

Generalised Anxiety Disorder in Consultants Versus Postgraduate Trainees in Tertiary Care Hospital, Peshawar

Shahzadi Saima Hussain¹, Shandana Bawar², Saida Abrar³

¹⁻³Assistant Professor, Obs & Gynae, Lady Reading Hospital, Peshawar

Correspondence:

Dr. Saida Abrar
saidaabrar@gmail.com

Abstract

Objective: To compare the frequency of anxiety in consultants versus post-graduate trainees.

Methodology: A descriptive cross-sectional study was conducted at Medical Teaching Institute Lady Reading Hospital from September to November 2022, and ethical approval was obtained. non-probability convenient sampling technique was used. In this study, 252 consultants and post-graduate trainees of all levels working in different specialties were included with their consent, house officers and nurses were not included in this study. Data was collected regarding basic demographic features like age, gender, marital status, year of training/experience, and probable contributing factors to anxiety, and a 7-item anxiety scale (GAD-7) questionnaire was used. A total score of 8 was used to diagnose anxiety (cutoff values were used for the level of anxiety too).

Results: In this study, out of 252 participants, the frequency of anxiety was 129 (51.19%) among trainees while among consultants it was 40 (15.87%). Among all participants, 152 (60.3%) were aged 20-30, and they were found to have moderate anxiety (GAD-7 score 10.38 ± 4.8) while the rest had a mild anxiety disorder, females were having moderate anxiety (GAD-7 score 11.72 ± 4.74) compared with mild anxiety disorder in males. Unmarried doctors showed moderate anxiety (GAD-7 score 10.14 ± 4.8) while married had a mild anxiety disorder.

Doctors in Obstetrics and Gynaecology were found to have the highest GAD-7 score 13.26 ± 4.6 followed by Ophthalmology and General Surgery. Unsatisfaction with duty hours, patient overload, shortage of equipment, and unsafe workplace were major contributing factors.

Conclusion: Generalized anxiety disorder is present in a significant number of our doctors, especially young postgraduate trainees. Large-scale studies are needed to identify the magnitude and effect of GAD on healthcare workers and remedial measures should be implemented.

Keywords: Anxiety, Mental health, postgraduate trainee, GAD-7.

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Introduction

Medical professionals deal with stressful situations very frequently.^{1,2} Extreme emotional situations with physical exertion make them more vulnerable to anxiety and depression than the general population.³ Mental health is critical in the medical profession because it directly affects a doctor's physical, mental, and clinical performance.⁴ When compared to their healthy counterparts, anxious and depressed medical professionals have a higher rate of medical error.⁵ Nearly 10% of admissions in the UK are due to medical errors, and most of them are preventable.⁶ Recent studies indicate that care providers' working conditions, stress and mental health contribute to this substantially.⁷

Generalised Anxiety disorder (GAD) is a constant feeling of worrying, uncertainty, and restlessness. It has a significant adverse impact on the well-being of affected individuals and leads to decrease productivity and increased economic burden, it tends to become a chronic disorder if not recognized and treated in time.⁸ Anxiety can affect confidence level, service provision, decision-making, communication skills and ability to stay calm in critical situations of health care providers.⁹

The major risk factors are workload, long duty hours, stressful environment, fear of litigation, limited resources, lack of support by the organization and colleagues, lack of sleep, and unsafe working environment.^{4,10} Workplace stress impacts physical health in form of cardiovascular diseases, fatigue,

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weight loss, lack of sleep, low mood, lack of interest in surroundings, decreased job satisfaction, anxiety, and depression.¹¹

There are numerous studies on the prevalence, risk factors and effect of anxiety and depression on junior doctors, as they are usually at the forefront and exposed to long duty hours and increased workload.¹²⁻¹⁴ Relatively less research is available for senior consultants exploring the same aspects. This study is conducted to find out the frequency of generalized anxiety disorder in juniors and senior doctors, exploring major contributing factors as well. The results will help us create awareness by highlighting the burden of disease and making protocols and guidelines for dealing with and helping those affected.

