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Original Research Article

What are the primary stressors faced by Obstetrics and Gynaecology residents? Do their coping strategies align with adaptability or maladaptability, as per the Brief COPE assessment?

Shikha Madan^{1*}, Pushpa Dahiya¹, Savita Rani Singhal¹, Meenakshi Chauhan¹,
Nirmala Duhan¹

¹Dept. of Obstetrics and Gynaecology, Pandit Bhagwat Dayal Sharma Post Graduate Institute of Medical Sciences, Rohtak, Haryana, India



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ABSTRACT

Background: Obstetrics and Gynaecology is a demanding and challenging speciality of medical education. The residents are the first level of contact of all patients.

Aims and Objectives: The aim and objectives of the study were to find what causes stress in the residents of Obstetrics and Gynaecology and their coping techniques.

Material and Methods: We conducted a cross-sectional study on 45 residents pursuing post-graduation in Obstetrics and Gynaecology at PGIMS, Rohtak.

Results: The cause of stress in residents was long working hours, having less time for friends and family, too much paper work, new subject learnings, expectations to perform well in clinics. The coping techniques were identified like listening to music, watching movies, talking to friends and family. According to the Brief COPE assessment, the coping techniques used were adaptive in residents of Obstetrics and Gynaecology of our institute.

Conclusion: Those working in demanding fields like Obstetrics and Gynaecology face unique challenges and have their own coping techniques. The well-being of medical residents directly impacts their future performance as physicians

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1. Introduction

The medical speciality of Obstetrics and Gynecology is widely recognized as a demanding and challenging field within the healthcare profession. Medical professionals in this speciality often encounter extended and irregular working hours, unforeseeable delivery outcomes, the possibility of complications during childbirth, and the tragic occurrence of maternal deaths. These demanding circumstances can contribute to significant physical and mental fatigue among practitioners. Notably, this field is

predominantly chosen and practiced by female physicians in the northern region of India. Research has indicated that the demanding nature of obstetrics and gynaecology residency training often leads to severe burnout, with residents frequently encountering a multitude of stressors.^{1,2} A study conducted at the Medical College of Wisconsin sought to evaluate the occurrence of secondary traumatic stress in this field. The findings revealed that a significant 73% of respondents reported experiencing symptoms of traumatic stress, linking it to their involvement in adverse medical events. Commonly reported symptoms included anxiety (81%), guilt (62%), and disrupted sleep (58%).³ Another study in Jordan highlighted that among various specialities

* Corresponding author.

E-mail address: shikhamadan85@gmail.com (S. Madan).

including surgery, internal medicine, paediatrics, radiology, anaesthesia, and orthopaedics, obstetrics and gynaecology residency had the highest prevalence of burnout.²

2. Material and Methods

The study was a cross-sectional study conducted on residents pursuing post-graduation in Obstetrics and Gynaecology at PGIMS, Rohtak after taking permission from the institute's ethical committee. The residents who were a post-graduate student for 6 months or more were included in the study. Those residents who were absent from their duty for more than a month or those on maternity leave were excluded from the study. A questionnaire was given to all the students. Data collected was subjected to statistical analysis and standard tests for significance were applied.

3. Results

A total of 45 post-graduate residents of Obstetrics and Gynaecology were enrolled in the study. All of the residents in the study were females. The majority of the residents were in the age group of 26-30 years (62.5%), followed by 20-24 years (40%). The reason for this is because most of the medical graduates complete their graduation in this age group. The residents were asked about their relationship status, and we found that 32 residents (71.11%) had a partner, while 13 residents (28.88%) did not have a partner (Figure 1)

