

EPIDEMIOLOGICAL STUDY OF MENTAL HEALTH STATUS OF UNDERGRADUATES IN MEDICAL COLLEGE.

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Abstract

Background: The undergraduate years are a period of vulnerability when considering sleep problems and mental health. So it's important to improve student mental health outcomes before they become clinically concerning. Intrapersonal factors (emotional regulation strategies, resilience, quality of life) and external factors (psychological and practical support, family adaptation, and cohesion) to understand the preventative and risk factors affecting changes in depression. During the past decade, online social networking has caused profound changes in the way people communicate and interact. Therefore, the current study is designed to assess the mental health among undergraduate's student. **Objective:** To assess the mental health status in undergraduate in a medical college and associated risk factors for it. **Materials and Methods:** A cross-sectional study was conducted from July 2022 to October 2022. Total 356 undergraduate students from First year to last year studying in a Medical College, Maharashtra were studied. Mental health status of students was assessed by pretested questionnaire and according to the score obtained. **Results and Conclusion:** In this study female and male with normal to mild mental health status were 86 % (46%+40%) and 83 % (43%+40%) respectively. Positive association of factors like romantic relation, mother education and practicing recreational activity was observed with mental health status of students.

INTRODUCTION

Mental health is a state of well-being in which an individual realizes his or her own abilities, can cope up with normal stress of life, can work productively and is able to make a contribution to his or her community. The undergraduate years are a period of vulnerability when considering sleep problems and mental health.^[1]

At the start of medical school, medical students have mental health similar to nonmedical peers, but frequent studies suggest that students' mental health worsens during the medical training. Common stressors include adjustment to the medical school

environment, sleep deprivation, poor learning environments, financial concerns, information overload and career planning. These stressors lead to catastrophic consequences such as anxiety, depression, impaired academic performance and impaired competency etc.^[2]

The prevalence of depression among adolescents in South East Asian region has been found to be 15 – 20% mainly due to inability to cope with intense emotions, aggressiveness, isolation from family, inability to keep one's disappointments in perspective and academic stress.^[3]

However, recognizing a mental health conditions early and providing people with mental disorders with care and support is still a long way to go in

developing countries like ours. Also the changing global demographic, political, economic, cultural, educational scenarios have created a lot of mental stress thus making assessment of mental health status and providing care and support a need of the hour for a better and healthy society.^[4]

Early initiatives focused primarily on improving access to mental health care, educating students about mental health problems, and reducing the stigma related to seeking mental health treatment.^[5]

Need for the Study

There is need to understand about mental health among medical undergraduates, we have limited literature available to evaluate the mental health status among undergraduates. With this regard, it was thought of importance to make a study about the mental health status among undergraduates in a Medical College with the objective of assessment of the mental health status in undergraduate in a Medical College and associated risk factors responsible for mental illness and to identify the problems related to it.

MATERIALS AND METHODS

This cross-sectional study was carried out among undergraduates in a Medical College of Maharashtra from July 2022 to October 2022. Ethical committee approval was obtained from the Institutional ethical committee prior to the start of the study. Out of 400, 356 medical students from First year to last year participated in the study which were fulfilling inclusion and exclusion criteria.

Inclusion Criteria

The students willing to give informed written consent were included in the study.

Exclusion Criteria

Students who refused to participate in study. Interns and residents were excluded.

Sampling Technique

The study was carried out among undergraduates in a Medical College of Maharashtra. Out of 400 medical students from First year to last year were enrolled in the study that were fulfilling inclusion and exclusion criteria so finally 356 students were enrolled in this study.

One of Medical College of Maharashtra was selected purposively.^[6] All the study participants were informed about the objective and purpose of the study. Those who were willing to participate in the study, their written informed consents were taken and enrolled in the study.

