

## Assessment Of Dental Anxiety among Patients Requiring Dental Treatment with Corah's Dental Anxiety Scale - A Questionnaire Survey

Research Article

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### Abstract

**Background:** Dental treatment remains question of fear and anxiety among most of the patients.**Aim:** This study was done to assess dental anxiety among patients requiring dental treatment.**Materials & Methods:** 240 patients requiring dental treatment were subjected to Corah's Dental Anxiety scale to assess anxiety level which comprised of four questions and response was recorded.**Results:** Out of 240 patients, males were 110 (45.8%) and females were 130 (54.2%). In response to question of feeling of subjects to visit dentist tomorrow, 66.6% had feeling of painful, unpleasant and scary. In response to question, How do you feel during sitting in waiting's area of dental office, 50% responded that they are so anxious that they feel physically sick or sometimes break out in a sweat, 20.8% were anxious and 25% were tensed. In response to question, How do you feel when dentist is getting ready his drill to work on teeth, 33.3% responded that they are so anxious that they feel physically sick or sometimes break out in a sweat. In response to question, How will you feel when the dentist or hygienist is getting out the instruments which will be used to scrape your teeth around the gums, 27% were uneasy.**Conclusion:** Authors found that most of the patients were highly anxious about dental treatment. Assessment of patient anxiety may be helpful in adopting alternative methods such as behavior modification, biofeedback mechanism etc. before starting dental treatment.**Keywords:** Dental Anxiety; Fear; Corah's Dental Anxiety Scale.

### Introduction

Dental treatment remains question of fear and anxiety among most of the patients. This is the most common problem encountered by dental surgeons [1]. The cause of fear and anxiety is related to pain and discomfort that patient experiences. Patient encounters behavior and physiological changes following dental procedure [2]. Cavity preparation using high speed airtar, use of ultrasonic scalers and root canal treatment is among various treatment modalities which also carries high anxiety among common

man. Fear of tooth extraction is most common than any other dental procedures. Among various dental surgical procedures, extraction of decayed tooth is quite common [3]. Anxiety and fear regarding dental procedures generally starts in childhood. It develops further as a result of aversive conditioning and family influences. Factors such as trauma, congenital determinants and experience of family members or friends are provoking factors of fear among general population. Fear can be due to previous unpleasant dental experience or response of another person to dental treatment [4].

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**Received:** November 19, 2020**Accepted:** February 08, 2021**Published:** February 17, 2021

**Citation:** Vardharajula Venkata Ramaiah, Mohamed Abdulcader Riyaz SS, Mohammed Mutni Al-Mutairi, Prashant Babaji, Ziyad Ahmad Alsuwaydani. Assessment Of Dental Anxiety among Patients Requiring Dental Treatment with Corah's Dental Anxiety Scale - A Questionnaire Survey. *Int J Dentistry Oral Sci.* 2021;8(2):1639-1642. doi: <http://dx.doi.org/10.19070/2377-8075-21000325>

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People who have anxiety and fear regarding dental procedures tend to avoid visiting dental clinics. They would have more decayed teeth as compared to those who visit frequently. Management of such patients in dental set up is very difficult [5]. This leads to development of stress among dentists resulting in compromised work. Thus to overcome fear and anxiety among general population towards dental treatment pre-operative assessment is must. Subjects should be explained regarding usefulness of dental treatment and benefits of it [6]. Considering this, the present study assessed dental anxiety among patients requiring dental treatment.

### Materials and Methods

The present study was conducted on 240 patients visiting the department of Oral surgery for dental tooth extraction. It comprised of 110 male patients and 130 female's patients. All patients were in age range of 18-60 years. Inclusion criteria for the study were adult patients age ranged 18-60 years of both genders and patients with non-restorable decayed teeth. Exclusion criteria were subjects not giving consent, subjects with restorable teeth and subjects with ASA grade III and IV. The study protocol was approved from institutional ethical committee and all patients were explained re-

garding the study in local language and their written consent was obtained.

Patient particulars such as name, age, gender etc. was recorded. Corah's Dental Anxiety scale (DAS) was used to determine anxiety among patients. Corah in year 1969 developed this scale. It comprised of 4 questionnaires with 5 different responses which were labeled as a, b, c, d and e. Response a carries 1 score and e carries 5. A 20 maximum score can be attained. A score 5 to 10 was suggestive of slightly anxious, 10 to 15 as anxious and a score more than 15 was indicative of severely anxious patient. Response of all questions was obtained from patients and score was calculated. Results were statistically evaluated using IBM SPSS statistical software version 20.

