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Research Article

ASSESSMENT OF DENTAL ANXIETY IN PARENTS ATTENDING WITH THEIR CHILDREN FOR DENTAL TREATMENT

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Abstract:

Objective: To assess the anxiety level of parents accompanying their children during dental treatment.

Place and Duration: This cross-sectional study was conducted at the Punjab Dental Hospital, Lahore for six-months duration from August 2019 to January 2020.

Materials and Methods: The Dental Anxiety Scale Questionnaire (DAS-R) was completed by 101 participants (53 women and 48 men) visiting the dental hospital for the dental treatment of their children.

Result: 62.4% of the parents accompanying their children did not show anxiety or it was low, and 9.9% and 5.9% showed a high or severe level of anxiety, respectively. There was no statistically significant difference between the anxiety levels of male and female parents.

Conclusion: 37.6% of the parents accompanying their children to the dentist showed moderate to severe levels of anxiety, with no significant difference in the overall levels of anxiety of mothers and fathers.

Key words: dental anxiety, dental anxiety scale, maternal anxiety

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INTRODUCTION:

Dental anxiety, a state of unpleasantness accompanied by a fear of danger from within or the learned process of one's own environment is a common obstacle in dental treatment. Anxiety about the dental situation worries the dentist as it leads to avoiding dental treatment. About 6 to 15% of people worldwide suffer from high dental anxiety. Dental anxiety is multifactorial in origin and its main causes are illiteracy, lack of dental awareness, irregular dental visits, maternal anxiety and socioeconomic status. Past traumatic dental experiences and the attitude of the dentist have been found to be fear factors in dental anxiety¹⁻².

The onset of dental anxiety appears in childhood, peaks in early adulthood, and decreases with age. Dental anxiety in childhood and adolescence may persist, leading to the development of destructive behavior³⁻⁴. Dental anxiety causes frequent and serious problems for both the dentist and patients, leading to harmful effects such as avoiding and canceling dental appointments, as well as unacceptable behaviors during the procedure such as crying and anger. Anxiety in a child develops with the presence of restless people around him⁵⁻⁶. Children's dental behavior is influenced by the parental attitude and parents with high levels of anxiety have a negative impact on their children. In discussing the role of family influence on children, Lechner recognized maternal anxiety as the main factor influencing the child's behavior. The literature abounds with articles discussing the effects of mother anxiety on children, but only a few studies have been done on father anxiety⁷⁻⁸.

The Corah Dental Anxiety Scale is one of the most used and researched tools for measuring dental anxiety. DAS Corah has been modified by adding a fifth point that asks for responses to local anesthetic administration. The modified scale has a high level of reliability and validity. The scale gives a score of 4 to 20, and scores greater than 15 indicate a phobic level of anxiety⁹.

The aim of the study was to assess the level of anxiety of parents accompanying their children during dental treatment.

MATERIALS AND METHODS:

A cross-sectional study was conducted at the Punjab Dental Hospital, Lahore for six-months duration from August 2019 to January 2020.

Sample selection: A total of 101 people were selected, including 58 women and 48 men accompanying children to the dentist, willing to participate in the study. Only parents were included in the study, and the trials were asked to complete a questionnaire in the waiting room.

Questionnaire: The questionnaire used was a translated Nepalese version of the Dental Anxiety Scale-Revised (DAS-R) which was validated prior to the study. The questionnaire consisted of 5 closed-ended questions related to various dental situations, and each question had 5 options. After obtaining informed consent, the parents completed a questionnaire at the dentist's office. Confidentiality maintained. Statistical analysis was performed using SPSS version 17.

Scoring:

a = 1, b = 2, c = 3, d = 4, e = 5

Total possible score = 20

Anxiety rating:

Anxiety level	Score
No or low anxiety	< 9
Moderate anxiety	9-12
High anxiety	13-14
Severe anxiety/phobia	15-20

RESULTS:

In this study, the anxiety levels of 101 parents accompanying their children aged 20 to 53 were analyzed. Among the respondents, 44.6% were between the ages of 20 and 31, and 55.4% were 32 years or older (Table 1).

Table 1: Distribution of subjects according to age and gender

Age group	Female	Male	Total	Mean
20 - 31 years	33	12	45 (44.6%)	32.76
32 - 57 years	25	31	56 (55.4%)	
Total	58	43	101	

The present study found that 62.4% of the parents accompanying their children had no anxiety or low levels of anxiety, and only 9.9% and 5.9% showed high to severe anxiety, respectively. 21.8% of parents showed a moderate level of anxiety (Fig. 1).

