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Problems Encountered By Dental Students In Understanding Oral Histology And Dental Anatomy - A Survey

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ABSTRACT:

Background: Dentistry is a innovative branch of medicine that consists of the study, diagnosis, prevention and treatment of diseases, disorders of the oral cavity and maxillofacial region. Though the knowledge of anatomy and histology are essential for dental practice, dental students perceive oral histology as less significant for their career and more challenging to learn . At a depth of learning of oral histology supports a better understanding and helps in diagnosing and treating cases

Aim: To evaluate and analyse the problems encountered by dental students in understanding oral histology and dental anatomy.

Methods: Cross sectional study was conducted among dental students in a private institution in Chennai. Online platform (Google forms) was used to distribute the questionnaires. Data analysis was performed with SPSS software using chi square and crosstabs.

Results: In this study, dental students are aware of both the subjects but then 74% of the students understand while 26% of the students do not understand oral histology. 74.3% of the students are interested while 25.7% are not interested in learning oral histology. 75.2% are attentive while 24.8% are not attentive when oral histology class is going on. 83.8% are satisfied by the teaching skills while 16.2% are not satisfied with the teaching skills of the staff. 30.2% found it easy, 57.5% found it manageable and 7.5% found dental anatomy hard. 75.5% are interested while 24.5% of the students are not interested in dental anatomy.bChi-square was made and p value <0.05 was considered statistically significant.

Conclusion: Students have encountered problems in facing oral histology and dental anatomy. If proper measures and change in the curriculum takes place there is a possibility of inculcating interest in the subjects and making the students understand and learn in a better way.

Keywords: Oral histology, dental anatomy, Oral pathology and innovative

INTRODUCTION:

Dentistry is a branch of medicine that consists of the study, diagnosis, prevention and treatment of diseases, disorders of the oral cavity and maxillofacial region (1). Students are the key participants in the dental education field as they are the future citizens benefitting from the course (2). Dental staff or the dental mentors are most importantly likely to ensure a positive impact or knowledge among dental students (3)(4). The key concern in dental education is to strengthen the skills of the students and ability to transform the students to become more knowledgeable graduates (5).

Oral Histology touches on the development and growth of teeth and oral cavities, as well as the structure and development of salivary glands and more (6). Though the knowledge of anatomy and histology are essential for dental practice, dental students perceive oral histology as less significant for their career and more challenging to learn. At a depth of learning of oral histology supports a better understanding and helps in diagnosing and treating cases(7).

Dental Anatomy is a field of anatomy dedicated to the study of human structures (8). The development, appearance and classification of teeth fall in its purview(9). Tooth formation begins before birth, and teeth's eventual morphology is dictated during this time (10). Dental anatomy is a taxonomical science: it is concerned with the naming of the tooth and the structures of which they are made are used in the dental treatment(11). Dental anatomy and oral histology need significance in their own terms in the field of dentistry in academic as well as in clinical life (12).

This survey is conducted to acknowledge the actual enigma of the dental students in understanding oral histology and dental anatomy. By understanding normal mouth and tooth development and recognizing abnormal conditions it would be easy to maintain oral hygiene and spot the early warning signs of the problems or diseases. By understanding how teeth evolve and erupt over time we can develop superior techniques to prevent caries and dental problems in advance. The aim of the study is to evaluate and analyse the problems encountered by dental students in understanding oral histology and dental anatomy.

MATERIALS AND METHODS:

A descriptive cross sectional study was conducted among dental students in a private dental institution in Chennai. Questions related to oral histology and dental anatomy were made into a questionnaire with 15 questions. The sample was reliable and easily accessible. The study cannot be generalised over a population of a particular geographical area. The questionnaire was circulated among dental students perceiving different years of education. A convenience sampling method was used, owing to study design sampling bias cannot be totally avoided.The participation of the subjects was kept voluntary and nobody was not obligated to fill the form. Questions were answered with "yes" or "no" or by marking the correct responses.A total of 147 responses were recorded, and the responses were analysed and incomplete forms were identified and then removed from analysis. Data was verified by the

guide. The data was collected and statistically analysed with the help of SPSS software. Chi square test was used for statistical analysis and p value less than or equal to 0.05 was considered statistically significant.

