



EVALUATION OF STRESSORS AMONG STUDENTS AND INTERNS STAYING IN HOSTEL OF DENTAL COLLEGE - A CROSS SECTIONAL STUDY

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ABSTRACT

BACKGROUND: Hostel is a place for the students where they need to remain far away from their home for their academic education. Here they face many challenges; a number of which is going to become the cause for his or her stress. Some students get adjusted with this environment very rapidly and simply. But some take years to get adjusted with it. So to evaluate, the stressor among the dental undergraduates and interns, the present study was conducted.

OBJECTIVE: To evaluate the stressors among students & interns staying in hostel of dental college.

METHODOLOGY: A questionnaire based cross sectional study was conducted.

RESULT: Out of 167 participants, 109 (65%) were in moderate stress. 13 (9%) of the female participants were in high stress and 73 (69%) of them were in moderate stress who haven't any history of previous stay.

CONCLUSION: Majority of the participants of this study were in moderate stress. The most stressors within the present study participant were associated with studies and college while listening music was that the best way they found to alleviate their stress. Their opinion towards relieving stress was sharing with friends and parents, shopping, watching motivational videos and never abandoning in any situation.

KEYWORDS: Clinical, dental students, hostel, preclinical, stress.

INTRODUCTION

Stress has invaded the life of every individual and needless to mention even students haven't been spared. The severity of stress increases as they reach adolescence or adulthood¹. The major sources of stress among students has found to be need for academic achievement, pressure from parents, desire to pursue education and better level of aspiration, pressure for academic achievement².

Dental education are often a large source of stress among dental students, and studies have observed higher levels of stress among dental students than the general population³. Alzahem and colleagues in their systemic review categorized stressors into five groups: living accommodation, educational environment, personal, academic and clinical factors. Examinations and grades are frequently reported to be the foremost stressful factors, alongside limited time for relaxation^{4,5}.

Once we mention, coping the strain among the students; one among the most important support is family. The family support not only moderates the consequences of stress, but also helps to deal with stressful situation. From the family they get emotional, moral support and guidance to unravel problems. But there are an outsized number of students who stand back from their families in hostels, to achieve academic and professional qualifications.¹ Each student experiences this transition during a unique way that can't be generalised. Their family environment is replaced by hostel environment where, they are available across many stressful situations. Hostellers find many problems e.g. home sickness, relationships with other residents of staff members, hostel facilities, managing finances and difficulties with certain rules and regulations. Additionally to those problems, they face many academic and institutional problems too¹

The students who had a previous history of hostel stay they get easily amalgamate with new environment but the new students find it difficult to regulate with a replacement environment resulting in starting of the method of stress. So to understand about the various stressors among the students who are staying in hostel this study was conducted.

AIM

To evaluate the stressors among students & interns staying in hostel of dental college.

OBJECTIVES

- To evaluate the stressors among first to final BDS students & interns staying in hostel.
- To evaluate correlation between stressors and socio-economic status of the participants.
- To compare the stressors between the gender.
- To compare the stressors between preclinical & clinical year.
- To compare stressors consistent with the history of student's previous stay in hostel or not.
- To evaluate correlation between stressors and parents working either single or both.

METHODOLOGY

Ethical approval: An institutional ethical committee approval was obtained to conduct the study. A cross-sectional questionnaire based study was designed.

Study instrument: A pre-validated thirteen item questionnaire⁶ in which ten questions were supported five point Likert scale, two were close ended and one was open ended.

Study Samples: First to final BDS students and interns of VSPM Dental College & Research Centre, Nagpur. Student's age, gender, family background previous hostel stay and socioeconomic status (SES) was asked within the first part of questionnaire which was kept confidential. For the SES; modified Kuppuswamy scale⁷ was used. The oral consent was obtained from the participants for the participation. The unwilling participants and the absent students on the day of questionnaire distribution were excluded. The questionnaire was distributed among the students and interns.

QUESTIONNAIRE

Name of student ((Optional) : _____ Age: _____ Sex: M / F

Your position: I BDS / II BDS / III BDS / IV BDS / Intern

Whether stayed in hostel previously- Yes/ No

If yes- duration of the stay – _____ Parents working- Both/ Single

S.no	Questions	Never	Rare	Sometimes	Frequently	Always
1	Do you feel homesick?					
2	Do you feel lonely?					