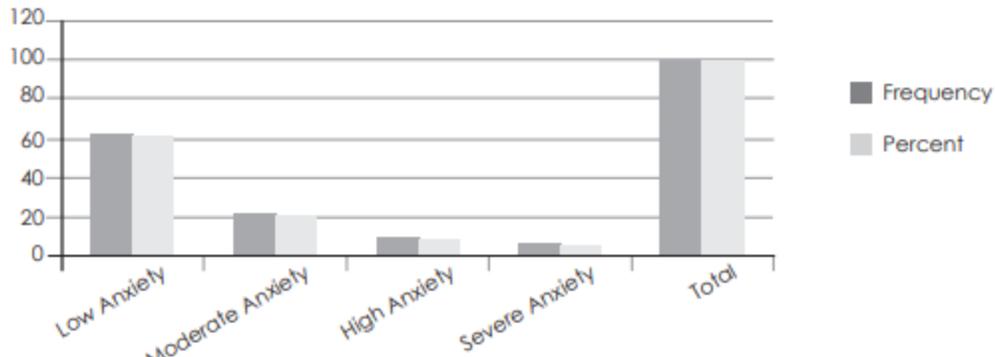


Figure 1: Distribution of anxiety level in total subjects

Among the studied sample, 26.7% of men and 35.6% of women showed a low level of anxiety, and the same percentage of men and women showed a high level of anxiety (2.9%). 8.9% of the women showed a high level of anxiety, while only 0.9% of the men showed severe anxiety. The discovery was not statistically significant (p-value 0.941) (Fig. 2).

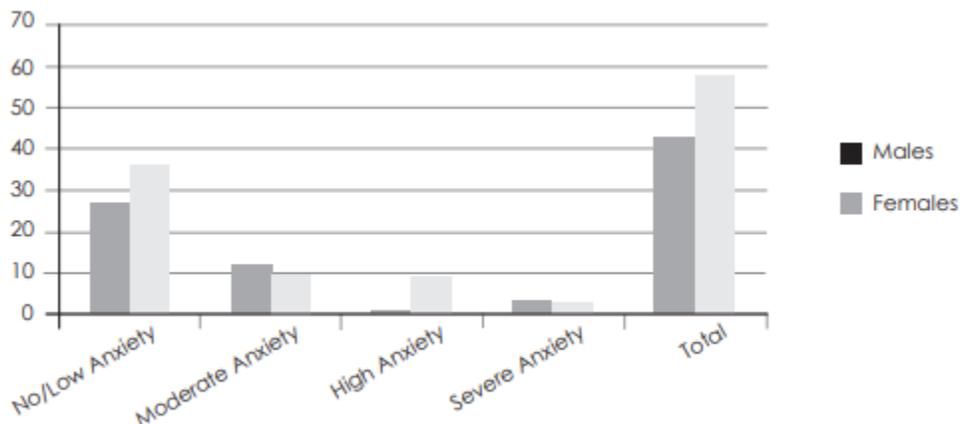


Figure 2: Distribution of anxiety level in male and female subjects

There was no statistically significant difference between the two age groups in parental age; 29.7% of the sample below 32 years of age and 32.7% of the sample above 32 years of age showed moderate to severe anxiety (p-value - 0.425) (Table 2).

Table 2: Distribution of anxiety level according to age group

Age	No / low Anxiety	Moderate to severe anxiety	Total	p-value
< 32 years	15 (14.8%)	30 (29.7%)	45 (44.6%)	0.425
≥32 years	23 (22.8%)	33 (32.7%)	56 (55.4%)	
Total	38 (37.6%)	63 (62.4%)	101	

This study, based on the Revised Dental Anxiety Scale (DAS-R) questionnaire (Table 3), showed that 71.3% of respondents would expect a dental visit as a pleasant experience, and only 10.9% would be very afraid of what the dentist is doing. According to the questionnaire, 64.4% of participants would feel a bit uncomfortable waiting their turn in a chair, 21.8% would feel relaxed, while the rest would show higher levels of anxiety. While waiting for the dentist to get the drill ready for work, 57.4% would feel a little uncomfortable, 16.8% would feel relaxed, 9.9% of the

participants would be restless and so restless that they would burst out with sweat. Waiting for the instruments to be ready 54.5% would feel a little anxious. 21.8% would be relaxed and 11.9% worried.

