



## ANTICIPATED SOURCE OF STRESS AMONG DENTAL COLLEGE STUDENTS DURING COVID 19

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### ABSTRACT

**Background:** Identification of the expected wellsprings of stress is significant in dental instruction program, as it offers freedom to take different measures to forestall pressure in the dental school climate.

The purpose of the present study was to address various sources of stress among dental students during covid 19 pandemic and its relation with gender and year of the study.

**Materials and Methods:** A questionnaire based cross-sectional study was conducted among 3<sup>rd</sup> and 4<sup>th</sup> year students of a dental school. Questionnaire used in the study comprised the modified version of the questionnaire used in Dental Environmental Stress. A four-point Likert scale was used to record the responses from the subjects. A total of 180 subjects participated in the study. The collected data was statistically analyzed by descriptive statistics and Independent t test using SPSS 21.0 version.

**Results:** Among the participants, 22% (40) were males and 78% (140) were females. 72% (130) were from 4<sup>th</sup> year while 28% (50) were from 3<sup>rd</sup> year. Majority of the study population were having fear of failing (64.7%), exam and grade stress (71.8%), stress for completion of clinical quota (71.2%), and stress for clinical set up (61.9%). Mean stress scores were significantly related to gender of students.

**Conclusion:** Prevalence of anticipated source of stress was high among dental student. This study highlight the need to implement a positive learning environment by employing strategies to combat the high levels of stress prevalent in dental schools.

**KEYWORDS :** Anticipated, Stress, Dental student

### INTRODUCTION

Stress is a physical or mental phenomenon created through self-perception of inciting factors, in the wake of associating with one's environmental factors.<sup>1</sup> Stress is experienced by numerous individuals in an assortment of social, scholastic, and work settings. Despite the fact that pressure can be a wellspring of inspiration, overabundance stress can be incapacitating.<sup>2</sup> Extreme degrees of stress may adversely affect the students' learning capacity.<sup>3</sup> Previous studied have reported that 10% of dental students suffered from severe emotional exhaustion, 17% complained about a severe lack of accomplishment and 28% reported severe depersonalisation symptoms.<sup>4</sup> Dental students need to confront the extra pressure of their studies and student life notwithstanding the burdens identified with dentistry as a calling and expanding pressure may result in declining student performance.<sup>5</sup> Significant degrees of stress can bring about mental and additionally actual infirmity, substance abuse, truancy and lessened effectiveness at work or learning<sup>6-9</sup> and is impacted by an individual's arrangement of convictions and mentalities.<sup>10</sup> Dental students experience the ill effects of particularly high levels of pressure even when contrasted and other health professions.<sup>11, 12</sup> All things considered different and extraordinary requests or an absence of assets which surpass the individual's adapting limits can be seen as the source of occupational stress<sup>13</sup>.

In India the course of duration of dentistry is of 5 years which consist 4 year of undergraduate studies and 1 year of internship. Though a few studies have been carried out on exploring the stressors and coping styles of medical and dental undergraduates<sup>14,15</sup>, there is a dearth of work regarding stress sources in Indian undergraduate dental students.

This study had carried out in beginning covid 19 pandemic time .Most of the dental colleges for undergraduates in India was shut down due to lockdown due to which it had affected the academic of students .Since colleges were shut down ,Students were not able to attend clinical posting. Insecurity toward learning of clinical skill can be aggravating factor for stress. There by we need to know source of stress so that this knowledge could be used to institute requisite institutional changes, and encourage the healthy active strategies to combat stress and improve academic performance and psychological well-being of dental students. The aim of the study was to find out anticipated source of stress among 3<sup>rd</sup> year and 4<sup>th</sup> year B.D.S students in private college of north Karnataka.

### MATERIALS AND METHODS

This was a cross sectional study conducted in month of April 2020 to June 2020 among 3<sup>rd</sup> and 4<sup>th</sup> year BDS students aged between 19 to 23 years in private dental collage of north Karnataka.

