

# ROOTS OF STRESS IN DENTAL SCHOOL! A PRELIMINARY STUDY OF PERCEIVED STRESSORS AMONG INDIAN DENTAL UNDERGRADUATE STUDENTS

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## ABSTRACT

**Background-** Dental undergraduates are future key professional health care providers so it is essential for dental educators to know the psychological distress and psychological well-being among them as psychological disorders are projected to be among the top fourth leading causes of disability in the future. **Aim-** The study was conducted to determine the sources of stress and their severity in undergraduate students studying in a dental college across the entire curriculum (first to final year) in rural Haryana. **Methods-** The present cross sectional study was carried out at Maharishi Markandeshwar Institute of Dental Sciences, Mullana in the month of July 2013 using self administered questionnaire. Responses of 275 students were included in the study. There were a total of 33 stressors which were grouped into academic, psychosocial and health related stressors. The severity of each stressor was rated using a Likert scale (1-10) ranging from not severe to very severe. **Results-** Out of a total of 275 respondents, 55.3% were male while 44.7% were female. Frequency of examination (41.84%) and performance in examination were most commonly cited sources of Academic stress. Quality of food in the mess (49.65%) and lack of entertainment (45.39%) were the most common psychosocial stressors. Becoming a doctor, quality of food in mess and class attendance were rated as three most severe stressors. **Conclusion-** Findings of present study suggest that interventions are needed to tackle stress and improve dental students' physical and psychological well-being.

**Key Words-** Stressors, Dental Students, Rural, Stress.

## INTRODUCTION

We all have stress sometimes. In fact everyone experiences stress because modern life is full of hassles, deadlines, frustrations, expectations and demands.

For many people, stress is so commonplace that it has become a way of life. Stress isn't always bad. In small doses, it can help to perform under pressure and motivate to do the best but on the other hand non-stop-stress can act as a killer in terms of performance. The World Health Organization (WHO) estimates that stress-related disorders will be one of the leading causes of disability by the Year 2020.<sup>1</sup> A United Nations Report labelled stress "The 20th

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Century Disease.” A few years later the WHO called it a “World Wide Epidemic.”<sup>2</sup>

The stressful nature of the dental profession is well established.<sup>3,4</sup> Students are subjected to different kinds of stressors, such as the pressure of academics with an obligation to succeed, an uncertain future and difficulties of integrating into the system.<sup>5</sup> Dental education has been asserted as one of the most challenging, demanding, and stressful fields of study, as dental students are expected to acquire diverse competencies such as academic and clinical competencies and interpersonal skills.<sup>6,7</sup> Highly competitive environment of dental schools often exerts a negative effect on the academic performance, physical health, and mental well-being of the students which results in psychological morbidity and other unintentional negative consequences later on.<sup>8</sup>

In recent years there is a budding appreciation of the stresses involved in dental education training. Dental undergraduates are future key professional health care providers so it is essential for dental educators to know the psychological distress and psychological well-being among them as psychological disorders are projected to be among the top fourth leading causes of disability in the future. The relative paucity of studies related to stress in India also warrants this study. The present study was therefore conducted to determine the sources of stress and their severity in undergraduate students studying in a dental college across the entire curriculum (first to final year) in rural Haryana.

## MATERIAL AND METHODS

The present cross sectional study was carried out at Maharishi Markandeshwar Institute of Dental Sciences And Research, Mullana (Haryana) in the month of July 2013 using self administered questionnaire. The study population consisted of students who were currently studying in dental college. At the time of study there were 4 batches of dental students each with 100 students. All these students formed the study population. Those students who could not be contacted after three attempts were excluded from the study. Students were explained about the nature and purpose of study and requested to fill the questionnaires which were distributed by authors in the classrooms just after the completion of classes. The time allocated for the completion of the questionnaire was 15 minutes. Out of a total 400 students, 275 completed and returned the questionnaires.

A detailed questionnaire was framed for the purpose of recording socio-demographic information of the study participants, the potential stressors experienced by the students and other relevant data. There were a total of 33 stressors which were grouped into academic, psychosocial and health related stressors. Academic stressors included stressors such as academic curriculum, performance in examinations etc. Psychosocial stressors in the study included high parental expectations etc. Sleeping difficulties and exercise were some of the stressors in the health related stressors segment of the questionnaire. For each potential stressor the frequency of occurrence was classified as never, rarely, sometimes, often and always and scored as 1, 2, 3, 4, 5 respectively. The severity of each stressor was rated using a Likert scale (1-10) ranging from not severe to very severe. Information about personal characteristics of the subjects including

age, sex, and year in which studying, hosteller or day boarder etc was also collected.

The collected data was entered in Microsoft Excel. Coding of the variables was done. SPSS version 20.0 was used for analysis. Interpretation of the collected data were done by using appropriate statistical methods like percentage, mean, median and inter quartile range. Informed consent was taken and complete confidentiality was ensured to the students.

## RESULTS

Out of a total 400 students, 275 returned the questionnaires giving an overall response rate of 70.5%. 55.3% of the respondents were male while 44.7% were female. The mean age of study subjects was 20.34 with a standard deviation of 1.78.