### Results

Table I shows that out of 240 patients, males were 110 (45.8%) and females were 130 (54.2%). In response to question of feeling of subjects to visit dentist tomorrow, 66.6% had feeling of painful, unpleasant and scary while 8.3% responded that they are frightened that what procedure dentist will perform on them (Table II, graph I).

**Table 1. Questionnaire used for the study.**

Questionnaire	Response	Percentage
1. What is your feeling if you have to visit dentist tomorrow?		
a. I would look forward to it as a reasonably enjoyable experience.	0	0
b. I will not care at all.	20	8.3
c. I will be uneasy regarding dental visit.	40	16.6
d. I will be painful and unpleasant so I am scared.	160	66.6
e. What procedure dentist will do and I am frightened of it.	20	8.3
2. How do you feel during sitting in waiting's area of dental office?		
a. Relaxed	20	8.3
b. Uneasy	40	16.6
c. Tense	60	25
d. Anxious	90	37.5
e. So anxious that I feel physically sick or sometimes break out in a sweat.	30	12.5
3. How do you feel when dentist is getting ready his drill to work on teeth?		
a. Relaxed	40	16.6
b. Uneasy	40	16.6
c. Tense	20	8.3
d. Anxious	60	25
e. So anxious that I feel physically sick or sometimes break out in a sweat.	80	33.3
4. How will you feel when the dentist or hygienist is getting out the instruments which will be used to scrape your teeth around the gums?		
a. Relaxed	52	21.6
b. Uneasy	65	27
c. Tense	48	20
d. Anxious	50	20.8
e. So anxious that I feel physically sick or sometimes break out in a sweat.	25	10.4

In response to question, How do you feel during sitting in waiting's area of dental office, 50% responded that they are so anxious that they feel physically sick or sometimes break out in a sweat, 20.8% were anxious and 25% were tensed (Table II, graph II).

In response to question, How do you feel when dentist is getting ready his drill to work on teeth, 33.3% responded that they are so anxious that they feel physically sick or sometimes break out in a sweat, 25% were anxious, while 16.6% were relaxed and 16.6% were uneasy (Table II, graph III).

In response to question, How will you feel when the dentist or hygienist is getting out the instruments which will be used to scrape

your teeth around the gums, 27% were uneasy, 21.6% were relaxed, 20.8% were anxious and 20% were tensed (Table II, graph IV).

### Discussion

General anxiety is different from dental anxiety and can be grouped as either state or trait anxiety. State anxiety assesses how one thinks in the moment and is deliberated using subjective feelings of tension, apprehension, worry, nervousness, and activation/arousal of the autonomic nervous system. Trait anxiety evaluates one's overall susceptibility to anxiety [7]. Dental fear and anxiety among general population is quite common phenomenon. It is not restricted to particular age groups, gender, race and reli-

Figure 1. What is your feeling if you have to visit dentist tomorrow?.

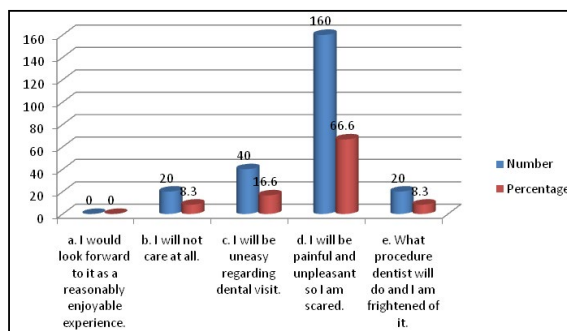


Figure 2. How do you feel during sitting in waiting's area of dental office?

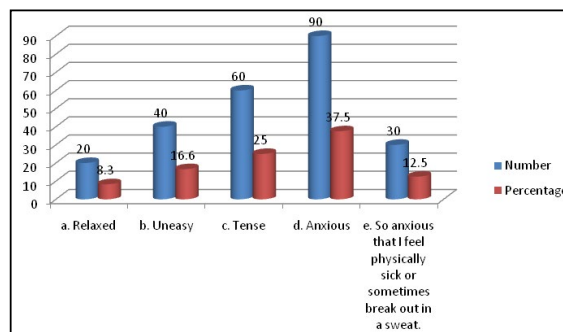


Figure 3. How do you feel when dentist is getting ready his drill to work on teeth?

