



Assessment of depression, anxiety, and stress among medical students enrolled in a medical college of Udaipur, Rajasthan, India

Dr. Rakhi Luthra

Assistant Professor, Community Medicine Department, Pacific Medical College and Hospital, Udaipur.

Maitri R. Hathi*

Tutor-Statistician, Community Medicine Department, Gujarat Adani Institute of Medical Sciences, Bhuj. *Corresponding Author

Himanshu Nagar

Tutor-Statistician, Community Medicine Department, Dr. M. K. Shah Medical College and Research Center, Ahmedabad.

ABSTRACT

Objective: To determine the prevalence of depression, anxiety, and stress among medical students.

Methodology: Using predesigned and validated DASS 21 scale items the students underwent with a face-to-face interview.

Conclusion: It is observed that emotional distress is common among medical students. Therefore there is an immediate need for attention, support and personal counselling.

KEYWORDS :

INTRODUCTION:

Stress in medical Education is stress caused by strenuous and continuous medical programs, which may have psychological effects on the well-being of students. Excessive amounts of stress in medical training make students lead to difficulties in solving interpersonal conflicts, sleeping disorders, family/social detachment, reduced attention, and decreased concentration, temptation to cheat on examinations, depression, and objectivity loss.¹

A meta-analysis study on depressive symptoms of medical students recorded 21% to 43% in the American journal *JAMA*.²

A systematic review from forty three countries of 183 studies were found crude prevalence of depression among medical students to be around 27.2% with 11.1% prevalence of suicidal ideation.³

Those Medical students who fail to manage their stress and anxiety levels were observed to be less competent in their continues medical education training.⁴

Without any surprise that the psychological health of medical students in India as an area of research domain has attracted the highest learning attention of the faculty in medical institutions of country after medical education, learning process and evaluation.⁵

Therefore, on looking forward to this upcoming serious issue of depression, stress and anxiety in upcoming young generation, this study was undertaken to assess the prevalence of depression, anxiety and stress among medical students enrolled in a Private Medical College of Udaipur, Rajasthan.

MATERIALS AND METHODS:

The study population included all the MBBS students enrolled in a private medical college from first to final year students underwent face – to – face interview using predesigned, pretested, anonymous interview schedule after obtaining institutional ethical MSW.

A previously validated and standardized survey instrument, Depression Anxiety Stress Scale (DASS 21), was used to collect information on depression, anxiety, and stress.⁶

The study was conducted during September 2019 in a private medical college of Udaipur, Rajasthan

Sample size:

A total of 225 MBBS Students, 50 from each year of MBBS were selected randomly for this study.

RESULTS:

Table 1: Socio demographic profile of study participants (n = 225)

Factors	Number (%)
Sex	
Male	142(63.11)
Female	83 (36.89)
Religion	
Hindu	182 (80.88)
Others	43(19.11)
Native Place	
Udaipur	19 (8.44)
Outside Udaipur	206 (91.55)
Residence	
Hostel	149 (66.22)
Paying Guest	57 (25.33)
Home	19(8.44)
Number of siblings studding in same medical institute	
None	179 (79.55)
One	37 (16.44)
At least two	9 (4)
Habit of Smoking/ Chewing Sigarrate/Tobacco/Mawa Gutkha	
Yes	103 (45.77)
No	122 (54.22)
Habit of Alcohol drinking	
Yes	98(43.55)
No	127(56.44)

Table 1: Out of 225 total medical students enrolled in the 1st, 2nd, 3rd, 4th year of MBBS were 25.33, 24.88%, 24.88%, 24.88% respectively. Majority 63.11% study subjects were male and 36.89% were female. It was recorded that 80.88% of students were Hindu and 91.55% were came from outside of Udaipur to study. Number of hostellers were highest 66.22% followed by paying guest 25.33%. Only 20.44% study subjects have their siblings studding along with them in same institute. Half of the participants 46% have habit of alcohol drinking and smoke/smokeless tobacco chewing.

Study shows that 55 (24.44%) of the medical students were suffering from depression while 68 (30.22%) had anxiety and 77 (34.22%) had stress out of 255 medical students.