Material and Methods

A descriptive cross-sectional study was conducted at the Medical Teaching Institute Lady Reading Hospital from September to November 2022, ethical approval (ref no 552/MTI/LRH) was obtained from the hospital Institutional Review Board, and a non-probability convenient sampling technique was used. A questionnaire was given to 312 doctors, half/improperly filled questionnaires were not included. A total of 252 participants filled it, these were consultants and post-graduate trainees of all levels working in different specialities were included in this study with their consent. House officers and nurses were not included in this study. A 7-item anxiety scale (GAD-7) questionnaire was used to collect data.¹⁵ Each component scored 0-3, and the GAD-7 score was obtained by adding the score of each question (total score). A score of 8 or more was used as a cut-off for the diagnosis of GAD, as it has a sensitivity of 92% and specificity of 76% for the diagnosis of generalized anxiety

disorder. The following cut-offs were applied as they correlate with the level of anxiety severity.^{16,17}

- Score 0-4: Minimal Anxiety,
- Score 5-9: Mild Anxiety,
- Score 10-14: Moderate Anxiety,
- Score greater than 15: Severe Anxiety.

Data were analysed using the statistical analysis program IBM SPSS version 22. Mean and standard deviation was calculated for quantitative variables like total GAD-7 score. Frequencies and percentages were computed for quantitative variables like gender, marital status, age, and job status (postgraduate trainee or consultant), and effect modifiers like age, gender, marital status, and job status were controlled through stratification. Post-stratification chi-square test was applied. A p-value of ≤ 0.05 was considered statistically significant.

Results

In this study, comprising 252 participants, the frequency of anxiety was n=129 (51.19%) among postgraduate trainees while in consultants it was n= 40 (15.87%). Among all participants, 152 (60.3%) were aged 20-30, and they were found to have moderate anxiety (GAD-7 score 10.38 ± 4.8) while the rest had a mild anxiety disorder, females were having moderate anxiety (GAD-7 score 11.72 ± 4.74) compared with mild anxiety disorder in males. Unmarried doctors showed moderate anxiety (GAD-7 score 10.14 ± 4.8) while married had a mild anxiety disorder (Table I).

Postgraduate medical trainees were found to have moderate anxiety (GAD-7 score mean score 10.20 ± 4.9) compared with mild anxiety disorder in consultants (Table I). Long working hours, patient overload, unsafe workplace, the unavailability of comfortable resting rooms, and job insecurity

		N(%)	Mean \pmSD	P-value		
Age	20-30	152 (60.3%)	10.38 \pm 4.8	0.2		
	31-40	75 (29.8 %)	8.48 \pm 5.00			
	41 and above	25 (9.9 %)	8.28 \pm 4.6			
Gender	Male	140 (55.6%)	7.91 \pm 4.46	0.00		
	Female	112 (44.4%)	11.72 \pm 4.74			
Marital status	Married	123 (48.8%)	9.10 \pm 5.0	0.8		
	Unmarried	129 (51.2%)	10.14 \pm 4.8			
Trainee medical officers	199 (78.96%)		Year of training of TMOs			
			1 st year	10.33 \pm 5.9	10.20 \pm 4.9	0.10
			2 nd year	10.33 \pm 5.9		
			3 rd year	9.7 \pm 4.5		
			4 th year	10.36 \pm 3.8		
		5 th year	6.2 \pm 3.9			
Consultants	53 (21.03%)		Year of experience post-fellowship		7.38 \pm 4.5	0.6
			\leq 5	6.8 \pm 4.5		
			6-10	7.42 \pm 4.2		
			11- 15	7.8 \pm 4.7		
			\geq 15	10.5 \pm 4.7		

were contributing to anxiety according to more than half of the participants. (Table II) Doctors in Obstetrics and Gynaecology were found to have the highest GAD-7 score of 13.26 ± 4.6 followed by Ophthalmology and General surgery. (Table III).

Factor	Response	N	Score
I am happy with Working hours per week	Agree	105	41.66
	Disagree	147	58.33
Patients in one shift are beyond my capacity	Agree	200	79.36
	Disagree	52	20.63
Organizational support is there in case of litigation	Agree	106	42.06
	Disagree	146	59.93
Enjoy working with colleagues	Agree	219	86.90
	Disagree	33	13.09
There is a shortage of equipment	Agree	193	76.58
	Disagree	59	12.41
I have job insecurity	Agree	169	67.06
	Disagree	83	32.93
I have a supportive family and a spouse	Agree	228	90.47
	Disagree	24	9.52
I find my workplace safe to work	Agree	107	42.46
	Disagree	145	57.53
I have a comfortable resting room at the workplace	Agree	86	34.12
	Disagree	166	65.87