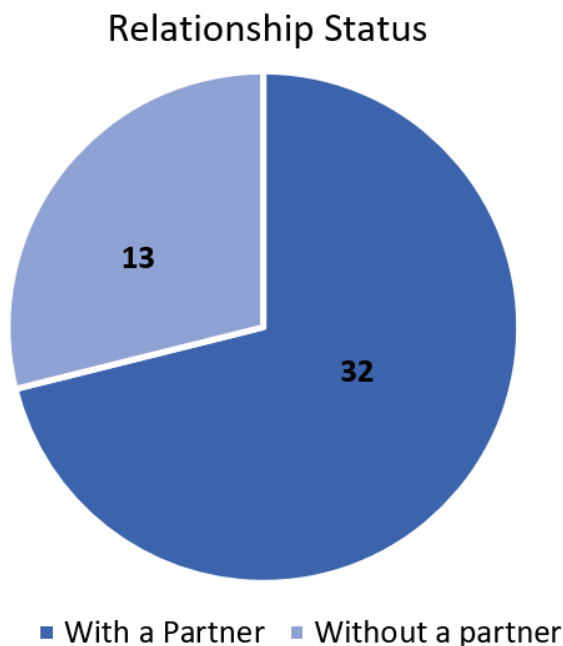


Figure 1: Relationship status of residents

Table 1: Age distribution of residents of Obstetrics and Gynaecology

Age in years	n=45
20-25 years	18 (40%)
26-30 years	25 (62.5%)
30-35 years	2 (4.44%)
>35 years	0

Table 2: Obstetrics and Gynaecology residents who pursued or did not pursue their hobbies

	n =45
Residents who pursued their hobbies	5
Residents who did not/ could not pursue their hobbies	40

Table 2 shows that most of the residents(88.89%) did not/ could not pursue their hobbies along with residency.

The reason of not pursuing their hobbies was because of lack of time and not much interest left at present.

When the residents were asked about stress felt at work at some point in their training, all residents (100%) had experienced it. The causes of stress were too much paperwork (93.33%), long working hours (82.22%), less time for friends and family (48.88%), new learnings of the subject (68.88%), the expectation to perform well in clinics (84.44%), and experiencing any complication of birth or the death of a patient (88.89%). Two residents had other reason of stress which they did not want to specify. The residents could tick more than one option for the reason behind stress (Table 3).

Table 3: The reason behind stress experienced by residents of Obstetrics and Gynaecology

Reason of stress	n =45
Too much paperwork	42 (93.33%)
Long working hours	37 (82.22%)
Less time for friends and family	22 (48.88%)
New learnings of subject	31 (68.88%)
Expectation to perform well in clinics	38 (84.44%)
Experiencing complication of birth, death of a patient	40 (88.89%)
Others	2 (4.44%)

Since all the residents experienced stress in their residency, they had their coping techniques for it (Table 4).

There were various coping techniques used by residents of Obstetrics and Gynaecology, most common were talking to friends/family or partner, using social media, shopping, listening to music or watching movies.

Table 5 presents data about the number of residents who acknowledge experiencing symptoms of depression. The residents encompass a spectrum of both colloquial and clinical depression. Colloquial depression denotes feelings of sadness and despondency, whereas clinical depression

Table 4: Coping techniques for stress among the Obstetrics and Gynaecology residents

	n = 45
Talk with friends/family/partner	45 (100%)
Listen to music/ movies	37 (82.22%)
Login to social media	42 (93.33%)
Exercise	15 (33.33%)
Eat junk food	29 (64.44%)
Sleep or relax	30 (66.66%)
Shopping (Offline or Online)	39 (86.66%)
Substance Abuse	0
Others	6 (13.33%)

Table 5: Distribution of Obstetrics and Gynaecology residents having colloquial or clinical depression

	n = 45
Residents with colloquial depression	10 (22.22%)
Residents with clinical depression	0

signifies a prolonged and severe state of despondency unrelated to a typical grief-related experience. Out of 45 residents, 10 accepted having colloquial depression at times.

Another question asked in the questionnaire was whether the residents were aware of any program going on in the institute for resident welfare if they wanted any support, particularly for depression during their residency training. All residents were aware of this, and all 45 residents claimed that they would seek help if it was required at any time during their training.

4. Discussion

The period of residency is an extremely demanding time for all the residents involved. It requires a significant investment of time and presents various challenges. Additionally, obstetricians must simultaneously care for two patients – the mother and the fetus. Consequently, in the field of obstetrics, there is almost always an expectation for a positive outcome for the mother. However, it is important to recognize that not all pregnancies result in a positive outcome, which places an additional strain on the residents responsible for patient care.

In a study by McManus et al., 4457 UK doctors were surveyed. They found that doctors who spent more time on hobbies and leisure activities felt a stronger sense of job satisfaction. Surprisingly, the study also found no clear link between feeling overworked and participating in hobbies and leisure activities.⁴ Our study also found that many doctors faced obstacles when trying to pursue their hobbies, mainly because they didn’t have enough time or interest.