3	Do you feel stressed during the examination?					
4	Do you feel tensed regarding competition in studies?					
5	Do you feel apprehended about the teachers?					
6	Do you feel stressed while co-habiting (staying with the room-partner / partners)					
7	Do you feel stressed regarding future career prospects?					
8	Do you feel tensed regarding the high expectations of parents/ relatives from you?					
9	How often do you feel the need for a counselor?					
10	Does your stress give rise to any health related issues?					
Kindly tick appropriate option (You can tick more than one options)						
11	Your stress is related to what basis?	College	Personal	Family	Friends	Studies
12	What do you do when you feel stressed?	Music/ movies	Sports	Spiritual activity	Addiction / medicines	Yoga
13	Your opinion regarding getting rid of stress? (In your words)	a. b. c. d.				

DATA ANALYSIS & STATISTICS

The completed questionnaires were collected back and the data was analyzed. There have been about total thirteen questions in which ten supported Likert scale. The choices were from never to always for which scoring was given from one to five. This way the minimum score for ten questions was 10 and maximum was 50. To seek out the participants stress level; one stress scale is formulated during which if the score comes below ten, participant is taken into account like no stress; if the score is in between 10 to 24 the participant is taken into account have a low stress. If the scoring is between 25 to 37 then it will be a moderate stress and if the score is 38 and above, then it come under a high stress. To calculate the *p value* between the groups; independent t test and ANOVA test was applied by using online Open Epi calculator version 3.

RESULTS

The study was conducted in the month of March 2018, 167 participants participated in the study. Out of them; 146 were female and 21 were male with the mean age of 20.87 years. According to year, there were about 47,26,39,17 and 38 are the participants from first year, second year, third year, final year and interns respectively. According to SES status, there were about 90, 62, 14 and 1 are the participants from SES I, II, III and IV respectively. According to the history of previous hostel stay of the participants; there were about 61 participants who have the history of previous hostel stay and 106 participants are having no history of it.

Table 1: Stress level of participants according to their year of study

Stress level	High stress 13 (8%)	Moderate stress 109 (65%)	Low stress 45 (27%)	Total N=167	ANOVA test results
I YR	3 (6%)	30 (64%)	14 (30%)	47	<i>P value is</i> 0.896768
II YR	4 (15%)	16 (62%)	6 (23%)	26	
III YR	2 (5%)	23 (59%)	14 (36%)	39	
IV YR	2 (12%)	12 (71%)	3 (18%)	17	
INTERN	2 (5%)	28 (74%)	8 (21%)	38	

Table 2: Stress level of participants according to their SES status

S E S status*	High stress	Moderate stress	L o w stress	Total	ANOVA test results
I	7 (8%)	54 (60%)	29 (32%)	90	<i>P value</i> 0.45375
II	3 (5%)	46 (74%)	13 (21%)	62	
III	3 (21%)	8 (57%)	3 (21%)	14	
IV	0	1 (100%)	0	01	
Total	13	109	45	167	

*SES status- socio-economic status

Table 3: Stress level of participants according history of hostel stay

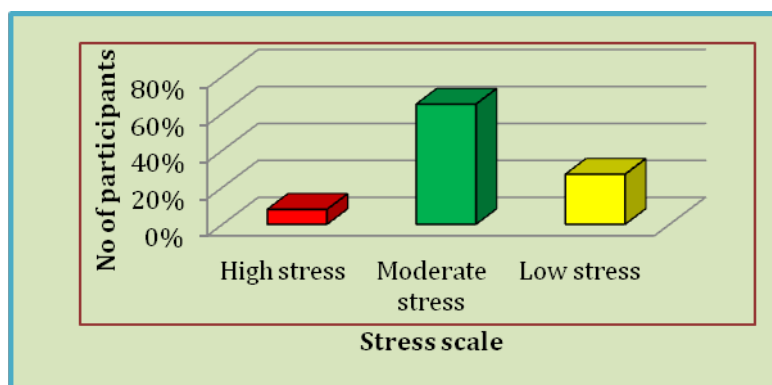
Previous History of hostel stay	H i g h stress	Moderate stress	Low stress	Total	t - t e s t results
No history of previous stay	9 (8%)	73 (69%)	24 (23%)	106	<i>P value</i> 0.9665
History of previous stay	4 (7%)	36(59%)	21 (34%)	61	
Total	13	109	45	167	