Speciality	N (%)	Mean \pm SD
Psychiatry	15 (6 %)	5.87 \pm 2.2
Emergency medicine	27 (10.7%)	6.33 \pm 3.9
Medicine and allied	14 (5.6 %)	7.86 \pm 2.8
Gynae and obstetrics	68 (27 %)	13.26 \pm 4.6
Paediatrics	29 (11.5 %)	9.76 \pm 4.9
Orthopaedic	7(2.8 %)	10.00 \pm 4.8
Dentistry	7 (2.8 %)	7.57 \pm 5.4
General surgery	20 (7.9 %)	10.45 \pm 5.9
Ophthalmology	3 (1.2 %)	10.67 \pm 4.1
Anaesthesia	5 (2.0 %)	9.0 \pm 1.8
Dermatology	4 (1.6 %)	10.5 \pm 3.1
Pulmonology	9 (3.6 %)	9.4 \pm 5.2
Cardiology	26 (10.3 %)	7.54 \pm 3.4
Urology	7 (2.8 %)	8.57 \pm 5.8
Nephrology	9 (3.6 %)	6.67 \pm 2.1
Pathology	2 (0.8 %)	7.50 \pm 3.5

Discussion

Anxiety disorder is one of the major disorders affecting human health globally.¹⁶ Frequent exposure of Health care providers to stressful situations, human sufferings, risk of hazardous exposure and long duty hours, make them susceptible to mental health conditions, particularly anxiety and depression¹⁹ it was concluded that GAD is more in young doctors as compared to consultants, young age and the female gender were more prone to have it. The main contributing factors were patient overload, long working hours, equipment

shortage, unsafe environment, and a lack of comfortable resting room at the workplace. Postgraduate doctors in Gynecology and obstetrics had the highest mean GAD-7 score.

In this study, GAD was found more frequently in post-graduate trainees in contrast with consultants (15.87%). In the index study, 51.19% of post-graduate trainees had GAD, the results are comparable to the study in Pakistan²⁰(48%) but our study shows a higher frequency of GAD in contrast to studies conducted in India²¹ (36.6% had anxiety), France¹² (28.7%) and Turkey (14.6%).²² These results might be because of the low doctor-to-patient ratio and increased workload, and also because junior doctors have prolonged duty shifts compared to consultants, which drain them physically and mentally. In this study, the mean GAD score was nearly the same in the early years of training, but was low in the last year of trainees, while on the other hand, in consultants higher GAD score was seen for senior consultants (> 15 years of experience), the reason might be the change in system from manual to online documentation, increase litigations and job insecurity with more responsibilities.

In this study, it is noted that the female gender is also found to be more susceptible to anxiety (mean GAD-7 11.72). Many other national and international studies have reached the same conclusion^{20, 22-24}, possibly because in this part of the world, females are expected to be more responsible for domestic chores and have more social responsibilities, in addition to increased workload at work with the unsafe working environment, making them more susceptible to stress and anxiety.

In the index study, 57.53% of doctors didn't agree that their workplace is safe for them in contrast to Chinese²⁴ and Indian²⁵ studies which reported more than three-quarters of participants being exposed to unsafe work environments and violence. Verbal or physical abuse is more common by relatives in this part of the world. The risk of anxiety disorder increases 7 times in those healthcare workers who are exposed to violence at work place²⁴, every effort should be done to ensure the safety of healthcare providers.

In our study, the among all specialities highest mean GAD -7 score was found in obstetricians and gynaecologists 13.26 ± 4.6 which is much higher than that reported by a similar study in Rawalpindi²⁶, the reason for the difference is the later study was conducted almost 12 years ago, much has changed, social media pressure, litigation, patient load everything has increased without much change in infrastructure. Obstetricians are more prone to anxiety because of stressful environments, prolonged working hours, more than two-night shifts per week, and poor sleep quality.²⁷

In light of all these studies, anxiety is very prevalent among healthcare providers. It is the need of the hour to improve the working conditions of doctors and provide them with adequate facilities and support. Training programs should be designed for proper awareness of danger signs and how to seek help. Large-scale studies are needed to identify the magnitude and effect of this and remedial measures should be implemented

Conclusion

Generalized anxiety disorder is present in a significant number of our doctors, especially young postgraduate trainees. Postgraduate trainees, female gender and doctors working in Gynae and Obstetrics, Ophthalmology and General surgery are more affected.

Limitation of study: This study was carried out in a single hospital so small sample size, and the generalization of the results is not possible since it was at the researchers' convenience to share the questionnaire and sample collection.

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