

“PREVALENCE OF PSYCHOLOGICAL DISTRESS AND HELP-SEEKING BEHAVIOUR AMONG UNDERGRADUATE MEDICAL STUDENTS IN A PRIVATE MEDICAL COLLEGE, ANDHRA PRADESH”

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ABSTRACT

Introduction: Education and training in the medical field have the potential to induce psychological distress among medical students.

Aim: To study the prevalence of psychological distress and help-seeking behaviour among undergraduate medical students

Methods: This cross-sectional study was conducted among 545 undergraduate medical students in a private medical college in Andhra Pradesh. The 28-item General Health Questionnaire (GHQ-28) was used to assess the psychological distress. Independent samples 't' test or ANOVA test and multiple logistic regression analysis were used to identify the factors associated with psychological distress.

Results: The prevalence of psychological distress among medical students was 46.2% (252). Professional year of study was identified as the significant independent predictor of the presence of psychological distress among medical students. For personal support, the majority mentioned that they would be comfortable seeking help from friends (66.4%) and/or family members (60.2%). Whereas for professional treatment, the majority mentioned they would be comfortable seeking it from a psychiatrist (53%) and/or psychologist (42%).

Conclusion: Many medical students experience psychological distress, yet there is a stigma attached to seeking personal or professional assistance.

Keywords: Psychological distress, help-seeking behaviour, undergraduate medical students.

INTRODUCTION

World Health Organization defined health as "a state of complete physical, mental and social well-being and not merely an absence of disease or infirmity to enable an individual to lead a socially and economically productive life".¹ The majority of research has centred on

physical health as it can be easily assessed. However, identifying mental health issues early and offering adequate care and support remains a significant challenge, particularly in developing nations such as India. Medical education across the globe is perceived as being inherently stressful.² Medical students are exposed to different types of stressors, such as the pressure of academics with an obligation to succeed, an uncertain future and struggles of integrating into the system. The students also face social, emotional, physical and family problems which may have a significant impact on their learning ability and academic performance.³ These stressors can lead to catastrophic consequences such as anxiety, depression, impaired academic performance, impaired competency, medical errors and attrition from medical schools.^{4,5}

In developing countries like India, seeking mental health care is still a taboo, and a lot of stigma is attached to consulting a psychiatric specialist or a counsellor. This problem is magnified when budding doctors have a mental health issue. While medical students have good knowledge of mental health conditions and access to services, it has previously been identified that there may be several barriers to seeking treatment for mental health problems. These barriers include perceptions of stigmatizing attitudes regarding medical professionals with mental health conditions, lack of confidentiality and privacy, concerns about career progression and potential impacts on patients and colleagues, embarrassment and concerns regarding professional integrity.⁶ In recent years there has been a growing appreciation of the stresses involved in medical training. In addition to educating in a professional medical course, it is also important to take into account the quality of life of the students during the years of medical training. With this background, the present study was carried out among undergraduate medical students of NRI Medical College to assess the prevalence of psychological distress and also their help-seeking behaviour.

METHODOLOGY

This observational descriptive cross-sectional study was conducted among undergraduate medical students from 1st year to the final year part II of NRI Medical College, Chinakakani from August to September 2021. Out of the 750 (200 students in each year from 1st year to final year part I and 150 students from final year part II) students, who were available to contact and willing to participate were taken for the study. A total of 545 students responded to the questionnaire (response rate 72.7%). MBBS students who were not available in the classroom at the time of the survey, interns and post-graduate medical students were excluded from the study. Data collection was started after obtaining approval from the Institutional Ethics Committee. The participants were informed about the nature and purpose of the study and were assured of confidentiality. Written informed consent was obtained from each student who was willing to participate. Permission was taken beforehand from the teacher concerned on the day of the study and the last 20 minutes of a one-hour lecture class was utilized for conducting the survey. Those agreeing to participate were asked to fill up a pre-designed, pre-tested semi-structured questionnaire to capture data on baseline characteristics of the participants like gender, year of

study, type of family, locality, etc. The questionnaire also comprised two checklists – the 28-item General Health Questionnaire (GHQ-28)⁷ and a 29-item list of potential stressors.⁸