Table 4: Stress level of participants according their parents working

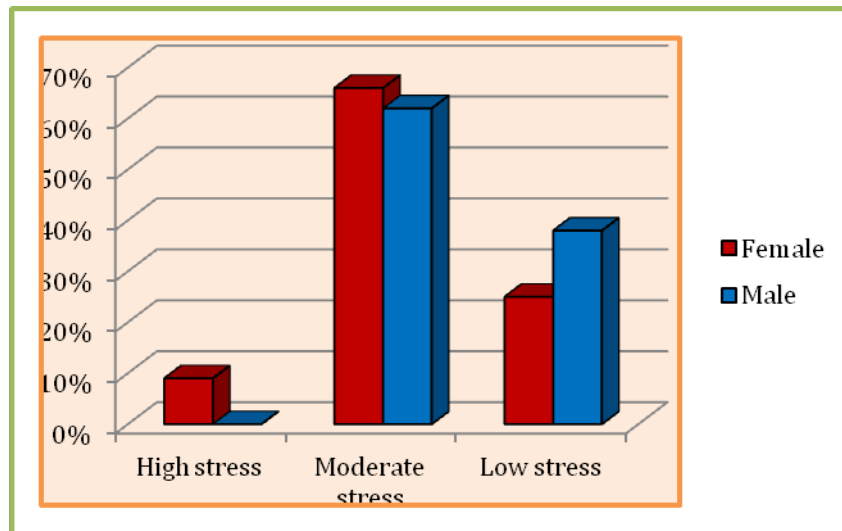
Previous History of hostel stay	H i g h stress	Moderate stress	Low stress	Total	t - t e s t results
Both parents working	1 (4%)	20 (74%)	6 (22%)	27	<i>P value</i> 0.7353
Single parent working	12(9%)	89 (64%)	39 (28%)	140	
Total	13	109	45	167	

Table 5: Participants stress score according to questions

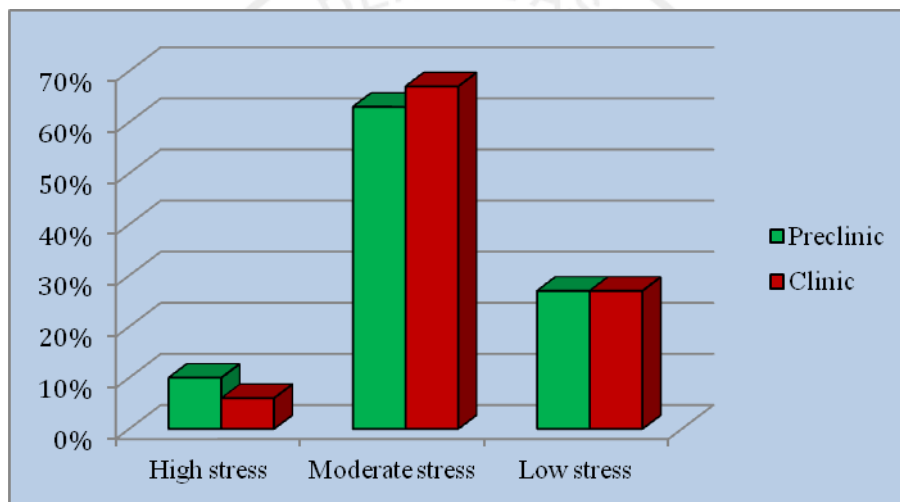
Five point Likert scale questions	Never	Rare	Sometimes	Frequent	Always	T o t a l participants N-167
Q1. Feeling of homesickness	8 (5%)	31 (19%)	83 (50%)	30 (18%)	15 (9%)	167
Q2. Feeling of lonely	15 (9%)	55 (33%)	70 (42%)	19 (11%)	8 (5%)	167
Q3. Stressed during examination	2 (1%)	16 (10%)	64 (38%)	45 (27%)	40 (24%)	167
Q4. Tense regarding competitions in studies	15 (9%)	29 (17%)	66 (40%)	33 (20%)	24 (14%)	167
Q5. Apprehension about the teachers	20 (12%)	51 (31%)	75 (45%)	10(6%)	4 (2%)	167
Q6. stress while staying with room partner	65 (39%)	38 (23%)	50 (30%)	10 (6%)	4 (2%)	167
Q7. Stress due to future career prospects	7 (4%)	20 (12%)	69 (41%)	38 (23%)	33 (20%)	167
Q8. Tensed due to high expectations of parents	28 (17%)	37 (22%)	61 (37%)	25 (15%)	16 (10%)	167
Q9. Need of counsellor	39 (23%)	38 (23%)	54 (32%)	29 (17%)	7 (4%)	167
Q10. Helath related issues due to stress	49 (29%)	36 (22%)	55 (33%)	18 (11%)	9 (5%)	167



