

## Awareness of Stress amongst Final Year Dental under Graduate Students in a Dental Teaching Institution in Western India: A Cross Sectional Study

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### Abstract:

**BACKGROUND:** Dentistry involves a procurement of mandatory academic, clinical and interactive assistances throughout the entire phase. It necessitates clinical as well as patient managing assistances enhancing the pressure professed by every students.

**AIM:** A retrospective study was done to detect the stress among the final year [4th year] dental undergraduate students and comparative analysis amongst genders.

**Materials and Methods:** A questionnaire based cross-sectional study was conducted by involving 20 items based on 5-point Likert Scale modified Dental Environmental Stress (DES) questionnaire which was administered to all final year undergraduate dental students of the Institution.

**Results:** Out of the 20 questions, 8 were reported to be "stressful" by >80 % of the students. Of these clinical requirements, academics, exam stress, and insecurity regarding career were the major sources of stress were reported to be "stressful" by >85% of the students.

**Conclusion:** Worries about fulfilling clinical requirements, academics, exam stress, and insecurity regarding career were the major sources of stress reported by the clinical year dental students in the present study.

**Keywords:** academics, clinical, dental students, stress

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### I. Introduction

In worldwide everybody's life is full of stress. Stress is defined as the pattern of specific and nonspecific responses an organism makes to stimulus events that disturb its equilibrium and tax or exceed its ability to cope.<sup>1</sup> In our day to day life everyone is having some stress but anything when it crosses its threshold is harmful. For students attending a school, college or university is a gratifying experience but on the similar condition it is also a significant apprehension and stress for students.<sup>2</sup> Stress may affect students' social, physical, and mental health which may directly or indirectly affects their performance and health.<sup>3-7</sup> Hence, this study was aimed to determine the amount of stress in undergraduate dental students. This data could be essential for institutional changes for the improvement of academic performance and psychological well-being of dental students.

### II. Materials And Methods

A cross-sectional study was conducted by involving 20 items which was based on modified Dental Environmental Stress (DES) questionnaire. After an elucidation of the study's aims, informed consent was given and was duly signed by each student. Final year 69 dental undergraduates, 21 males and 48 female students contributed their presence willingly in the study. This data was collected at the end of their final year for the better judgement. The DES questionnaire is a close-ended questionnaire relating to main provinces as like living accommodation, interpersonal relationship, academic performance, clinical skills and miscellaneous factors.<sup>8</sup> The comebacks to the questionnaire were based on a five-point Likert scale with response options of 1= answers

not attempted, 2= not stressful, 3 = slightly stressful, 4 =moderately stressful, and 5= severely stressful. Ethical clearance was obtained from the Institutional Ethics Committee. The data obtained was tabularized and statistical analysis was performed for the same. ANOVA test was done and as a result of which its f- ratio value came out to be 5.68 and level of significance was set at the p value < 0.05.

### **III. Results**

Out of the 69 final year students, 21 were males and 48 were females with the age group of 20-23 years. The difference in the stress perception between males and females was found to be statistically significant ( $p < 0.05$ ).

This survey was categorized into 5 main groups and the outcome was as following; category 1 included living status which was assessed with 2 questions and in that category, staying with room mates (90%) was found to be more amongst females whereas amongst males it was found to be (48%) followed by lack of homely atmosphere which was 62.5% amongst females and 47.6% amongst males .

In category 2 which was on personal relationship amongst females (77%) found no difficulty in making friends and amongst males 100% no stress .

In category 3 under academic performance, 9 questions were asked. The most stressful condition amongst females was competition for grades (81%) and amongst males, expectation versus reality of dental college(86%) followed by fear of failing a course / year (81%) and uncertainty of the dental career (employment, PG course, clinic set up etc) (81%).

In category 4 under clinical skills, 4 questions were asked. The most stressful condition amongst females was found to be differences in opinion between the clinical staff concerning treatment/s (90%) and males mental attitude was found to be adjustable in all the situations mentioned above.

In category 5 which was based on miscellaneous factors amongst females regarding financial problems the result was found to be (54.1%) and amongst males was more stressful (81%) (Table1).

Out of the 69 students, 8 were testified to be “stressful” by >80% of the students (Table 2). Out of all most stressful amongst males were as following; expectation versus reality of dental college (86%), Fear of failing a course / year (81%), uncertainty of the dental career (employment, PG course, clinic set up etc) (81%), financial problems (81%) and amongst females the most stressful were; staying with room mates (90%), differences in opinion between the clinical staff concerning treatment/s (90%), receiving criticism from staff about work in front of patients (83.3%), competition for grades (81%) (Table2;Graph1).