The GHQ 28 was used to assess current mental health. The GHQ 28 has four subscales: Depression, anxiety, somatic symptoms, and social withdrawal. Each subscale contains seven items. The respondent has to answer whether he or she has experienced a particular symptom or behaviour recently. A Likert Scale of 0 to 3 was used to score each response which resulted in a total possible score ranging from 0 to 84. Suspected psychological distress was recorded when the total score was more than 23. A total of 29 sources of stress were listed which included academic, psychosocial, environmental and health-related stressors. For each potential stressor, the frequency of occurrence will be classified as never, rarely, sometimes, often and always and scored as 1, 2, 3, 4 and 5 respectively. The questionnaire also included some questions regarding the support/treatment-seeking behaviour of the students towards psychological problems. Data was analyzed using Microsoft Excel and Statistical Package for Social Sciences (SPSS) version 22. Descriptive statistics such as mean, standard deviation (SD), frequency, and proportion were used to represent the baseline characteristics, the scores for the GHQ-28, frequency of occurrence of sources of stress, and preference for support/treatment seeking. Independent samples 't' test or ANOVA test was used to test the difference between mean GHQ scores among different baseline characteristics. Multiple logistic regression analysis was also done to identify the predictors of psychological distress. p-value of 0.05 or less was considered statistically significant.

RESULTS

The present study was carried out among medical students of NRI Medical College, Chinakakani. 158 students from the first year, 105 from the second year, 172 from the final year part I and 110 students from the final year part II responded to the questionnaire. So, the total number of study participants was 545. Out of them 336 (61.7%) were female students and 209 (38.3%) were male students. The mean age of the study participants was 20.38±1.36. The majority (80.6%) of the students were from urban areas. 80.6% (439) of the students belonged to the nuclear family. Family history of psychological problems was reported by 7% (38) of the study participants. By using General Health Questionnaire 28 (GHQ- 28), probable psychological distress was found to be observed among 252 (46.2%) students. However, when students were asked a question about self-perception of psychological distress, only 138 (25.3%) students felt that they have psychological distress. This perceived psychological distress is much less compared to the suspected psychological distress (46.2%) by using GHQ 28.

When mean GHQ 28 scores were compared according to different baseline characteristics using Independent samples 't' test or ANOVA test, a statistically significant difference in the mean GHQ 28 scores was observed in the professional year of study (Table 1). Multiple logistic regression analysis also revealed that the professional year of study was the significant independent variable in predicting the presence of psychological distress among

medical students (Table 2). Final year part II students showed a 1.7 times higher risk of having psychological distress compared to first-year students (OR = 1.694, 95% CI = 1.030 – 2.787, p-value = 0.038). Final year part I students were having nearly 39% lesser risk of psychological distress compared to first-year students (OR = 0.624, 95% CI = 0.399 – 0.977, p-value = 0.039).

Medical students mentioned multiple academic, psycho-social, environmental and health-related sources of stress. From Table 3, it can be observed that more frequently occurring sources of stress were academically related in the majority of the participants. More frequently occurring sources of stress include worry about the future, expectations on all fronts of becoming a doctor, vastness of academic curriculum/ syllabus, frequency of examinations, lack of entertainment in the institution, lack of time for recreation, etc. Details about different sources of stress are given in Table 3.

Table 1: Mean scores of GHQ28 according to baseline characteristics of study population (n=545)

Baseline characteristics	Frequency (%)	Mean GHQ 28 score	p value
Gender			
Male	209 (38.3%)	24.20 ± 15.698	0.309
Female	336 (61.7%)	25.49 ± 13.494	
Professional year of study			
First year	158 (29%)	24.80 ± 13.978	0.0001
Second year	105 (19.3%)	25.83 ± 15.361	
Final year part I	172 (31.6%)	21.91 ± 13.301	
Final year part II	110 (20.2%)	29.28 ± 14.610	
Location			
Rural	106 (19.4%)	24.63 ± 14.383	0.775
Urban	439 (80.6%)	25.08 ± 14.393	
Type of family			
Nuclear	439 (80.6%)	24.80 ± 14.277	0.755
Joint	77 (14.1%)	26.13 ± 14.272	
Three generation	29 (5.3%)	24.90 ± 16.469	
Family history of psychological problems			
Present	38 (7%)	28.316 ± 17.6820	0.140
Absent	507 (93%)	24.742 ± 14.0896	

Table 2: Predictors of psychological distress based on multiple logistic regression analysis (n=545)

