

Exam anxiety and factors contributing to it amongst medical interns of a tertiary care centre



Medicine

KEYWORDS: anxiety, examination, interns, factors.

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ABSTRACT

Background: Examinations are often considered as tiresome and stressful experience by students. Students with exam anxiety feel tense, fearful and worried in evaluative situations. Hence this study was undertaken to find out the levels of test anxiety in medical interns and factors contributing to it. **Methodology:** Present cross-sectional study was conducted among 231 medical interns at GMC, Nagpur. Data was collected by using predesigned questionnaire based on Westside Test Anxiety Scale. **Results:** Of the 231 interns, 55.84% were males and 44.16% females. The mean level of anxiety was 2.70 ± 0.70 and 2.69 ± 0.67 for males and females respectively ($p=0.97$). The major contributing factors were excessive course load, lack of systematic studies, time management and parental expectation. **Conclusion:** Anxiety scores were high among interns. Factors such as excessive course load, lack of systematic studies and time management, parental expectations, deprived sleep contribute to exam anxiety.

INTRODUCTION

Test anxiety, as a transitory emotional state, refers to the emotional reactions that occur in an individual who perceives a particular evaluative situation as personally harmful or threatening.¹

Exam stress leading to anxiety is quite predominant among medical students with reported prevalence of anxiety/ stress ranging 27-73%.²

Medical students experience stressful environment throughout their tenure in the medical college. A vast syllabus has to be covered in a short time causing stress leading to more and more of anxiety. The importance of getting good grades in tests, test preparation and the tests themselves are the most stressful events faced by medical students.³ Test anxiety is directly proportional to the difficulty level of the tests and their importance in successful progress of the students.⁴

Test anxiety hampers the thinking process and deteriorates the performance in the exams. Factors which contribute to anxiety are classified as academic, psychosocial and lifestyle. Hence, present cross-sectional study was conducted among medical interns to evaluate exam anxiety and also to determine various factors contributing exam anxiety.

METHODOLOGY

Present cross-sectional study was conducted among medical students doing internship at Government Medical College, Nagpur in 2015-16.

The purpose of study was explained to all medical interns who were willing to participate in the study and informed consent was obtained. Data was collected one week prior to the examination by using predesigned questionnaire which included the sociodemographic profile, Westside Test Anxiety Scale and anxiety related factors.

The Westside Test Anxiety Scale is a ten-item instrument designed to identify students with anxiety impairments who could benefit from an anxiety-reduction.⁵ Anxiety related factors comprised of three domains- academic, psychosocial and lifestyle. Academic factors included excessive course load, finding medical concept difficult, inadequate time for revision before exams, lack of systematic studies etc. Psychosocial factors included peer pressure, negative thinking, parental expectations and lifestyle factors included distractions in form of mobile phone, internet, lack of extracurricular activities, habits and sleep pattern during exam.

The Data collected was entered in Epi info 7. Descriptive statistics including frequency, percentage, mean and standard deviation were used to analyse the data. Level of stress and factors were presented as frequency and percentages. T-test was used to calculate difference of means for quantitative variables.

RESULTS

A total of 231(96.25%) out of 240 interns filled the questionnaire. There were 129(55.84%) males and 102(44.16%) females aged between 22 to 24 years the mean age being 22 ± 0.68 .

Table 1: DISTRIBUTION OF SUBJECTS ON THE BASIS OF TEST SCORES

Test score	Score definition	Study subjects					
		Fem ale	%	Mal e	%	Tot al	%
1.0-1.9	Comfortably low test anxiety	9	8.82	15	11.62	24	10.39
2.0-2.4	Normal or average test anxiety	30	29.41	40	31	70	30.30
2.5-2.9	High normal test anxiety	30	29.41	31	24.03	61	26.40
3.0-3.4	Moderately high	22	21.57	18	13.95	40	17.31
3.5-3.9	High test anxiety	5	4.90	19	14.72	24	10.39
4.0-5.0	Extremely high anxiety	6	5.88	6	4.65	12	5.19
	TOTAL	102		129		231	

Out of 231 study subjects 207(89.61%) had some level of anxiety with maximum number 171(74%) having average to moderately high levels of anxiety and 36(15.58%) having high and extremely high levels of anxiety.

The mean level of anxiety was 2.70 ± 0.70 and 2.69 ± 0.67 for males and females respectively ($p=0.97$). This difference was not statistically significant.

