of burnout faced by healthcare professionals and staff working in the labour room so that strategies can be adopted to reduce the factors associated with increased burnout in similar settings.

## METHODOLOGY

The cross-sectional study was conducted at the Labour Room of the Department of Obstetrics & Gynaecology, Shaikh Zayed Hospital, Rahim Yar Khan, Pakistan, from March to May 2022. Approval

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from the Institutional Ethical Committee was acquired (reference number 454, dated 30-03-2022). With a 95% frequency of burnout among healthcare workers as 39.8%,[8] the sample size was calculated.

**Inclusion Criteria:** Healthcare workers, including doctors and nurses working at the labour room of the study centre, were included.

**Exclusion Criteria:** Participants with known psychological issues or unwillingness to be part of the study were excluded.

Informed and written consent was obtained from all study participants, ensuring the confidentiality of their data. Questionnaires were emailed to all study participants, while the study participants' identities were kept anonymous. All study participants described the description of burnout as "a psychological syndrome that may result from exposure to a stressful working environment, with high job demands and low resources occurring simultaneously, resulting in exhaustion (general feeling of overtasking from work) and disengagement (distancing oneself from one work and negative attitude towards one's work)".

Possible causes of burnout like duty hours, rota issues, the turnout of patients, working environment, presence of chronic illness, role conflict and communication gap at the place were noted. The OLBI is a 16-item instrument where each item is scored from 1 (low burnout) to 4 (highest burnout). The OLBI has two dimensions, exhaustion (8 items) and disengagement (8 items), which were mixed to keep the biases away. A mean score ≥2.25 for exhaustion was considered as "high exhaustion", while scores below 2.25 were taken as "low exhaustion".[11] For disengagement, a score ≥2.1 was considered as "high disengagement". In contrast, a score <2.1 was taken as "low disengagement." Mean scores were calculated by taking the total scores of a domain (disengagement or exhaustion) and dividing by the total of items in each domain.[8] These cut-off scores were adopted from previous research done.[12] The main outcome measured was burnout. Burnout was described as "high exhaustion" and "high disengagement". A special proforma incorporating 16-item OLBI was used to record all study data.

Statistical Package for the Social Sciences (SPSS) version 26.00 was used for data analysis. Qualitative data was shown as frequencies and percentages, whereas quantitative data were shown as mean and standard deviation (SD). The chi-square test was applied, considering $p \leq 0.05$ as significant.

## RESULTS

Of the 93 study participants, 90(96.8%) were females. The mean age was 39.83±5.98 years. The majority of the study participants 35(37.6%), were post-graduate residents, while house officers and nurses were 27(29.0%) and 15(16.1%), respectively (Table-I). Potential causes of burnout are enlisted in Table-II and it was found that turnover of the patients, duty hours, rota problems and litigation anxiety were the most commonly reported issues.

**Table-I Characteristics of Study Participants Evaluated for Burnout (n=93)**

| Characteristics | | Frequency (%) |
|---|---|---|
| Gender | Male | 3(3.2%) |
| | Female | 90(96.8%) |
| Age in years | <30 | 59(63.4%) |
| | 30-40 | 26(38.0%) |
| | >40 | 8(8.6%) |
| Marital status | Married | 52(55.9%) |
| | Unmarried | 41(44.1%) |
| Designation | Associate Professor | 2(2.2%) |
| | Assistant Professor | 4(4.3%) |
| | Senior Registrar | 10(10.8%) |
| | Post-Graduate Resident | 35(37.6%) |
| | House Officer | 27(29.0%) |
| | Nurse | 15(16.1%) |

**Table-II: Frequency of Potential Causes of Burnout (n=93)**

| Potential Causes of Burnout | Frequency (%) |
|---|---|
| Duty Hours | 68(73.1%) |
| Rota Problems | 47(50.5%) |
| Turnover of Patients | 77(82.2%) |
| Unhealthy Working Environment | 11(11.8%) |
| Profession Selection by Force | 10(10.8%) |
| Chronic Illness | 7(7.5%) |
| Patients Expectations Unfulfilled | 25(26.9%) |
| Litigation Anxiety | 40(43.0%) |
| Lack of Control of Processes | 31(33.3%) |
| Role Conflict | 31(33.3%) |
| Communication Gap among Workers | 38(40.9%) |

Burnout was reported by 38(40.9%) study participants. It was found that age between 30-40 years ($p$=0.006), marital status as married ($p$=0.004), designation as post-graduate resident ($p$<0.001), patient expectations unfulfilled ($p$<0.001), litigation anxiety ($p$<0.001), lack of control of processes ($p$=0.017), role conflict ($p$=0.001) and communication gap among workers ($p$<0.001) were found to have a significant association with burnout (Table-III).

