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Research Article

**ATTITUDES AND BEHAVIOUR REGARDING DEEP DENTIN
CARIES REMOVAL AMONG DENTAL HAIL STUDENT**

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Abstract:

The main objective of the study was to assess the attitude and behavior of the dental students in Hail region about the deep dental caries removal. The study was conducted through an online survey among the different dental students. A questionnaire was prepared online and was distributed to about hundred dental students out of which only 50 students responded to the survey. With the help of the questionnaire we were able to assess the students' knowledge and attitude towards deep dental caries removal. Majority of the students selected hardness as a criteria for assessing the excavation. So most of them preferred the stepwise carries excavation. Higher percentage of the dental students were familiar with the deep dental caries removal treatments. The growing interest among Different researchers about the evaluation of knowledge about the deep dentin caries removal indicates the importance of this subject. Thus more comprehensive study is need to be carried out on different aspects of the deep dentin caries removal.

Keywords: *Deep dentin caries removal, excavation, stepwise carries excavation.*

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INTRODUCTION:

Dental caries is defined as an infectious disease of the teeth that results in the localized disintegration and damage of the calcified tissue [1]. The treatment of dental caries requires restorative therapy and also includes extraction of the infected tooth [2].

In the operative procedures of the dental caries, the dentin is termed as the affected dentin (demineralized dentin with no bacteria) and infected dentin (softened dentin with bacteria). The affected and infected dentin are distinguished using the caries detecting die solutions [3].

The technique followed up for Deep Dentin Caries Removal had ever been a mystery for the restorative dentistry [4]. It is a much debated to avoid complete excavation of carious dentin close to the pulp.

The recent studies supports the incomplete removal of the carious tissue before the complete Restoration of the cavity [5]. Hence the therapy of dentin caries removal has less focus on the complete excavation of the infected tooth [6].

They prefer more of adequate restorations. The incomplete dental caries removal is known to reduce the risk of expose pulp and post-surgical pulp complications [7]. In the past centuries the surgical treatment of dental caries follow the removal of complete infected Biomass and was replaced by the lost dental hard tissue [8]. This was done because it was thought that the caries is an infectious disease that is caused by a particular bacteria.

The recent advancement in the dental caries treatment is the use of various techniques like caries sealing, resin infiltration and Adhesive restoration [9]. Globally the preservation of dental tissue is preferred over its removal as part of treatment is regarded as the initial cycle of the Restoration cycle [10].

RATIONALE BEHIND THIS STUDY:

The main reason to select this topic is to investigate about the attitudes and behavior regarding the deep dentin caries removal among the dental students of Hail in Saudi Arabia. With this study we can access and evaluate the knowledge of the attitudes of the dental students towards the new techniques and procedures they use for the removal of deep dentin caries in Hail region. With review of the previous literatures many studies are found on this topic in different parts of the world, but no such study was carried out in the Hail region of Saudi Arabia. Thus

we selected this topic to study and do research among the dental students about the deep dentin caries removal in Hail region.

AIM & OBJECTIVES:

The main aim of this study is to evaluate the knowledge, attitude and behavior of the dental students regarding the deep dentin caries removal in Hail region. This can be attained by:

- Conducting a survey to determine the knowledge and attitude of the dental students about deep dentin caries and its removal.
- Identifying the choice of technique for the removal of deep dentin caries among the dental students.
- Creating awareness among the dental students about the latest updates in treating deep dentin caries.

METHODOLOGY:

After reviewing the literature regarding the deep dentin caries removal, a questionnaire was selected from one of the previous studies and the modification were done in order to meet the requirement of the present study.

