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Original Research Article

Evaluation of Anxiety, Depression and Suicidal Intent in Medical Undergraduate Students in Northern India: A Cross Sectional Study

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Abstract: Medical students experience considerable amount of stress leading to anxiety, depression and suicidal attempts or suicide. The aim of this study is to evaluate anxiety, depression and suicidal intent in medical students and find out the various areas of stress. A total of 512 medical undergraduate students participated in this cross-sectional study. A semi-structured questionnaire was used to find different areas of stress (Academic & Non – academic reasons). Evaluation of anxiety, depression and suicidal intent was done by administering Hamilton scale for anxiety (HAM-A); Hamilton depression raring scale (HDRS) and Beck's Suicide Intent Scale (BSSI) respectively. Pearson's Chi-square test; Kruskal-Wallis test and Mann–Whitney test were used to analyze the data at the significant level of $p \leq 0.05$. Academic areas of stress such as high workload (70%, $p < 0.001$), long teaching hours (67 %, $p = 0.001$), understanding the subject (58%, $p = 0.006$), frequency of tests (41%, $p < 0.001$) and inaccessibility to teachers (36%, $p < 0.001$) were statistically significant. Non-academic reasons such as hostel food conditions (68%, $p < 0.001$), problems with friends and classmates (32%, $p = 0.019$), financial issues (12%, $p = 0.003$) and drug/substance abuse (6%, $p = 0.007$) were also statistically significant. First year students reported higher level of anxiety; whereas second year students experience high level of anxiety, depression and suicidal intent. Various academic and nonacademic reasons increases level of anxiety, depression and suicidal intent in medical students. Assessment of stress may be useful in modifying the teaching system.
Keywords: Medical students, academic stress, non-academic stress, anxiety, depression, suicidal intent.

INTRODUCTION

Medical education has long been recognized as a highly stressful profession. Stress in medical students is usually process oriented and not trait oriented [1]. Large syllabus, extremely demanding curriculum, lack of time, and academic expectations make medical education as considerably stressful program [1, 2]. Numerous studies conducted worldwide estimated extremely varied range of prevalence of stress in medical students (31% to 96%) [1, 3, 4, 5, 6, 7, 8]. Stress prevalence usually varies with gender and year of training [6, 7, 9, 10].

Previous studies identified high workload, concern for academic performance, examination, fear of failure, interpersonal conflicts, lack of leisure time, interaction with serious patients and financial concern as major perceived sources of stress in medical students [7, 8, 11, 12]. Apart from this, personal factors such as staying away from family, adjustments to unfavorable hostel conditions and parental expectations are significant contributors for occurrence of stress [12].

This stress can impose significant positive or negative impact on student's life. Mild form of stress is always motivational and boosts creativity and performance. On the other hand, severe stress imparts a bad effect on physical and mental well-being of the student. Psychological stress when persist for long term has potential to affect cognitive functioning, learning process and academic achievements of the students [12]. Elevated stress also puts medical students at high risk of developing distress and maladaptive coping response that can result into emotional and physical symptoms [2].

Mental health of medical students has attracted attention of researchers since last few decades. This is because medical students reported higher level of anxiety and depression compared to general population and peers of same age groups [13]. In this regard, Pakistani study reported 43.89% prevalence of anxiety and depression among medical students [14]. While when recorded separately, Dubai study reported 28.7% anxiety and 28.6% depression in medical students [15]. Anxiety and depression prevalence can vary with gender, type of institution and years of training. Inam SN reported high anxiety and depression in female students (66.6%) as compared to male (44.4%) students [9]. Medical students from private medical college exhibit more depression than those attending public medical schools [16]. Second year medical students reported higher prevalence of anxiety and depression as compared to third and fourth year students. [17] A disturbed mental health can promote thought of suicide. A study in U.S. medical students estimated approximately 10% prevalence of suicidal ideation during medical program [18].

In view of disturbed mental health and the paucity of data in Indian setup we planned this study.

MATERIALS AND METHODS

A cross-sectional study was carried out in undergraduate medical students of Maharishi Markandeshwar College of Medical Sciences and Research (MMU), Mullana, Ambala. The study protocol was approved by Institutional Ethical Committee (IEC) of MMU. A total of 512 bachelor of medicine and bachelor of surgery (MBBS) students of either sex from all the four years were enrolled in the study. An informed oral consent was obtained. All students above the 18 years of age were included; while those with history of substance dependence, psychotic disorders and any co-morbid chronic medical illness were excluded from the study.