RESULTS:

31.13% responded were males and 68.87% responded were females among dental students. Most of the students were of 1st year BDS. 74.53% of the students understand while 25.47% of the students do not understand oral histology (Figure 1) . 74.53% of the students are interested while 25.47% are not interested in oral histology (Figure 2). 75.47% of the students are interested in dental anatomy and 24.47% of the students are not interested in dental anatomy (Figure 3). 70.75% are attentive while 29.25% are not attentive when oral histology class is going on. 83.02% are satisfied by the teaching skills while 16.98% are not satisfied with the teaching skills of the staff (Figure 4). 69.81% of the students clarify their doubts while 30.19% of the students do not clarify their doubts with the teachers (Figure 6). 40.57% found it interesting, 33.96% found it difficult while 20.75% found it as useful in future when asked about the response after completion of oral histology class. 30.19% found it easy, 57.55% found it manageable and 7.55% found dental anatomy hard. 75.47% are interested while 24.53% of the students are not interested in dental anatomy. 70.75% of the students are attentive and 29.25% of the students are not attentive while dental anatomy class is going on. 29.25% of the students found oral structure difficult, 38.68% of the students found tooth structure difficult and 25.47% of them found difficulty in both the subjects to understand and remember. 73.58% of the students attended while 26.42% of the students did not attend all the practical classes. When asked about the main problem faced during the exam, 10.38% of the students responded for identifying, 36.79% responded for drawing, 22.64% responded for recollecting while 30.19% responded for all of the above. When association between students who are satisfied with the teaching skills of their staff and students who get their doubts clarified were compared , it was notes that, Most of the students who are satisfied with their teaching skills of their staff get their doubts clarified. Pearson chi square test shows p value is 0.239 (>0.05), which is statistically not significant (Figure 5).When association between students who are interested in oral histology and students who understand the topics covered in oral histology were compared, t was noted that most of the students who are interested in oral histology understand topics covered in the class. Pearson chi square test shows p value is 0.191 (>0.05), which is statistically not significant (Figure 6). When association between students being attentive in oral histology and students who are interested in oral histology was done, it was noted that, Most of the students who are attentive in oral histology class found oral histology interesting. This difference was not statistically significant (Pearson chi square test; p value= 0.015 (>0.05)- significant) (Figure 7).

