

## INCIDENCE OF ORAL STRESS ULCERS AMONG DENTISTRY STUDENTS

<sup>1</sup>Charanya S. and <sup>2</sup>\*Dr. Vasugi Suresh<sup>1</sup>Undergraduate Student, Saveetha Dental College, Chennai, India.<sup>2</sup>Dept of Physiology, Priyadarshini Dental College and Hospital, Pandur, Thiruvallur, India.

\*Corresponding Author: Dr. Vasugi Suresh

Dept of Physiology, Priyadarshini Dental college and Hospital, Pandur, Thiruvallur, India.

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## ABSTRACT

**Introduction:** Mouth ulcers are small, painful lesions that develop in the mouth or at the base of gums. They can make eating, drinking and talking painful. Stress, anxiety and depression are the most common causes of oral ulcers among dentistry students as they more likely tend to bite their cheeks and lips when anxious or stressed causing trauma to mouth and eventually leading to the development of oral stress ulcers. **Aim:** To evaluate the occurrence of oral stress ulcers among dentistry students during their course tenure. **Materials and Methods:** An online survey was conducted among dentistry students across various dental colleges using a questionnaire. The questions were related to the frequency of occurrence of oral stress ulcers during their course tenure. A total of 15 questions were included. **Results:** 86.8% of the students have experienced the occurrence of oral stress ulcers more than twice during their course tenure, 10.2% of the students have experienced the occurrence of oral stress ulcers only twice during their course tenure and 2.68% of the students have experienced the occurrence of oral stress ulcers only once during their course tenure and 0.32% of the students seem to have not experienced the occurrence of oral stress at all. **Conclusion:** The high occurrence of oral stress ulcers among dentistry students highlights the importance of providing support programs and implementing preventive measures to help students, particularly those who are most susceptible to higher levels of these psychological conditions.

**KEYWORDS:** Stress, oral ulcers, dentistry, mucous membrane.

## INTRODUCTION

A mouth ulcer is the loss or erosion of part of the delicate tissue that lines the inside of the mouth (mucous membrane). There are multiple causes, the most common cause is stress. Other causes include medications, rashes, viral, bacterial and fungal infections, chemicals and rarely, malignancy.<sup>[1]</sup>

Stress, depression and anxiety are found as the most common cause of oral ulcers among health care students, especially in dentistry. Several studies have been carried out subjecting stress and how it affects undergraduate students.<sup>[2]</sup> The dentistry curriculum demands that students obtain theoretical knowledge and clinical practice skills in parallel, including patient care and understanding. The theoretical material that students are required to learn over a short amount of time is immense.<sup>[3]</sup>

All these factors help illustrate why dental education is considered such a stressful environment. Hence this leads to the occurrence of oral stress ulcers among dentistry students during their course tenure. The persistence of these problems may lead to further physical and psychological complications that might

continue after graduation resulting in unhealthy dentists or early retirement and thereby affecting the quality and quantity of workforce.<sup>[4]</sup>

## MATERIAL AND METHODS

The study was conducted among the dentistry students of various colleges. A questionnaire was prepared in google forms. The ethical approval was obtained from SRB, Saveetha Dental College and Hospital.

A simple random sampling was done. The questionnaire was sent to students of various colleges. None of the students were forced to fill the questionnaire.

164 responses were received from students (82 boys and 82 girls) from various colleges.

## RESULTS

Based on the 164 responses that was received the following results were generated:

Figure 2 shows that 96.68% of the dentistry students have experienced oral stress ulcers at least once during their course tenure and 3.32% of the students have not experienced oral stress ulcers even once during their course tenure. Figure 3 shows that 88.4% of the total 82

girls who participated in the survey have experienced oral stress ulcers during their course tenure and 73.6% of the total 82 boys who participated in the survey have experienced oral stress ulcers during their course tenure.<sup>[5]</sup>

