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## ORIGINAL RESEARCH

### Assessment of Stress Level in Dental Students- A Longitudinal Study

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#### ABSTRACT:

**Background:** Stressors associated with dentistry include time and scheduling pressures etc. The present study was conducted to determine stress among dental students. **Materials & Methods:** The present study was conducted on 462 dental students of both genders. Stress was measured using a modified dental environment stress (DES) questionnaire which consisted of questions applicable to the Indian dental education background. The mean score of all subjects were recorded. **Results:** Maximum students were seen in BDS 2<sup>nd</sup> year with 70 males and 80 females followed by BDS 1<sup>st</sup> year with 65 males and 75 females, BDS 3<sup>rd</sup> year with 35 males and 42 females and BDS 4<sup>th</sup> year with 40 males and 42 females. The mean score of lack of home atmosphere was 2.45, making new friends was 3.28, rules and regulation was 2.42, behavior of teaching staff was 3.56, financial resources was 3.11, dependences (smoking/ alcohol) was 1.56 etc. The difference was non- significant ( $P > 0.05$ ). **Conclusion:** Dental students have high stress level. The most common stress was uncertainty about the dental carrier.

**Key words:** Dental students, financial, Stress.

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#### INTRODUCTION

The term "stress" describes external demands (physical or mental) on an individual's physical and psychological wellbeing. Stressors associated with dentistry include time and scheduling pressures, managing uncooperative patients and the highly technical and intensive nature of work.<sup>1</sup> This resulting stress can lead to depression, anxiety, substance misuse, absenteeism; diminished work efficiency, and burnout. The roots of this occupational stress may have their origin in the educational process as dental students experience high levels of stress during training.<sup>2</sup> The perception of stress, in fact is frequently by one's personal system of beliefs and attitudes. These self-cognitions mediate the perceived stressor and consequent student behavior. Self cognitions associated with control and self efficacy tends to lower stress and distress levels resulting in improved academic performance.<sup>3</sup>

The most commonly cited stress-ors are gender, year of study, marital status, first choice of admission, financial problems, living arrangement, examinations and grades, workload, and patients.<sup>4</sup> The fee for the studying dentistry is the highest for any undergraduate programme next to medicine and although there is a high burden of disease in the country, there are currently few job opportunities in India. The Depression, Anxiety and Stress Scale (DASS-21) measures the three dimensions of these psycho-logical conditions in a single, concise and comprehensive scale.<sup>5</sup> The present study was conducted to determine stress among dental students.

#### MATERIALS & METHODS

The present study was conducted in the department of Community dentistry. It comprised of 462 dental students of both genders. All were informed regarding the study.

Ethical approval was obtained from institute prior to the study. General information such as name, age, gender etc. was recorded. Stress was measured using a modified dental environment stress (DES) questionnaire which consisted of questions applicable to the Indian dental education

background. The response for each question was based on a Likert scale with response option of 1- not stressful, 2- slightly stressful, 3- moderately stressful, and 4- severely stressful. The mean score of all subjects were recorded. Results thus obtained were subjected to statistical analysis. P value less than 0.05 was considered significant.