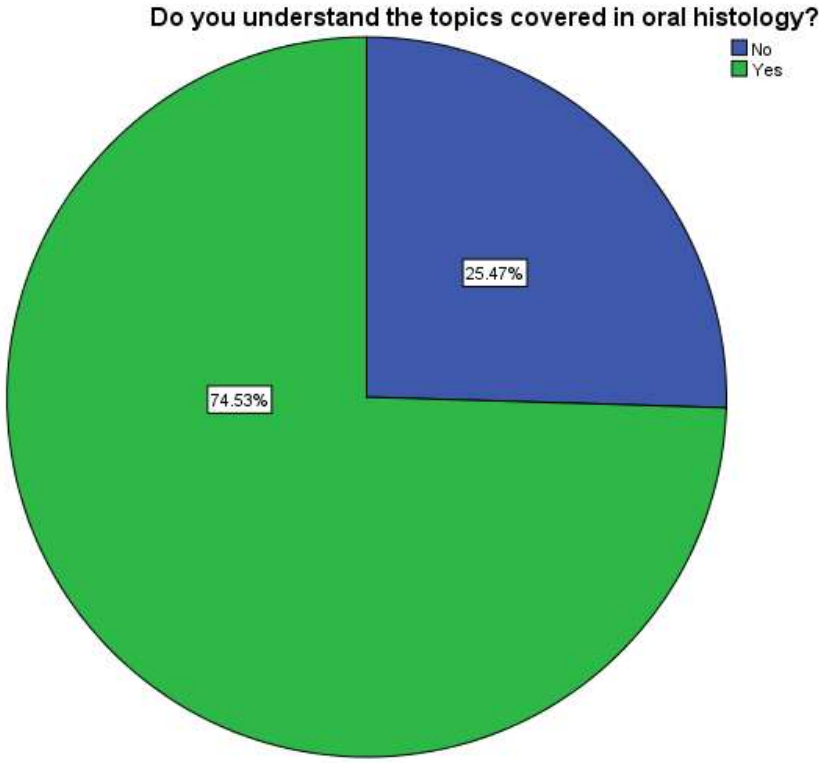

Figure 1: Pie chart shows the response of the students in understanding the topics covered in oral histology. Majority of the students understand topics covered in oral histology. 74.53% of the students understand the topics covered in oral histology and 25.47% of the students do not understand the topics covered in oral histology . Green color indicates yes and blue color indicates no.

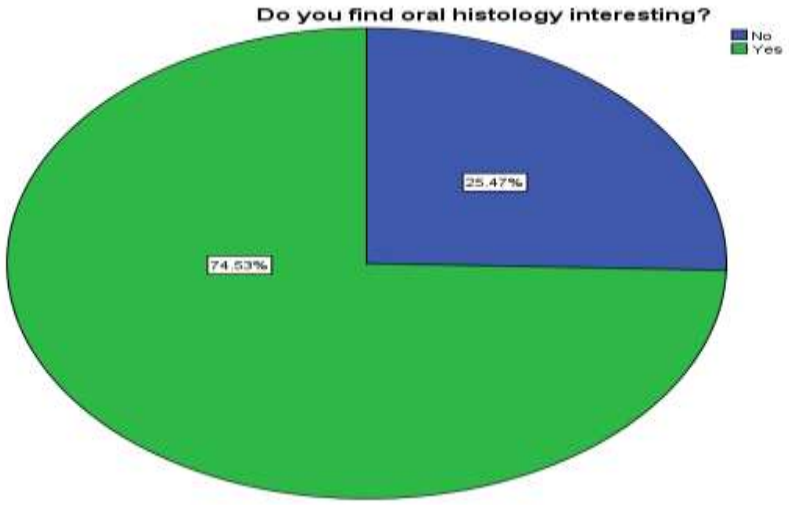

Figure 2: Pie chart shows the response of the students having interest in oral histology. Majority of the students found oral histology interesting. 74.53% of the students are interested in oral histology and

25.47% of the students are not interested in oral histology. Green color indicates yes and blue color indicates no.

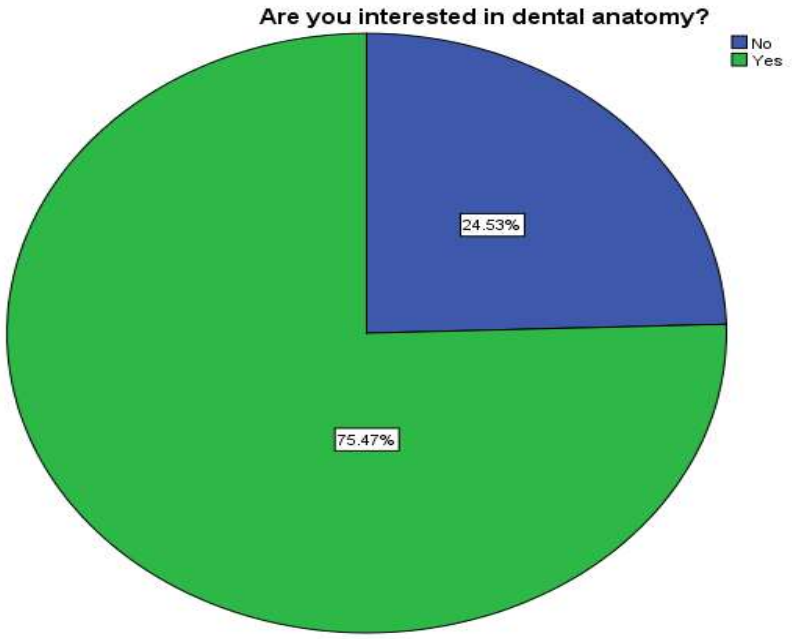

Figure 3: Pie chart shows the response of the students having interest in dental anatomy. Majority of the students found dental anatomy interesting. 75.47% of the students are interested in dental anatomy and 24.47% of the students are not interested in dental anatomy. Green color indicates yes and blue color indicates no.

