

Influence of Stress among Dental Undergraduate Students

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ABSTRACT

The view of stress, in reality is every now and again, by one's very own personal system of convictions and perspectives. Proficient dental training can be a stressful experience. Assessing the factors impacting student perception, may permit automatic changes intended to improve psychosocial prosperity and academic performance. Stress has various indications which may influence performance and lifestyle of the individual. This was a survey conducted in an online forum, survey planet. It was a questionnaire based survey. A set of 10 questions to assess stress levels experienced by the dental undergraduate students were prepared. The results were obtained and statistically analysed through SPSS software, chi square test was done to check the association and a p value of 0.05 was said to be statistically significant. High stress is recorded in the students due to problem in finishing assigned work on time, fear of failing, criticism to the work, competition between the batchmates ,examination and grades are most common factors that evoked stress in dental undergraduate students.it is important to take care of mental health for the overall well-being of the individual.

keywords: Dental students, stress, undergraduates

INTRODUCTION

Stress has been defined as the psychological and physical state that results when the resources of the individual are not sufficient to cope with the demands and pressures of the particular situation(1). The term "stress" describes external demands (physical or mental) on a person's physical and psychological prosperity(2). Stressors related to dentistry incorporate time and scheduling pressures, overseeing uncooperative patients and the profoundly specialized and intensive nature of work(3)(4)(5)(6). This subsequent pressure can lead to depression, tension, substance abuse, lessened work proficiency, and burnout(7) . The underlying foundations of this pressure may have their origin in the instructive procedure as dental students experience significant levels of stress during training (8) .

The BDS (Bachelor of Dental Surgery) course is a long and frequently burdening course which causes a great deal to experience the ill effects in the students (9). The dental profession is dependent upon stress related disorders along with musculoskeletal problems leading to early retirement (10). This shows stress can significantly influence the physical and emotional wellness of the students (11). In the previous study, conducted by Hoad-Reddick et al,10 inferred that numerous elements prompted dentistry being especially stressful, for example, the combination of time pressure, uncooperative patients, money related issues, staff oversight, and the routine and exhausting work system (12).

Fear of failure is additionally a significant source of stress in dental students. Fear is described as an apprehensive and uncomfortable feeling (13). the character of the dentist/patient relationship is of utmost importance. Patients tend to be calmer when the dentist projects confidence.(5)The most common stressors identified are falling belatedly, technical perfection and also the pain and anxiety of the patients (14).

The fundamental techniques, according to Allan K.H.Pau et al (2003) have been utilized to help stressed students, i.e., diminishing the quantity of stressors and expanding the capacity to adapt to pressure. One strategy includes several components, like reducing fear of failure and workload pressure due to examinations and requirements (15). Another strategy includes coping techniques, like deep breathing exercises and reflective regulation of emotions. Although positive effects are reported for many of the programs, these have mainly been evaluated using subjective self-report measures. There is a need for more research to spot the foremost effective stress management program (16).

The aim of the present study is to assess the influence of stress among dental undergraduate students. It would likewise be valuable for dental instructors to see how levels of pressure and mental unsettling influence may change over the time in which the student is occupied with the educational procedure. This baseline data obtained through this study might allow for programmatic changes that are designed to improve student psychosocial well-being and academic performance.

MATERIALS AND METHODS

This study was conducted in an online setting. A sample size of 50 participants who are studying Bachelor of Dental Surgery(BDS) in Saveetha dental college and hospitals of different gender took part in the survey. The study was approved by the Institutional Review Board. The study was designed to analyse the influence of stress among dental undergraduate students. The questionnaire consists of self-structured standard questions pertaining to the stress experienced by students. The questionnaire was circulated through an online survey portal.

Measures are taken to minimise bias by randomisation of parameters. Questions are pretested. Homogenisation and replication of experiment and cross verification with existing studies were done to improve the quality of the study.

The necessary data which included gender, age, impact on quality of life, activities that lead to different levels of stress were obtained from the responses, Data was recorded in Microsoft Excel and exported to the statistical package of social science for windows (SPSS) version 23.0 and subjected to statistical analysis. P value of 0.05 is considered to be statistically significant. Chi square tests are used for comparison of groups.

RESULTS AND DISCUSSION

The study population had 50 participants out of which 30 are male students and 20 are female students. Male students are more in number because it was a cross sectional questionnaire based study (Table 1).