**Table-III Comparison of Determinants of Burnout Among Study Participants (n=93)**

| Determinants | | Burnout | | *p*-value |
|---|---|---|---|---|
| | | Yes (n=38) | No (n=55) | |
| Gender | Male | - | 3 (5.5%) | 0.143 |
| | Female | 38(100%) | 52(94.5%) | |
| Age in years | <30 | 20(52.6%) | 39(70.9%) | 0.006 |
| | 30-40 | 17(44.7%) | 9(16.4%) | |
| | >40 | 1(2.6%) | 7(12.7%) | |
| Marital status | Married | 28(73.7%) | 24(43.6%) | 0.004 |
| | Unmarried | 10(26.3%) | 31(56.4%) | |
| Designation | Associate Professor | - | 2(3.6%) | <0.001 |
| | Assistant Professor | 2(5.3%) | 2(3.6%) | |
| | Senior Registrar | 6(15.8%) | 4(7.3%) | |
| | Post-Graduate Resident | 23(60.5%) | 12(21.8%) | |
| | House Officer | 3(7.9%) | 24(43.6%) | |
| | Nurse | 4(10.5%) | 11(20.0%) | |
| Duty Hours | | 30(78.9%) | 38(69.1%) | 0.292 |
| Rota Problems | | 18(47.4%) | 29(52.7%) | 0.611 |
| Turnover of Patients | | 30(78.9%) | 47(85.5%) | 0.414 |
| Unhealthy Working Environment | | 7(18.4%) | 4(7.3%) | 0.102 |
| Profession Selection by Force | | 5(13.2%) | 5(9.1%) | 0.534 |
| Chronic Illness | | 2(5.3%) | 5(9.1%) | 0.492 |
| Patients Expectations Unfulfilled | | 19(50.0%) | 6(10.9%) | <0.001 |
| Litigation Anxiety | | 26(68.4%) | 14(25.5%) | <0.001 |
| Lack of Control of Processes | | 18(47.4%) | 13(23.6%) | 0.017 |
| Role Conflict | | 20(52.6%) | 11(20.0%) | 0.001 |
| Communication Gap among Workers | | 27(71.1%) | 11(20.0%) | <0.001 |

## DISCUSSION

Among healthcare workers, burnout has been indicated to influence suboptimal patient care, medical errors and adverse outcomes.[11,12] We found that high exhaustion was reported in 65.6% of study participants, while high disengagement was noted in 47.3%. Frequency of burnout was reported in 40.9% of study participants. A study from Barcelona in the labour rooms of maternity hospitals reported that 30.3% of study participants had burnout.[13] A study by Canadas-De la Fuente *et al*. found the frequency of BOS as 37.5%, close to what we reported.[14] A multicentral cross-sectional study from Nigeria reported that 75.5% of physicians experience burnout, which is way more than what we reported.[15] A study conducted among orthopaedic surgeons revealed that 51.7% have burnout.[16] A study analyzing residents and interns of various departments revealed the frequency of burnout ranging between 27% among family physicians and the highest among Gynecologists at 75%.[17] The High frequency of burnout reported in the present study as per OLBI is relatively comparable to what has been reported in the literature in the past, and it is shown that burnout is a global phenomenon and efforts should be put into devising programs and strategies influencing the reduction in burnout among healthcare professionals.[18]

A study evaluating burnout among the Obstetrics and Gynaecology Department found emotional exhaustion, moderate to high depersonalization, and high personal accomplishments linked with burnout.[19] A study from Egypt revealed that 24.9% of physicians and nurses working in an emergency hospital had burnout. In contrast, age, gender, exposure to work-related violence, years of experience, work burden, supervision and work activities were significant predictors of burnout.[20] In a study conducted by Thorsen *et al.* from Malawi, 72% of maternal health staff reported having emotional exhaustion, 43% had depersonalization, and 74% had reduced personal accomplishment.[21] All these findings show that burnout is a common phenomenon among doctors and staff working in maternity settings. Historically, socio-demographic and job characteristics were significantly linked with burnout among healthcare professionals. However, more research is required to determine the predictors of burnout, especially among healthcare workers and staff working in the labour rooms of tertiary care settings.[22]

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## CONCLUSION

The frequency of burnout among healthcare professionals and nurses working in the labour room of a tertiary care hospital in a developing country was high. Age, marital status as married, post-graduate residents, patients' expectations unfulfilled, litigation anxiety, lack of control of processes, role conflict and communication gap among workers were found to have a significant association with burnout.

**Conflict of Interest:** None.

**Author's Contribution**

Following authors have made substantial contributions to the manuscript as under:

SZ: & MZ: Conception, study design, drafting the manuscript, approval of the final version to be published.

FJ: & MN: Data acquisition, data analysis, data interpretation, critical review, approval of the final version to be published.

SA: & IY: Critical review, data acquisition, drafting the manuscript, approval of the final version to be published.

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.

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