Figure 4: Pie chart shows the response of the students satisfied with the teaching skills of the staff. 83.42% of the students are satisfied with the teaching skills and 16.58% of the students are not satisfied with the

teaching skills of their teachers . Green color indicates yes and blue color indicates no.

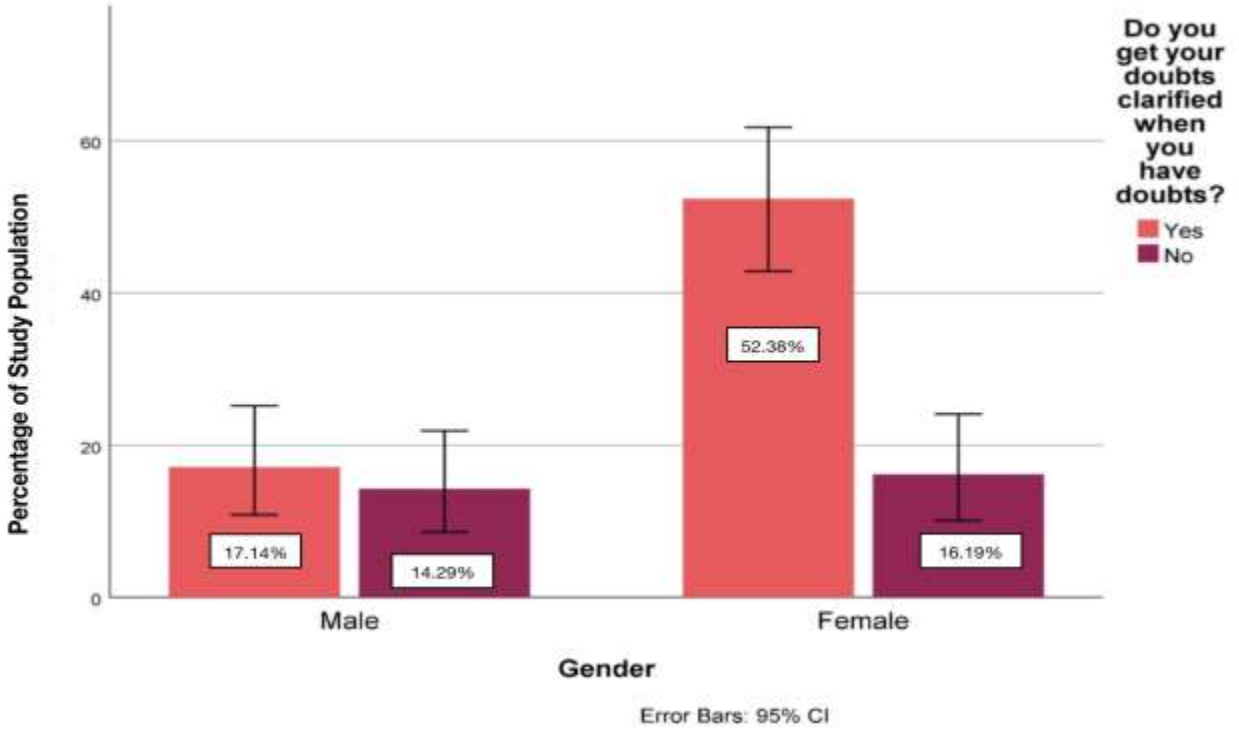

Figure 5: The bar graph depicts the association between students who are satisfied with the teaching skills of their staff and students who get their doubts clarified. The x-axis represents students who are satisfied with the teaching skills of their staff and the y-axis represents the number of responses. The blue color code denotes no and green color code denotes yes. Most of the students who are satisfied with their teaching skills of their staff get their doubts clarified. Pearson chi square test shows p value is 0.239 (>0.05), which is statistically not significant.

