

# Parents' Satisfaction With Children's Dental Treatment Undergoing Anesthesia In The Province Of Khuzestan, Iran

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## Abstract

**Background and purpose:** Pediatric dental surgery can cause significant anxiety and discomfort in the child and can make the treatment process difficult. Therefore, dental procedures under anesthesia are used due to safety, efficiency, comfort, and high quality restorative and preventive dental treatment. The degree of satisfaction and attitude of parents towards the type of treatment method and features, especially after the treatment, is one of the most important aspects of the treatment under anesthesia. Therefore, the purpose of this study is to investigate the satisfaction of parents with the dental treatment of children under anesthesia.

**Methods:** This descriptive cross-sectional study was conducted from 2018 to 2019 on children treated in private clinics in Khuzestan province. In this regard, 565 children aged 1–9 were examined. Through a questionnaire, their parents expressed their level of satisfaction with dental practices in children under anesthesia. Data was analyzed using SPSS software and descriptive statistics methods.

**finding:** The findings of this research showed that there was no significant difference between parents' satisfaction and their child's gender ( $P > 0.05$ ), while there was a significant difference between satisfaction and the child's age ( $P < 0.05$ ). According to the obtained information, in general, more than 70% satisfaction with anesthesia was achieved according to gender.

**Conclusion:** According to the results of this study, parents were very satisfied with dental services under anesthesia. However, it should be noted that dental treatments under anesthesia are used only when necessary.

**Keywords:** Parental satisfaction, dental treatment, general anesthesia

## INTRODUCTION

Dental caries is one of the most common tooth bacterial infections; if caries are not treated, the patient may face serious consequences such as aches, dental infection, early tooth loss, and malocclusion. For this, there may be a need for more comprehensive, difficult, and expensive treatments (1).

Early Childhood Caries (ECC) not only causes dental problems but also deteriorates the quality of life of children (e.g., problems with speaking, eating, sleeping, delayed physical growth) and their families if no treatment is provided, (2,3). Despite odontological advancements, ECC has still been considered a serious challenge to mouth and tooth health (4).

Dental treatments such as restoration, root canal therapy, and extraction are always unpleasant for patients, and these treatments for children cause undesirable and bigger problems. Behavioral control of low-age and mentally or physically disabled children at dental clinics have always been a problem for therapists (5). Children under dental treatment can experience anxiety or inconvenience during or after the treatment (6).

Anesthetization is a steady state of drug-induced loss of consciousness during which the patient cannot respond to painful stimuli because s/he loses his protective reflexes (3). The advantages of dental care measures under anesthesia include safety, efficacy, convenience, and high-quality restorative and preventive treatment of the tooth. Dental treatments under anesthesia are mostly used as the last solution due to their high costs and risks (7). The main reason parents prefer anesthesia-based treatment for their children is problems with their children's anxiety about dental therapy, not to mention cognitive and physical challenges that may arise (8). The advantages of the anesthetization procedure include the performance of all therapeutic procedures in one session and, most

importantly, the lack of need for child's cooperation (9). Pretez et al. demonstrated that children with ECC who undergo therapy under anesthesia at younger ages revealed a behavior similar to or better than the pre-therapy referral in a 12-month follow-up examination after the main procedure (10).

The level of satisfaction and attitude of parents to the type of therapy and therapeutic characteristics, especially after the treatment, is one of the most important aspects of therapy under anesthesia (11). Thus, this study aimed to investigate the parents' satisfaction with the dental treatment of their anesthetized children.

## Methods:

This cross-sectional descriptive study was carried out among children treated in private clinics in the province of Khuzestan from 2019 to 2021. In this study, 516 children treated under anesthesia entered the study. At first, the ethical code for the research (IR.AJUMS.REC.1401.274) was obtained from the University of Jundi Shapur. A form of informed consent was also obtained from the parents. To do the study, data were gathered by a questionnaire designed by a trained interviewer and completed by parents. The researcher-developed questionnaire included options for examining parental satisfaction with dental treatment under general anesthesia, as in the end, the reason for the selection of this type of treatment was stated. Expert professors confirmed its validity, and its reliability was measured to be 0.743. This questionnaire includes 7 items on demographics and 15 on satisfaction, which responded on a very low to very large Likert scale. After coordination with the parents and the dentist, the timing and hospitalization at hospitals equipped with dental care under anesthesia were set. After data gathering, they were analyzed by SPSS software, as descriptive statistical methods and Chi-square tests were used for statistical analyses.

