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Original Research

Study of Depression among Undergraduate Medical Students of a Medical College in Southern Maharashtra

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Abstract

Background: Mental Health problems are a major public health concern due to their high prevalence rates, their tendencies to become chronic. Medical colleges are recognized as a stressful environment that may affect academic performance, physical health and psychological wellbeing of students. **Objectives:** Study was done to assess the prevalence and associated factors of depression by using DASS. **Method:** In a cross-sectional study, a self-administered, pre-designed, pre-tested questionnaire including DASS 42 was used to collect information on basic socio-demographic (age, gender, socioeconomic status) and personal characteristics (alcohol and tobacco use, academic performance). All students of first and second year M.B.B.S. present on the day of survey were contacted for participation after obtaining informed written consent. Scores for each of the respondents over each of the sub-scales (Depression, Anxiety and Stress) were calculated as per the severity-rating index. **Results:** Out of total participated (216) students, 45.83% students suffered the depression. Depression was slightly higher in males (46.22%) than females (45.45%). Second year students (54.08%) were more depressed than first year (38.98%). **Conclusion:** Prevalence of depression in medical students was more. As most of their morbidity was in milder form, they need to be addressed immediately before they manifest into severe forms.

Keywords: Depression, Medical students, Undergraduate students, Mental health

Introduction

Mental health is regarded as an essential component of health by the World Health Organization. Undergraduate medical education comprises strenuous study and training for 5-6 years. Depression is highly common and according to WHO by 2020, it would be the second-most prevalent condition worldwide¹. However, the demands of the learning and training might adversely affect the student's physical and mental health. It has been reported that medical students consequently suffer from depression, anxiety, and stress.²

Mental health refers to a broad array of activities directly or indirectly related to the mental well-being component included in the World Health Organization's definition of Health. Mental Health problems are a major public health concern due to their high prevalence rates, difficulties related with identification, treatment and their tendencies to become chronic.⁴ With level of demands in academics and psychosocial pressure, medical students during their course of training tend to become depressed, leading to problems later in professional life and compromising patient care. Depression is a significant contributor to the global burden of disease and affects people in all countries across the world with a global prevalence of depressive episode of 3.2%. Depressive disorders often start at a young age and often are recurrent throughout life. For these reasons, depression is the leading cause of disability worldwide in terms of total years lost due to disability.⁵ Psychological distress among students also reduces their self-esteem, quality of life and the quality of care they provide to patients with decreased empathy. They may engage in potentially harmful methods of coping strategy from stress such as tobacco, alcohol and other substance abuse. Medical students have a higher risk of suicidal ideation and suicide than age matched peers and general population. Therefore, it was considered to deal with the mental health issues of the medical students as early detection and intervention may help in preventing and minimizing the effects of distress and help the students to deliver the best comprehensive care to the patients in the future. Depression Anxiety Stress Scale developed by the Australian Psychology Foundation, Sydney and approved by the WHO⁶. Present study was conducted in Solapur Government Medical College to assess level of depression among undergraduate students.

Aims & Objectives-Study was done to assess the prevalence and associated factors of depression by using DASS.

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Materials and Methods

It was a cross sectional study. It was conducted in 1st & 2nd year medical students. All the students who had spent more than six months in the medical college and willing to participate in the study were included in the study. Students who were already diagnosed and treated for any psychosocial disorders were also excluded from the study. The Depression Anxiety Stress Scales (DASS) short version by Lovibond and Lovibond, a 21-item self-reported measure was used to assess depression, anxiety and stress. Items on the DASS are rated on 4 point Likert - type, ranging from 0 (Did not apply to me at all) to 3 (Applied to me very much, or most of the time). The depression scale assesses dysphoria, hopelessness, devaluation of life, self-deprecation, lack of interest/involvement, and inertia. The Stress scale (items) is sensitive to levels of chronic non-specific arousal. It assesses difficulty relaxing, nervous arousal, and being easily upset.