Table 3: Distribution of subjects based on the questionnaire

Questions	Percentage
Q.1. If you had to go to the dentist tomorrow for a check-up, how would you feel about it?	
a. I would look forward to it as a reasonably enjoyable experience.	72 (71.3%)
b. I wouldn't care one way or the other.	6 (5.9%)
c. I would be a little uneasy about it.	7 (6.9%)
d. I would be afraid that it would be unpleasant and painful.	5 (5.0%)
e. I would be very frightened of what the dentist would do.	11 (10.9%)
Q.2. When you are waiting in the dentist's office for your turn in the chair, how do you feel?	
a. Relaxed.	22 (21.8%)
b. A little uneasy.	65 (64.4%)
c. Tense.	5 (5.0%)
d. Anxious.	7 (6.9%)
e. So anxious that I sometimes break out in a sweat or almost feel physically sick.	2 (2.0%)
Q.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?	
a. Relaxed.	17 (16.8%)
b. A little uneasy.	58 (57.4%)
c. Tense.	6 (5.9%)
d. Anxious.	10 (9.9%)
e. So anxious that I sometimes break out in a sweat or almost feel physically sick.	10 (9.9%)
Q.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?	
a. Relaxed.	22 (21.8%)
b. A little uneasy.	55 (54.5%)
c. Tense.	6 (5.9%)
d. Anxious.	12 (11.9%)
e. So anxious that I sometimes break out in a sweat or almost feel physically sick.	6 (5.9%)

DISCUSSION:

In this study, parents' dental anxiety was assessed using the validated Nepalese version of the Dental Anxiety Scale-Revised (DAS-R). The DAS scale is the most commonly used measure of dental anxiety and was developed to measure mental stress. The Corah Dental Anxiety Scale (DAS) was introduced in 1969 as a short, reliable and reliable tool for measuring anxiety related to dental visits. In 1994, the DAS was revised by Ronis et al. As Revised Dental Anxiety Scale (DAS-R) to recognize the role of dental hygienists and dentists in the dental office. The scale consists of four questions related to dental situations, with the first two relating to general anxiety and the last two to predicted fear of specific stimuli¹⁰⁻¹¹.

Dental anxiety occurs in about (6-15%) of the population and is a learned process of unpleasantness for one's own environment. Similar results were recorded in the present study, in which 16.8% of the respondents showed high to severe anxiety. The fear of teeth has a multifactorial origin, and among environmental factors, the fear of parental teeth is strongly correlated with the child's anxiety. Markus et al. In their meta-analysis showed a significant relationship between the fear of the teeth of the parents and the child¹²⁻¹³. In the literature, the most attention is paid to parental anxiety as an important external factor that may influence the anxiety and behavior of a child in the dental environment. In this study, 37.6% of

parents accompanying their child to dental treatment had moderate to severe anxiety levels.

Lechner and Ripa portrayed mothers with high levels of dental anxiety that had a negative effect on their children. Folyani et al. Reported a significantly high level of dental anxiety in mothers compared to fathers. A similar finding was reported in an Israel study by Benjamin and Dan that mothers had higher levels of anxiety than their husbands. The literature abounds with articles suggesting the influence of mother's anxiety on the child's behavior. The impact of my father's dental anxiety has been largely ignored. Although many authors have reported that toothache is more common in women than in men. In the presented study, no statistically significant difference was found in the levels of anxiety of fathers and mothers, which is consistent with the findings of Sari et al. And Ersina and Seniza.

Parents' perceptions of unpleasant dental visits can be passed on to children. Assessing the parents' fear of their child's dental treatment can help the doctor modify their behavior management strategy. Whenever parental anxiety is high, efforts to reduce parental anxiety levels can also benefit the child¹⁴. Providing parents with information about their child's dental treatment proved to be an effective intervention in reducing parents' preoperative anxiety. OJN parents usually accompany their children to a pediatric dentist and orthodontist. Dental anxiety is therefore not only found in parents visiting a pediatric dentist, but is also common in an orthodontic clinic. Studies have found high levels of anxiety in parents of children who are waiting for orthodontic treatment, which can affect the outcome of their child's treatment. Good dental education, regular visits to the dentist, a good patient-dentist relationship, and effective communication with patients and parents can all contribute to managing dental anxiety¹⁵. This study looked only at the fear of the parents' teeth, the correlation between the parent's anxiety and its effect on children.

CONCLUSION:

From this study, it can be concluded that 37.6% of the parents accompanying their children showed levels of moderate to severe anxiety. There was no significant difference in anxiety levels between the two age groups. The anxiety levels of mothers and fathers were not significantly different. The level of dental anxiety in parents can affect the level of anxiety in children. Therefore, determining the anxiety levels of the parents with their children can help the doctor develop appropriate behavior management strategies for the child.

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