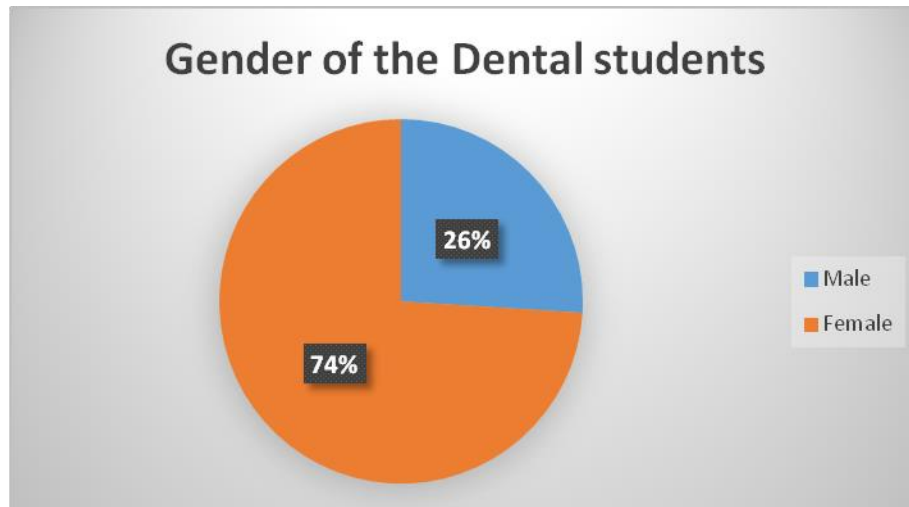
The final questionnaire was distributed online via email to different dental students in Hail region of Saudi Arabia. Questionnaire consisted of the basic demographic information about the dental students and also single answer multiple choice type questions related to the choice of treatment for deep dentin caries removal. This study includes the dental students that are associated with the deep dentin caries removal therapy.

DATA ANALYSIS:

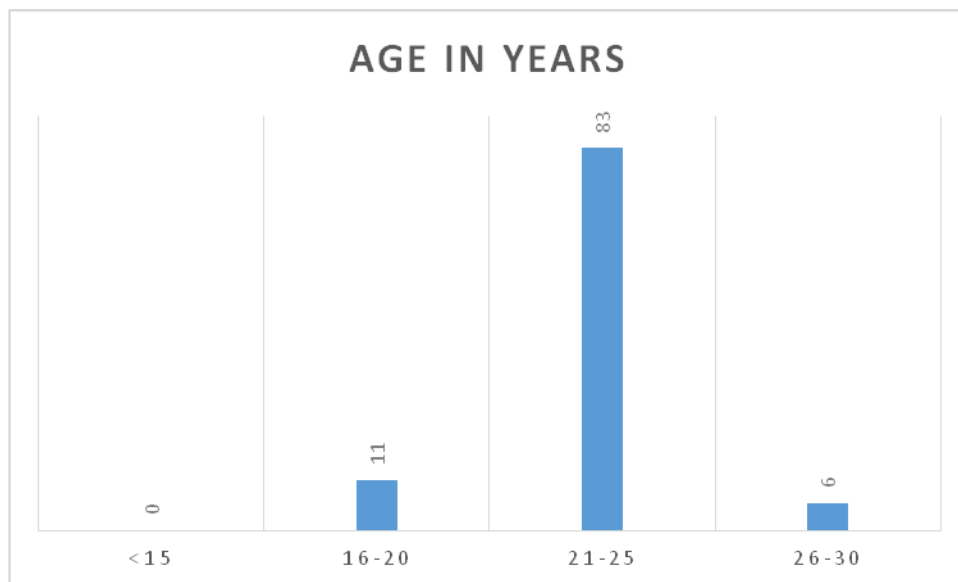
The data that was collected from the questionnaire was analyzed using the computer software SPSS 16. The frequencies and percentages of the responses from the dental students in Hail region using the P value equal to or less than 0.05.

RESULTS:

The questionnaire was distributed among 100 dental students in Hail region in Saudi Arabia, out of this only 50 dental students responded. Among these 50 dental students, 74% were females and 26% of the dental students were males. Most of the students, about 83% were in the age group of 21 to 25 years.