Before the start of study, the principal investigator (MS) briefly explained to all the participants about protocol, aims and objectives of study. Students' participation was completely voluntary, and they provided full cooperation for the conduct of study. A semi-structured questionnaire (including basic demographic information, academic and non-academic sources of stress) was used to assess the different areas of stress. Response for each question related to academic and non-academic reasons for stress was reported in form of 'Yes' (1) or 'No' (0). Hamilton scale for anxiety (HAM-A) [19]; Hamilton depression rating scale (HDRS) [20]; Beck's Suicide Intent Scale (BSSI) [21] were administered in participants to assess anxiety, depression and suicidal intent respectively. All students from first year MBBS to final year MBBS were given the questionnaire separately year wise by MS in lecture with the prior permission of the principal and the concerned teacher. Time allocated to complete the questionnaire was 30 minutes. Students absent for the respective study class were not included in the study sample. All questionnaires were administered at the same time.

Statistical Analysis

The socio-demographic variables were computed/ analyzed by calculating the mean and standard deviation for age and frequency for sex, marital status, family type and locality.

The presence or absence of academic and non-academic areas of stress was calculated by frequency. Means and standard deviation were determined for the HAM-A; HDRS; BSSI. Scores of HAM-A and HDRS were graded as normal (0-6), mild, moderate (7-17) and severe (18-24). Pearsons's Chi-square test; Kruskal-Wallis test and Mann–Whitney test were used to analyze the data at the significant level of $p \leq 0.05$. The total score of HAM-D, HAM-A & BSSI were compared for different academic years.

RESULTS

Total 512 medical undergraduate medical students between 18 to 22 year age group were participated in the study. (Overall mean age - 20.31±1.533; MBBS1-18.72±1.043; MBBS2-19.85±0.926; MBBS3-20.84±0.818; MBBS4-22.06±0.901).

The study sample comprised of 47 % (n=244) male and 52% (n=268) were female students, (MBBS1- Male: 56; Female 81; MBBS2- Male: 51, Female 73; MBBS3- Male: 54, Female 82; MBBS4 - Male: 83, Female 32)

Only one student was married rest all (99.8%) were single. Most students 76% (n=391) were from nuclear family (MBBS1 -103; MBBS2- 96; MBBS3-101; MBBS4-91). Over 88% (n=453) students were from urban areas (MBBS1 -124; MBBS2- 112; MBBS3- 121; MBBS4-96).

Table 1 shows areas of stress in relation to academic reasons. The common reasons for stress across all four years were high workload (70%; $p < 0.001$), followed by long teaching hours (67 %; $p = 0.001$), understanding the subject (58%; $p = 0.006$), frequency of tests (41%; $p < 0.001$) and inaccessibility to teachers (36%; $p < 0.001$).

Table 1: Academic reasons for stress in study subjects

Academic Reasons		**MBBS1** (n=137)	**MBBS2** (n=124)	**MBBS3** (n=136)	**MBBS4** (n=115)	**Total** (n=512)	**P Value**
Understanding the subject	No	50 36.5%	41 33.1%	72 52.9%	50 43.5%	213 41.6%	**.006***
	Yes	87 63.5%	83 66.9%	64 47.1%	65 56.5%	299 58.4%	
Long Teaching Hours	No	55 40.1%	23 18.5%	52 38.2%	35 30.4%	165 32.2%	**.001***
	Yes	82 59.9%	101 81.5%	84 61.8%	80 69.6%	347 67.8%	
High Workload	No	26 19%	31 25%	57 41.9%	37 32.2%	151 29.5%	**‹.001***
	Yes	111 81%	93 75%	79 58.1%	78 67.8%	361 70.5%	
Frequency of tests	No	29 21.2%	85 68.5%	112 82.4%	73 63.5%	299 58.4%	**‹.001***
	Yes	108 78.8%	39 31.5%	24 17.6%	42 36.5%	213 41.6%	
Teaching methods	No	63 46%	54 43.5%	75 55.1%	60 52.2%	252 49.2%	.214
	Yes	74 54%	70 56.5%	61 44.9%	55 47.8%	260 50.8%	
Comparison with others	No	90 65.7%	69 55.6%	75 55.1%	76 66.1%	310 60.5%	.116
	Yes	47 34.3%	55 44.4%	61 44.9%	39 33.9%	202 39.5%	
Competition/ Fear of failure	No	38 27.7%	38 30.6%	42 30.9%	45 39.1%	163 31.8%	.259
	Yes	99 72.3%	86 69.4%	94 69.1%	70 60.9%	349 68.2%	
Inaccessibility to Teachers	No	110 80.3%	69 55.6%	77 56.6%	68 59.1%	324 63.3%	**‹.001***
	Yes	27 19.7%	55 44.4%	59 43.4%	47 40.9%	188 36.7%	
Others	No	130 94.9%	120 96.8%	124 91.2%	111 96.5%	485 94.7%	.156
	Yes	7 5.1%	4 3.2%	12 8.8%	4 3.5%	27 5.3%	