Table 2: FACTORS CONTRIBUTING TO EXAM ANXIETY

S No.	Factors contributing to exam anxiety	No.	Percentage
	Academic factors		
1	Excessive course load	218	94.37
2	Unable to recall	196	84.85
3	Lack of systematic studies and time management	191	82.68
4	Finding medical concept difficult	47	20.31
	Psychosocial factors		
5	Parental expectation	167	72.29
6	Irrational thoughts about exams and results	112	48.48

7	Negative thinking and Fear of failure	106	45.89
8	Peer pressure	93	40.26
Lifestyle factors			
9	Disturbed sleep	91	39.39
10	Lack of physical activity	83	35.93
11	Distractions in the form of mobiles, internet, entertainments	76	32.90

Table 2 shows, major factors contributing to anxiety which included excessive course load (94.37%), unable to recall (84.85%), lack of systematic studies and time management (82.68%) and parental expectation (72.29%). Other factors like negative thinking and fear of failure, peer pressure, disturbed sleep, lack of physical activity, distractions in the form of mobiles, internet, entertainments, finding medical concept difficult were frequently reported.

DISCUSSION

Exam stress is a set of responses that includes excessive worry, depression, nervousness and irrelevant thinking to a class of stimuli from an individual's experience of assessment and outcome.⁶ Test anxiety is considered as one of the major problems among medical students as it most likely causes underachievement, low performance, demotivation and psychological distress.⁷

Out of 231 study subjects 207(89.61%) had some level of anxiety with maximum number 171(74%) having average to moderately high levels of anxiety and 36(15.58%) having high and extremely high levels of anxiety.

The results of our study are in agreement with the previous studies that have also reported high prevalence of anxiety in medical student due to the pressure of exams.^{3,8,9}

The mean level of anxiety on the Westside Test Anxiety Scale was 2.70 ± 0.70 for male students and 2.69 ± 0.67 for female students ($p=0.97$). This difference was not statistically significant as per gender. Inam SN et al.¹⁰ also reported similar findings.

Major factors contributing to anxiety were academic like excessive course load (94.37%), unable to recall (84.85%), lack of systematic studies and time management (82.68%). The findings of this study are in concordance with those of Shireen Hashmat et al., Sangiriy SS et al., Rahman NIA et al.^{11,12,13}

This may be because of vast syllabus, paucity of time and other factors which compete for time and make systematic study and time management impossible. Our study also showed that 82.68% students were stressed due to lack of systematic study and time management. With better time management skills, students will be prepared and would not end up "cramming" for examinations, and thereby decrease test anxiety and improve their academic performance.^{12,14}

The major psychosocial factor contributing to exam anxiety in the present study was parental expectations as reported by 72.29% students. Sangeeta Nagpal et al.¹⁵, also found parental expectation as a major psychosocial factor contributing to exam anxiety. Results of our study are consistent with previous findings that have also suggested high parental expectation as a major psychosocial factor.¹⁰ Other psychosocial factors contributing to exam anxiety, in this study were irrational thoughts about exams and results(48.48%), negative thinking and fear of failure(45.89%) and peer pressure (40.26%). Other psychological factors observed by Sangeeta Nagpal et al.¹⁵ were negative thinking and self-criticism (48.18%), peer pressure (43.63%). The results of our study are in agreement with the other studies that have also observed similar factors.¹¹

Major lifestyle factors reported by interns in our study are disturbed sleep (39.39%), lack of physical activity (35.93%), distractions in the form of mobiles, internet, and entertainments (32.90%). Medical

interns were also anxious as most of the time for relaxation was spent in distractions like watching television, mobile usage, internet etc. Lack of physical activity and extracurricular activities as the major lifestyle stressor is reported by Sangeeta Nagpal et al.¹⁵ and Gajalakshmi G et al.¹⁶ Students reported disturbed sleep and studying all night before exam also causing exam anxiety. Similar findings have been reported by other authors.^{14,16,17} These are in accordance with the findings of other authors.¹⁸

CONCLUSION

Anxiety scores are high among medical interns and academic factors such as excessive course load, lack of systematic studies and time management, psychosocial factors like parental expectations and lifestyle factors like deprived sleep, physical inactivity, etc contribute to it. Medical students are important as they are the future of the medical population. There is a need to develop strategies to improve the teaching, learning and evaluation of the students. Teachers along with parents need to work together to help them lead a healthy lifestyle and reduce the level of stress and enhance their capacity to cope with the anxiety.

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