

ASSESSMENT OF DENTAL ANXIETY AMONG DENTAL STUDENTS - A CROSS SECTIONAL SURVEY

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Abstract

Aims and objectives: Anxiety is defined as fear or alertness in response to some stressful situation which leads to nervousness.¹ Dental anxiety is fear or apprehension during dental treatment or in dental settings. It's a subjective feeling and differs from one person to another. Dental anxiety interferes with dental treatment and causes delay in treatment and stress in dentist. So, a study was designed with an intention to estimate the prevalence of dental anxiety in dental students. Dental anxiety was measured using Corah's Dental Anxiety Scale, revised (DAS-R). Questionnaire was distributed among dental students from first year to final a year and house surgeons.395 students were enlisted for this study. Results were analyzed using descriptive statistics. Only 1.01% had phobia,3.379 % had high anxiety,28.35 had moderate anxiety and 66.83% had no anxiety. Mean anxiety score was this study was found to be 7.66 which is considered as no anxiety level. Anxiety score was found decreasing from first year to house surgeons. Less significant anxiety was described in dental students in this study. Knowledge and awareness of oral health and routine dental visits can reduce the dental anxiety to a negligible level.

Key words: dental students, dental anxiety, dental treatment, phobia

Dental anxiety refers to patients' specific response towards dental environment associated stress.² Dental anxiety is very prevalent and ranks fifth among the most commonly feared situations for individuals.³ treatment.

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It interrupts or prevents the person from taking required dental treatment on time. Managing such patients in dental clinics take more chair time and energy.^{4,5} Thus, it is really indispensable to identify and manage the dental anxiety of patients before dental treatment.

In BDS curriculum, students enter into clinical environment in third year. They get many occasions to observe and treat cases of anxious patients. Dental students may also have dental fear like any other common

man. Therefore, dentally apprehensive student is more unlikely to be able to sustain a good oral hygiene also they fail to comprehend the methods to reduce the anxiety level of their patients.⁶ Henceforth a study was planned to measure the prevalence of dental anxiety among undergraduate and house surgeons in a dental college located in Kerala.

Methodology

The sample population was undergraduate students and house surgeons of Educare Institute of Dental Sciences, Kerala. Students taking antianxiety medication or taking therapy for anxiety disorders were excluded in this study. The cross-sectional questionnaire survey received ethical approval from the institutional ethical committee. Questionnaire including informed consent was circulated among undergraduate's and house surgeons of the particular institution and feedback collected from those volunteering students. Every piece of information gathered was kept private and anonymous.

Corah's Dental Anxiety Scale, revised (DAS-R) was used to evaluate the dental anxiety among the dental students. The Corah DAS figures 4 dentally related situations like appointment in dental office, waiting outside the dental clinic for your turn, sitting on the dental chair for cavity

preparation and scaling. Each question was provided with 5 responses in the order of increasing anxiety. Each response is given specific value ranging from 1 to 5 based on the anxiety level.⁷ The sum of responses of all the four questions range between 4 and 20, where scores between 9-12 indicates moderate anxiety, scores more than 12 indicate anxious patients,

13- 14 specifies high anxiety and scores higher than 15 indicates severe anxiety or phobia. Descriptive statistics, such as mean and percentage values, were used to interpret the student responses.

Results

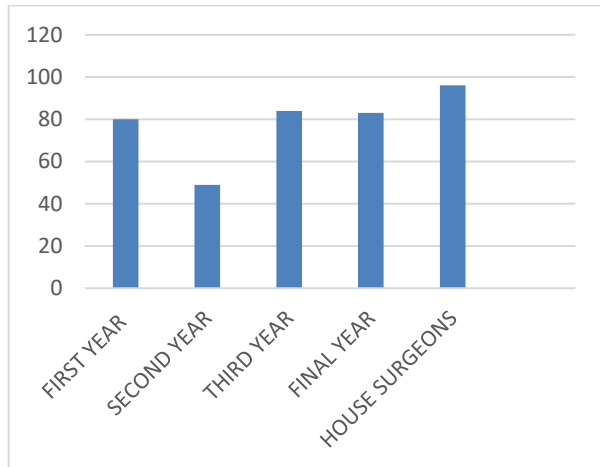
The sample consisted of 395 responses (n=395) and out of which 353 were females and 41 were males. Table 1 depicts male to female ratio of the sample approximately as 1:9. Male to female ratio of dental students in India is around 2:8.⁶ Excess number of female students in this study reflects further feminization of dentistry in Kerala.

Gender	Number of participants
Male	41
Female	395

Table 1: - male: female ratio

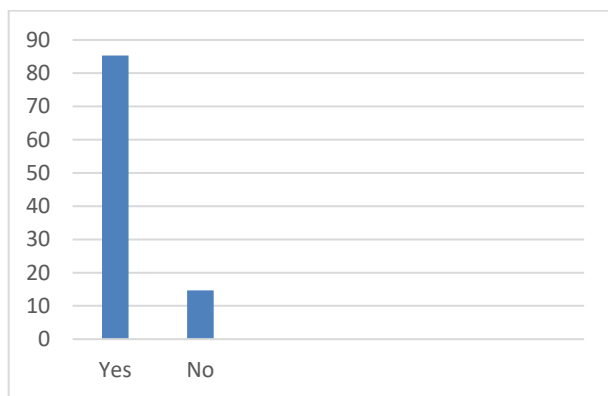
The study subjects included first year ($n = 80$;20.3%) second year ($n = 49$; 12.4%), third year, ($n = 84$;21.5%) final year ($n = 83$;21.2%) and house surgeons ($n = 87$;

24.8%). The distribution of the samples according to the year of study is demonstrated in bar diagram 1.