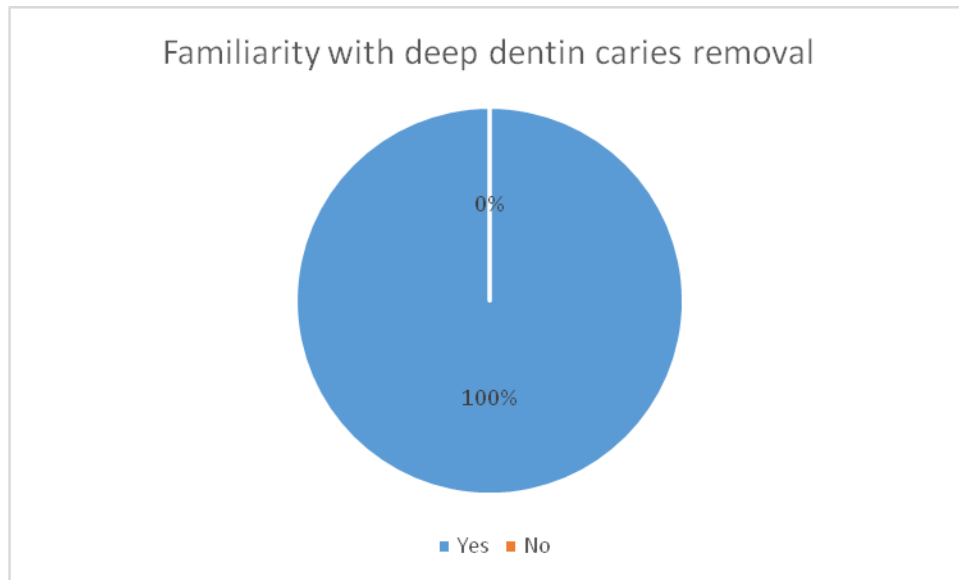


Graph No: 1, percentage of gender of the dental students

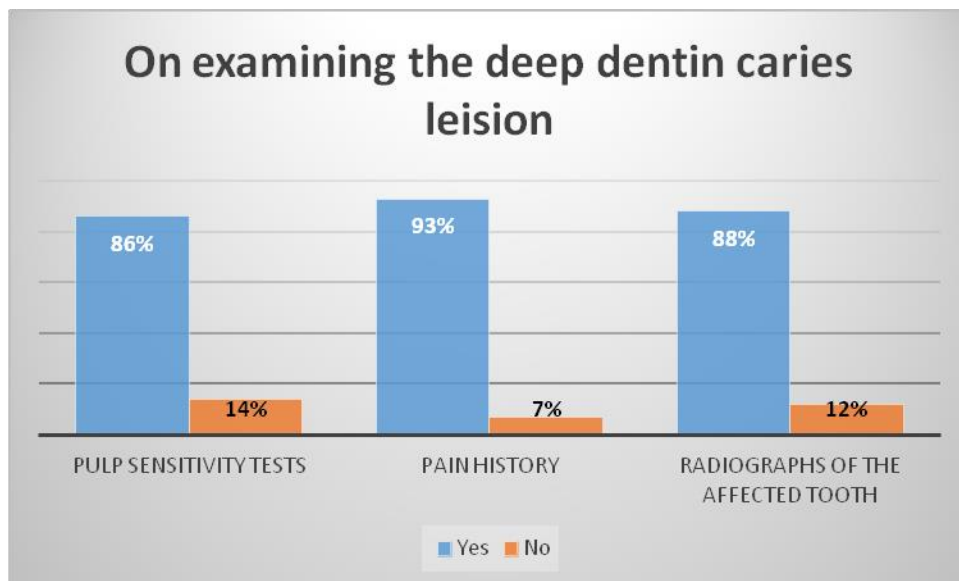


Graph No: 2, Age in years of the dental students

Almost all the dental students were familiar with deep dentin caries removal of about a percentage of 100%. On diagnosis of the deep dentin caries removal with the pulp sensitivity tests, pain history and radiographs of the affected tooth.

