



## Stress And Burnout Among Dental Students in A Private Dental Institution in Chennai City: Cross Sectional Study

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### ABSTRACT

**Background:** Burnout is defined as a working environment syndrome, characterised by a process of chronic response to occupational stress, when coping methods fail or insufficient, thus having negative consequences both at the individual and professional level. Further affecting the family and social interactions. Aim of the study is to determine the stress and burnouts among dental students.

**Materials And Methods:** A self-administered questionnaire distributed among dental undergraduate and postgraduate students to collect data. Variables measured included demographic characteristics of students and their perceived stress and burnout among dental students. Statistical analysis was performed using SPSS software. Statistical significance was set at 5%.

**Results:** The overall response rate of the survey was 82%. Most of the Respondents were in the 18 to 25 age category, mostly males (n=119) when compared to females. Major problems identified from the survey for stress included the lack of time for relaxation, inadequate breaks during the day, fear of failing a module/ year, work load, first year students experienced the highest degree of stress and burnouts.

**Conclusion:** Levels of stress increased across the academic years and peaked among final-year dental students. Stress and burnouts experienced may impact the students future professional development and needs proper avenues for relaxation and coping mechanisms in place.

**Keywords:** *Stress, Burn out, Dental students, Innovative analysis*

### INTRODUCTION

Burnout is defined as a working environment syndrome characterised by a process of chronic response to occupational stress when coping

methods fail or insufficient, thus having negative consequences both at the individual and professional level and further affecting the family and social interactions.

It is referred to as multidimensional syndrome consisting of emotional exhaustion, dehumanization, and reduced accomplishment at work. (1).

Burnout syndrome is a public health issue due to its physical and mental health issue due to its physical and mental health and social complications for individuals. Burnout is a psychosocial nature, which is one of the most important reasons for academic and work related problems. Initially this syndrome was described in professional terms with an interest with intense and emotional interpretation. However more recently the concept of burnout has been extended to all occupational groups including students.(2).

In general, studies state that research and monitoring of this syndrome from the beginning of the course is of great importance as first symptoms appear. The early detection allows the planning and implementation of preventive measures as well as the use of adequate coping strategies.(3).

A significant aspect of burnout syndrome is increased feelings of becoming emotionally exhausted with other characteristics being the development of a negative cyclical attitude and tendency to evaluate oneself and one's accomplishment negatively.(4). We developed this study taking into account the need for more information on this condition specifically in students in order to enable the development of adequate actions to improve both their quality of life and academic performance.

Our team has extensive knowledge and research experience that has translate into high quality publications(5–13),(14),(15),(16,17),(18),(19),(20–24) Thus, objectives were to verify and characterise the presence of burnout syndrome in a sample of undergraduate and postgraduate students

## MATERIALS AND METHODS

### *Study's Population, Variables And Procedure*

A cross-sectional survey on dental students (N=200) was conducted in february 2021, data was collected by means of a self administered questionnaire using a quantitative approach. The

questionnaire was distributed to students through google forms and completed responses were collected in excel sheets and received by researchers. To characterise the study's population, a socio-demographic questionnaire administered collecting information on age, gender, course year, performance in the course, accommodation, studies financing, Medication intake, thought of giving up, lack of relaxation, treated as immature, worrying about health, fear of failing, overloaded feeling, study load, making mistakes, criticised by teachers, competition between gardes. A clinical dentist provided instructions to students on how to administer the questionnaire. Prior to beginning the study, participants provided their informed consent by reading and approving the objectives of the study and the participants at whom it was targeted. The survey was administered by researchers during free time using google forms.

### *Ethical Aspects*

This study included those students who agreed to the terms of free and informed consent. Ethical approval was granted for the study by the institutional Research Ethics Committee.

### *Statistical Analysis*

Descriptive statistics were conducted to generate summary tables for study variables. A cross-tabulation analysis was performed to examine the distribution of stress and burnouts among dental students with respondents sociodemographic characteristics using chi-squared tests. All data analysis was performed using SPSS 23.0 .p-value <0.05 was considered statistically significant.

