

PREVALENCE OF DENTAL ANXIETY AMONG SCHOOL - GOING CHILDREN (9-15 YEARS) IN DISTRICT SOUTH WAZIRISTAN, KHYBER PAKHTUNKHWA

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ABSTRACT

OBJECTIVES

This study aimed to assess the prevalence of dental anxiety among 9 to 15 years old school-going children in South Waziristan Wana, Khyber Pakhtunkhwa (KP).

METHODOLOGY

A cross-sectional study was conducted in south Waziristan. A sample size of 300 male and female children ages 9 to 15 were taken through convenient sampling. The data was collected through well-developed questionnaires from different school-going children. Data were analysed through SPSS version 26.0.

RESULTS

40.7% of children had moderate dental anxiety, 37.3% had severe, and 22.0% had mild dental anxiety. Before dental treatment, 46.7% of children reported that the cause of dental anxiety was fear of pain, whereas, after the dental treatment, the extraction (45.7%) caused dental anxiety. Children reported high dental anxiety during the dental treatment.

CONCLUSION

Dental anxiety was high among 9 to 15 years school students in Waziristan.

KEYWORDS: Dental Anxiety, Prevalence, Dental Fear, School Children, Dental Treatment

How to cite this article

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INTRODUCTION

Dental anxiety is defined as patient's response toward stresses related to dental procedures, in which the impulse is unspecified, ambiguous, or nonexistent at the procedure's time.¹ Dental anxiety in children is common worldwide and has been identified in various countries, and researchers consider as a public health issue. This

issue can create difficulties for dentists and patients during treatment.² Its severity varies from nervousness and anxiety to dental panic. Many factors influence dental anxiety among children. Several studies have assessed the influence of elements on dental anxiety. Age, gender, and parental education is the ingredient which has a significant effect on dental anxiety in children.³ It has been reported in different studies that girls and immature children are more fearful and nervous than boys and adults.⁴ It has been reported that 73% to 79% of patients had at least some dental anxiety towards dental procedures.⁵ Using the MDAS cut-off scores of 15 and 19, the prevalence of average to severe dental anxiety in the study population was 19% and 6.82%, respectively. Females have MDAS scores 2.12 times higher than males. Among 308 participants, 26 (8.4%)

responded to missing a dental appointment due to dental anxiety.⁶ Those anxious dental patients have more missing and decayed teeth than non-anxious patients because they stay away from dental treatment and delay their dental visits. They also have poor oral health status, which can affect their life in a negative manner.⁷ Dental anxiety also has a bad effect on the procedure and the relationship between the dentist-patient in the clinic and may lead to misdiagnosis. Hence proper treatment will be impossible. To control and overcome these effects on the procedure, the dentist should educate the patient before the treatments.⁸ The anxious patients had remarkably more decayed tooth surfaces, cavities found on the tooth, and more absent teeth. Anxious patients should take more analgesic tablets to control pain.⁹ The main cause of dental fears and anxiety are Dental awareness deficiency, previous unpleasant dental experiences, dental trauma and fracture of teeth, parental education, socioeconomic status and personality traits.¹⁰ When specific care is supplied to the patients, it is given under general anaesthesia without compensation for the etiological factors behind dental fear and anxiety. Ideally, the supervision of anxious patients needs psycho-behavioural and relaxing procedures.¹¹ children may carry out providing services difficult and lead to an adverse outcome of a dental visit. Therefore, identifying children with DFA before the visit is necessary so that appropriate behaviour management techniques can be employed (i.e., both pharmacological and non-pharmacological), allowing them to obtain an effective dental treatment.¹² Among psychometric tools, those which are widely used in children are the 15-item Children's Fear Survey Schedule-Dental Subscale (CFSS-DS) and the 8-item Modified Child Dental Anxiety Scale (MCDAS). Scherer and Nakamura introduced this fear survey schedule for children to assess their fear in children.¹³ Anxiety assessment, such as the MDAS, is the best and, easy, reliable way to assess dental anxiety so that care can be more patient-centred and effective. Dental anxiety origin is usually related to direct traumatic dental experiences found at an early age, particularly when some painful events occur during the dental procedure, and thus the child becomes afraid and becomes anxious about dental treatment.¹⁴ This cross-sectional study aimed to assess the prevalence of dental anxiety among 9 to 15 years old school-going children in a district of south Waziristan, Pakistan. The study was based on a questionnaire to determine the level of dental anxiety in Waziristan children.

METHODOLOGY

This cross-sectional study was conducted in a private school in South Waziristan, Wana. It was a convenience sampling technique, and the study duration was from March to August 2022. This study included male and female school-going children aged 9 to 15. The sample size was 300 children, and the data were collected from them through well-developed questionnaires. A pilot study was conducted on 10% of the population. SPSS version 26.0 was used for data analysis.