Graph 1 : Stress level of participants staying in Hostel



Graph 2: Stress level according to gender of the participants



Graph 3: Stress level of participants according to Preclinic & clinical year of study

By following the stress score scale; result of the present study is as under:

STRESS LEVEL OF THE PARTICIPANTS STAYING IN HOSTEL

Out of 167 participants, 13 (8%) were in high stress, 109 (69%) in moderate stress and 45 (27%) of the participant were in low stress.

STRESS LEVEL ACCORDING TO PARTICIPANT'S YEAR OF STUDY

The participants of the second year and final year were found in high stress 4(15%), 2 (12%) respectively as compared to first year, third year and interns. At the same time interns and first year students 28 (74%) and 30 (64%) respectively were in moderate stress as compare to other year participants. And third years and

first year students 14 (36%) and 14 (30%) respectively were in low stress as compared to other year's participants. The *p* value of these findings is 0.89 which is statistically non-significant.

STRESS LEVEL ACCORDING TO PARTICIPANT'S SES

According to SES status, about 3 (21%) of the SES III participants were in high stress, 1 (100%) and 46 (74%) of SES IV and SES II respectively were in moderate stress and 29 (32%) of SES I were in low stress group as compared to other SES group of the participants. To calculate the *p* value, SES class IV was excluded, the *p* value is 0.45 which is statistically non-significant.

STRESS LEVEL ACCORDING TO GENDER

Out of 167, there were about 146 female and 21 were male

participants. Out 146, 13 (9%) of the female participants were in high stress while no male participants were found in high stress scale. The *p value* is 0.38 which is again statistically non-significant.

STRESS LEVEL ACCORDING TO PRECLINICAL AND CLINICAL YEAR OF STUDY

Seven (10%) students of the preclinical year student were found more in high stress as compare to 6 (6%) of the clinical year students of the present study. The *p value* of this group is 0.62 which is statistically non-significant.

STRESS LEVEL ACCORDING TO PARTICIPANT'S PREVIOUS HISTORY OF HOSTEL STAY

There were about 61 participants who had a history of previous hostel stay and 106 of them had no history. Out of 106 participants; 9 (8%), 73 (69%), 24 (23%) were in high, moderate and low stress group respectively as compare to participants having previous history of hostel stay. The *p value* of this group is 0.96 which is statistically non-significant.

STRESS LEVEL ACCORDING TO PARTICIPANT'S PARENTS WORKING

There were about 27 and 140 participants whose both and single parents are working respectively. Surprisingly, the participants whose single parent is working is found to be more in stress as compare to participants of both working parents. Again the *p value* for this group also came statistically non-significant which is 0.73.

There were about two close ended questions. When the participants were asked about their relation of stress; about 36 (22%) of them responded that it is related to studies and 25 (15%) said it is related to college, while for 18 (11%) it is personal and for 1% it is related to family and friends. At the same time 85 (50%) of them given mixed answers. The next question was; what they do during stress. About 114 (68%) of them listen music when they feel stressed while 7 (4%) play sports, 3 (2%) engaged with spiritual activity while 2 (1%) take medicine and 3 (2%) perform yoga. At the same time 38 (23%) gave mixed responses.

The last question was open ended that is, what was their opinion regarding the relieving of stress. Here the respondents of the present study gave very smart and intelligent answers. They said, they should share their problems with best friends, never give up, watch motivational videos, and share with mother/parents. They also shared that they should take a break and go for holiday. Some of them were also in favor of sleeping, eating tasty food, going for shopping. And lastly very fruitful answer given by one student is that; give you 5 minutes every day to eliminate the unnecessary stress. The detailed result is given in **Table 1 to 5 and Graph 1 to 3**.