High stress of 52% is experienced in students in handling the assigned work followed by 42% of the students experienced moderate stress and 6% of the students did not experience stress in handling the work that is assigned (Figure 1). Forty percent of the male students showed moderate stress due to competition between their batch mates followed by 12% of the students showed high stress and 8% showed no stress whereas females experienced high stress due to

competition between their batch mates that is 22% followed by 10% of the students showed no stress and 4% showed moderate stress (Figure 2).

Male students showed higher stress due to examination and grades than females. Males showed high stress of 30% followed by 20% of moderate stress and 10% Male students showed no stress. Whereas 26% of females showed high stress and 14% showed no stress in relation to examination and grades (Figure 3). 18% of the Male students are more stressed about the criticism of their work followed by females which is 14%(Figure 4). Fear associated with failing the course, repetition of year and missing licensing exam , where 40% of the students are very much afraid followed by 20% of the students moderately afraid and 10% are not afraid (Figure 5).

Seventy six percent of the students experienced problems in finishing the work in a given time whereas the remaining 24% did not experience problems in finishing the assigned work (Figure 6). Thirty four percent of the students used to play sports and other groups had a habit of doing exercise and yoga followed by 24% of the students listening to music and 6% of the students watching TV to reduce the stress levels (Figure 7).

This study was conducted to assess the stress faced by the dental undergraduate students in Saveetha dental college and hospital in Chennai, Tamil Nadu, India. It is recognised that dentistry is associated with a stressful environment (17)(18). 52% of the students found to experience high stress due to the amount of assigned work. Students in clinical years had higher levels of stress when compared to other years and other related academic performances like examinations and grades, competition between the batchmates, fear of failing, repeating the course was found to be a major stressor for students and this is in support with previous studies(19).

Competition between batch mates in association with gender was found to be statistically significant($p=0.005$), this may therefore apply to all the students in general. This result may be also due to the difference in study population, management skill of individuals contribute towards stress perceived by students. Examination and grades are shown as high stressors for the

students this is in accordance to the present study. In addition to this a negative association between stress and academic performance of dental students also reported in the previous studies which goes in hand with the present study(20)(21).

Fear of failure has been found to be the most important factor to evoke stress. This result was significantly seen in the present study (22). Since the perception of stress is frequently influenced by cultural factors. Lack of time in finishing the work is the major problem reported by the students in the present study; these findings were in agreement with previous studies(6). Criticism of the work is of major concern in the present study which causes stress in the students. Other investigative studies reported that there is decrease in the performance of the student due to criticism of their work which is similar to the present study(23)

In this survey the limitations included due to less quantitative data. Geographic limitations of the survey which are limited only to the particular college. In future study can be done involving a large number of participants from different ethnicities for better results. Research should focus on improving quality and addressing new questions such as mechanism, developmental time factor and relevance of risk factors due to stress. Thus the survey serves as evidence and adds to the consensus.

	Number of participants	Percentage
Gender		
Male	30	60%
Female	20	40%

Table 1: Gender distribution of study population

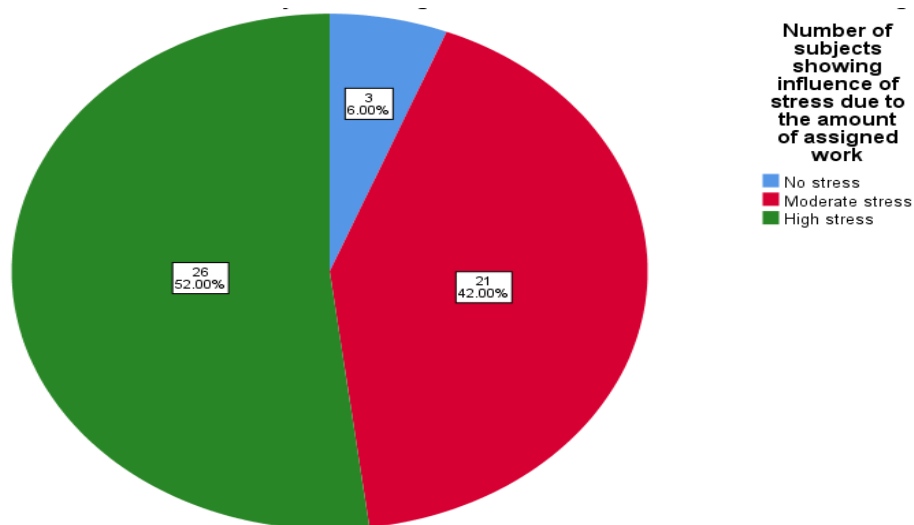


Figure 1: Pie chart showing frequency and percentage distribution of influence of stress due to the amount of assigned work. Blue colour denotes no stress, red colour denotes moderate stress and green colour denotes high stress. 52% of the students experienced high stress due to the amount of assigned work.