## RESULTS

Out of 209 responses, 207 responses were included in the final analysis because 2 responses were incomplete. There were 53.6% males and 46.4% female participants. Mean age of participants was 22 years. Among the participants in the age group 18-20 years, 68.3% were affected by lack of time for relaxation and 47.1% of them felt about giving up the curse. A total of 59.5% of individuals take medication due to studies. While 83.5% of individuals were

financed by their parents for studies. The age group of 26-30 of postgraduates were never tired during their working hours (25.6%).

While 25.6% individuals of age group 21-25 were predominantly affected by worrying about physical health (36.4%) and the other outcomes of stress included increased burnouts due to work (81.83%), frustration due to work (59.96%), feeling worn out at the end of the day (65.7%) and not having enough time for friends and family (81.83%).

The questions analysed the main stress-producing factors, fear of failing a module/ year (55.3%), overloaded feeling due to large number

of modules is about 73%. fear of making mistakes is about 72.8% and fear of competition between grades (56.9%) had a higher response rate.

According to table 1 it was found that the thought of giving up the course among males is high when compared to females, pearson’s chi square test was done, p value is 0.959 which is statistically not significant. According to table 2 it was found that second year students were more suffered with lack of relaxation, pearson's chi square was done, p value is 0.030 which is statistically not significant.

**TABLE 1 :** Comparison of thought about giving up the course among males and females.

		Gender		P
		Female	Male	
Thought about giving up the course	Frequently	6	8	0.959
		42.9%	57.1%	
	Never	45	53	
		45.9%	54.1%	
	Sometimes	45	51	
		46.9%	53.1%	

**TABLE 2:** comparison of lack of time for relaxation and course year

		Course year				P
		First year	Fourth year	Second year	Third year	
Lack of time for relaxation	No	43	5	11	8	0.030
		64.2%	7.5%	16.4%	11.9%	
	Yes	113	5	15	7	
		80.7%	3.6%	10.7%	5.0%	

**DISCUSSION**

The aim of the present study was to determine the stress and burnout risk and to investigate the extent of expectations among young dentists regarding academics and work. Individual risk indication reveals an increasing ratio of first years reporting unfavourable levels of burnouts, stressfulness of work and academics management factors in which reality was experienced to be worse than expected.

With regard to burnout, an interesting aspect of present findings was that data reveal unfavourable tendencies at a more individual

level. The same tendency can be seen in the present study, some dentists fall in the range of very high on emotional exhaustion. It should be noted that very high ranges are based upon clinically validated manual norm scores.(25).

There was also a significant relation between the course year and quitting the course. Also found this relation stating that lower the course year, greater the exhaustion. They justify this fact with the needs of students. Who just came from high school, have to deal with their new reality and to adopt a posture of greater autonomy and responsibility. (26).

However higher scores were found for students from the first and third years. There was a statistically significant difference in the scores regarding professional efficacy, being that men presented lower values.

Found a higher prevalence of burnouts and associated factors in men. Explaining that this might be due to the fact that women seek help and family support more frequently than men do. (27).

The data represented suggests a relation between the components of burnout syndrome and the socio-demographic students variables highlighting the importance of an intervention which considers the work related and psychosocial variables that may influence the appearance of an occupational disease in dental students. The nature of dentistry as a profession provides multiple stress related diseases for the future dentists. (28). Found that dentists with a high risk for burnout also report health complaints and unhealthy lifestyle to greater extent than dentists with low risk for burnouts. There is evidence to suggest that concerns of clinical students are at a higher level compared to dental practitioners. Therefore, the results of this study should be seen and acted upon in the context of education and training of future dentists.

### CONCLUSION

This study found that stress may impact student academic performance and future personal development, motivating a need for invention. There was a significant relation between the burnouts and student performance in the course, intake of medication and existent thought of quitting the course. Stress should be considered one of the occupational hazards for the dental profession.

Students must realise their expectations and attitudes, if they are realistic, achievable or rational. Hence, students should avoid development of such burnout risk factors and even universities and governments should create more professional opportunities for dental graduates.

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