DISCUSSION

In the present study, authors presented the result according to the objectives. The published literature on the stress among the dental students staying hostel is found to be very short.^{1, 6} In the study conducted by Shubhada Gade et al⁸, where they found out of 92 medical students staying in hostel, 17.39% of them were found in stress. In the present study out of 167 students staying in hostel; 13 (8%) are in high stress, 109 (65%) in moderate stress, while 45 (27%) are in low stress group.

The stress level increases as the students enter into higher academic courses. In the present study 63 (67%), clinical year students were found more in moderate stress as compared to 46 (63%) of the preclinical year students. In the hostel, students of different culture, religion and socio-economic background are admitted. So these socio-demographic factors also influence the stress on the students. In the present study, there were about 90 students from SES I and only one student belongs to SES IV. The results as seen by the authors were 3 (21%) students from SES III were found in high stress group. Different studies have reported that female students universally reported higher levels of stress and anxiety^{4, 9-16}. The present study result also go in favour with these published studies where 13 (9%) female students were found in high stress while 8 (38%) male participants found in low stress.

When the authors has gone for question-wise scoring with Likert scale, the question no 1, regarding the homesickness, it was found that 30 (18%) participants feel home sickness. While Pooja Chandra¹, in her study found 63% and 67% of academic course hostellers and professional course hostellers respectively felt homesickness. In the same study¹ 44% and 79% of academic course and professional course hostellers respectively feel stressed when exam approaches while in the present study 40(24%) and 45(27%) participants always and regularly respectively feel stressed during the examination. At an equivalent time there have been about 33 (20%) participants of the present study feel stressed regarding their future career prospects while in the study¹ 92% and 83% of the academic course and professional course hostel students feel stressed regarding their future worries.

According to Shiny George¹⁷, like medical students, dental students are also susceptible to develop stress could also be due to the vast syllabus and academic, social activities and private issues. Humphris et al¹⁸ in 2002 collected data from seven European dental schools, where he concluded that the extent of emotional fatigue was more in dental students in comparison to medical students.

Long-term stress has been linked to the event of other disorders. A study conducted among a Swedish population found an association between different stress levels and mental health: high levels of stress were related to depression, whereas low and moderate stress levels were related to anxiety¹⁹. In the present study also, there have been about 18 (11%) participants who got health related issues related to stress.

Several strategies for stress management among dental students are introduced and discussed within the literature, including relaxation strategies, interpersonal approaches like counselling systems, programs designed to enhance studying and test-taking skills and stress management workshops²⁰. Because stress within

the dental educational environment is usually unavoidable, stress management strategies are often recommended as an early and integral part of the dental curriculum. These strategies could focus mainly on improving the perception of stressful situations, the event of coping skills and therefore the avoidance of maladaptive coping. Additionally, more emphasis should be placed on the importance of humanistic faculty-student relationships²¹.

Here, the authors want to share that our institute is running Mentorship cell since November 2011 with very precise name "Sarthi". In Hindu mythology every Indian knows that, in Mahabharata, how the Lord Krishna guided, supported and helped out Arjuna in his difficult times of war between Kauravas and Pandavas by becoming his driver (*Sarthi*) of chariot (*Ratha*). Under our institute's Mentorship cell, the team arranges mentor-mentee meet once during a month. During this meet, the mentee's share and discuss their problem. They are also allowed to approach with their mentors anytime.

LIMITATIONS AND FUTURE DIRECTIONS

The questionnaire was self-reported so answers given by the participants could be biased. The psychology of each one differs in several situations. As this was a cross sectional based study, the responses was collected just one occasion. The study will need to be designed as a longitudinal to gather the responses during different situations to urge the precise responses during different situations. Also the sample size should even have to be increase to generalise the result and to urge fruitful results.

CONCLUSION

Majority of the participants of this study were in moderate stress. The female participants were found in high stress. At an equivalent time participants of no previous hostel stay and whose single parent is working are found more in stress. The main stressors within the present study participant are associated with studies and college. While listening music is that the best way they found to alleviate their stress. Their opinion towards relieving stress is sharing with friends, parents, shopping, watching motivational videos and never abandoning in any situation.

CONFLICT OF INTEREST

No conflict of interest.

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