Figure 4 shows that 86.8% of the students have experienced oral stress ulcers more than twice during their course tenure, 10.2% of the students have experienced oral stress ulcers only twice during their course tenure, 2.68% of the students have experienced oral stress ulcers only once during their course tenure and 0.32% of the students seem to have not experienced the occurrence of oral stress ulcers at all. Figure 5 shows that 64.2% of the students experience oral stress ulcers right before exams, 35.5% of the students experience oral stress ulcers right before clinical cases 0.2% of the students experience oral stress ulcers before theory classes. Figure 6 shows that final year students experience the highest incidence of oral stress ulcers.<sup>[6]</sup> Figure 7 shows that 75.7% experience oral stress ulcers that are small, 15.9% of the students experience oral stress ulcers are large and 8.4% of the students experience oral stress ulcers that occur as multiple small ulcers in group. Figure 8 shows that 91.3% of the students do not take any medication or treatment for stress induced oral ulcers and 8.7% of the take medication or treatment for stress induced oral ulcers.

#### Figure I: Questionnaire

1. Name:
2. Age:

3. Sex:
4. Ph no and Email id:
5. Year of Study:
6. Have you experienced oral stress ulcers?
  - Yes
  - No
7. How many times have you experienced oral stress ulcers till now?
  - Once
  - Twice
  - More than twice
  - Never
8. When do you experience the most?
  - Exams
  - Cases
  - Class
9. When do you experienced highest incidence of oral mouth ulcers?
  - First year
  - Second year
  - Third year
  - Fourth year
10. What type of ulcer you experienced?
  - Small
  - Large
  - Multiple small ulcers in groups
11. Have you taken any medication or treatment for the oral mouth ulcers?
  - Yes
  - No