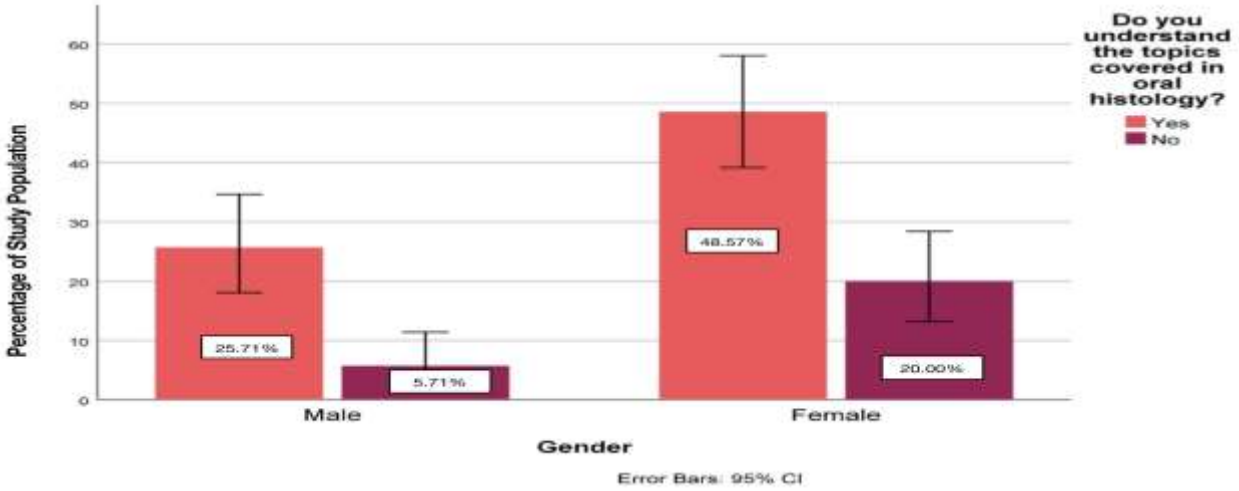

Figure 6: The bar graph depicts the association between students who are interested in oral histology and students who understand the topics covered in oral histology . The x-axis represents students who are

interested in oral histology and the y-axis represents the number of responses. The blue color code denotes no and green color code denotes yes. Most of the students who are interested in oral histology understand topics covered in the class. Pearson chi square test shows p value is 0.191 (>0.05), which is statistically not significant.