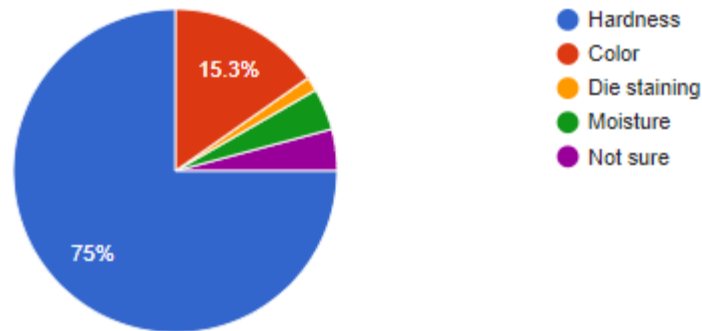


Graph No: 3 Familiarity of dental students about deep dentin caries removal



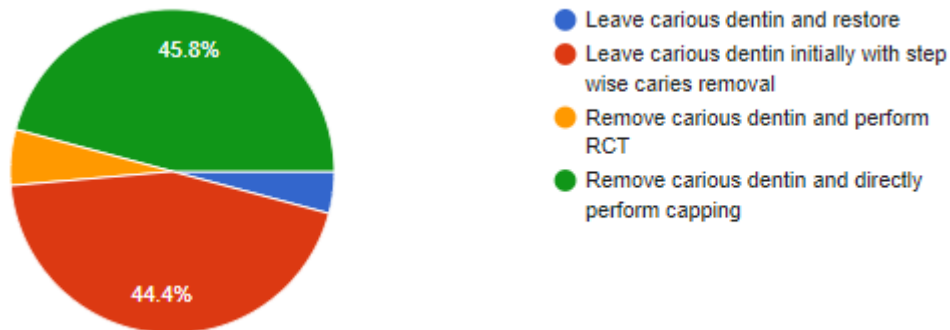
Graph No: 4 Students on examining the deep dentin caries removal

About 75% of the dental students felt that hardness was the criteria to assess caries removal in deep dentin caries.



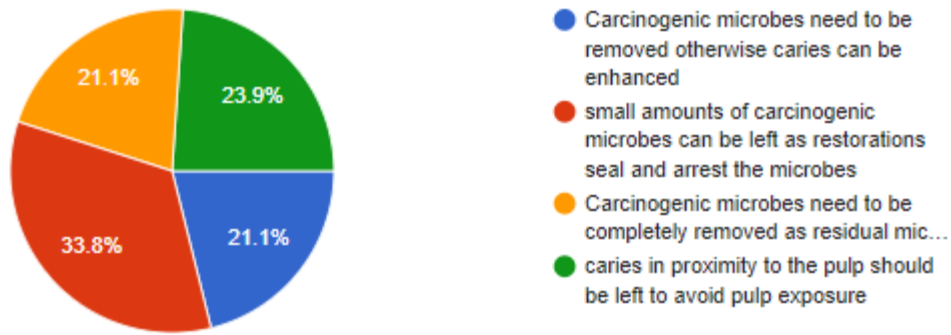
Graph No: 5 criteria to assess caries removal in deep caries

The attitude of about 45.8% students toward deep dentin caries removal was to remove carious dentin and directly perform capping and 44.4% had an attitude of leaving carious dentin initially with step wise caries removal.



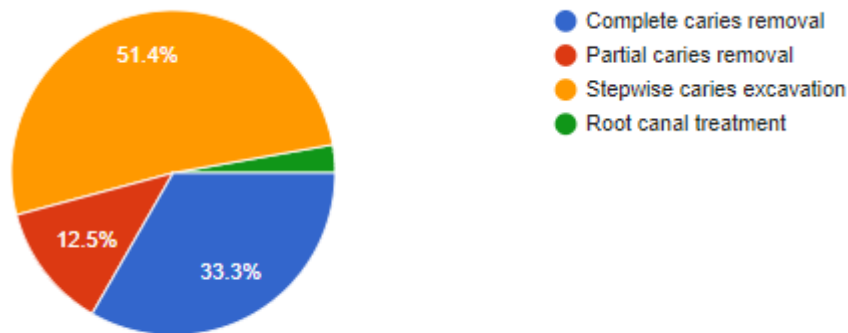
Graph No: 6 attitude toward the deep dentin caries removal

Majority of the students, about 33.8% had an attitude towards leaving caries under restoration by small amounts of carcinogenic microbes can be left as restoration seal and arrest the microbes.