High workload is common in first year (n=111; 81%) and second year (n=93; 75%) year MBBS. Long teaching hours is common in second year (n=101; 81.5%), understanding the subject is high in first year (n=87; 63.5%) and second year (n=83; 66.9%) students. Frequency of test is major problem for first year (n=108; 78.8%) and inaccessibility to teachers was recorded high for third year (n=59; 43.4%), second year (n=55; 44.4%), fourth year (n=47; 40.9%) and lowest in first year (n=27; 19.7%).

Lack of interest in profession ($p \leq 0.001$) and home sickness (p= 0.13) were the commonest non-academic reason for stress in study subjects. (Table 2)

Table 2 shows areas of stress in relation to non-academic reasons; such as hostel food conditions (68%; $p < 0.001$), problems with friends and classmates (32%; p=0.019), financial issues (12%; p=0.003) and drug/ substance abuse (6%; p=0.007) were statistically significant.

Table 2: Non-Academic reasons for stress in study subjects

Non - Academic Reasons		**MBBS1** (n=137)	**MBBS2** (n=124)	**MBBS3** (n=136)	**MBBS4** (n=115)	**Total** (n=512)	**P Value**
Home Sick	No	70 51.1%	74 59.7%	81 59.6%	74 64.3%	299 64.3%	.184
	Yes	67 48.9%	50 40.3%	55 40.4%	41 35.7%	213 41.6%	
Problems with friends/ class mates	No	83 60.6%	87 70.2%	85 62.5%	89 77.4%	344 67.2%	**.019***
	Yes	54 39.4%	37 29.8%	51 37.5%	26 22.6%	168 32.8%	
Hostel Food Conditions	No	63 46%	25 20.2%	36 26.5%	35 30.4%	159 31.1%	**‹.001***
	Yes	74 54%	99 79.8%	100 73.5%	80 69.6%	353 68.9%	
Less Recreation time	No	43 31.4%	26 21%	37 27.2%	37 32.2%	143 27.9%	.182
	Yes	94 68.6%	98 79%	99 72.8%	78 67.8%	369 72.1%	
Family Expectations	No	55 40.1%	43 34.7%	46 33.8%	52 45.2%	196 38.3%	.224
	Yes	82 59.9%	81 65.3%	90 66.2%	63 54.8%	316 61.7%	
Peer Pressure	No	93 67.9%	72 58.1%	89 65.4%	83 72.2%	337 65.8%	.130
	Yes	44 32.1%	52 41.9%	47 34.6%	32 27.8%	175 34.2%	
Relationship Problems	No	103 75.2%	102 82.3%	100 73.5%	82 71.3%	387 75.6%	.216
	Yes	34 24.8%	22 17.7%	36 26.5%	33 28.7%	125 24.4%	
Financial	No	131 95.6%	110 88.7%	112 82.5%	95 82.6%	448 87.5%	**.003****
	Yes	6 4.4%	14 11.3%	24 17.6%	20 17.4%	64 12.5%	
Drugs/ Substance Abuse	No	134 97.8%	121 97.6%	123 90.4%	104 90.4%	482 94.1%	**.007****
	Yes	3 2.2%	3 2.4%	13 9.6%	11 9.6%	30 5.9%	
Medical/ Psychiatric Illness	No	125 91.2%	114 91.9%	124 91.2%	106 92.2%	469 91.6%	.989
	Yes	12 8.8%	10 8.1%	12 8.8%	9 7.8%	43 8.4%	
No Interest in Profession	No	130 94.9%	109 87.9%	124 91.2%	99 86.1%	462 90.2%	.089
	Yes	7 5.1%	15 12.1%	12 8.8%	16 13.9%	50 9.8%	
Others	No	133 97.1%	116 93.5%	131 96.3%	112 97.4%	492 96.1%	.387
	Yes	4 2.9%	8 6.5%	5 3.7%	3 2.6%	20 3.9%	

First and the final year students reported higher level of anxiety (HAM-A 13.93 ± 6.908 and 16.44 ± 7.637 respectively) and depression (HDRS 14.29 ± 6.302 and 14.22 ± 5.422); whereas the suicidal intent was almost the same throughout the sample (BSI 5.65 ± 5.465). The mean score for HAM-A; HDRS and BSI were 13.38±8.489; 12.94±6.635 and 5.65±5.465 respectively (Table 3).