### Academic Stressors

Frequency of examination and performance in examination were most commonly cited sources of stress. Non availability of adequate learning material (50.71%) and competition with peers (45.03%) were the stressors cited as almost or never by the study subjects. Becoming a doctor was rated as most severe stressor. (Table 1)

### Psychosocial Stressors

Quality of food in the mess (49.65%) and lack of entertainment (45.39%) were the most commonly cited psychosocial stressors. Lack of personal interest and difficulty in reading text books, adjustment with roommates and financial strain were the least common stressors reported by the students. Quality of food in mess was rated as most severe. (Table 1)

### Health Related Stressors

Quality of food in mess (50.84%) was the most commonly reported health related stressors. Again quality of food in mess and class attendance were rated as most severe. (Table 1)

## DISCUSSION

This study confirmed the general impression that there is a considerable amount of stress among dental students at MM Institute of Dental Sciences, Mullana. Stress has been described as a double-edged sword that can either stimulate and motivate the students to peak performance or reduce the students to ineffectiveness.<sup>9,10</sup> Previous studies have reported that dental education induces considerable stress on students. Findings of present study are consistent with others.<sup>11-15</sup>

Most students had experienced either academic and/or psychosocial stressors. It was observed that among academic stressors, "Becoming a Doctor" was the most severely reported stress. The students know they have to sacrifice everything to achieve the goal and probably this puts them under a lot of stress.

The present study revealed that academic curriculum and performance in examinations were among most common source of stress. Similar results are obtained by others.<sup>16</sup> Despite this, test/exams are important in the dental training as a standard for evaluation/assessment. Also examinations encourage student's learning and also provide feedback to the teachers. Those students who perceive tests/exams as a burden may experience stressful situations while for others, who consider exams useful, they may assist in their learning.

Legault et al. observed “problems with college roommates” as a source of stress among students. Findings of present study do not mimic in this aspect.<sup>17</sup> Academic problems have been reported to be the most common source of stress for students.<sup>18</sup> Other studies have also reported that academics/exams are common sources of stress among students.<sup>19,20</sup> There may be a need to revisit the evaluation/examination system to make it less stressful to the students.

An important source of stress was related to psychosocial factors. This may be due to time constraints for self, family, friends and entertainment due to the demanding medical curriculum. Another reason could be inadequate recreational facilities provided by the college as reported by the students. The students, who were stressed, reported that psychosocial and academic related stressor groups had occurred more frequently.

### CONCLUSION

The present study shows that academic stressors were related to frequency of examinations and performance in examinations. Psychosocial stressors which were frequently reported included quality of food in the mess and lack of entertainment. The results of this study suggest that interventions are needed to tackle stress and improve dental students’ physical and psychological well-being. Large, prospective, multicentre studies will help to identify the associated morbidity, causes and consequences of stress among dental students.

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**Table 1: Response pattern of various sources of stress and perceived severity (rated in a Likert scale of 1-10) as reported by the study subjects**

Stressor	Never	Sometimes	Fairly/ very often	Median	IQR
<b>Academic Stressors</b>					
Academic Curriculum	75 (26.59)	95 (33.68)	109 (38.65)	5	2-7
Frequency of Examinations	67 (23.75)	94 (33.33)	118 (41.84)	6	2-8
Performance in Examinations	59 (20.92)	102 (36.17)	117 (41.48)	5	2-7
Dissatisfaction with Class Lectures	104 (36.87)	66 (23.40)	103 (36.52)	4	2-5

Non-Availability of Adequate learning material	143 (50.71)	76 (26.95)	62 (21.98)	4	1-5
Becoming a Doctor	108 (38.29)	81 (28.72)	81 (28.72)	8	3-9
Lack of time for recreation	87 (30.85)	112 (39.71)	82 (29.08)	5	2-7
Competition with Peers	127 (45.03)	91 (32.27)	62 (21.99)	7	3-8
Performance in practicals	91 (32.27)	92 (32.62)	97 (34.39)	5	2-6
Lack of special guidance from faculty	96 (34.04)	100 (35.46)	86 (30.49)	4	1-5
<b>Psychosocial Stressors</b>					
High Parental Expectations	109 (38.65)	89 (31.56)	82 (29.08)	5	1-6
Loneliness	132 (46.81)	80 (28.37)	67 (23.76)	4	2-5
Family Problems	170 (60.28)	69 (24.47)	41 (14.54)	3	1-4
Accommodation away from home	142 (50.35)	74 (26.24)	60 (21.28)	5	1-6
Political situation in the country	166 (58.87)	38 (13.48)	76 (26.95)	4	1-5
Relations with the Opposite Sex	163 (57.80)	60 (21.28)	56 (19.86)	5	2-6
Difficulty reading text books	172 (60.99)	69 (24.47)	39 (13.83)	3	1-4
Lack of entertainment in the institution	82 (29.08)	69 (24.47)	128 (45.39)	4	2-5
Difficulty in the journey back home	120 (42.55)	73 (25.89)	87 (30.85)	4	2-6
Quality of food in mess	75 (26.59)	59 (20.92)	140 (49.65)	7	3-8
Financial strain	198 (70.21)	45 (15.96)	37 (13.12)	5	1-7
Inability to socialize with peers	167 (59.22)	65 (23.05)	46 (16.31)	3	2-5
Living conditions in the hostel	129 (45.74)	72 (25.53)	77 (27.30)	5	3-6
Member of fraternity	156 (55.32)	58 (20.57)	63 (22.34)	2	1-3
Lack of personal interest in medicine	210 (74.47)	46 (16.31)	25 (08.87)	2	1-4
Adjustment with	187 (66.31)	55 (19.50)	37 (13.12)	3	1-5

roommates					
<b>Health Related Stressors</b>					
Sleeping difficulties	167 (56.22)	75 (26.59)	37 (13.12)	4	1-5
Class attendance	128 (45.39)	76 (26.95)	75 (26.59)	6	3-7
Nutrition	129 (45.74)	87 (30.85)	64 (22.69)	3	2-5
Exercise	141 (50.00)	66 (23.40)	73 (25.89)	2	1-4
Quality of food in mess	77 (27.30)	59 (20.92)	143 (50.71)	7	3-8
Physical disability	231 (81.91)	29 (10.28)	20 (07.09)	1	1-2
Alcohol/Drug abuse/smoking	233 (82.62)	22 (7.80)	21 (07.45)	1	1-3