Baseline characteristics	Frequency (%)	OR (95% CI)	p value
Gender			
Male	209 (38.3%)	1 (ref.)	
Female	336 (61.7%)	1.188 (0.827 – 1.706)	0.351
Professional year of study			
First year	158 (29%)	1(ref.)	
Second year	105 (19.3%)	0.878 (0.533 – 1.449)	0.612
Final year part I	172 (31.6%)	0.624 (0.399 – 0.977)	0.039
Final year part II	110 (20.2%)	1.694 (1.030 – 2.787)	0.038
Location			
Rural	106 (19.4%)	1 (ref)	
Urban	439 (80.6%)	1.040 (0.667 – 1.621)	0.864
Type of family			
Nuclear	439 (80.6%)	1 (ref)	
Joint	77 (14.1%)	1.276 (0.774 – 2.105)	0.339
Three generation	29 (5.3%)	1.179 (0.539 – 2.576)	0.680
Family history of psychological problems			
Present	38 (7%)	1 (ref)	
Absent	507 (93%)	1.757 (0.884 – 3.491)	0.108

Table 3: Sources of stress among study participants (n=545)

Sources of stress	Occurrence in percentage					Median	IQR
	I	II	III	IV	V		
Quality of food in mess	51.7	9	16.9	10.8	11.6	3	1-4
High parental expectations	21.1	19.1	27.9	14.7	17.2	3	2-4
Dissatisfaction with the class lectures	17.6	20.7	32.5	14.9	14.3	3	2-4
Vastness of Academic curriculum/ syllabus	9.7	12.5	29.5	20.6	27.7	3	3-5
Worry about the future	9.2	11	29.4	18.9	31.6	4	3-5
Lack of entertainment in the institution	11.9	14.7	30.1	15	28.3	3	2-5
Frequency of examinations	8.3	12.5	32.5	21.1	25.7	3	3-5
Becoming a doctor (expectations on all fronts)	13.8	13.8	23.5	16.1	32.8	3	2-5
Performance in examinations	11.4	17.8	34.5	19.3	17.1	3	2-4
Lack of time for recreation	11.9	20.4	26.2	17.8	23.7	3	2-4
Adjustment with roommate/s	60.2	9.2	13.2	5.7	11.7	2	1-4
Accommodation away from home	54.7	8.8	15	8.8	12.7	3	1-4
Difficulty in the journey back home	55.8	11.6	16	7.9	8.8	3	1-4
Non-availability of adequate learning materials	35.8	23.7	23.9	10.3	6.4	2	1-3
Sleeping difficulties (overstrain/disturbances in hostel)	32.1	18.9	25	9.9	14.1	2	1-3
Living conditions in hostel	51.4	11.6	22	7.9	7.2	3	2-3
Lack of special guidance from faculty	25.3	21.3	29.5	13	10.8	3	1-3
Political situation of the country	37.6	13.9	19.4	8.6	20.4	2	1-4
Competition with peers	21.1	14.5	34.1	13.9	16.3	3	2-4
Performance in practicals/clinical postings	19.4	16.1	36.5	14.9	13	3	2-4
Feeling of Loneliness	28.6	16.7	24.4	13	17.2	3	1-4
Relations with the opposite sex	50.8	16.9	18.5	5.5	8.3	1	1-3
Financial strain (financial instability in the family)	35.4	19.1	25.3	9.2	11	2	1-3
Illness affecting performances in class and examinations	34.5	22.2	26.6	7.5	9.2	2	1-3
Difficulty in reading the text books	24.6	23.9	32.1	10.5	9	3	2-3
Inability to socialize with peers	33.9	27.2	21.8	6.6	10.5	2	1-3
Family problems (Health related, lack of bonding etc)	40.7	21.5	19.3	9.9	8.6	2	1-3
Physical disability/limitations	73.8	9.9	9	2.8	4.6	1	1-2
Alcohol/drug abuse	83.7	3.1	6.4	2.8	4	1	1-1

I – never; II – rarely; III – sometimes; IV – often; V – always

Note: multiple responses were given by many students

It was observed in the study that out of the 138 students who felt that they had psychological distress, only 58 (42%) students had tried to seek help or treatment. More than half (58%) of them had not tried to seek any form of support. One question was put to all the students, whether they had a psychological problem or not, regarding where they would be comfortable seeking help for such problems. For personal support, the majority specified that they would be comfortable seeking help from friends (66.4%) and/or family members (60.2%). Other preferences mentioned by the students for personal support included internet (22%), fellow students (17.1%), etc. (Fig.1). Majority of the medical students mentioned they would be comfortable seeking professional treatment from a psychiatrist (53%) and/or psychologist (42%) (Fig.2).