Table2: Academic Profile of study participants affected due to psychological status

Factor	Total (n=225) n (%)	Depression (n= 55) (24.44%)	Anxiety (n=68) (30.22%)	Stress (n = 77) (34.22%)	p-value
Enrolment Batch (admission year)					
I st year	57 (25.33)	7 (12.72)	9 (13.24)	6 (7.79)	0.06
II nd year	56 (24.88)	16 (29.09)	15 (22.05)	14 (18.18)	
III rd year	56 (24.88)	21(38.18)	15 (22.05)	32 (41.55)	
IV th year	56 (24.88)	11 (20)	29 (42.65)	25 (32.47)	
Number of attempts to join MBBS					
First attempts	166 (73.77)	19 (34.54)	27 (39.71)	41 (53.25)	0.08
2 or more attempts	59 (26.22)	36 (65.45)	41 (60.29)	36 (46.75)	
Reason to join MBBS					
Personal choice	121(53.77)	13 (23.64)	24 (35.29)	37 (48.05)	0.00*
Parents pressure	104 (46.22)	42 (76.36)	44 (64.71)	30 (38.96)	
Awareness of vastness of medical Education before joining MBBS					
Yes	176 (78.22)	37 (67.27)	36 (52.94)	39 (50.65)	0.13
No	49 (21.77%)	18 (32.72)	32 (47.06)	38 (49.35)	
Number of supplementary examinations					
None	179 (79.55)	47 (85.45)	39 (57.35)	53 (68.83)	0.00*
At least one	46 (20.44)	8 (14.55)	29 (42.65)	24 (38.17)	
Satisfaction of joining this college					
Satisfied	123 (54.66)	7 (12.72)	18 (26.47)	29 (37.66)	0.01*
Unsatisfied	102 (45.33)	48 (87.27)	50 (73.53)	48 (62.34)	
Satisfaction of choosing MBBS as a professional carrier					
Satisfied	130 (57.77)	32 (58.19)	48 (70.59)	33 (42.86)	0.00*
Unsatisfied	95 (42.22)	23 (41.81)	20 (29.41)	44 (57.14)	
Self (subjective) assessment of ability to cope with medical syllabus on a scale of 1 – 10 points					
1-4 (Low)	32 (14.22)	17 (30.91)	14 (20.59)	22 (28.57)	0.18
5-7 (Medium)	145 (64.44)	31 (56.36)	37 (54.41)	46 (59.74%)	
8-10 (High)	48 (21.33)	7 (12.72)	17 (25)	9 (11.69)	
Subjective (self) assessment of academic performance on a scale of 1-10 points					
1-4 (Low)	27 (12)	25 (45.45)	13 (19.12)	27 (35.06)	0.00*
5-7 (Medium)	152 (67.55)	26 (47.27)	22 (35.35)	12 (15.58)	
8-10 (High)	46 (20.44)	4 (7.27)	33 (48.53)	38 (49.35)	

p < 0.05

Table 2: Approximate half of the students 42.22% were dissatisfied by selecting MBBS as a professional carrier. Also study shows that dissatisfaction to select the MBBS as a professional was highly statistically associated to the emotional states. (p=0.00<0.05)

However 30.91% students had depression who gave themselves 1-4 points to cope up with medical syllabus, while 59.74% had stress who scaled themselves 5-7 points, and only 25% students were recorded having anxiety who scaled high 8-10points to themselves to cope up with

medical syllabus. Self assessment of ability to cope with medical curriculum was not statistically associated with emotional stats such as depression, anxiety and stress. Subjective ability of ability to cope with medical curriculum was statistically associated (p=0.00< 0.05) with emotional states. That is the ability to cope with syllabus increases the chances of occurrence of stress, anxiety and depression diseases.

