

A Kap Study to Evaluate Stress Management among Undergraduate Medical Students at Jlnmch, Bihar

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Received: 01-02-2022 / Revised: 10-03-2022 / Accepted: 16-04-2022

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Conflict of interest: Nil

Abstract

Aim: The present study was conducted upon knowledge, attitude and practice of stress management among undergraduate MBBS students at JLNMC, Bihar, India.

Methodology: This was a cross-sectional, questionnaire-based study, which was conducted in the department of pharmacology at JLNMC, Bihar, India for 1 year. A total of 300 undergraduate students of first year, second year, third year, and final year of MBBS were included. Written informed consents were obtained from those who were willing to participate in the study. The questionnaire consisted of age, study year and gender of the participating students which was followed by 12 questions regarding knowledge, attitude and practice on stress management. Out of 12 questions, 4 questions were of knowledge, 3 of attitude and 5 of practice regarding stress management among medical undergraduates.

Results: Out of 300 total undergraduates, 25.3%, 32.3%, 21% and 21.3% of students were of first, second, third and final year MBBS, respectively. There were 49% male and 51% female students. 32% could give a relevant definition of stress. The most common condition related to stress is depression (59.7%), followed by anxiety (30.3%). Most common stressors were vast syllabus and tough topics of MBBS curriculum (25.3%), followed by procrastination (24.7%) and less study time (19.3%). 11.7% of students strongly agreed and 45.3% of students fairly agreed that they have faced difficulties in adapting to the new environment and away from home, these observations were particularly founded in first-year students. Socio behavioral problem was the most common non-academic cause of stress faced by 40.7% of students. 64.6% students of all years (except fourth year) of MBBS had confronted stress because of study performance-based anxiety among colleagues.

Conclusion: There was significant level of perceived stress among majority of medical undergraduates owing to various stressors such as academic, environmental, psychological and socio-economic factors.

Keywords: Stress, psychology, academic, undergraduates.

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Introduction

Stress “is a physical, mental, or emotional factor that causes bodily or mental tension” [1]. Most common causes of

stress are work pressure, health crisis, poor nutrition, insomnia, monetary, interpersonal relationship, media overload

etc. [2,3]. Mild stress acts as stimulation for optimum work performance; yet excessive distress can lead to detrimental effects on mental as well as physical health in general. Complications of stress include a migraine, angina, asthma, depression, diabetes, and ulcers [4,5].

Current global epidemiological data consistently report that up to 20% of children and adolescents suffer from stress related psychological disorders and suicide is the third leading cause of death among adolescents. Up to 50% of all adult mental disorders have their onset in adolescence. A study conducted in the India had found prevalence of depression, anxiety and stress among college students are 49%, 61% and 45% respectively [6]. Psychological health conditions responsible for 16% of the illness and grievance in individuals aged 10-19 years all over world [7]. During a study conducted among adolescences and young adults in Bhagalpur region India, it was observed that mild to extremely severe, depressive symptoms were present in 18.5% of the population, anxiety in 24.4%, and stress in 20% [6].

Clinical features of stress may include tachycardia, hypertension, nausea, restlessness, palpitations, headache, etc. [8]. At global level, different studies have shown that undergraduate medical students experience a significant level of stress during their academic life span [9, 10]. Academic curriculum for MBBS students is set by the National Medical Commission of India. The curriculum is indeed very challenging and demanding at the same time as it includes over 23 subjects to be learnt thoroughly for a time period of four and half years. The level and amount of stress varies through different semesters of MBBS.

In the first year of MBBS, stress is said to be induced by conditions like vast syllabus tutorials, overlapping exams by different departments, language barrier, fear of

ragging, tough topics, staying away from home, alien environment, etc. Also, among these, difference in social and economic background of the students also adds to the stress. In the second and third year of MBBS the triggers for stress include clinical postings, term ending examinations and viva, theory examinations, competitive exams preparations etc. As per the data collected from the studies conducted among the undergraduate medical students, it is shown that academic stress is directly related to presence of psychological symptoms such as anxiety, depression, insomnia, social conflicts and poor performance in the study [11,12]. The present study was conducted to knowledge, attitude and practice of stress management among undergraduate MBBS students at JLNMC, Bhagalpur, Bihar, India.

