

A Study on Prevalence of Stress among Undergraduate Medical Students

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Abstract- Medical education is perceived as being stressful, and a high level of stress may have a negative effect on cognitive functioning and learning of students in a medical school. **Objective-** To know the prevalence and the levels of stress among medical undergraduates. To know the association between the levels of stress and their academic performance and to determine most commonly used coping strategies.. **methodology** -This cross-sectional study was conducted among 200 medical undergraduates of 4th and sixth semester. **Results** - The overall prevalence of stress in the study was found to be 83.3%.The stress levels was found to be higher in females than males..On PSS about 65% of students scored less than 20 and much higher stress i.e., more than 30 was found in 2% students. Most common stress coping strategies identified in this study were watching TV or movies, talking with family members and relatives, going out with friends, **conclusion** Preventive health services ,therefore, could be made an integral part of routine clinical services for medical students especially in the beginning of medical education to prevent stress among them.

Key Words - COPING STRAGIES, MEDICAL STUDENTS, PSS SCORE, STRESS

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I. Introduction-

Stress is a state of an individual that result from the interaction of the individual with the environment which is perceived as threatening or threat to the well-being. It is an external constraint which directly upsets the individual both mentally and physically. Individual in a

stressful situation is influenced by his or her mental ability to carry out on-going tasks¹.Medical and Dental schools are known to be highly demanding and stressful learning environments. High levels of stress and prolonged stress exposure may precipitate burnout, a term that describes the experience of long-term work-related exhaustion and diminished interest² Medical students exposed to work overload in such a competitive environment with constant pressure of examination and assessment brings various changes in their daily habits such as lack of sleep, irregular diet, and substance abuse in the form of excessive

consumption of alcohol and smoking in order to cope with the academic burden and stress

Several studies have revealed that the incidence of stress and stress related illness such as anxiety and depression among the medical profession are increasing day by day.

Educational process exerts an inadvertent negative effect on students' mental health with a high frequency of depression, anxiety, and stress among medical students¹. This study was conducted to determine the prevalence of stress among medical students and to know any association between the levels of stress and their academic performance, including the sources of their stress.

II. Aim And Objectives-

- To know the prevalence and the levels of stress among medical undergraduates.
- To know the association between the levels of stress and their academic performance
- To determine most commonly used coping methods.

III. Materials And Methods-

This is a institute based cross sectional study conducted in a medical college attached to tertiary care hospital in Andhra pradesh during the second week of june 2016. This study was conducted in students of fourth and sixth semester. Permission was obtained from institutional ethics committee. The data was collected by using pre-prepared, semi- structured ,pre-tested and self administered questionnaire. The purpose of the study was explained to the students before filling the questionnaire and informed consent was taken. STUDY SAMPLE- of the total 346 students present in both sixth and fourth semesters , 200 students who showed willingness to be part of study were randomly selected by lottery method. INCLUSION CRITERIA – The students who showed interest to be part of study and gave consent were included. EXCLUSION CRITERIA -

Those who didn't give consent and not willing to participate or absent during day of data collection were excluded from study

QUESTIONNAIRE CONSISTED OF 3 PARTS

First part included Information of student regarding demographic information , their medium of study up to tenth class, parents occupation, grasping of learnt subject, clinical skills, clarification of their doubts, etc., Second part included The standard Perceived Stress Scale (PSS) K10 which was used to measure the stress levels.

Third part contained contained questions related to Different coping up strategies generally used to manage stress

DATA ANALYSIS- Data was analysed with the help of SPSS trail version 21, and represented in the form of tables and results were shown in percentages and proportions.

IV. Results

■ The overall prevalence of stress in the study was found to be 83.3%.

PSS score	Sixth semester	Fourth semester	Total
0-10(Relatively free)	3.08%	4%	3.54%
11-20(Low)	67%	56%	61.5%
21-30(Medium)	28.4%	38%	33.2%
31-40(High)	1.5%	2%	1.75%

On PSS about 62% of students scored less than 20 and much higher stress i.e., more than 30 was found in 2% students. Stress and its morbidity was high among sixth semester students as shown in above table

VARIOUS CAUSES AND EFFECTS OF STRESS AMONG STUDY PARTICIPANTS

In this present study, Among both semester students, around 64% of them are unable to concentrate on all lectures daily and has difficulty in understanding the subject. About 42% of students undergo stress during exams as all the subject is not covered.30.6% of the study participants stated that they do not present the cases voluntarily in their clinics due to increased stress level and fear. Of total study subjects, 37% students frequently suffer from headache, insomnia due to their stress and 14% face stress thinking about their responsibilities.

STRESS COPING STRATAGIES

Coping strategy	Sixth semester (Girls)	Sixth semester (Boys)	Fourth semester	Total
1.Talking or discussing with family or relatives	72%	56.5%	56%	61.5%
2.Counselling with seniors	11%	30.4%	18%	19.5%
3.Going out with friends	40%	78.2%	55%	57.7%
4.Watching TV or movies	63%	65.2%	59%	62.4%
5.Reading books or novels	19%	34.7%	16%	23.2%
6.Taking a walk	35%	60.8%	37%	44.2%
7.Shopping	19%	8.6%	15%	14.2%
8.Eating,cooking	39%	52%	28%	39.6%
9.Internet chats	17%	39%	20%	25.3%
10.No. of virtual interactions	2%	34.7%	17%	17.9%
11. Sleeping	8%	4.3%	2%	4.7%

85% spend their leisure time with sports,music,social networking sites. Most common stress coping strategies identified in this study were watching tv or movies, talking with family members and relatives, going out with friends, eating and cooking, taking walk ,reading books and novels, and watching social interaction sites like facebook etc.

V. Discussion –

Majority of the students were identified in the low and medium stress category in this study. In study conducted by Nurdath Sohail in Lahore showed Low level of stress in 7.5% , moderate level of stress was present in 71.67% , and high level of stress was observed in 20.83% of the students almost similar to this present study¹. Stress and its morbidities were high in senior semester students than juniors in this study and similar findings were seen in study conducted in Bhubaneswar by Shawaz Iqbal et al⁵. The stress

level in the initial three years of the course was higher as per study done by Hamza M et al³ and it showed high levels of stress in 2 and 3 year medical students so as in this study. Most of the students in this study were found using combination of coping strategies. The students were found using problem solving (discussion with friends, family,) and emotion focused (walks, cooking etc.) coping strategies¹. The use of internet chats and cell phone texting as a coping strategy. Similar results were observed in study conducted by Nurdath Sohail et al¹. Pfeiffer et al in his study showed that too much stress negatively interfered with student's preparation, concentration and performance which is similar to the present study findings⁶.

VI. Limitations-

The limitations of the study include students being of same institution. The sources of stress and coping strategy were also limited. The sample size also limited data collection as well as some of the student's decision not to respond to the questionnaire. The structured interviews may have resulted in less flexibility limiting the students' responses and analysis of this qualitative data was interpretive so it is less accurate representation and may have been influenced by students not sharing some factual information in the presence of a faculty member of their medical institution. Therefore, it is difficult to generalize and apply the results of this study to medical students of different medical colleges of different countries. It is suggested that larger, multi-institutional and longitudinal studies to be carried out.

VII. Recommendations-

It is important for medical schools to identify stress levels among its students and create a student-friendly, less stressful working environment for their education. Although stress cannot be eliminated, appropriate measures can be undertaken to alter the students' maladaptive perceptions and reactions to events. There is a need for the counselling services to be made available to the students in the medical college to control this morbidity.

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