Table 3: Social and personal life of students do affect the emotional state of them. Study shows that 24% of students

Table 3: Personal profile of study participants affected by psychological status

Factor	Total (n=225)	Depression (n= 55)	Anxiety (n=68)	Stress (n=77)	P value
History of Parental Conflict					
Yes	52 (24)	32 (58.18)	39 (57.35)	41 (53.25)	0.82
No	173 (76)	23 (41.82)	29 (42.65)	36 (46.75)	
Fear of future life					
Always	89 (39.55)	11 (20)	21 (30.89)	32 (47.06)	0.04*
Often	72 (32)	15 (27.27)	21 (30.89)	27 (35.64)	
Sometimes	38 (16.89)	17 (30.91)	16 (20.59)	11 (14.28)	
Never	26 (11.56)	12 (21.82)	10 (14.71)	7 (9.09)	
Relationships with friends					
Strong	189 (84)	36 (65.45)	46 (67.65)	58 (75.32)	0.41
Fair	36 (14)	19 (34.55)	22 (32.35)	19 (24.67)	
Relationship with family					
Strong	163 (72.44)	37 (67.27)	43 (63.24)	54 (70.13)	0.67
Fair	62 (27.56)	18 (32.73)	25 (36.76)	23 (29.87)	
Satisfaction with body image					
Satisfied	139 (61.78)	29 (52.27)	38 (55.88)	38 (49.35)	0.73
Unsatisfied	86 (38.22)	26 (47.27)	30 (44.12)	39 (50.65)	
Global Satisfaction with life					
Satisfied	178 (79.11)	12 (21.82)	19 (27.94)	27 (35.06)	0.24
Unsatisfied	47 (20.89)	43 (78.18)	49 (72.06)	50 (64.94)	

Thinking to quit MBBS					
Yes	23 (10.22)	23 (41.82)	21 (30.88)	23 (29.87)	0.30
No	202 (89.78)	32 (58.18)	47 (69.12)	54 (70.13)	

having their parental conflicts, 39.55% were always fearful about future life, 84% had weak relationship with their family, 14% had fair relationship with friends, 38.22% were less satisfied with their body physics, and 20.89% were dissatisfied by their entire life. Out of all these 10.22% medical students were thinking to quit MBBS.

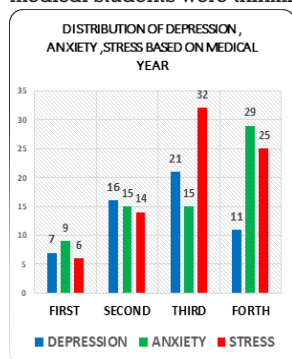


Fig:1

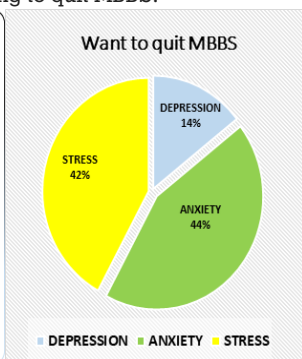


Fig : 2

DISCUSSION:

This descriptive study was done by DASS-21 scales suggests of high prevalence of depression (24.44%), anxiety (30.22%), and stress (34.22%) among medical students enrolled in a private medical college of Udaipur city, Rajasthan, India. Study reports protective factors such as strong relationship with family members, negative history of medical condition, satisfaction with body image, and global satisfaction with life.

Turkey's study found that 27.1% of students were depressed, 47.1% had anxiety, and 27% were stressed. Nepal's study using DASS 21 scale, reported depression 29.9%, anxiety 41.1%, and stress 27%.⁷

A study from Bhubaneswar (Odisha), the prevalence of depression, anxiety, and stress among medical students was recorded as 51.3%, 66.9%, and 53%, respectively.⁸ A Jodhpur (Rajasthan)-based study diagnosed that 57.98% of students depressed and 47.41% suffered from anxiety.⁹

CONCLUSION:

It can be though attributed to start early and purposeful planning along with indicating a case scenario of intense peer pressure, uncertain future environment, rising stress, and anxiety.

Medical students under strain are either unaware of their situation or reluctant to seek help. High-risk students found in our study were provided personal and confidential counselling under additional supervision of mental health expert.

Emotional distress is the most common among medical students. Thus there is a need for attention, support, and personalized counselling services.

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