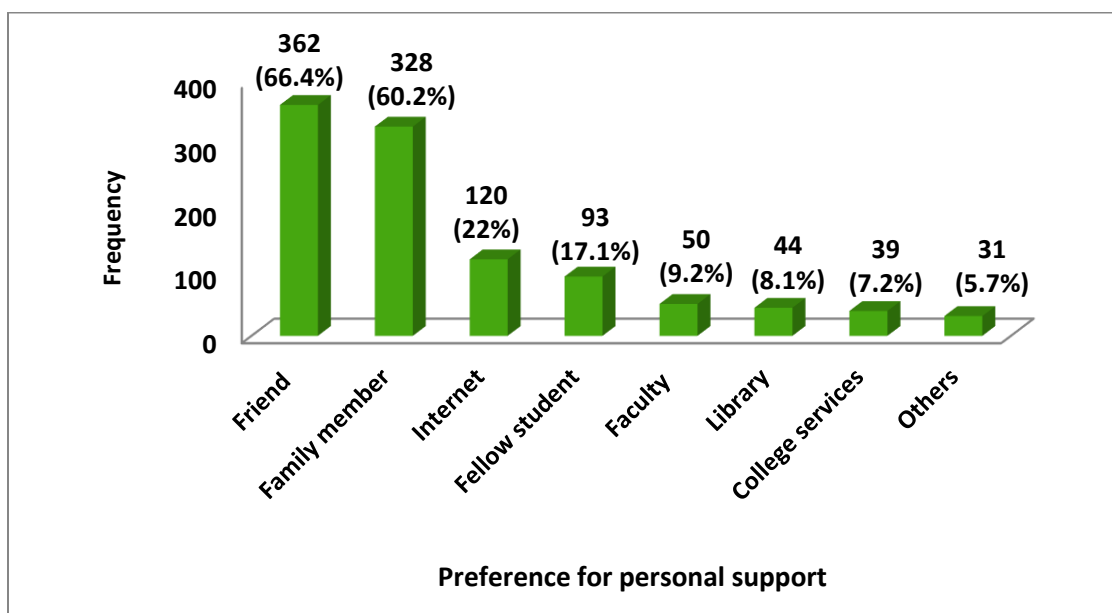


Fig.1: Preference of students to take personal support for psychological distress (n=545)