Second year students reported higher level of anxiety followed by first year students (HAM-A 12.82±9.114 & 10.50±7.022 respectively). Second year student also experienced higher level of depression followed by first and third year students (HDRS 10.68± 7.655, 9.93±5.727 & 9.10±6.447 respectively). The suicidal intent was reported high in second year (BSSI 7.20±6.054). The mean score for HAM-A; HDRS and BSSI were 10.11±7.945, 9.40±6.675 and 4.40±5.024 respectively (Table 3).

Table 4 and 5 shows the year-wise grading of HAM A and HDRS as normal, mild, moderate and severe. On grading HAMA (Table 4) scores across all four years, majority (n=225, 43.94%) of the students had graded themselves as mildly anxious. Similarly on grading HDRS (Table 5) scores across all four years, majority (n=232, 45.31%) of the students also graded themselves as mildly depressed.

On comparing p value of HAM A among different years of MBBS, it was statistically significant for MBBS 1 and MBBS 2 (p = 0.031), MBBS 1 and MBBS 3 (p = 0.027) and MBBS 1and MBBS 4 (p = 0.001). Similarly, p value of HAM A is also statistically significant for MBBS 2 and MBBS 3 (p = 0.001); MBBS 2 and MBBS 4 (p = 0.001). On comparing p value of HDRS among different years of MBBS is statistically significant for MBBS 1 and MBBS 4 (p = 0.001); MBBS 2 and MBBS 4 (p = 0.02) and MBBS 3 and MBBS 4 (p = 0.47).

On comparing p value of BSSI among different years of MBBS it was statistically significant for MBBS 1 and MBBS 2 (p< 0.001) and MBBS 1 and MBBS 4 (p = 0.001). p value of BSSI is also statistically significant for MBBS 2 and MBBS 3 (p = 0.001) and MBBS2 and MBBS 4 (p = 0.001) and statistically significant for MBBS 3 and MBBS 4 (p = 0.021) (Table 6)

Table 3: HAM A; HDRS; BSSI (Mean±SD) across all four MBBS years

	MBBS1 (n=137)	**MBBS2** (n=124)	**MBBS3** (n=136)	**MBBS4** (n=115)	**Total**
HAM A	10.50±7.022	12.82±9.114	8.82±7.333	8.24±7.557	10.11±7.945
HDRS	9.93±5.727	10.68± 7.655	9.10±6.447	7.77±6.574	9.40±6.675
BSSI	3.83±4.038	7.20±6.054	3.99±4.837	2.56±3.728	4.40±5.024

Table 4: Grading of HAM A scores across all four MBBS years

	MBBS1 (n=137)	**MBBS2** (n=124)	**MBBS3** (n=136)	**MBBS4** (n=115)	**Total** (n=512)
Normal 0-6	49 35.7 %	36 29.03 %	59 43.38 %	63 54.78 %	207 40.42%
Mild 7-17	68 49.63 %	58 46.77 %	61 44.85 %	38 33.04 %	225 43.94%
Moderate 18-24	10 7.29 %	18 14.51 %	12 8.82 %	6 5.21 %	46 8.98%
Severe more than 24	10 7.29 %	12 9.67 %	4 2.94 %	8 6.95 %	34 6.64%

Table 5: Grading of HDRS scores across all four MBBS years

	MBBS1 (n=137)	**MBBS2** (n=124)	**MBBS3** (n=136)	**MBBS4** (n=115)	**Total** (n=512)
Normal 0-6	43 31.4 %	43 34.7 %	55 40.4%	65 56.52%	206 40.23%
Mild 7-17	82 59.9 %	56 45.1%	69 50.7%	25 21.73%	232 45.31%
Moderate 18-24	9 6.6 %	16 12.9%	8 5.9%	13 11.30%	46 8.98%
Severe more than 24	3 2.2%	9 7.3 %	4 2.9%	12 10.43%	28 5.46%