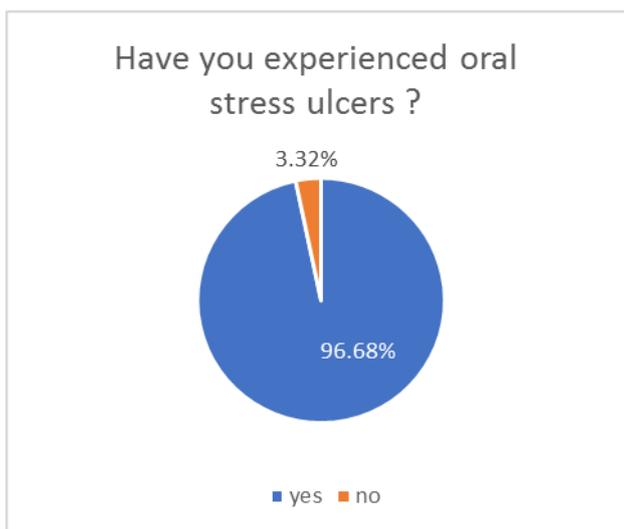


Figure II: Percentage of students who experienced oral stress ulcers

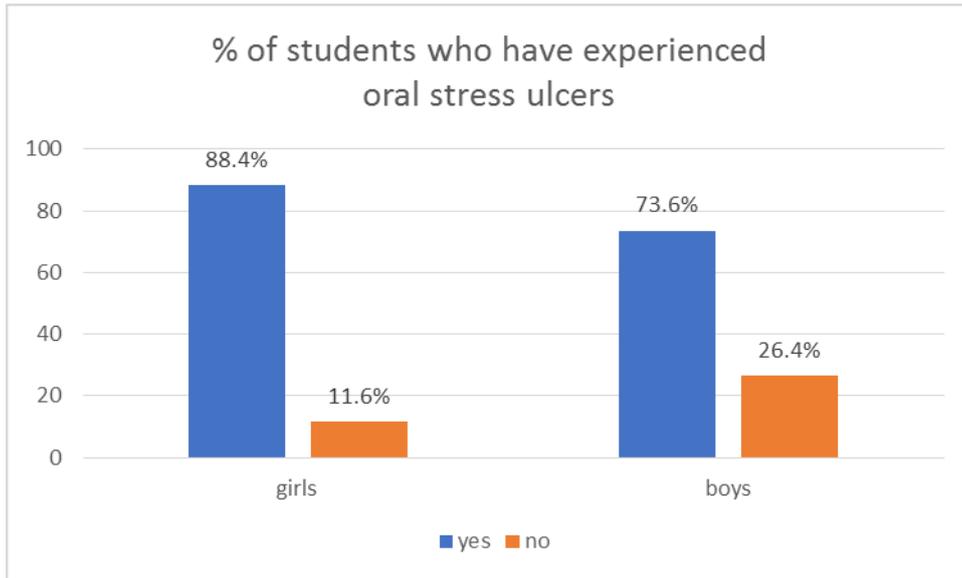


Figure III: Percentage of boys and girls with experience of oral stress ulcers

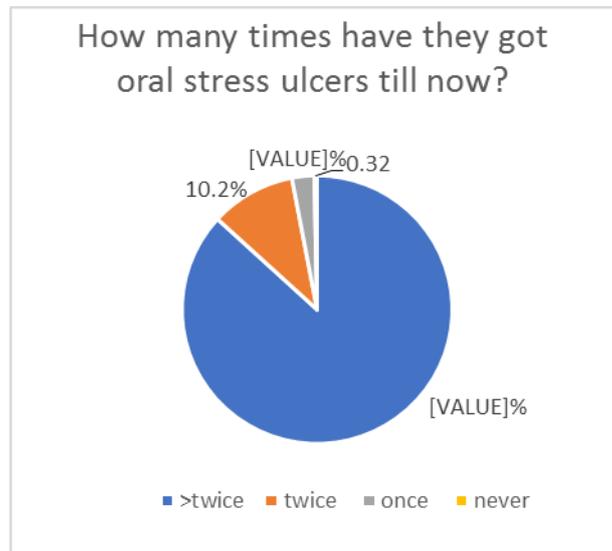


Figure IV: Frequency of oral stress ulcers experienced by students

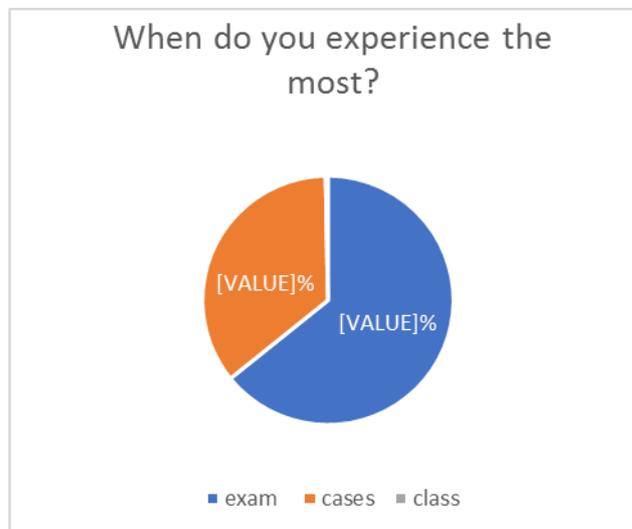
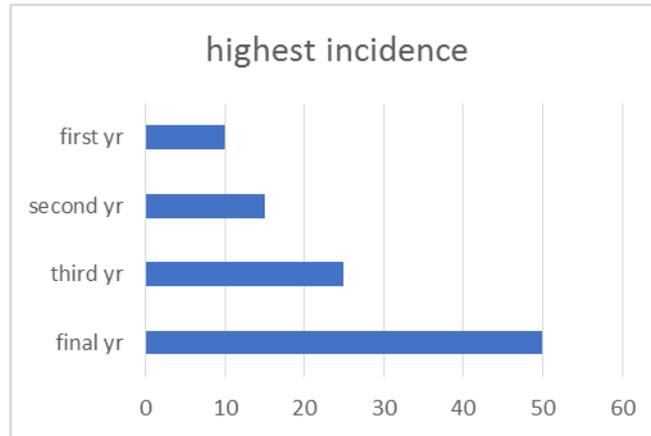
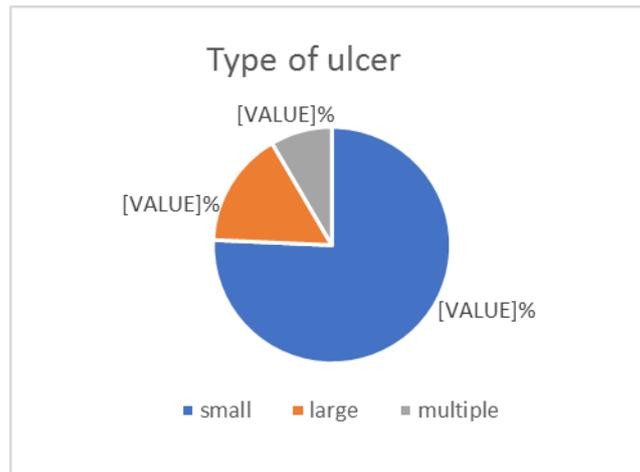


