

Prevalence and Associated Factors of Depression, Anxiety and Stress among Undergraduate Medical Students

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ABSTRACT

The prevalence of psychological disturbances in medical undergraduate students has been reported from various countries. Very few studies regarding student distress reported from India. Therefore, we conducted this study to determine the presence of depression, anxiety and stress among medical students in MNR Medical College, Sangareddy, Telangana. In this cross-sectional study, we recruited 257 students from MNR Medical College after obtaining written voluntary consent. DASS 42 questionnaire was used to collect information on basic demographic. Scores for each of the respondents were calculated as per the severity-rating index. Data was analysed by SPSS 20.0. DASS scores were slightly higher in males than female, but it was not statistically significant. Depression, anxiety and stress in students has high negative effect in their social and personal lives. So there is a need for urgent attention to the psychological well-being of undergraduate medical students to improve their life style.

Keywords: *Depression, Anxiety, Stress*

Health is not merely the absence of infectious disease; it's a complete state of mental, physical social and spiritual well-being. Many (World Health Organization (2013), Crystal D.S., Chen, et al. (1994)) people gives less priority to the mental health as they think health as being physically fit and free of infection. Poor mental health can cause many life threatening diseases like cardiovascular disease, cancer etc.]. (Studen Russ, T.C., Stamatakis, E., et al. (2013)). It has common psychological problems such as depression, anxiety and stress. These problems are interrelated to each other. Depression, anxiety, stress levels are considered as important indicators for mental health. Failure to detect these problems will lead to increased psychological disorders all through their professional and personal life (AI-Naggar., R.A. and AI-Naggar., D.H. (1987)). Physically, psychologically fit students are expected to perform better in their academics. Those who has psychological disorders such as depression, anxiety and stress, may face

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Prevalence and Associated Factors of Depression, Anxiety and Stress among Undergraduate Medical Students

problems in maintaining their academic performance.(MD Aris Safree MD Yasin and Mariam Adawiah Dzul kifli (2011). So students academic performance is influenced by depression, anxiety and stress which could lead to lack of motivation, interest, concentration (Fine, J.M. & Carlson., C. (1994) Dusselier, L. (2005) Anson, A., Bernstein, J, & Hobfoll, S. E. (1984)). Hence it is very much important to examine the psychological well-being of the students. By having proper knowledge about psychological disorders of the students on depression, anxiety and stress, it could help us to conduct development programmes to help them. Therefore we conducted this study to find out the prevalence of depression, anxiety and stress among undergraduate medical students in MNR Medical College and Hospital, Sangareddy, Telengana.

MATERIAL AND METHODS

This cross-sectional study was conducted among undergraduate medical students from June to July 2016 in MNR Medical College and Hospital, Sangareddy, Telengana. We included students after obtaining voluntary consent form. The Depression Anxiety and Stress Scale (DASS) is a 42-item questionnaire with three self-report scales designed to measure the depression, anxiety and stress. Each of three scales contains 14 items divided in to subscales of 2-5 items. The depression scale assesses hopelessness, devaluation of life, lack of interest and inertia. The anxiety scale measures autonomic arousal, skeletal muscle effects, and situational anxiety. Stress scale measures nervous arousal, over-reactive, impatient, agitated. DASS scores were collected from students during relaxed state. Institutional Ethical Committee approved the study. The data was analysed with SPSS 20.0. Student t test was applied to observe significance of difference. P value <0.05 was taken as significant.

RESULT

Among the 257 respondents, 138 (53.69%) were males and 119 (46.3%) were females. Based on DASS scores 36 (14%) students had severe or extremely severe depression. The score was 51 (19.84%) for anxiety and 38(14.78%) for stress. Table 2 shows association of DASS scores with demographic data among medical undergraduate students. Depression anxiety stress scores are slightly higher in males as compared to females. However, it was not statistically significant.

Table 1: Distribution of DASS Scores (%) among medical students (n= 257)

Scale		Normal	Mild	Moderate	Severe	Extremely Severe
Depression	Males	41.3	24.63	15.94	13.04	5.07
	Females	53.3	17.69	17.64	6.72	3.36
Anxiety	Males	33.33	22.46	17.39	15.21	11.59
	Females	49.57	27.73	10.92	9.24	2.52
Stress	Males	45.65	19.56	12.31	15.94	6.52
	Females	54.62	27.73	11.76	3.36	2.52

*Male n= 138, Female n= 119

Prevalence and Associated Factors of Depression, Anxiety and Stress among Undergraduate Medical Students

Table 2: Association of DASS scores with demographic data

Parameter	Males (n= 138)	Females (n= 119)	T value
Age (years)	19.3 ± 0.95	19.2 ± 0.1	0.3269
Height (cms)	175 ± 6.46	166.75 ± 7.51	4.7532*
Weight (Kg)	67.67 ± 13.58	56.35 ± 7.95	4.2532*
BMI (Kg/m ²)	23.354 ± 3.9	20.53 ± 2.77	2.0104*
Depression	11.56 ± 7.9	8.71 ± 6	1.5131
Anxiety	9.56 ± 6	8.59 ± 6.9	0.5402
Stress	13.69 ± 6.9	11.8 ± 7.49	0.9319

*P value <0.05 is significant

DISCUSSION

Medical school is intended to train graduates for a successful carrier. Dyrbye LN et al. study has shown that this is the time for medical students facing huge personal and social distress (Dyrbye LN., Thomas MR., Shanafelt TD (2006) . Involving in more stressors, it has a negative effect on students physical health, academic performance and social well-being (Khan MS., Mahmood S., Badshah A., Ali SU., Jamal Y. (2006) Shawaz Iqbal et al reported half of the medical undergraduate students suffered from depression, anxiety and stress(Shawaz Iqbal, Sandhya Gupta & E Venkatarao (2015)). According to our study depression, anxiety and stress levels were higher in males as compared to females. Mohammed Faraaz Khan et al., Singh A et al. reported same findings and Noble RE study has shown DASS scores were higher in female respondents than males (Mohammed Faraz Khan (2015) Singh A., Lal A., Shekhar (2010) Noble RE (2005). Emotional disturbances among medical students need early interventions. Student emotional distress may influence professional development. Shanafelt TD et al. and Mareiniss DP et al. study has shown student distress may negatively affect quality of patient care, patient safety and professionalism (Shanafelt TD., Bradley KA, Wipf JE., Back AL (2002) Mareisniss DP(2004)). We suggest achieving healthy life students should spend enough time on their personal and social lives which might be helpful to overcome from depression, anxiety and stress throughout their academic period. Each and every institution should have student-counselling centre with proper facilities and qualified staffs.

In conclusion, depression, anxiety and stress have a huge effect to society and individual, which can lead to suicidal tendency, relationship problems, medical dropouts and impaired work ability. Therefore, proper counselling services required to the psychological well-being of medical students to improve their quality of life.

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Prevalence and Associated Factors of Depression, Anxiety and Stress among Undergraduate Medical Students

Conflict of Interests

The author declared no conflict of interests.

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Prevalence and Associated Factors of Depression, Anxiety and Stress among Undergraduate Medical Students

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