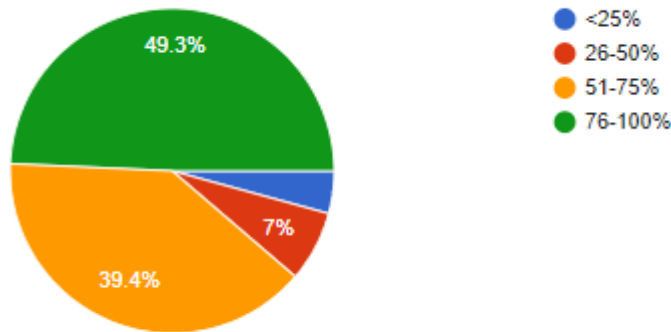
Graph No: 7 attitude towards leaving caries under restoration

Around, 51.4% dental students selected step-wise caries excavation as choice of technique for deep dentin caries removal.



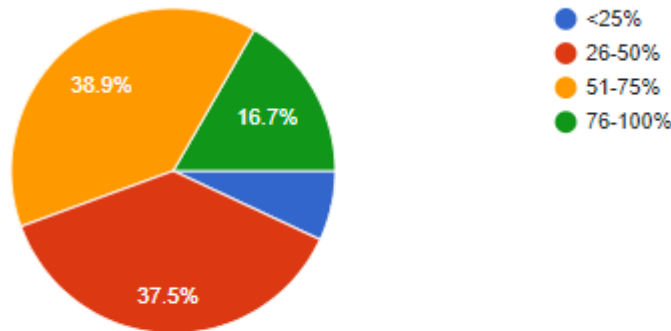
Graph No: 8 choice of technique for deep dentin caries removal

Majority of the students, 49.3% felt that the success rate of complete caries removal of about 76-100%.



Graph No: 9 success rate of complete caries removal

Around 38.9 % of the dental students felt that success rate of step-wise caries removal of 51-75%, and 37.5% felt that success rate was 51-75%.



Graph No: 10 success rate of step-wise caries removal

DISCUSSION:

The main objective of the study was to evaluate the attitude and knowledge of the dental students in Hail region about the diagnosis, treatment and prognosis of the deep dental caries removal. To gain deeper understanding about the deep dental caries removal is important to create awareness among the dental students.

The traditional method of deep dentin caries removal is to remove the soft and leathery dentin until the Hard Dentin is reached before placing a final restoration. The conditions like mechanical forces,

caries or trauma may leads to Pulp exposures. It's easy to restore a pulp when the exposure is due to trauma or mechanical reasons when compared to success rate with caries exposure.

In this study it was noted that step-wise Caries excavation was mostly preferred than one step excavation. Most of the dental students upon examining the Deep dental caries removal uses the pulp sensitivity test, pain history and diagnosis using the radiographs of the effective tooth.

CONCLUSION:

This study of evaluation of the attitude and behavior of the dental students about the deep dentin caries removal in Hail region is of significant importance. Students basically selected hardness as the criteria to access the caries removal in deep dentin carious lesion. Majority of the students feel that the success rate is higher in case of complete caries removal. Thus in this study we determined the knowledge and Awareness of the dental students in Hail region about a deep dental caries removal.

ETHICAL CONSIDERATIONS:

Compliance with ethical standards

Ethical approval: This research has an Ethical approval for the study of the attitudes and behavior regarding deep dentin caries removal among dental hail student.

Conflict of interest: The authors do not have any commercial associations that might pose or create a conflict of interest with information presented in this communication. No intramural or extramural funding supported any aspect of this work.

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