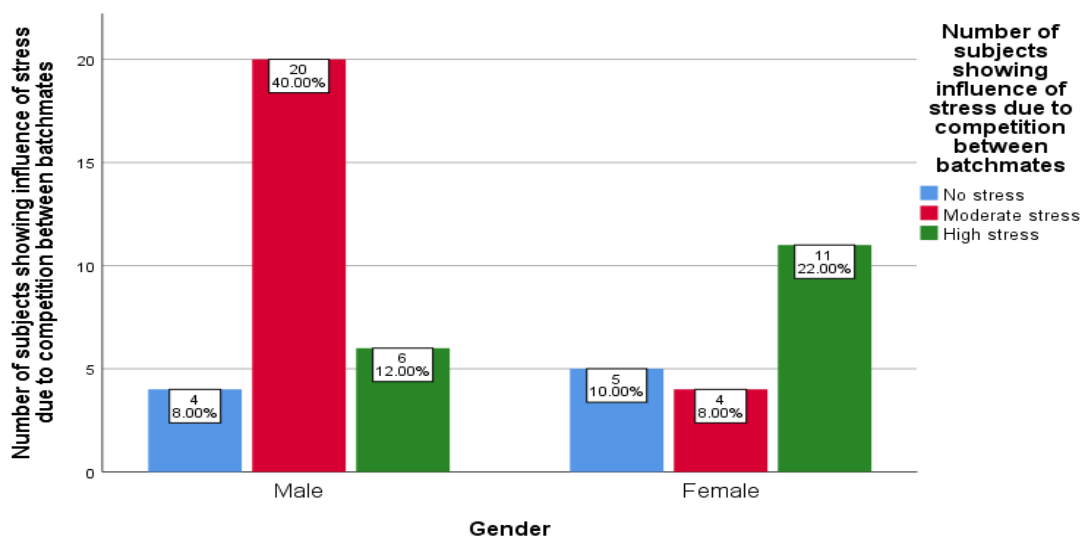


Figure 2: Bar chart showing the association between gender and influence of stress due to competition between batchmates. X axis represents gender and Y axis represents Number of subjects showing influence of stress due to competition between the batchmates. Blue colour denotes no stress, red colour denotes moderate stress and green colour denotes high stress. Female students(22%) are more prone to high stress due to competition between their batchmates

than male students(12%). Chi square test was done and association was found to be statistically significant. Pearson chi square, p value = .005($p < 0.05$ statistically significant).