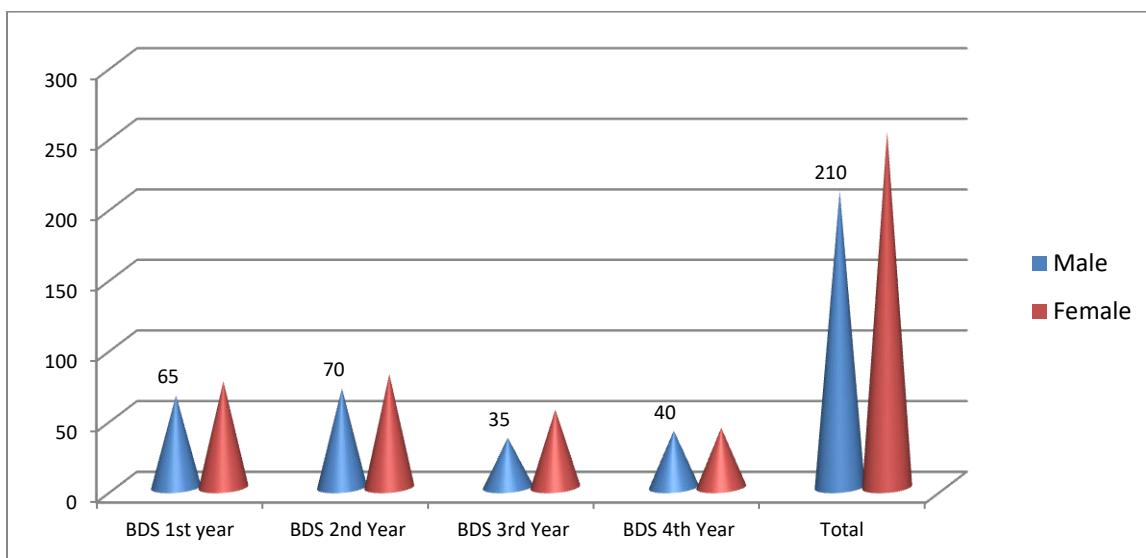
**RESULTS**

**Table I Distribution of subjects**

Year	Male	Female
BDS 1 <sup>st</sup> year	65	75
BDS 2 <sup>nd</sup> Year	70	80
BDS 3 <sup>rd</sup> Year	35	55
BDS 4 <sup>th</sup> Year	40	42
Total	210	252

Table I shows that maximum students were seen in BDS 2<sup>nd</sup> year with 70 males and 80 females followed by BDS 1<sup>st</sup> year with 65 males and 75 females, BDS 3<sup>rd</sup> year with 35 males and 42 females and BDS 4th year with 40 males and 42 females.