Data Collection

The objective and purpose of the study was explained to the respective study participants. Before starting the data collection process, a good rapport was built with every student by giving a short introduction and pre-designed and pretested questionnaire was explained. The students were interviewed by the investigator and data was collected using pre-designed and pre-tested

questionnaire. Potential risk factors and the main observation parameter (severe mental distress) in this study were collected by the questionnaire consisting of socio-demographic characteristics, academic performance, and psychological evaluation. Socio-demographic characteristics included age, year of study, Relationship status, and financial status. Mental health status was assessed using pretested questionnaire and screening for depression using PHQ-12 (National Institute for Health and Clinical Excellence)⁷.

Data compilation: Collected data was entered into Microsoft-Excel 2010 worksheets and coded appropriately.

Data Analysis

Data was analyzed using Microsoft Excel 2010, Open EPI-Info Version 3.01 updated on 2013/04/06. Descriptive statistics (percentage, frequency) were used to describe the data appropriately.

Advice and Referral Services

All students were advised about the appropriate health facility available nearby Government and private health care centers, importance of daily physical activity and healthy diet.

9. Operational Definition

A. Mental Health Status- is classified as

Non –diseased

NORMAL- score <10

MILD- Range from score 11 to 20

Diseased

MODERATE-Range from score 21 to 30

SEVERE- Range from score >30

B. The relationship between children and parents can be both good and bad. This is due to a number of factors, including the following:

1. The quality of communication between parent and child. Good communication helps to foster a strong bond between parent and child, while poor communication can lead to tension in the relationship.
2. Parental expectations for their children's behavior. Parents who have high expectations for their children may find that they are unable to meet those expectations, leading to conflict in the relationship.
3. The amount of time spent together as a family unit. Spending more time together as a family can help strengthen relationships, while spending less time together can weaken them over time.
4. Parenting styles used by each individual parent or guardian. Different parenting styles such as authoritarian or permissive parenting can affect how well children get along with their parents.

C. Romantic relationship.^[9] Defined as mutual, ongoing and voluntary interactions between two partners that is characterized by specific expressions of affection and intimacy.

RESULTS

In all, 400 medical students were invited to take part in the study. Of these, 356 students agreed to fill in the questionnaire. Among these 143 were female and 213 were male.

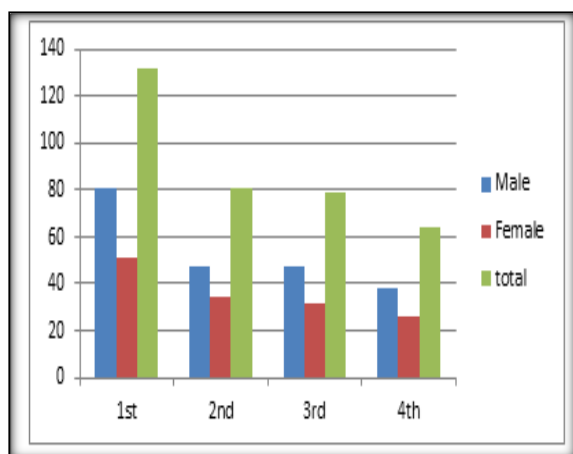


Figure 1: Participation of students from First year to last year of MBBS

In 1ST year total =132 (M=81,F=51), 2ND year total =81(M=47, F=34), 3RD year total=79(M=47,F=32) ,4TH year total=64(M=38,F=26).

Maximum students participated in survey was from 1st year.

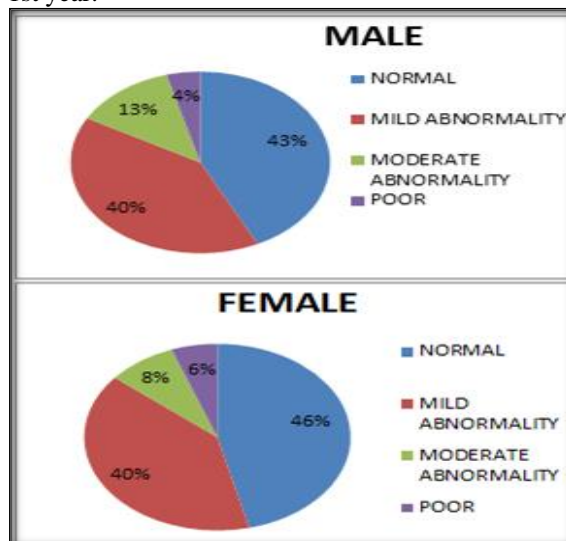


Figure 2: Mental Health Status among Medical undergraduates according to Gender

Figure 2: Shows normal to mild mental health status among 86%(46%+40%) of Medical undergraduatefemale and 83%(43%+40%) of Medical undergraduate malesrespectively