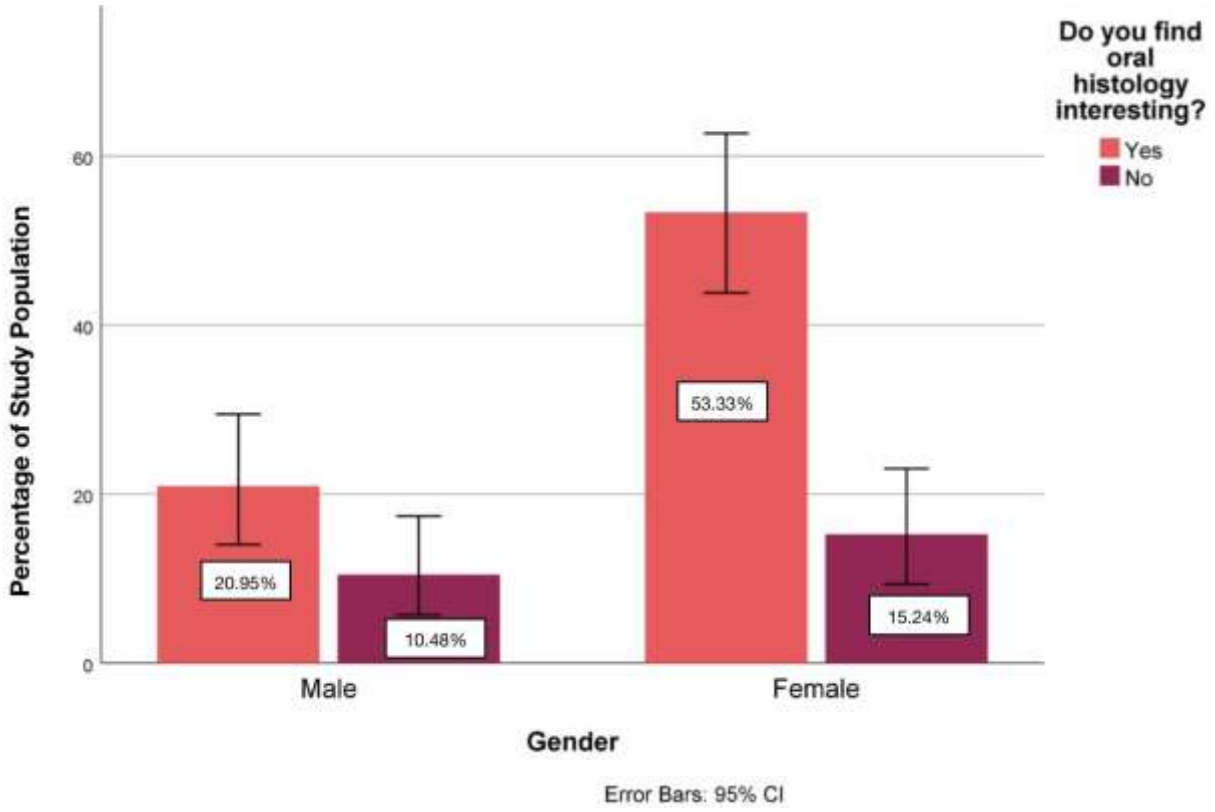

Figure 7: The bar graph depicts the association between students being attentive in oral histology and students who are interested in oral histology. The x-axis represents students who are attentive while oral histology class is going on and the y-axis represents the number of responses. The blue color code denotes no and green color code denotes yes. Most of the students who are attentive in oral histology class found oral histology interesting. This difference was not statistically significant (Pearson chi square test; p value= 0.015 (>0.05)- significant).

DISCUSSION:

Oral histology forms the foundation for dental career and in treatment(13). It is a complex branch dealing with many subjects(14). When the dental students are thorough with the oral histology they will be more clear regarding various concepts of oral region(15). Most of the students understood the topics(16). Few of them didn't understand the topics covered(17). In the previous articles when compared most of the students understood(18). Few of them didn't understand the topics covered (19). They may be facing the problem with the terminology of the subject(20). Fun activities and segments can be conducted to remember and understand about the subject in detail.(21)

The students at first were interested in beginning but then their perception changed over the time(22). This became the primary cause for not attending the lectures and decrease in the amount of interest(23). Most of the students found the subject interesting, some of them found it difficult and few of them found it useful in future after completion of topics in classes(24). In the previous articles, most of the students found it useful in the future,some of them found it interesting and few of them found it difficult after completion of topics in the class (19).

Most of the students are satisfied with the teaching skills and few of them are not satisfied with the teaching skills of their staff(25). In the previous articles, there was a similar response where most of the students are satisfied with teaching skills while few of them are not satisfied with the teaching skills of their staff (19). The way of teaching methodology can be modified for a better way of understanding to the students(26).

Dental anatomy was the subject in which most of the students encountered difficulties in understanding and remembering(27). Oral histology was the subject in which very few of them encountered difficulty in understanding and remembering(28). In previous articles, dental anatomy was the subject in which few of the students encountered difficulties in understanding and remembering(29). Oral histology was the subject in which most of the students encountered difficulties in understanding and remembering. (19).

Limitations of the study is that the sample size cannot be generalised over a population of a particular area. Surveys should be conducted on a large scale. Few error forms in the survey were identified which were not completely filled and removed from the data and then analysed. If the survey is conducted on a large scale across the different geographical areas, more significant results can be obtained about the problems encountered and concerned solutions to give students a better way of understanding dental anatomy and oral histology.

CONCLUSION:

From the study we conclude that there are many problems encountered by the students in understanding both the subjects oral histology and dental anatomy. By making some changes and alterations in the schedule and teaching methods, the subjects can be made more interesting and easy for the students.

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CONFLICT OF INTEREST:

The author declares that there was no conflict of interest in the present study

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