Materials and Methods

This was a cross-sectional, questionnaire-based study, which was conducted in the department of pharmacology at JLNMC, Bihar, India for 1 year.

Methodology

A total of 300 undergraduate students of first year, second year, third year, and final year of MBBS were included. Written informed consents were obtained from those who were willing to participate in the study. The questionnaire consisted of age, study year and gender of the participating students which was followed by 12 questions regarding knowledge, attitude and practice on stress management. Out of 12 questions, 4 questions were of knowledge, 3 of attitude and 5 of practice regarding stress management among medical undergraduates.

For evaluation of the knowledge of stress among medical undergraduates, definition of stress, co-morbidities, clinical symptoms associated with stress and type

of stressors were included in questionnaire. For assessment of attitude, students were asked about difficulties they faced in adapting to new environment or home sickness, non-academic reasons making them anxious and confrontation of stress due to competition. To evaluate their practice regarding stress coping methods, students were asked different ways to alleviate stress, as the most preferred way to maintain sound mental health, indulging in their hobbies when stressed, how did they approach stress and presently, whether or not, they were victim of addiction. The questionnaires were collected and evaluated for their completeness.

Results:

Out of 300 total undergraduates, 25.3%, 32.3%, 21% and 21.3% of students were of first, second, third and final year MBBS, respectively. There were 49% male and 51% female students. (Table 1)

Out of all 32% could give a relevant definition of stress. The most common condition related to stress is depression (59.7%), followed by anxiety (30.3%). (Table 2)

Most common stressors were vast syllabus and tough topics of MBBS curriculum

(25.3%), followed by procrastination (24.7%) and less study time (19.3%).

11.7% of students strongly agreed and 45.3% of students fairly agreed that they have faced difficulties in adapting to the new environment and away from home; these observations were particularly found in first-year students. Socio-behavioral problem was the most common non-academic cause of stress faced by 40.7% of students. 64.6% students of all years (except fourth year) of MBBS had confronted stress because of study performance-based anxiety among colleagues. (Table 3)

Most commonly used stress coping strategy by the students was listening to music especially in female students, followed by watching internet videos particularly in male students. Male students preferred to sleep for 6-8 hours for maintaining good mental health; however, meditation and prayer were commonly practiced method among female students. A total of 13.3% students thought that a balanced and healthy diet can make mind healthier. 12.7% of students behaved irritably and took out their stress on surrounding people and 31 (10.3%) students became addicted to smoking and alcohol. (Table 4).

Table1: General particulars of the student

Variables	N (%)
Studyyear	
Firstyear	76 (25.3%)
Secondyear	97 (32.3%)
Thirdyear	63 (21.0%)
Final year	64 (21.3%)
Gender	
Male	147 (49%)
Female	153 (51%)
Age	
18-19years	93 (31%)
20-21 years	134 (44.7%)
22 and above	73 (24.3 %)

Table2: Knowledge of the students regarding stress

Questions	N (%)
1) How do you define stress?	
Relevantdefinition	96 (32%)
Irrelevantdefinition	204 (68%)
2) Which of the following is related to stress?	
a) Depression	179 (59.7%)
b) Schizophrenia	16 (5.3%)
c) Anxiety	91 (30.3%)
d) Hallucinations	14 (4.7%)
3) What clinical features are confronted by a person under stress?	
Relevant	109 (36.3%)
Irrelevant	191 (63.7%)

Table3: Attitude of students towards stress

Questions	n (%)
1) What makes you feel stressed out?	
a) Vast syllabus and tough topics	76 (25.3%)
b) Less self-study time	58 (19.3%)
c) Overlapping of short exams and seminars by different departments	35 (11.7%)
d) Fear of facing questions	41 (13.7%)
e) Procrastination	74 (24.7%)
f) Others	16 (5.3%)
2) Have you faced difficulties in adapting to new environment/home sickness?	
a) Strongly agree	35 (11.7%)
b) Agree	136(45.3%)
c) Disagree	89 (29.7%)
d) Strongly Disagree	40 (13.3%)
3) What reasons other than academics makes you anxious/restless?	
a) Fear of ragging	16 (5.3%)
b) Financial instability in family	68 (22.7%)
c) Major health issue	28 (9.3%)
d) Socio-behavioral problems	122 (40.7%)
e) Others	66 (22.0%)
4) Have you ever confronted stress because of competition?	
a) Yes	189 (63%)
b) No	111 (37%)