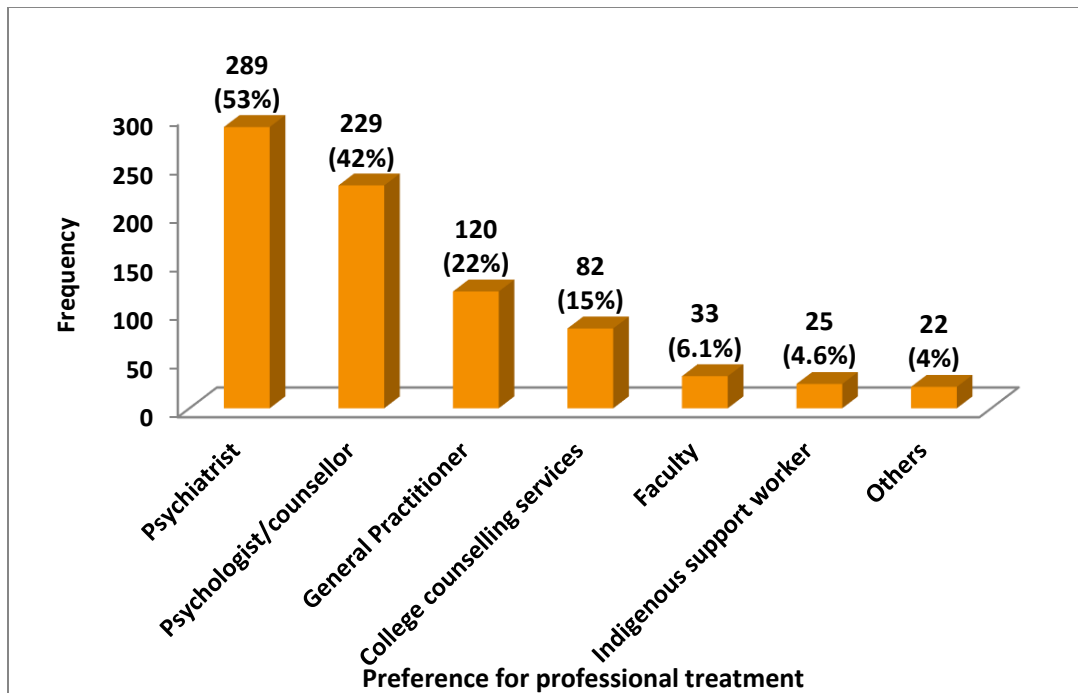


Fig.2: Preference of students to take professional treatment for psychological distress (n=545)

DISCUSSION

MBBS study is the toughest course among all the study courses including, Bachelor of Computer Administration (BCA), Indian Administrative Services (IAS), Engineering, or any other technical courses as quoted in the Guinness Book of World Records in May 2011.⁹ Medical school is recognized as a stressful environment that often exerts a negative effect on the academic performance, physical health and psychological wellbeing of the student. The prevalence of psychological morbidity in the present study was 46.2%. This is in line with the findings of Madhumita Nandi et al.¹⁰ and Yuvaraj B et al.¹ Many other studies^{2,11,12,13,14} showed much less prevalence of psychological distress compared to the present study. Whereas Yuvaraj B et al.¹ and Zohair Jamil Gazzaz et al.¹⁵ observed a higher prevalence compared to the present study. This wide range in the magnitude of prevalence of psychological distress can be attributed to variations in the types of scales used in the screening and different ethnic, socio-demographic, environmental, cultural, academic and geographic backgrounds of students under study.

As per the present study, the professional year of study was the significant independent variable in predicting the presence of psychological distress among medical students. Compared to first-year students, final-year part II students showed higher risk, whereas final-year part I students were having lesser risk of psychological distress. Most of the studies showed statistically significant variation in mental illness with years of study.^{2,16} Final-year Part II students showed a higher prevalence of mental illness, mostly due to academic pressure, the

stress of examinations, a highly competitive environment, an uncertain future, and the pressure of getting into a post-graduation course. Most studies have cited higher emotional distress in first-year students, as they have to adjust to a new environment, cope with academic pressure, and stay away from home.

In the current study, more frequently occurring sources of stress were academic followed by psychosocial. Among the academic stressors worry about the future, expectations on all fronts of becoming a doctor, vastness of academic curriculum/ syllabus, frequency of examinations, and lack of entertainment in the institution occurred more frequently. Previous studies have also reported that academics/ exams are common sources of stress among medical students^{10,14,15,16,17}. Even though 'tests/ exams' are the major sources of stress, they are necessary for medical training as a tool for evaluation/assessment and to encourage student learning. Some students perceive tests/exams as a burden while others consider them helpful for learning. In India, the present system of evaluation uses subjective questions. The students are marked according to their answers and the results are declared either 'pass' or 'fail' in the examination. In such a system of evaluation students often aim to obtain a 'pass'. This system of evaluation may not measure what a student knows. Sometimes it can be unfair and can damage the student's academic concept and self-esteem. Factors like self-expectation and expectation from their significant 'others' may influence students' perception of their marks. Hence the contents, teaching and learning methods, and the evaluation process, need to be analyzed and improved. The teaching-learning schedule of medical students should be modified to encourage more student participation.

CONCLUSION

A large proportion of the medical students were having psychological distress. Early screening and diagnosis should be made available to all medical students. Access to care and support should be provided to all medical students around the clock through trained counsellors. The stressors experienced by the students were mainly related to academics and psychosocial concerns. The students should be taught different stress management techniques to improve their ability to cope with a demanding professional course. The living conditions of the students and their recreational facilities should be improved. There is also a need to bring about changes in the quality of teaching and evaluation systems. A substantially high proportion of students were hesitant to seek support for mental health issues. Medical schools can address this issue by ensuring that counselling services are confidential, available to all students, easily accessible, and well-advertised. The point of contact should be separate from the academic affairs and long-term counselling should be available if necessary.