Data was collected using a standard questionnaire, which had 2 sections consisting questions for socio-demographic information and the Depression Anxiety Stress Scale. 250 students had participated in the study. Students who had unfilled, incompletely filled the questionnaire were ultimately excluded from study too. So eventually, 216 students were analyzed. Informed written consent from hostel warden was taken prior to the study. Institutional Ethical Clearance was also obtained.

Results

There were total 216 students in 1st (118) & 2nd year (98). Age ranged from 19 to 22 years. 99 Students (46%) suffered from depression. There was not significant difference among male & female. It was 49 (46%) & 50 (45%) respectively. But highly significant difference was seen among first & second year students ($p=0.02$). Second year students (54%) were more depressed than first year students (39%). Regarding level of depression among depressed, most of the depressed were moderately depressed (45%), followed by mildly depressed (31%). Severely & extremely depressed were (24%). Among all the students, 71 (33%) were suffering from stress. Most of them were moderately stressed (48%) followed by mild stress (39%), severely & extremely stressed (13%). Overall addiction was 16%, second year students (20%) were more addicted than first year students (13%).

Table No.1 Socio-demographic profile of study subjects

Sociodemographic Variables	Category	1st Year Students (%)	2nd Year Students (%)	Total
1. Sex	Male	58 (49%)	48 (49%)	106 (49%)
	Female	60 (51%)	50 (51%)	110 (51%)
2. Socioeconomic Class*	1	35 (30%)	25 (26%)	60 (28%)
	2	37 (31%)	31 (32%)	68 (32%)
	3	22 (19%)	22 (22%)	44 (20%)
	4 & 5	24 (20%)	20 (20%)	44 (20%)
3. Residence	Urban	64 (54%)	54 (55%)	122 (56%)
	Rural	49 (46%)	44 (45%)	94 (44%)
4. Type of Family	Nuclear	67 (57%)	42 (43%)	109 (50%)
	Joint	51 (43%)	56 (57%)	107 (50%)
5. Residing Now In	Hostel	84 (71%)	64 (65%)	148 (69%)
	Outside Hostel	32 (29%)	34 (35%)	66 (31%)

Table No.2 Depression among study subjects

Variables	1st Year Students (n%)	2nd Year Students (n%)	Total
Normal	72 (61%)	45 (46%)	117 (54%)
Depression	46 (39%)	53 (54%)	99 (46%)
Total	118	98	216