Table 1: Association of Mental Health Status of undergraduates with different Variables

Variables	Total n=356	Non -Disease		Disease		Chi square	P value
		Normal Score(0-10) n =157	Mild Score(11-20) n=143	Moderate Score(21-30) n=39	Poor Score(31-40) n=17		
Gender							
Male	213	91	86	27	9	2.003	0.57
Female	143	66	57	12	8		
Relationship with parents						5.324	0.14
Good	330	147	133	33	17		
Bad	26	10	10	6	0		
Involved in any romantic relationship						19.95	0.002
Yes	29	11	10	5	3		
blank	143	77	55	5	6		
No	184	69	78	29	8		
Family history of any past mental illness						21.32	0.001
Yes	9	0	4	5	0		
No	347	157	139	34	17		
Practicing hobby or any recreational activity						14.31	0.002
Yes	257	103	103	34	17		
No	99	54	40	5	0		
Mother education						25.35	0.002
up to primary	171	83	65	18	5		
high school	95	33	44	13	8		
graduate	76	31	34	8	3		
post graduate	14	13	0	0	1		

In Table-1. Factors like romantic relation, mother education and practicing recreational activity are positively associated with good mental health status of students.

DISCUSSION

The present study investigated the mental health status of undergraduate medical students in a Medical College; this study represents report of 356 undergraduate medical students. Among the study participants, mental health status of 21% was moderate and 10% was poor and showed symptoms of depression, anxiety, and stress respectively.

In this study we found that mental health status is not depending upon gender, current residence and relationship with parents or family monthly income. We found that positive significant association with variables like romantic relationship, family history of past mental illness, practicing hobby and mother education.

Similar study done by Dr. J. Sarkar,^[10] in Kolkata reported 26.1 % poor mental health status and as the year of study increases proportion of depressed students were more than not-depressed students. Another study done by Dr. Rao k,^[11] and Dr. S. Iqbal,^[12] in north and Bhubaneswar shows 78.19% and 33.4% moderate to poor mental health among undergraduates. Study done by Sangeetha R,^[13] in south India shows Prevalence of depression, anxiety and stress were 59%, 43% and 11%, respectively. Prevalence was higher among females, whereas in this study opposite was seen, more poor mental health status seen in males.

A study done by Pracheth Raghuvver,^[14] in Karnataka significant association was found between spiritual health and mental health with mother's (p=0.012) education levels similar to this study in which mother's education shows positive association (p=0.002) with mental health status of students.

Another study done by Jayanti Mishra,^[15] showed prevalence of poor sleep quality and lack of activity among undergraduate medical students was 45%. Compared to our study there is also a positive association of recreational activities with mental health status.

There is no previous study showing romantic association. This additional factor has been included in our study. In this study there is a positive association of romantic relationship with good mental health of students. Romantic relationship has already being defined above. Romantic relation fulfil natural need, emotional sharing and relieves the stress with help to each other. Similarly, those students spare some time for recreational activities and personal hobby can adapt better with stress.

Literate mother is related to positive mental health status, highlighting that literate mother might be taking care in nurturing the child. Family history of mental illness is associated with poor mental health links with hereditary characteristics as well.

CONCLUSION

In this study female and male with normal to mild mental health status were 86% (46%+40%) and 83% (43%+40%) respectively. Positive association of factors like romantic relation, mother education and practicing recreational activity was observed with good mental health status of students.

Medical college shall have surveillance system for mental problems among students. We should teach medical student to monitor & identify any impairment in productivity earliest and seek help earliest. Meditation, periodical self-review, practicing healthy hobby, good friendship are preventive measures for psychological problems. Similarly, grievance cell and help desk for student shall be established and maintained.

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