RESULTS

Table 1: Dental Anxiety among School-Going Children

Dental Anxiety	f	%age
Mild	66	22.0%
Moderate	122	40.7%
Severe	112	37.3%

Table 2: Causes of Dental Anxiety Before the Treatment

	f	%age
Injection	120	40.0%
Fear of Pain	140	46.7%
Sound of Drill and Suction	40	13.3%

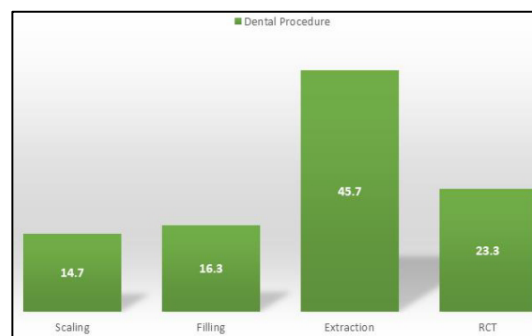


Figure 1: Dental Procedures Causing Dental Anxiety After the Treatment

Table 3: When the Dental Anxiety is At Its Peak?

	f	%age
Day Before Appointment	46	15.3 %
During Treatment	160	53.3 %
At the Waiting Room	94	31.3 %

DISCUSSION

Dental anxiety is common and spread worldwide. Dental anxiety and fear are the main causes that children mostly stay away from dental treatment or dental visits. A dentist must evaluate the patient's dental anxiety level to provide the best dental services and properly manage the patient's behaviour. When a dentist knows the patient's

dental anxiety level, it will be easy to treat them best. We select 300 children from different schools using simple random techniques in this study. The data should collect from them based on questionnaires. Dental anxiety and fear in children have been realised as a source of critical health issues, and it may persist in teenage children, which may lead to an avoidance of uncooperative behaviour during treatment.² In the previous study conducted in Turkey to find dental fear in immature children, the data showed oral health to be poor by self-judgments.¹³ Several large studies have been conducted worldwide on school children or private clinics questionnaire-based to evaluate the prevalence of dental anxiety and fear. School-based samples can collect data faster from the children in groups. Like other research discoveries, this study found a statistically distinct difference in dental anxiety between males and females, with females describing higher levels of dental anxiety. This study also establishes that high dental anxiety decreases with age.⁶ In this study, 137 children are anxious about extraction, 45.7%, 70 children's RCT 23.3%, 49 children's afraid of filling 16.3% and 44 from the scaling of 14.7%. The below graph shows the procedures which cause dental anxiety. However, remembering dental experiences is especially a painless dental experience following a poor experience and may not overcome dental anxiety quickly.¹⁵ This study shows that most children fear pain, 46.7%, while those anxious about injection are 40.7%. Maximum Children in this study feared the - fear of pain, - injection, and - sound of drill and suction. The ratio was similar to different other studies where - choking injections and have some personality effect on the patient and when a dentist put dental tools in the mouth of the patient were the most feared items.¹⁶ Most research on dental anxiety and fear in immature children has been carried out in many countries. The mean score of dental anxiety in the study was higher than the findings in Riyadh, Saudi Arabia (29%) (28), Taiwan (29.68%) (10), Nepal (28.18%) (31), but lower than the findings in India (50.2%) (8), Iran (58.8%) (3), Saudi Arabia (51.6%).¹⁷ This difference can be attributed partly to methodological differences or geographical variations. The researchers have analysed that dental anxiety greatly affects the regular dental attending rate. The research data showed that those patients who attend regular dental visits have less anxiety than irregularly attendance. This finding was in agreement with the previous study.¹⁸ The patients become anxious when waiting in the dental clinic or sitting on a dental chair. Because they look like a different dental instruments, and the

environment makes him afraid. To prevent patients from such situations, well-trained supporting staff need to educate and give knowledge related to dental procedures to anxious patients. Most patients have anxiety from the previous unpleasant dental procedure and painful experience. There are many factors that influenced dental anxiety among children. There are various studies have been conducted to assess the impact of specific influence on dental anxiety. The age, gender and parental education is the elements which have a significant influence on dental anxiety among children.³ Our study shows that when we go for visit to the dentist for cleaning teeth most of them response that they - Never visit dentist for cleaning teeth with percentage of 57.3%, those who take a visit to dentist for cleaning teeth - Once in a year were 14.7%, those who visit In 3 months to dentist for cleaning teeth were 14.7% and those who visit to a dentist - In 6 months for cleaning teeth were just 13.3%. It has been reported in different studies that girls and younger children are more fearful and anxious than boys and older children.⁴ Most previous studies found that dental anxiety and fear have been frequently reported to vary with sex, age, education, and social class. In this study, the relationship between patient's sociodemographic factors (including sex, age, gender, and education) and MDAS and DFS scores was surveyed. This study showed no statistically significant difference in anxiety levels between the gender and education groups. Nevertheless, the study showed that age was strongly associated with dental anxiety and younger children were more anxious than older children.¹⁹ This study also found that high dental anxiety gradually decreases with age, similar to other study findings.²⁰ For participants who reported missing an appointment due to dental anxiety, most participants had a previous negative dental experience as the source for their dental anxiety, similar to other research findings.²¹

LIMITATIONS

In this study, the parents or caregivers/teachers were not involved in data collection to cross-check the children's attitudes towards dental treatment. There should be more studies to evaluate the dental problems of children.

CONCLUSION

Our results highlight the importance of Vitamin The prevalence of dental anxiety was high in school children in Waziristan, 9 to 15 years old.

Educating anxiety patients before treatments are necessary when sitting in the waiting clinic area.

CONFLICT OF INTEREST: None

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2.	Kirammat Ullah – Data Acquisition; Data Analysis/Interpretation
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