Figure 1. Severity Of Depression Among Study Subjects

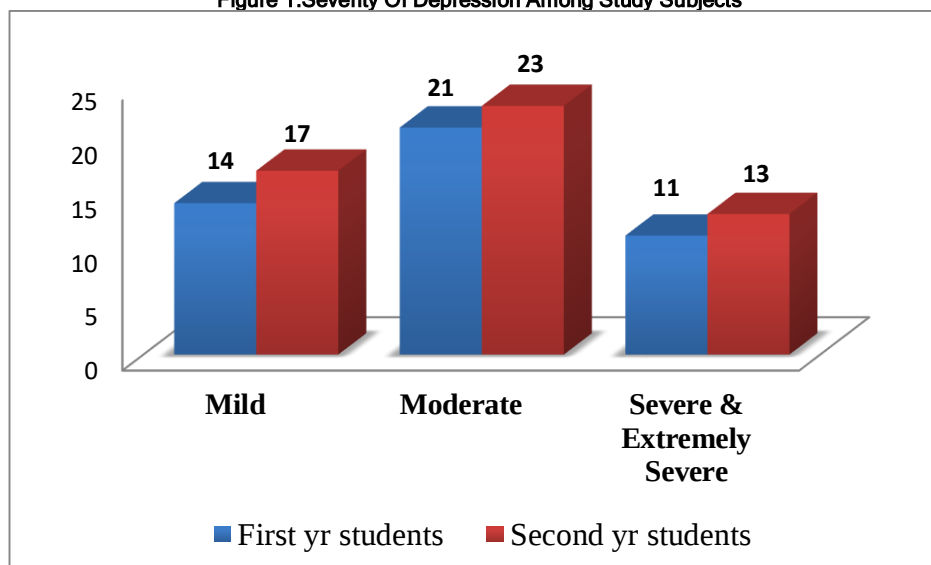
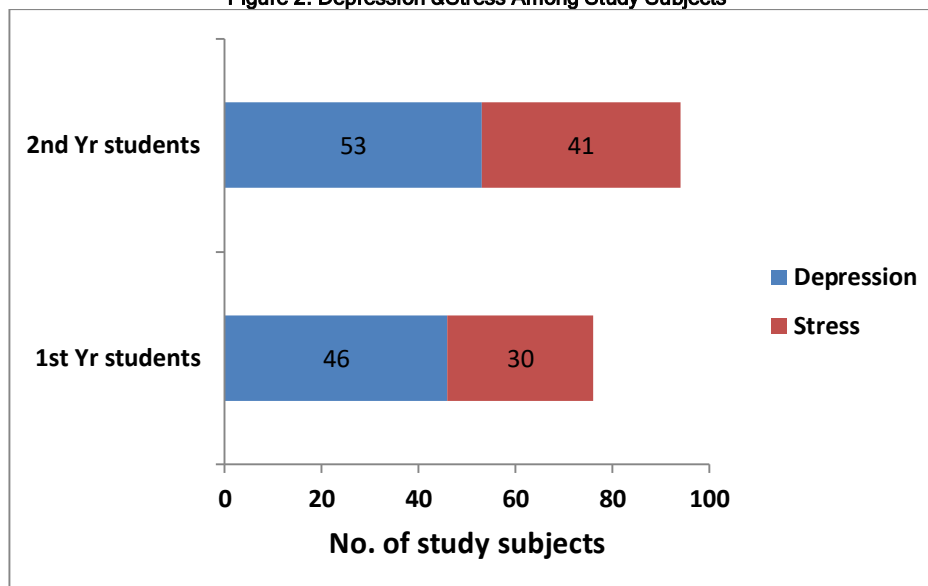


Figure 2: Depression & Stress Among Study Subjects

Table No.3 Depression & Personal habits
(Either Smoking or Alcohol Consumption or Both)

Variable	Depression	No Depression
Either smoking or alcohol consumption or both		
No	74	107
Yes	25	10
Total	99	117

Discussion

There were 216 study subjects in final analysis, we found prevalence of depression 46% & prevalence of stress was 33%. we found higher prevalence of depression compared to study conducted by Anshuman Sharma et al in Bhopal which it was 31%. Another study conducted in Bareilly⁷ had prevalence of depression 49% while study conducted in Kolkata⁵ had prevalence of 41%. In our study we found significantly higher prevalence in 2nd year students than 1st year students. It was 39% in 1st year students while 54% in 2nd year students while a study conducted in Bangalore³ found that 2nd year students had lower prevalence than successive third⁸ year students. It may be due to increased academic distress with increase in successive years. In our study we did not find significant difference among males & females. Most of the study subjects had moderate degree of depression followed by mild, severe & extremely severe level of depression. Similarly, a study conducted in Cameroon⁴ had higher prevalence of moderate depression to milder depression. We found 33% prevalence of stress among study subjects. A study conducted in Bhuvaneshwar⁸ had 53% prevalence of stress among medical undergraduates. Those who had stress, had depression too. In our study 12% study subjects had habits of alcohol consumption & smoking along with the depression.

Conclusion & Recommendation

Almost half of the students were suffering from depression. There was considerable level & prevalence of depression, stress in our study setting requiring urgent attention. So, institutes are required to seek out those students & it is needed to counsel them. We recommend that further studies on same group on larger scale.

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