Shashi S et al conducted a prospective cross-sectional survey on 347 resident doctors of Nepal and stated that burnout is highly prevalent among resident doctors, primarily attributable to their extended working hours,

demanding educational requirements, lack of autonomy, significant interference between work and home life, limited benefits, and uncertainty about their future. It’s worth noting that burnout contributes to an increase in medical errors and a decrease in the quality of patient care.⁵ Adding to that, another study has also found that burnout is linked with absenteeism, substance abuse, and mood disorders.⁶ Throughout their training, residents are affected by various factors contributing to burnout. These include long work hours, reduced sleep, unhealthy diet, lack of exercise, limited time for family and social interactions, and missing out on special events. Notably, sleep deprivation has been associated with the development of depression, while the stress of training has been linked to a concerning number of resident suicides.⁷ In a recent study at Isfahan University of Medical Sciences, Mirzaei and colleagues conducted a thorough cross-sectional descriptive-analytical survey involving 46 participants. The respondents included 16 faculty members and 30 residents of Obstetrics and Gynaecology. They were all asked to evaluate various stressors using a questionnaire. Both the residents and faculty members identified heavy workloads, lack of personal time, long shifts, financial problems, sleep deprivation, and compassion fatigue as the key stressors. The residents specifically highlighted insufficient study time, study workload, and inappropriate assessment systems as top stressors, while faculty members pointed out medical errors, unreasonable expectations from residents, and residents’ multiple responsibilities as their main stressors.⁸ In our study which was conducted on the residents of Obstetrics and Gynaecology, we found that the causes of stress were too much paperwork (93.33%), long working hours (82.22%), less time for friends and family (48.88%), new learnings of the subject (68.88%), the expectation to perform well in clinics (84.44%), and experiencing any complication of birth or the death of a patient (88.89%).

The measurement of coping lacks a universally accepted standard. However, the Brief Coping Orientation Problems Experienced (Brief-COPE)⁹ is a widely utilized measure in studies involving healthcare professionals. The ways we handle difficult situations can be categorized as either adaptive or maladaptive. Adaptive strategies, such as acceptance, humour, and planning, help improve our functioning. On the other hand, maladaptive strategies, including venting out, denial, and substance abuse, may maintain or increase our levels of stress or distress.¹⁰ A research conducted in the UK revealed that doctors most frequently resorted to maladaptive coping mechanisms, such as self-distraction, to deal with stress and problems.¹¹ On the other hand, studies of healthcare workers in Italy¹² and residents in Indonesia¹³ highlighted that they predominantly employed adaptive coping strategies. Additionally, a cross-cultural study

discovered that German and Australian doctors commonly utilized adaptive approaches like active coping, planning, and positive reframing to manage stress and challenges.¹⁴ In our study, we found that the majority of Obstetrics and Gynaecology residents employed adaptive techniques to cope with stress and burnout. These techniques included talking with friends, family, or partners (100%), using social media (93.33%), listening to music and watching movies (82.22%), and doing some shopping (86.66%). According to the Brief COPE, all of these measures are considered adaptive. Notably, none of the residents in the study reported using substance abuse as a means of managing stress, which is considered a maladaptive mechanism. In a multisite, anonymous study, Goebert et al. evaluated depressive symptoms and suicidal ideation in medical trainees. The study gathered responses from about 2000 medical students and residents, revealing that approximately 12% exhibited probable major depression, while 9.2% displayed probable mild to moderate depression. The findings highlight the importance of implementing sustained mental health assessments, providing treatment, and offering education.¹⁵ In the conducted survey done by us, the respondents were queried about their experiences with depression, encompassing both colloquial and clinical forms. Colloquial depression denotes feelings of low mood, despondency, and sadness, while clinical depression entails prolonged and severe depressive symptoms unrelated to expected grief-related reactions. The results indicate that 22.22% of Obstetrics and Gynaecology residents reported symptoms indicative of colloquial depression, while none of the respondents displayed clinical depression.