All the students willing to participate in the study who were in 3<sup>rd</sup> and 4<sup>th</sup> year were included while the students absent on the pre-decided days of the study and students who did not give consent for participation were excluded from the study.

Study population consisted of 3<sup>rd</sup> and 4<sup>th</sup> (final) clinical year undergraduate students of the dental college. A universal sample of all 200 students who were enrolled in these 2 years batches were included in the study and participation in the study was voluntary. The response rate was 90%, therefore, the final sample comprised 180 subjects. A pilot survey was conducted on 10% of the study population to assess the feasibility of the study.

A self-administered paper questionnaire was distributed to the students through online form, as class were being suspended due to lockdown (covid issue). Questionnaire used in the present study comprised the modified version of the questionnaire used in Dental Environmental Stress (DES) survey, which was validated and translated to suit the Indian dental environment.

Finally, 19 items were included in the questionnaire after removing and adding topics. The stressors included in the questionnaire were derived by reviewing the literature. There were six domains in the questionnaire namely academic performance, clinical and patient responsibility, faculty relations, personal issues, accommodation, and professional identity/career. The responses to the items were based on a four-point Likert scale with response options of 1 = not stressful, 2 = slightly stressful, 3 = moderately stressful, and 4 = very stressful. Students were asked to respond to each stressor referring to this scale. The students were given 30 min to complete the questionnaires. They were not allowed to discuss it among themselves during this time.

**STATISTICAL ANALYSIS**

**Table 1: Distribution of various stress in percentage among study population**

	a)Not stressful	Mildly stressful	Moderately stressful	Severely stressful	Total Stress Score
<b>Academics performance stress</b>					
1) Are you stress for the amount of assigned class work?	22.2	31.1	41.1	5.6	57.5
2) Are you stress for the lack of time to do assigned work?	25.6	36.1	25.0	13.3	56.5
3) Do you have fear of failing?	21.1	25.6	26.7	26.47	64.7
4) Do you have exam and grade stress?	14.4	19.4	30.6	35.6	71.8
5) Do you have difficulty in understanding online lecture and you r stressed for it?	24.4	31.1	33.3	11.1	57.7
6) Do you have stress for competition on among classmate?	45.6	26.7	15.6	12.2	48.6
7) Do you have stress for criticism at work?	31.1	28.9	26.7	13.3	55.5
<b>Clinic /patient related stress</b>					
8) Do you fell stress for difficulty in learning precision skill?	20	52.8	19.4	7.8	53.7
9) Do you fell stress for lack of confidence in masking clinical decision?	22.2	51.1	21.1	5.6	52.5
10) Do you have stress for completion of clinical cases/quota?	10	28.9	27.2	33.9	71.2
<b>Faculty/institution related stress</b>					
11) Do you fell stress for atmosphere created by faculty?	26.7	32.8	24.4	16.1	57.7
12) Do you feel stress for communication/approachability of teacher?	38.9	27.8	26.1	7.2	50.4
13) Do you fell stress for lack of cooperation of technical staff?	34.4	34.4	25.0	6.1	50.7
<b>Accommodation /surrounding environment related stress</b>					
14) Do you feel stress because of accommodation environment not conduce for studying?	43.3	27.8	18.9	10.0	48.9
<b>Professional/career related stress</b>					
15) Do you feel stress for lack of confidence to succeed?	34.4	40.0	17.8	7.8	49.7
16) Do you feel stress because of expectation from professional school versus reality?	32.2	33.3	17.8	16.7	54.7
17) Do you feel stress for insecurity consuming dental carrier?	20.0	38.9	26.7	14.4	58.9
18) Do you have unemployment fear?	26.7	26.7	28.9	17.8	59.4
19) Are you stress for clinical setup?	23.3	32.2	17.8	26.7	61.9

Independent sample t test has been applied for the comparison of gender and year of the study. There was no statistically significance association with the year of the study while there was statistically significance with gender. The mean stress score for female was greater than male. (Table2,Table3).