Table4: Practice of students under stress

Questions	n (%)
1) Ways to alleviate stress?	
a) Listening music	164 (54.7%)
b) Watching TV	36 (12.0%)
c) Internet videos	67 (22.3%)
d) Seeking help from peers	33 (11.0%)

2) Most preferred way for sound mental health?	
a) Prayers and meditation	61 (20.3%)
b) Indulging in physical activity	59 (19.7%)
c) Health and balanced diet	40 (13.3%)
d) 6-8 hour sleep	128 (42.7%)
e) Others	12 (4.0%)
3) Do you indulge yourself in any of the hobbies when tensed?	
a) Yes	203 (67.7%)
b) No	97 (32.3%)
4) How do you approach stress?	
a) Try to focus on things which can be controlled and accepting things which can't be controlled	109 (36.3%)
b) Facing problems by putting it in better perspective	91 (30.3%)
c) Ignoring one's own needs and working harder and faster	62 (20.7%)
d) Getting irritable and taking out on surrounding people	38 (12.7%)
5) Have you been/presently are victim of addiction?(alcohol, tobacco)	
a) Yes	31 (10.3%)
b) No	269 (89.7%)
If yes, was it due to stress?	
a) Yes	24 (77.4%)
b) No	7 (22.6%)

Discussion:

In modern era, there is increased competition among students for medical admission and higher cost of medical education. Students with different socio-economical background come together from various parts of India and globally [13]. Undergraduate medical curriculum is five and half year long with total of 21 subjects to learn with their practical implication [14]. Hence, medical students are under tremendous pressure for academic performance and it leads to distress among them. Stress has negative effects on mental and physical health of students and causes complication like anxiety, depression, low self-esteem and substance abuse [15]. Living condition of medical undergraduates are knowingly demanding and requires high level of constant work-related commitment when compared to other students or the general population. Such pressurize career initiates

vicious cycle of stress and its adversity on physical and psychological health of student such as anxiety, depression, substance abuse, etc., [4, 16]. Differences in social and terrestrial setting, academic milieu, year of study of the medical student, and evaluation methods in tertiary teaching medical institute may explain difference in the prevalence rates [17, 18].

In this study, the present authors observed that most common stressor agents related to education were vast syllabus and tough topics in first year, procrastination in second year and less self-study time in third year students, whereas the study in Mangalore and Nepal found lack of time for recreation in the institution as an important source of stress [19, 20]. In the study conducted in Tamil Nadu, fear of failure, the vastness of academic curriculum and lack of recreation were the determinants of stress [21]. Previous

studies have also reported the frequency of examinations, performance in examinations, competition with peer were common sources of stress [22]. On the other hand, a study conducted by Shah M et al., in a Pakistani Medical college, medium of education, being a hosteller had no significant association with stress level [23]. According to study carried out by Dutta JD et al., in Tamil Nadu, loneliness and family problems were significant psychosocial stressors [21]. The study conducted in Mangalore by Brahmhatt KR et al., found high parental expectations and loneliness as the determinant of stress cases [19].

In current study, to maintain sound mental health, for 6-8 hours of sound sleep is must. Similarly, a study from Karnataka revealed the same findings [19]. In the present study, the most frequent stress alleviating technique used by students, was trying to focus on things which could be controlled and accepting things which could not be controlled.

According to the observations made in present study, 31(10.3%) students were a part of substance abuse or addiction, out of which stress was the foremost motive for 24 (77.4%) such students. Studies conducted at various cities within the India such as Mangalore, Ranchi, and Tamil Nadu and outside of the India at Nepal and Pakistan have observed similar prevalence and pattern of illicit drug use among medical students [19, 20]. A study from Kolkata, India, noted nearly 50% of MBBS students reporting experiencing the stress of variable severity, predisposing to illicit drug use [24, 25].

Conclusion:

According to the present study, there was significant level of perceived stress among majority of medical undergraduates owing to various stressors such as academic, environmental, psychological and socio-economic factors. Improving mental health of MBBS students is very essential

measure for building up their prosperous career ahead for which different programs related to mental health such as subject of aerobic exercises, yoga and relaxation techniques, substance abuse awareness campaigns.

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