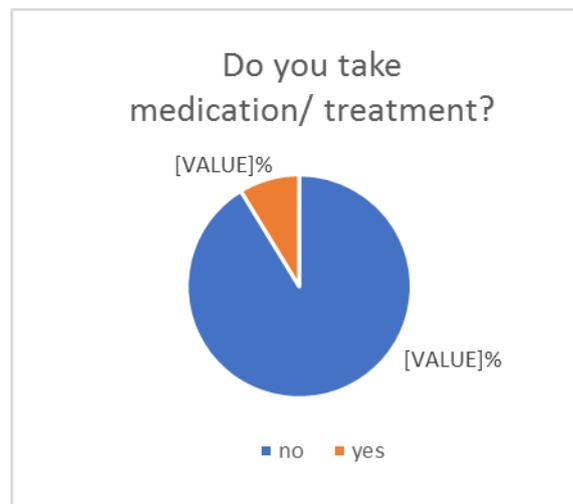
Figure V: Period of oral stress ulcers experienced by Dental students.



**Figure VI: Incidence of oral stress among different year Dental students**



**Figure VII: Type of ulcer.**



**Figure VIII: percentage of students with medication/ treatment.**

**DISCUSSION**

As interpreted from the results students who have reported the occurrence of oral ulcers seem to have experienced the ulcers without any physical stimulation i.e., cheek biting or lip biting hence it is evident that they are stress induced oral ulcers.<sup>[7]</sup>

Girls seem to experience oral stress ulcers more than the boys by 14.8% due to hormonal and immune system changes. Majority of the students experience oral stress ulcers right before the exams as they more likely tend to bite their cheeks and lips when anxious or stressed causing trauma to the mouth and eventually leading to the development of oral stress ulcers.<sup>[8]</sup>

Final year students experience higher incidence of oral stress ulcers due to the dentistry curriculum that demands students to perform irreversible procedures often on fearful patients.

It is also evident that students who have crowded teeth or sharp canines and incisors seem to experience oral stress ulcers more often than students without any crowding because mal alignment seem to aggravate and increase the frequency of occurrence.<sup>[9,10]</sup>

Majority students do not prefer taking any medication or treatment for oral stress ulcers, while a very few students (8.7%) prefer taking medication such as ointments.

The Hawthorne effect or the observer effect is a common factor with all surveys and hence not a major parameter to be considered.

The results of this survey are based on 164 responses. Sample size can be increased to generalize the findings among dentistry students.

Improving learning environment, assigning academic advisors and clinical instructors, modifying curriculum and recruiting faculties based on feedback from the student community are some of the possible interventions that could be brought into practice.<sup>[11]</sup>

## CONCLUSION

The data obtained from the study indicates the necessity to increase awareness among students and faculty about the physical and psychological signs and symptoms of anxiety and depression in order to increase the efficiency of dentistry students by introducing appropriate interventions and better preventive measures.

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