**Graph I Distribution of subjects**

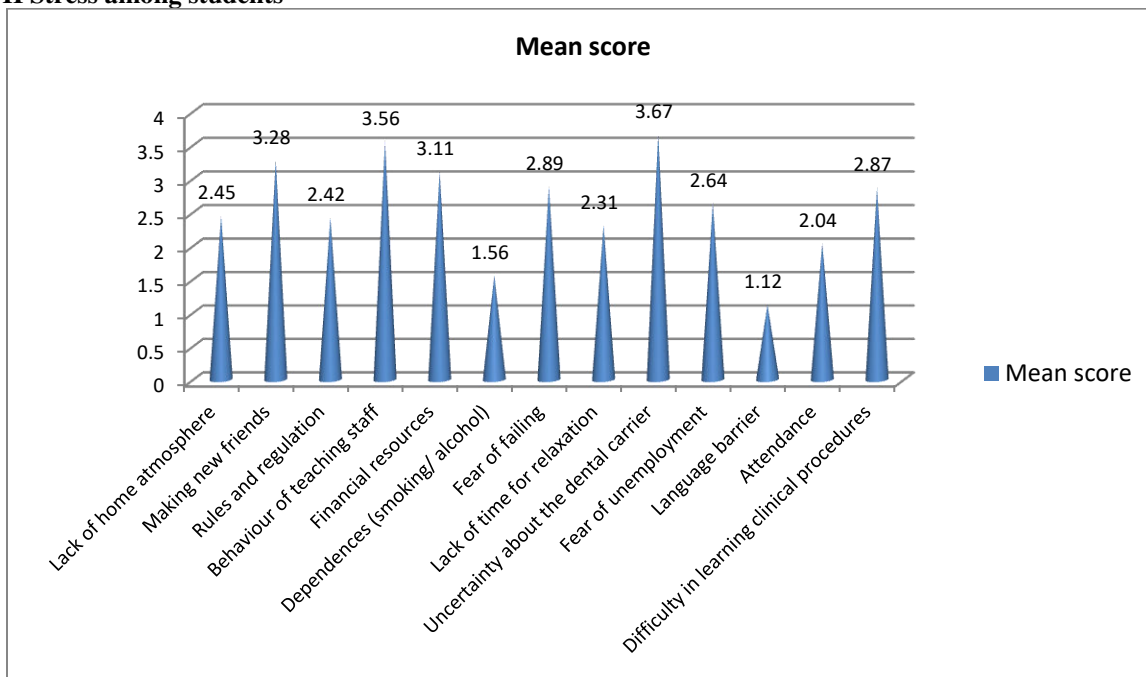


**Table II Sources of stress among students**

Items	Mean score	P value
Lack of home atmosphere	2.45	0.52
Making new friends	3.28	
Rules and regulation	2.42	
Behaviour of teaching staff	3.56	
Financial resources	3.11	
Dependences (smoking/ alcohol)	1.56	
Fear of failing	2.89	
Lack of time for relaxation	2.31	
Uncertainty about the dental carrier	3.67	
Fear of unemployment	2.64	
Language barrier	1.12	
Attendance	2.04	
Difficulty in learning clinical procedures	2.87	

Table II, graph II shows that mean score of lack of home atmosphere was 2.45, making new friends was 3.28, rules and regulation was 2.42, behaviour of teaching staff was 3.56, financial resources was 3.11, dependences (smoking/ alcohol) was 1.56, fear of failing was 2.89, lack of time for relaxation was 2.31, uncertainty about the dental carrier was 3.67, unemployment fear was 2.64, language barrier was 1.12, attendance was 2.04 and difficulty in learning clinical procedures was 2.87. The difference was non-significant ( $P > 0.05$ ).

**Graph II Stress among students**



**DISCUSSION**

In India, the duration of the Bachelor of Dental Surgery programme is of four calendar years with progression examination at the end of each year, followed by 1 year paid rotatory internship in dental colleges and is governed by the Dental Council of India.<sup>6</sup> During the first 2 years of graduation, students are taught basic science and liberal arts whereas the later years are dedicated for imparting clinical education.<sup>7</sup> Professional education, especially medicine, dentistry, and technical education, is held in very high esteem. Parents who cannot fulfill their dreams of professional education try to fulfill it through their children. In many cases, the children are forced by their parents to pursue a career that is not of their choice.<sup>8</sup> The present study was conducted to determine stress among dental students.

In this study, maximum students were seen in BDS 2<sup>nd</sup> year with 70 males and 80 females followed by BDS 1<sup>st</sup> year with 65 males and 75 females, BDS 3<sup>rd</sup> year with 35 males and 42 females and BDS 4<sup>th</sup> year with 40 males and 42 females. Polychronopoulou et al<sup>9</sup> investigated perceived sources of stress on dental students and the role of parents in their career choice decisions. A total of 304 undergraduate students constituted the study population. Of the respondent, 60% were men and 40% were women. The final year students presented with higher stress scores. In

gender comparison, men suffered more stress (62.9%) than women (60.1%). According to the career choice decision, students forced by parents had more perception of stress (69.0%) and the students staying in the hostel (62.7%) showed more perception of stress than day scholars (56.3%).

We found that mean score of lack of home atmosphere was 2.45, making new friends was 3.28, rules and regulation was 2.42, behaviour of teaching staff was 3.56, financial resources was 3.11, dependences (smoking/ alcohol) was 1.56, fear of failing was 2.89, lack of time for relaxation was 2.31, uncertainty about the dental carrier was 3.67, unemployment fear was 2.64, language barrier was 1.12, attendance was 2.04 and difficulty in learning clinical procedures was 2.87.

Sanders et al<sup>10</sup> found that abnormal levels of depression, anxiety and stress were identified in 55.9%, 66.8% and 54.7% of the study participants, respectively. A multiple linear regression analysis revealed multiple predictors: gender, satisfaction with faculty relationships satisfaction with peer relationships, and dentistry as the first choice for field of study. The standardized coefficients demonstrated the relationship and strength of the predictors for each subscale. To cope with stress, students engaged in various activities such as reading, watching television and seeking emotional support from others.<sup>11</sup>

## CONCLUSION

Dental students have high stress level. The most common stress was uncertainty about the dental career.

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