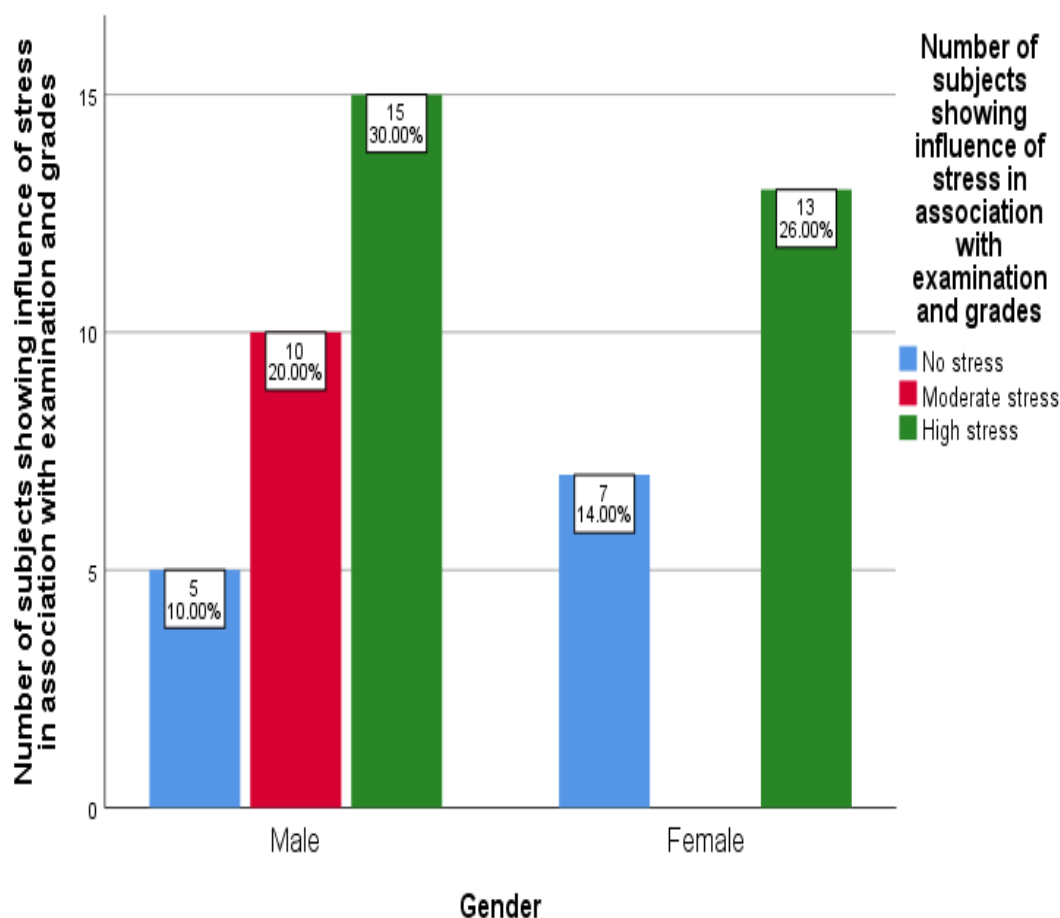


Figure 3: Bar chart showing the association between gender and influence of stress in association with examination and grades. X axis represents gender and Y axis represents Number of subjects showing influence of stress in association with examination and grades. Blue colour denotes no stress, red colour denotes moderate stress and green colour denotes high stress. Male students are more prone to stress in association with examinations and grades than female students. Chi square test was done and association was found to be statistically not significant. Pearson chi square, p value = .012($p > 0.05$ statistically not significant).

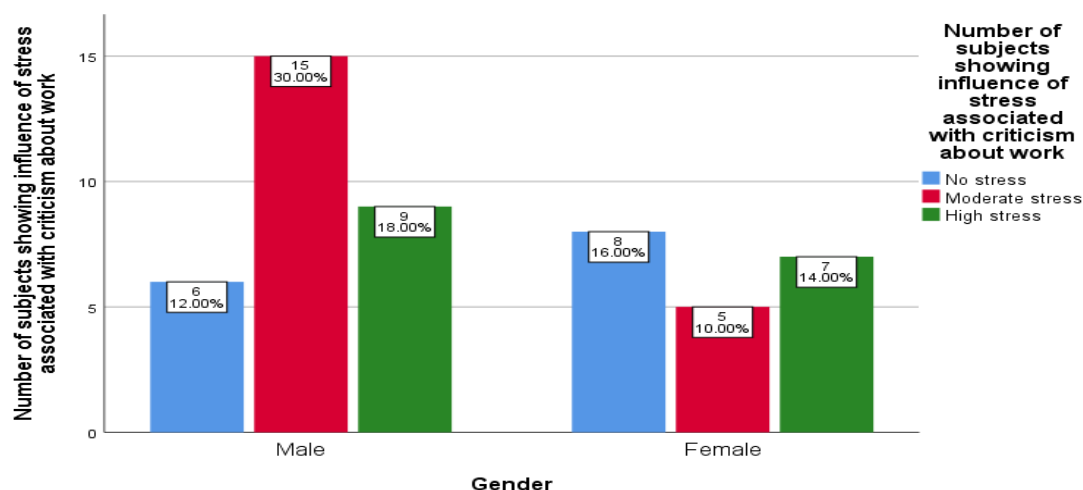


Figure 4: Bar chart showing the association between gender and influence of stress in association with criticism about work. X axis represents gender and Y axis represents Number of subjects showing influence of stress in association with criticism about work. Blue colour denotes no stress, red colour denotes moderate stress and green colour denotes high stress. Male students are more prone to stress in association with criticisms about work than female students. Chi square test was done and association was found to be statistically not significant. Pearson chi square, p value = .159 ($p > 0.05$ statistically not significant).