### **IV. Discussion**

Dental education has shown to be very stressful for students as reported by large number of studies. This study was conducted to evaluate the amount of stress as alleged by the final year dental undergraduate students in a Dental Institution in western India. All the students willingly participated in this study. The Prospectus being followed is as per BDS Undergraduate issued by Dental Council of India. It has been surveyed that final year dental students are under lot of mental pressure due to increased workload including theoretical as well as patient quota work plus attendance and finishing that they have to write exams in eight clinical subjects at the end of the year whereas the students in the first three years of appear for 4 exams only. Nowadays, all over worldwide it has been charted as females are more taking up dentistry.<sup>9</sup> Differences in perceived sources of the stress between male and female students were found to be statistically significant which is similar with a systematic review reported by Alzahem et al. in 2011.<sup>10</sup> and in contrast with the studies done by Harikiran et al Bradley et al.and Heath.<sup>11-12</sup>

In the present study, all the stressful conditions (mild, moderate or severe) were combined obtain a binomial variable concerning the presence or absence of the stress.

Hence, amongst females the most stressful amongst all the categories were staying with room mates (90%), differences in opinion between the clinical staff concerning treatment/s (90%) and amongst males expectation versus reality of dental college (86%) and no questions were left unattempted.

The hostellers under more stress than day scholars as they have to adapt themselves in this new environment, There will be lack of homely environment considering about the good quality of food, cleanliness in hostels lack of frivolous activities.<sup>13</sup> Henceforth, this recommends that there should be improvement in the quality of living and food in hostels and suitable amenities should be available for easing. Staying with roommates found to be most stressful situation in females regarding many adjustments like waking up and sleeping timings, healthy and unhealthy competitions pertaining to studies.

Academics means pertaining to higher education where most commonly first we imagine about our college including its infrastructure, education including theoretical knowledge and clinical skills which was found to be most stressful amongst males. Students most common problem in unavailability of staffs or on their availability there will be several controversies in their opinions. Another important factor would be improper examination schedule in which in all 8 subjects they require proper interval of gaps between each examination

due to such vast literature and after finishing theoretical examinations want certain time for arranging patients too in each departments . If they doesn't perform well that may lead to fear of failure in a course / year, uncertainty of the dental career and will find difficulty in facing their parents/society. It has been observed that there may be too much healthy or unhealthy competition amongst students specially females.

Another section describes about clinical skills and the most stressful factor is getting an ideal case for examination (for example: getting class II with the presence of adjacent teeth also should be there). According to students they should get proper feedback also so they should work on it and improve that where they are lagging as a result of which they will gain confidence in decision making.

### V. Conclusion

Our study concluded that dental students are under higher stress levels during their clinical course and females suffered more than males. In our study, worries about fulfilling clinical requirements, academics, exam stress, and insecurity regarding career were the major sources of stress reported. Training should be given to students for dealing in stressful situations and college should improvise for the betterment of the student.

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### LEGENDS

1. TABLE 1: COMPARATIVE ANALYSIS AMONGST MALES AND FEMALES IN EVERY SECTION
2. TABLE 2: RESULT SHOWING (>80%) AMONGST MALES AND FEMALES
3. GRAPH 1 : COMPARATIVE ANALYSIS AMONGST MALES AND FEMALES (>80%)

QUESTIONS	NO ANS		NO STRESS		MILD STRESS		MODERATE STRESS		SEVERE STRESS	
	M	F	M	F	M	F	M	F	M	F
<b>CATEGORY 1: LIVING STATUS</b>										
1. Lack of home atmosphere	0	0	2(9.5%)	30(62.5%)	5(23.8%)	2(4.1%)	4(19.2%)	3(6.2%)	10(47.6%)	30(62.59%)
2. Staying with room mates	0	0	2(9.5%)	2(4.1%)	2(9.5%)	0	2(14.2%)	33.3%	16(28.59%)	43(90%)
<b>CATEGORY 2: PERSONAL RELATIONSHIP</b>										
3. Difficulty in making friends	0	0	100%	5(77%)	0	2(4.1%)	0	4(8.3%)	0	37(10.49%)
4. Relationship with opposite	0	0	1(4.7%)	(8.3%)	2(9.5%)	03(14.2%)	3(14.2%)	14(59.3%)	7(33.33%)	31(64.5%)

*Awareness of stress amongst final year dental under graduate students in a dental teaching ..*