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REFERENCES

1. Yuvaraj B. Y., Poornima S., Rashmi S. Screening for overall mental health status using mental health inventory amongst medical students of a government medical college in North Karnataka, India. *International Journal of Community Medicine and Public Health* 2016; 3(12): 3308-3312.
2. Manjunath R, Kulkarni P. Mental Health Status and Depression among Medical Students in Mysore, Karnataka – an Untouched Public Health Issue. *Nat J Com Med.* 2013;4(1):50-3.
3. Shaikh BT, Arsalan K, Kazmi M, Khalid H, Nawaz K, Nadia A Khan, Saadiya Khan. Students. Stress and Coping Strategies: A Case of Pakistani Medical School. *Education for Health* 2004; 17:346-53.
4. Dyrbye L, Thomas M, Shanafelt T. Medical student distress: Causes, consequences, and proposed solutions. *Mayo Clin Proc* 2005;80:1613-22. [KG4]: is O.K.
5. Levey R. Sources of stress for residents and recommendations for programs to assist them. *Acad Med* 2001;76:142-50.
6. https://www.beyondblue.org.au/docs/default-source/research-project-files/bl1132-report-nmhdms-full-report_web. last cited on 22-02-2021.
7. Goldberg DP, Hillier VF. A scaled version of the General Health Questionnaire. *Psychol Med* 1979;9:139-45.
8. Chandrashekhar T Sreeramareddy, Pathiyil R Shankar, VS Binu, Chiranjoy Mukhopadhyay, Biswabina Ray and Ritesh G Menez. Psychological morbidity, sources of stress and coping strategies among undergraduate medical students of Nepal. *BMC Medical Education* 2007; 7: 26.
9. Dr. Shah Navas P. Stress among Medical Students. *www.imakmj.com* 2012; 2:53-5.
10. Madhumita Nandi, Avijit Hazra, Sumantra Sarkar, Rakesh Mondal, Malay Kumar Ghosal. Stress and its risk factors in medical students: An observational study from a medical college in India. *Indian Journal of Medical Sciences.* 2012; Vol. 66, No. 1 and 2 : 1-12.
11. Prakash B Behere, Anweshak Das, Aniruddh P Behere, Amit B Nagdive, Richa Yadav, Rouchelle Fernandes. Prevalence of Psychiatric Morbidity in Undergraduate Medical Students in a Rural Medical College of Central India using Global Mental Health Assessment Tool - Primary Care (GMHAT-PC). *Int J Cur Res Rev.* 2021; 13(09) : 52-58.
12. Joshua Falade, Adedayo Hakeem Oyebanji, Adefunke Olarinre Babatola, Olusola Olawumi Falade, Temitope Ojo Olumuyiwa. Prevalence and correlates of psychiatric morbidity, comorbid anxiety and depression among medical students in public and private tertiary

- institutions in a Nigerian state: a cross sectional analytical study. *Pan African Medical Journal*. 2020; 37(53).
13. Shantibala Konjengbam, Jalina Laishram, Brogen Akoijam Singh, Vijaya Elangbam. Psychological Morbidity among Undergraduate Medical Students. *Indian Journal of Public Health*. 2015; 59(1): 65-66.
 14. Muhamad Saiful Bahri Yusoff, Ahmad Fuad Abdul Rahim, Mohd Jamil Yaacob. Prevalence and Sources of Stress among Universiti Sains Malaysia Medical Students. *Malaysian J Med Sci*. Jan-Mar 2010; 17(1): 30-37.
 15. Zohair Jamil Gazzaz, Mukhtiar Baig, Bader Salem Mana Al Alhendi, Mohammed Mahdi Owiad Al Suliman, Awshaemah Salem Al Alhendi, Mana Saleh Hadi Al-Grad and Mohammed Abdullah Ali Qurayshah. Perceived stress, reasons for and sources of stress among medical students at Rabigh Medical College, King Abdulaziz University, Jeddah, Saudi Arabia. *BMC Medical Education* (2018) 18:29.
 16. R Anuradha, Ruma Dutta, J Dinesh Raja, P Sivaprakasam, Aruna B Patil. Stress and Stressors among Medical Undergraduate Students: A Cross-sectional Study in a Private Medical College in Tamil Nadu. *Indian J Community Med*. 2017; 42(4): 222–225.
 17. Samira S. Bamuhair, Ali I. Al Farhan, Alaa Althubaiti, Sajida Agha, Saeed ur Rahman, and Nadia O. Ibrahim. Sources of Stress and Coping Strategies among Undergraduate Medical Students Enrolled in a Problem-Based Learning Curriculum. *Journal of Biomedical Education*. 2015; Special issue: 1-8.