## Findings

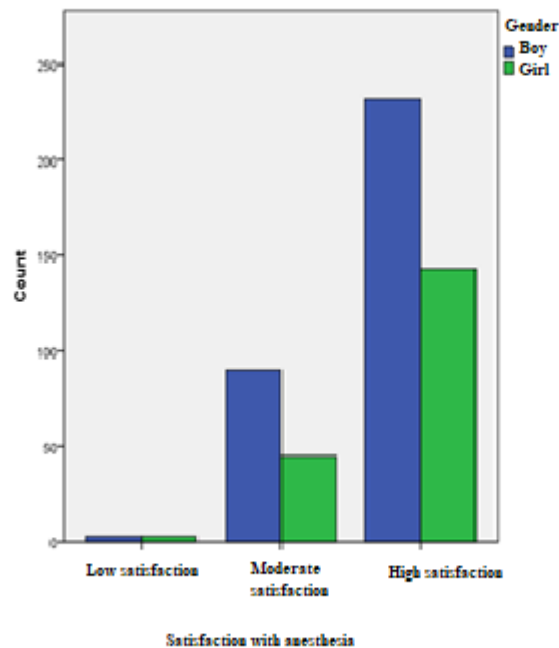
In this research, 516 samples (325 boys and 191 girls) entered the study. The frequency percentages at ages 1-3, 4-6, and 7-9 years are 26.9, 64.9, and 7.9%, respectively. Findings revealed no significant difference between parental satisfaction and child gender ( $P>0.05$ ), while there was a significant one between satisfaction and child age ( $P<0.05$ ).

According to the questionnaires, parental satisfaction with the level of fear from dental treatment, the suggestion of anesthetization to others, quality of anesthetization, the behavior of admission personnel, the behavior of operating room personnel, transfer of the child, and the dentist's behavior for post-surgery training was found to be high, with the parents' views was generally recognized as positive (Table 1). Also, parents expressed the most satisfaction with the improvement of mouth and tooth care, the behavior of nurses, admission time, and relevant training (Table 1).

**Table 1: Percentage of parents' satisfaction with dental treatments under anesthesia**

Percentage of satisfaction Level	Very low	Low	Moderate	High	Very high
Fear of dentistry	1.2	5	29.3	55.2	9.3
Improved moth and tooth health		3.3	19	38.4	39.3
Suggestion of anesthesia to others	1.9	7.6	13.2	52.7	24.6
Quality of anesthetization		2.9	22.7	39.7	34.7
Behavior of admission personnel	0.6	2.5	11.8	68.4	16.7
Behavior of nurses	0.8	3.9	19	33.7	42.6
Behavior of operating room personnel	1.2	4.1	15.5	55.2	24
Duration of admission	0.8	4.8	23.4	34.5	36.4
Transfer of child	1.9	2.7	20.5	53.5	21.3
Behavior of anesthesiologist	0.6	4.1	20.2	37.4	37.8
Behavior of dentist	0.4	3.5	16.3	51.9	27.9
Training related to symptoms	1.6	2.9	18.6	35.7	41.3
Post-surgery training	0.6	3.1	17.6	46.3	32.4

The data suggested that over 70% of satisfaction with anesthesia came from gender distinction (Diagram 1).



**Diagram 1: Level of satisfaction with anesthesia by gender**

## Discussion

Although pediatric dentists seek to avoid tooth caries through preventive treatments, the level of caries in children, especially those in developing nations, is still very high. Milk teeth are key for eating, speaking, and beauty (12). In recent years, dental treatment under anesthesia has increased in children who have had unsuccessful dental therapies due to dental anxiety, inability, younger age, or systemic disorders (13). Dental treatment under anesthesia offers effective therapies and could increase the child's quality of life (14); also, treatment in one session can be advantageous under anesthesia. Various studies have demonstrated parental satisfaction with dental treatment under anesthesia.

This research investigated the parents' satisfaction with dental treatment of children who undergo anesthesia, with the results suggesting that parents had satisfaction with treatment procedures by treatment personnel.

The age group of 4-6 years accounted for the highest age group. In a similar study, the minimum age of the patients was over 4 years (15). The number of patients who underwent anesthesia was high due to the fact that they could not cooperate well with medical staff because of their low ages.

This research also concluded that most parents were fully satisfied with the dental treatment. Consistent with our results, Rezaei Far et al.'s study demonstrated that parents were satisfied with the dental procedures under general anesthesia, stating that the rate of satisfaction with dental services was over 80% (9). Moreover, Delikan et al. maintained that 68% of parents had satisfaction. In comparison, 30% had moderate satisfaction, finding out that the most important reason for anesthesia was children's fear of dentistry, which was alleviated by treatment under anesthesia (1).

In sum, this study reported that parental satisfaction with dental treatment under anesthesia was generally 70%, as our results were consistent with those of Andrew et al., who reported a 67% rate (16). Satisfaction with anesthesia during surgery can be associated with reduced anxiety in children from dental treatment.

## Conclusion

As results found, parents had much satisfaction with dental care under anesthesia; however, it should be pointed out that dental treatments under anesthesia should be used only when necessary.

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