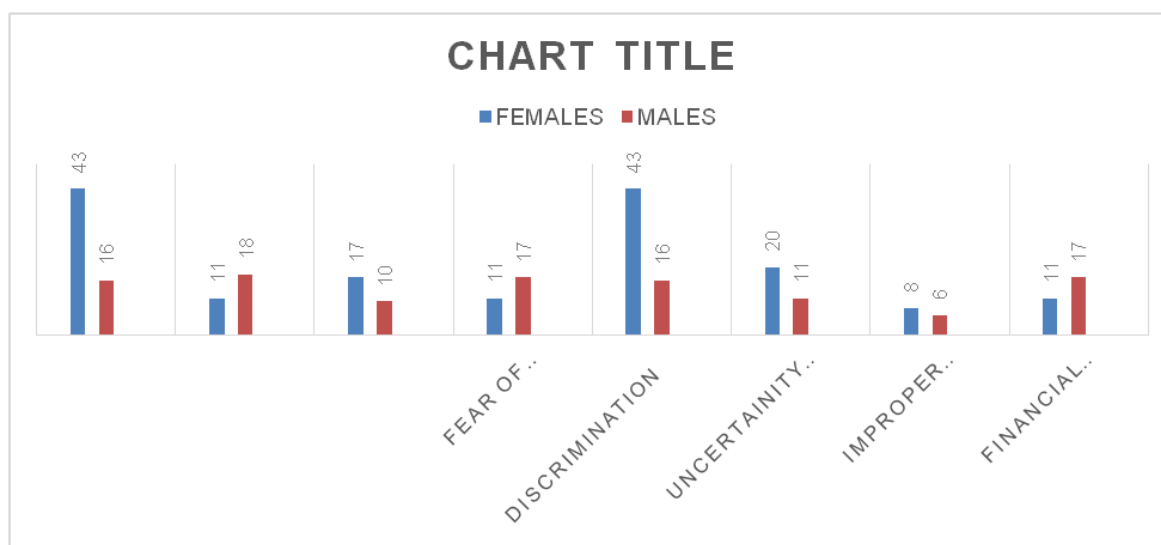
gender										
<b>CATEGORY 3: ACADEMICS</b>										
5. Expectation versus reality of dental college	0	0	1(4.7%)	11(22.9%)	1(4.7%)	0	2(9.5%)	5(41%)	18(86%)	32(66.6%)
6. Inapproachability of staff	0	0	10(47.6%)	31(64.5%)	3(14.2%)	0	5(23.8%)	0	6(28.5%)	17(80.9%)
7. Receiving criticism from staff about work in front of patients	0	0	12(57.4%)	20(41.6%)	2(9.5%)	4(8.3%)	2(9.5%)	4(8.3%)	5(23.8%)	20(41.6%)
8. Rules and regulations of the college	0	0	14(66.6%)	0%	0	0	2(9.5%)	33(68.7%)	5(23.8%)	15(31.4%)
9. Discrimination by gender, religion, social class.	0	0	4(19.04%)	2(4.1%)	1(4.7%)	0	0	3(6.25%)	16(76%)	43(89.5%)
10. Fear of failing a course / year	0	0	3(14.2%)	25(52%)	0	2(4.1%)	1(4.7%)	4(8.5%)	17(81%)	17(35.4%)
11. Uncertainty of the dental career (employment, PG course, clinic set up etc)	0	0	3(14.2%)	25(52%)	1(4.7%)	0	0	3(6.2%)	17(81%)	20(41.6%)
12. Competition for grades	0	0	7(33.3%)	32(66.6%)	1(4.7%)	0	3(14.2%)	5(10.41%)	10(47.65%)	32(66.695%)
13. Improper Examination Schedule	0	0	10(47.6%)	40(83.3%)	2(9.5%)	0	3(14.2%)	0	6(28.5%)	8(16.6%)
<b>CATEGORY 4: CLINICAL SKILLS</b>										
14. Getting an Ideal case for clinical exam	0	0	11(52.3%)	30(62.5%)	4(19.04%)	1(4.7%)	5(23.8%)	6(12.5%)	1(4.75%)	12(25%)
15. Differences in opinion between the clinical staff concerning treatment/s	0	0	14(66.6%)	18(37.5%)	0	0	2(9.5%)	15(31.4%)	5(23.8%)	15(31.4%)
16. Lack of confidence in own clinical decision making	0	0	10(47.6%)	20(41.6%)	1(4.7%)	0	2(9.5%)	8(16.6%)	8(38%)	20(41.6%)
17. Inconsistency of feedback regarding work	0	0	10(47.6%)	30(62.5%)	1(4.7%)	0	1(4.7%)	6(12.5%)	9(42.8%)	12(25%)
<b>CATEGORY 5: MISCELLANEOUS</b>										
18. Inadequate time for	0	0	8(38%)	25(52.5%)	2(9.5%)	5(10.4%)	1(4.7%)	7(14.5%)	10(47.6%)	11(22.9%)

relaxation										
19. Fear of facing parents after failure	0	0	7(33.3%)	20(41.6%)	0	2(4.1%)	1(4.7%)	6(12.5%)	13(61.9%)	20(41.6%)
20. Financial problems	0	0	0	15(31.2%)	0	0	4(19.04%)	7(14.55%)	17(81%)	26(54.1%)

**TABLE 1: COMPARATIVE ANALYSIS AMONGST MALES AND FEMALES IN EVERY SECTION**

S NO.	QUESTIONS	FEMALES (>80%)
2	Staying with room mates	90%
6	Inapproachability of staff	81%
9	Discrimination by gender, religion, social class	81%
13	Improper Examination Schedule	83%
		<b>MALES (&gt;80%)</b>
5	Expectation versus reality of dental college	86%
10	Fear of failing a course / year	81%
11	Uncertainty of the dental career	81%
20	Financial problems	81%

**TABLE 2: RESULT SHOWING (>80%) AMONGST MALES AND FEMALES**



**GRAPH 1: COMPARATIVE ANALYSIS AMONGST MALES AND FEMALES (>80)**

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