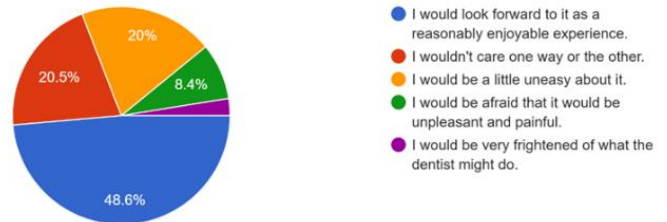
Bar diagram 1: - Distribution of study subjects

Bar diagram 2 is displaying that majority of the study samples had history of dental visit or treatment (85.3%) in the past. This high number may be due to more awareness of oral health and availability of dental treatment at their doorstep.

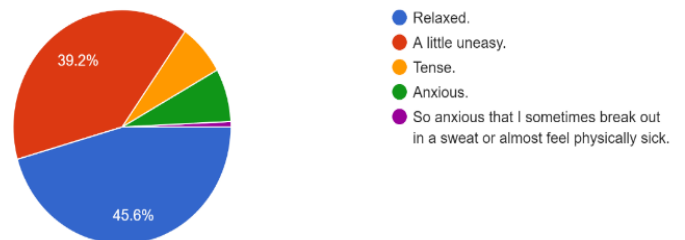


Bar diagram 2: - Previous exposure to dental treatment.

Pie charts 1,2,3 and 4 display the answers to the four Corah's Dental Anxiety Scale, Revised (DAS-R) questions.



Pie chart 1: - If you had to go to the dentist tomorrow for a check-up, how would you feel about it?

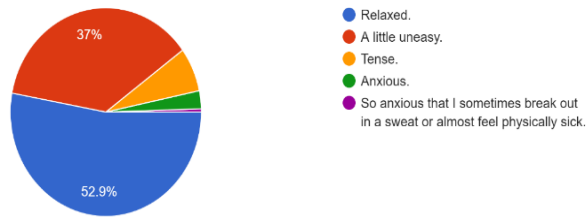


Pie chart 2: - When you are waiting in the dentist's office for your turn in the chair, how do you feel?



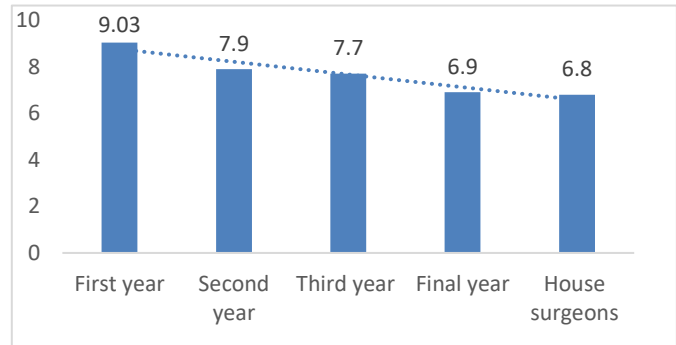
Pie chart 3: - When you are in the dentist's chair waiting while the dentist gets the drill ready to begin working on your teeth, how do

you feel?



Pie chart 4: - Imagine you are in the dentist's chair to have your teeth cleaned. While you are waiting and the dentist or hygienist is getting out the instruments which will be used to scrape your teeth around the gums, how do you feel?

In this study, results were indicating that most of the students were not anxious about the dental treatment. Only 1.01% had phobia, 3.379% had high anxiety, 28.35% had moderate anxiety and 66.83% had no anxiety or they were relaxed. Mean anxiety score of the study was 7.66. The mean anxiety score of the study subjects in year wise was shown in bar diagram 3. As students advance from first year to housing surgency, a decline in DAS-R score is observed. Increased awareness and acquaintance in dentistry are causing students to feel less anxious about dental treatment, as evidenced by this.



Bar diagram 3: - Mean anxiety score of the study subjects.

Discussion

There are many concepts supporting dental anxiety. Dental anxiety is described to traumatic events happened in previous dental visit especially in childhood, non-empathizing bullying dentist, low pain threshold, lack of education and knowledge about oral health, the sight of needles and other devices in the dental office or it could be a personality trait also. There are many ways to evaluate dental anxiety. The Corah's Dental Anxiety Scale was developed in 1969 by Dr. Norman L. Corah. It is a simple, easy to score, short, effective and consistent test for dental visit related anxiety.⁷

Literature search revealed that the

prevalence of dental anxiety ranged from 11% to 27.5% among the undergraduate students of various universities throughout the world.⁸ The results obtained in the present study was in agreement with previous studies conducted by different authors. Al-Omari et al. concluded that dental students had lower levels of dental anxiety than non-dental students, owing to their dental education and awareness of most clinical procedures.⁹ Another study conducted by Gunjal S et al in Malaysia also found that dental students had lower levels of dental anxiety than medical and pharmacy students.⁸

Senior dental students had lower levels of dental anxiety than junior students in the present study is due to more exposure to different dental procedures during their years spent in clinical hours.¹⁰ This is in accordance with the study done by Chowdhury CR et al.¹⁰ Dental students in the senior year showed significantly lower dental anxiety scores compared to pharmacy students as well as junior dental students in the study led by Bhatt et al in Himachalpradesh.¹¹

The importance of recognizing dental anxiety and then understanding its cause, nature and associated components is very important for a dentist to have best clinical practice.

Anxiety management techniques range from good communication, and behavioral therapies. The inherent limitation of this study is we have not included any question assessing the fear of local anesthetic injection which is an integral part of dental practice.

Conclusion

Dental anxiety is found very low in dental students. Knowledge and awareness about the dental treatment and oral health as well as graded exposure therapy during the study period may have decreased the dental anxiety in dental students.

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