5. Conclusion

Stress is a significant contributor to chronic illnesses and fatalities in modern lifestyles. Prolonged work hours, excessive administrative tasks, and insufficient time for social connections intensify this burden. While individuals develop their own coping strategies, medical professionals often struggle to find time for self-care. Those working in demanding fields like Obstetrics and Gynaecology face unique challenges and have their own coping techniques. The well-being of medical residents directly impacts their future performance as physicians. However, it is essential to acknowledge the importance of studies with a larger participant pool.

6. Ethical Clearance

Ethical clearance taken from the institutional ethical committee (Biomedical Research Ethics Committee, Pt B. D. Sharma Post Graduate Institute of Medical Sciences, UHS, Rohtak EC/NEW/INST/2020/874; ethical number BREC/20/177.

7. Conflict of Interest

None.

8. Source of Funding

None.

References

1. Moradi Y, Baradaran HR, Yazdandoost M, Atrak S, Kashanian M. Prevalence of Burnout in residents of obstetrics and gynecology: A systematic review and meta-analysis. *Med J Islam Repub Iran*. 2015;29:235.
2. Maswadi N, Khader YS, Slaih AA. Perceived stress among resident doctors in Jordanian teaching hospitals: Cross-sectional study. *JMIR Public Health Surveill*. 2019;5(4):e14238.
3. Kruper A, Domeyer-Klenske A, Treat R, Pilarski A, Kaljo K. Secondary traumatic stress in Ob-Gyn: A mixed methods analysis assessing physician impact and needs. *J Surg Educ*. 2021;78(3):1024–34.
4. Mcmanus IC, Jonvik H, Richards P, Paice E. Vocation and avocation: leisure activities correlate with professional engagement, but not burnout, in a cross-sectional survey of UK doctors. *BMC Med*. 2011;9:100.
5. Shahi S, Paudel DR, Bhandari TR. Burnout among resident doctors: An observational study. *Ann Med Surg (Lond)*. 2022;76:103437.
6. Vendeloo SNV, Godderis L, Brand PLP, Verheyen K, Rowell SA, Hoekstra H. Resident burnout: evaluating the role of the learning environment. *BMC Med Educ*. 2018;18(1):54.
7. Lefebvre DC. Perspective: resident physician wellness: a new hope. *Acad Med J Assoc Am Med Coll*. 2012;87(5):598–602.
8. Mirzaei A, Jamshidian S, Movahedi M, Haghani F. Identifying and prioritizing the stressors of obstetrics and gynecology residents. *J Educ Health Promot*. 2023;12:373.
9. Carver CS. You want to measure coping but your protocol's too long: consider the brief COPE. *Int J Behav Med*. 1997;4:92–100.
10. Zeidner M, Saklofske D. Adaptive and maladaptive coping. In: Zeidner M, Endler NS, editors. *Handbook of Coping: Theory, Research, Applications*. New York: John Wiley and Sons; 1996. p. 505–31.
11. Mckinley N, Mccain RS, Convie L, Clarke M, Dempster M, Campbell WJ, et al. Resilience, burnout and coping mechanisms in UK doctors: a cross-sectional study. *BMJ Open*. 2020;10:e031765.
12. Costa C, Teodoro M, Vita AD, Giambò F, Mento C, Muscatello MRA, et al. Factors affecting perceived work environment, wellbeing, and coping styles: a comparison between physicians and nurses during the COVID-19 pandemic. *Int J Environ Res Public Health*. 2022;19(17):11104.
13. Menaldi SL, Raharjanti NW, Wahid M, Ramadianto AS, Nugrahadi NR, Adhiguna G. Burnout and coping strategies among resident physicians at an Indonesian tertiary referral hospital during COVID-19 pandemic. *PLoS One*. 2023;18(1):e0280313.
14. Mache S. Coping with job stress by hospital doctors: a comparative study. *Wien Med Wochenschr*. 2012;162(19-20):440–7.
15. Goebert D, Thompson D, Takeshita J, Beach C, Bryson P, Ephgrave K, et al. Depressive symptoms in medical students and residents: a multischool study. *Acad Med*. 2009;84(2):236–41.

Author's biography

Shikha Madan, Associate Professor  <https://orcid.org/0000-0001-5206-6827>

Pushpa Dahiya, Senior Professor and Head

Savita Rani Singhal, Senior Professor  <https://orcid.org/0000-0002-4067-9113>

Meenakshi Chauhan, Professor

Nirmala Duhan, Senior Professor

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