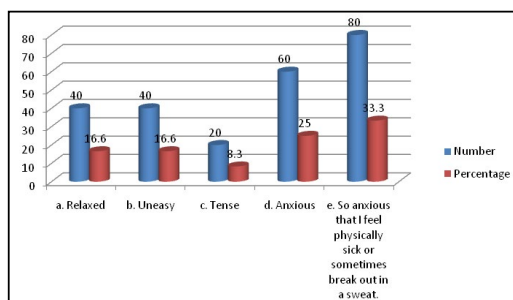
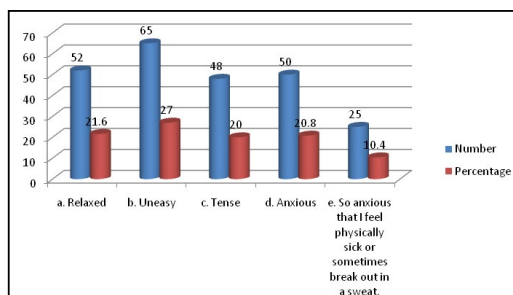


Figure 4. How will you feel when the dentist or hygienist is getting out the instruments which will be used to scrape your teeth around the gums?.



gion etc. Dental procedures specific to oral surgery such as tooth extraction, disimpaction, fracture management, space infection, cyst enucleation, tumor excision etc. are commonly performed [8]. Endodontic procedures such as restoration, root canal treatment, retrograde fillings, apicectomy etc. are performed. Periodontal surgeries such as gingivectomy, flap surgeries, Operculectomy, crown lengthening, gingival depigmentation, distal molar surgery, recession coverage etc. are performed at routine basis [9]. Fear among patients regarding dental procedure may be due to previous eventful dental experience. Hence any such episodes leave a great impact on minds of patients. This stay for longer time in their mind and create fear and anxiety [10]. The present study assessed dental anxiety among patients requiring dental treatment. In present study, we included 240 patients requiring dental procedure. Males were 110 (45.8%) and females were 130 (54.2%). Many different scales, such as Corah's Dental Anxiety Scale (DAS), Spielberger's State-Trait Anxiety Inventory (STAI), Visual Analog Scale (VAS) etc. have been employ to qualitatively or quantitatively determine dental anxiety. Corah's Dental Anxiety Scale (DAS) is widely used scale for assessment of dental anxiety among patients [11, 12].

We found that in response to question of feeling of subjects to visit dentist tomorrow, 66.6% had feeling of painful, unpleasant and scary. In response to question, How do you feel during sitting in waiting's area of dental office, 50% responded that they are so anxious that they feel physically sick or sometimes break out in a sweat. In response to question, How do you feel when dentist is getting ready his drill to work on teeth, 33.3% responded that they are so anxious that they feel physically sick or sometimes break out in a sweat. In response to question, How will you feel when the dentist or hygienist is getting out the instruments which will be used to scrape your teeth around the gums, 27% were uneasy.

Studies found that the DAS is reliable and useful predictor of patient's anxiety before doing dental treatment. Dentists come to know the expectation of patient and dentists can take useful measures to eliminate anxiety of the patient [13]. Dental anxiety can be well managed by psychotherapeutic interventions, pharmacological interventions, or a combination of both. Pharmacologically, the use of general anesthesia or sedation is effective enough to overcome dental fear. Psychotherapeutic interventions are either behaviorally or cognitively associated. Behavior-modification therapies uses muscle relaxants, learning technique, biofeedback mechanism, hypnosis, acupuncture, distraction, positive reinforcement, stop-signaling "tell-show-do", and modeling techniques etc. Shitole et al., [14] in their study evaluated anxiety level in 100 male and female patient undergoing surgical extraction of teeth. The anxiety levels in all subjects with Corah's Dental Anxiety Scale. It was found that the dental anxiety was higher among the subjects undergoing surgical extraction of teeth. Male patients had lower dental anxiety and fear compared to female patients.

Bolla et al assessed the anxiety level of patients for dental procedures and dental office environment using Corah dental anxiety scale and concluded that there were higher anxiety levels for root canal treatments hence patient's fear survey is necessary prior to the treatment [15]. Shivanna et al., evaluated the dental anxiety

levels before and after dental visit in children and found lower anxiety score after treatment and concluded that behavior management techniques can decrease dental anxiety levels [16].

## Conclusion

Authors found that most of the patients were highly anxious about dental treatment. Assessment of patient anxiety may be helpful in adopting alternative methods such as behavior modification, biofeedback mechanism etc. before starting dental treatment.

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