**Table: 2 Comparison with year of study**

	Year	N	Mean	t	p value
Stress score	4 <sup>th</sup> year	130	43.47	0.340	0.734
	3 <sup>rd</sup> year	50	42.80		

**Table: 3 Comparison with gender of study**

	Gender	N	Mean	t	p value
Stress score	Male	40	38.50	-3.024	0.003
	Female	140	44.84		

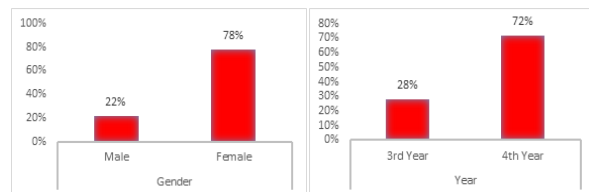
All the variables were entered into a personal computer and analyzed statistically. Results were statistically analyzed using SPSS package version 21.0 .The present study conducted the descriptive statistical analysis. Number and percentages were used to compute results on categorical measurements. .Independent t test was done for comparison of gender and year of study Statistical significance was set at  $P < 0.05$ .Independent t test was done for comparison of gender and year of study

**RESULT**

A total of 180 student participated in this study .22 % ( 40) were male while 78% of study population were female (140). 72% of them were from 4<sup>th</sup> year (130) while 28% were from 3<sup>rd</sup> year (50) (Figure 1).The age range was 20 to 25 years with a mean age of 21.6 years.

Table 1 depict the various type of stresses among study population. Majority of the study population were having fear of failing (64.7%), exam and grade stress (71.8%), stress for completion of clinical quota (71.2%), and stress for clinical set up (61.9%).

**FIGURES AND LEGENDS**



**Figure 1: Distribution of study population according to Gender and Year**

**DISCUSSION**

Dental schooling has demonstrated to be stressful for students as depicted by enormous number of studies. This finding is consistent with place or university<sup>16,17</sup>

Training in dental school consist of clinical procedure, completion of treatment for certain number of specified patients .In addition to it they need to attend lecture and appear for the exam. This overall add up stress to dental students.

This study was done in lockdown period of corona pandemic, where all the universities were closed and students were not able to attend clinical posting as the colleges were shut down and they need to attend online lecture .All this thing had let to add up stress on dental students. The study had shown anticipated source of stress among dental student related to academic, clinic, institution, accommodation and profession. With regard to academic, majority were stress for fear of failing (64.7%), and exam and grade issue(71.8%).It might be because due to lockdown they failed to attend clinical posting and instead of attending classroom lecture ,they need to attend online lecture., all this had anticipated stress on dental student. This was in consideration with the earlier study done by Tegbir Singh Sekhon.(18).Most of the students in this study were stressed related to clinical issue majority percentage had shown stressed due to fear of completion of clinical case quota(71.2%). This finding is supported by earlier literature, where completion of clinical case quota was major factor for anticipating stress among student. Due to this it was found in this study that majority of the subject (61.9%) were stresses for the lack of efficient skill for clinical setup in future.

Independent t Test had been done for gender and year of the study.in year wise it was being seen that data has not shown any statistical significance .It depicted that both 3<sup>rd</sup> and 4<sup>th</sup> year had equal chances for anticipation of stress. While for the gender data had shown statistically, significant difference. Mean stress score for female was greater than male. Female students suffered from higher stress as compared to males. This result was in consideration with the earlier study done in Greek where similar finding was found but it was in agreement with the earlier study done by Tegbir Singh Sekhon (18) where male had depicted more mean stress score. There are several limitation to this study. It include the dependence on self-reported information. And. Nevertheless, the significant findings of this study could be generalized to other similar populations.

## CONCLUSION

Our study confirms the findings of other studies that the prevalence of anticipatory stress is high among dental students. In our study Majority of the study population reported stress for fear of failing, exam and grade stress, stress for completion of clinical quota, and stress for clinical set up. Female students suffered from higher stress as compared to males. Students ought to be shown positive adapting systems and different pressure overseeing strategies to improve the capacity to adapt to the requesting proficient course. An amiable learning climate should be made for better learning with less tension and dread.

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