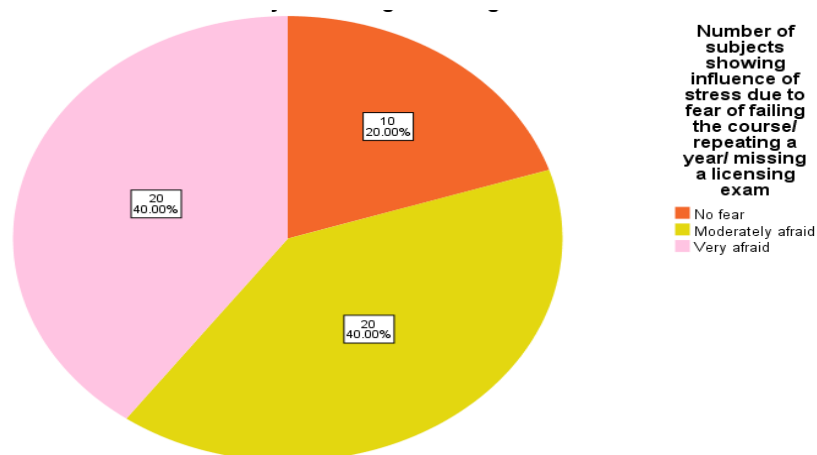


Figure 5: Pie chart showing frequency and percentage distribution of influence of stress due to fear of failing the course/repeating a year/missing licensing exam. Orange colour denotes no fear, yellow colour denotes moderately afraid and light pink colour denotes very afraid. Equal

percentages (40%) of the students are moderately and very much afraid of failing the course/repeating the year/missing licensing exam.

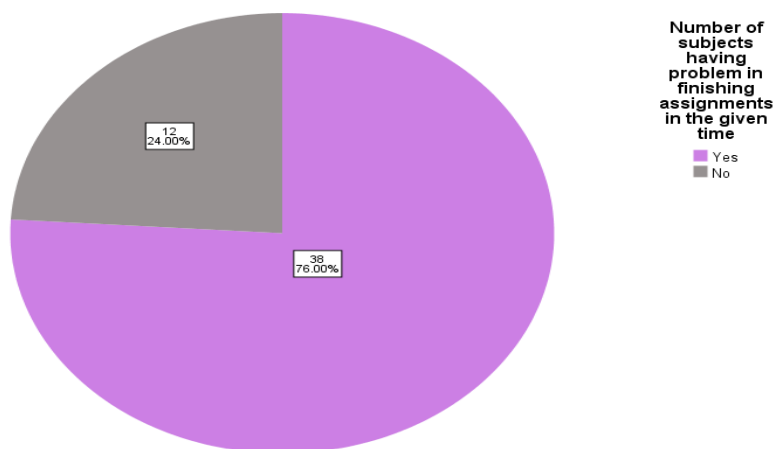


Figure 6: Pie chart showing frequency and percentage of students who are facing problems in finishing the assignments in given time. Purple colour denotes yes and grey colour denotes no. 76% of the students are facing problem in finishing assignments in a given time.

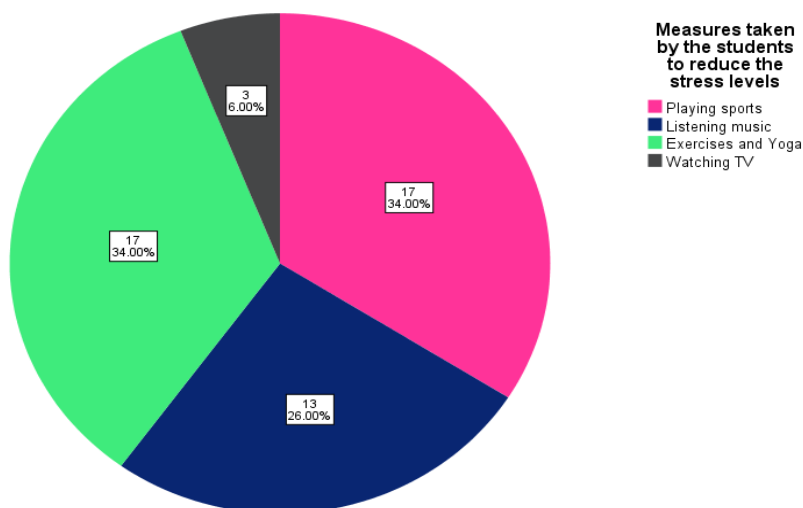


Figure 7: Pie chart showing frequency and percentage distribution of students who took measures to reduce the stress levels. Dark pink colour denotes playing sports, navy blue colour denotes listening music, light green colour denotes exercises and yoga and black colour denotes watching

tv. 34% of the students reported that playing sports and exercise ,yoga had reduced their stress level.

CONCLUSION

Within the limitations of the study, high stress is recorded in the students due to problems in finishing assigned work on time, fear of failing, criticism to the work, competition between the batchmates ,examination and grades are most common factors that evoked stress in dental undergraduate students. The dental students are combating stress by involving them in sports, exercises and yoga and other activities. It is necessary to take care of mental health for the overall well-being of the individual.

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CONFLICTS OF INTEREST

None declared.

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