Table 6 : Comparison of p Value of HAMA & HDRS among different year of MBBS

		MBBS2	**MBBS3**	**MBBS4**
HAM A	MBBS1	**.031***	**.027***	**.001****
	MBBS2	-	**.001****	**.001****
	MBBS3	-	-	**.260**
HDRS	MBBS1	.851	.121	**.001****
	MBBS2	-	.160	**.002**
	MBBS3	-	-	**.047***
BSSI	MBBS1	**‹.001***	.465	**.001****
	MBBS2	-	**.001****	**.001****
	MBBS3	-	-	**.021***

DISCUSSION

Medical education is always considered as the toughest and burdensome academic training program. Various stressors encountered during different phases of a medical program elevate a stress level in undergraduate students and it can persist in professional life too. Our study recorded academic reasons as a statistically significant cause for stress across all four years of medical training. This is in agreement with the findings from another Indian study that identified academic sources as important causes of perceived stress in undergraduate medical students and hence major category of concern [1].

Statistically significant academic stressor reported in our study was high workload; followed by long teaching hours, understanding the subject, frequency of tests and inaccessibility to teachers. Though all of them were reported across all four years of training, they were common during first and second year students. The findings of current study are supported by a Saudi study which recorded high prevalence of stress in first year (78.7%) followed by second year (70.8%) medical students [6].

We reported that high workload was very common in first and second year medical students. This is particularly attributed towards time constraints in medical school. New subjects, volume and complexity of the learning material and requirement to cover a large amount of information in shorter duration possibly increasing the workload during first year. In second year of medical program, students are exposed to learn both clinical and para-clinical subjects. This transition not only increases the workload but left little time for students to relax and recreate.

Understanding the subject was reported as another major stressor in first and second year. During these initial years, the language problem can impose difficulty in understanding subjects as majority of students, especially in India comes from a vernacular medium. Almost for every Indian medical student mother tongue is different from educational language (English), and hence they find hard to comprehend and interpret difficult medical terminologies.

Frequency of test was major issue for the first year students. This can be linked with high workload and difficulty in understanding the subjects. Both factors hardly left any time to memorize difficult concepts of medicine and prepare for examinations. Almost 100% stress prevalence was found in this regard where students' gets distressed with recalling anatomical concepts and attending tutorials in physiology and biochemistry in short time [12]. Along with that peer competition and high self and family expectation for academic achievement puts a constant burden on student. If a student was excellent in previous educational years, he/she is under persistent threat, whether they perform well or not in examination. Regarding this, Supe et al observed XIIth standard marks as a crucial factor for imposing stress in medical students [1].

The study showed long teaching hours was common stressor in second year students. Inaccessibility to teachers was recorded as an important source of stress for upper years. Lack of professional guidance again worsen problem of understanding medical subjects and difficulty in solving students' queries.

Statistically significant non-academic reasons like hostel food conditions and problems with friends or classmates suggest a possibility of adjustment problem. Financial issues and drug/substance abuse were also statistically significant non-academic reasons. Use of alcohol is common in medical students followed by nicotine and benzodiazepines [22].

We recorded high level of both anxiety and depression in second year students. Considering more psychological disturbances in MBBS2 our findings are in line to previously published studies recording higher prevalence of anxiety and depression in second year medical students as compared with other training years [14, 15, 17]. Our study showed that following second year, the first year students were more susceptible to develop depression and anxiety. However, this finding is contradictory to results of recently conducted Indian study reporting highest depression prevalence (64%) in

first year medical student [23] and also to the results of a Saudi Arabian study [9]. This may be due to exposure to both clinical and para-clinical setting during second year that increases workload and provokes feeling of elevated work burden and depression.

Number of reasons explained high level of anxiety and depression in initial years of medical education. Due to constant presence of both academic and non-academic stressors students always feel under overwhelming pressure. Overburdening with frequency of tests is significant academic stressor for provoking anxiety [17]. Many times, students are not prepared emotionally to handle the hardship of curriculum and demands of new lifestyle. Particularly for first year students moving away from familiar surroundings to new city create adjustment issues [2]. A Boston study on first and second year medical students reported lowest family income as a important contributor to depression (13.9%) and high trait anxiety symptoms (77.3%) [22]. This means financial issues is also major cause of distress in students. Ultimately all these factors contribute to sense of insecurity and have potential to trigger anxiety and depression during initial training years.

Presence of mild grade of both anxiety and depression across all four academic years in our study sample can be a result of deleterious effect of both academic and non-academic stressors existed throughout the course.

The suicidal intent was reported high in second year students of our study. This may be related to presence of high level of stress factors along with anxiety and depression in second year students. Depression is well known to initiate a thought of worthlessness/ hopelessness/ helplessness and can promote suicidal ideation. A recently conducted Chinese study reported 7.5% suicidal ideation among medical students. This figure can go high up to 30% in depressed students [24].

As it is evident that academic factors are major stressors, medical school should give serious thoughts to modify a current education system. Existence of depression is associated with stigma of 'failed person'. This usually prevent depressed student from asking help from teacher, counselors or friends. Such students need both psychological and academic help [23]. Medical education system plays a vital role in shaping future of medical students and creating competent professional doctors. Early years of medical education is a crucial period for development of attitudes and behaviors of physician [22]. As most of the stressors and psychological distress are noted during these initial training periods, these students should receive special attention. Solanky et al [8] suggested introduction of early intervention strategies cope language problems, large syllabus and fear of failure issues at entry levels may be useful to reduce stress.

In this scenario Brennan J et al's [2] stress management program could work better. This stress management program, which was introduced in first year students, is a combination of various relaxation and meditation techniques to deal stress; nutritional approach to improve healthy eating and coping strategies for building positive attitude in different situations and managing fatigue and anxiety with activation words. Such interactive and skill building program improved satisfaction in 80% stressed first year students. However, implementation of such a program requires administrative and financial support besides students' cooperation. In this respect medical school should take notice of current learning system and implement a stress management programs judiciously to create a stress-free learning environment for students.

In a study from Pakistan, students expected support and guidance from teachers on organizing tests and tutorials and frequently explaining difficult concepts [12]. Here again medical schools play a great role in encouraging faculty to build good relationship with students.

In a similar study by Bathla et al [25] on dental undergraduates which revealed long teaching hours; high workload; frequency of tests and competition/fear of failure as the academic areas of stress and lack of interest in the profession a non-academic area for stress. The students of first and final year reported higher anxiety and depression whereas suicidal intent was reported almost the same throughout the study sample.

Dahan & Bedos. recommended the implementation of two strategies to help stressed students (i) decreasing number of stressor and (ii) increasing ability to cope with stress [26].

Counseling is identified as a useful tool for reducing the level of anxiety and depression among medical students by building self-confidence and the capacity to adjust [27]. Counselors in each medical institute, who with regular follow-up services, can assist in personal and professional development of students. This would help to produce psychologically sound and competent doctors in future.

Limitations of the study

1. Small sample size
2. Conducted at single institute
3. Stressors in relation to gender, personality type, social background and demographic areas were not studied.
4. Study results were based on questionnaires pattern so chances of reporting bias can be

present as students may reluctant to expose depressive thoughts or suicidal ideations.

So the findings can't be generalized. In future, larger, multi-centric studies are needed to find the sources of stress, stressors variation with different factors and associated psychological disturbances in medical students.

Strengths of the study

Only study of its kind to evaluate the relationship of the areas of stress to the level of anxiety, depression and suicidal intent.

CONCLUSION

The study reported different academic and non-academic stressors and their relation to level of anxiety, depression and suicidal intent in medical students. Stressors and psychological distress are more common during initial years of course particularly for second year. Assessment of the domain of stress and introduction of stress management strategies at different stages of medical education may be useful to modify the current teaching system. This will help to create competent and professional doctors in future.

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Appendix
Semi-structured Performa

1. Age
2. Sex: 0. Male 1. Female
3. Marital status: 0.Single 1. Married
4. Family type: 0. Nuclear 1. Extended/joint
5. Locality: 0. Urban 1. Rural

Questionnaire to assess the area of stress

S. No.	Academic Reasons	Yes (1)	No (0)
1	Understanding the subject		
2	Long Teaching Hours		
3	High Workload		
4	Frequency of tests		
5	Teaching methods		
6	Comparison with others		
7	Competition/ Fear of failure		
8	Inaccessibility to Teachers		
9	Others (Specify)		

S. No.	Non - Academic Reasons	Yes (1)	No (0)
1	Home Sick		
2	Problems with friends/ class mates		
3	Hostel Food Conditions		
4	Less Recreation time		
5	Family expectations		
6	Peer Pressure		
7	Relationship Problems		
8	Financial		
9	Drugs/ Substance Abuse		
10	Medical/ Psychiatric Illness		
11	No Interest in Profession		
12	Others (Specify)		