

Evaluation of parental satisfaction and improvement of oral health for uncooperative pediatric patients treated under general anesthesia in Queen Alia Military Hospital

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Abstract

Aim: The study explores parental satisfaction in paediatric dentistry, examining the impact of proposed variables on a paediatric cohort and their parents, and examining correlations between categorised variables and graded parental satisfaction.

Methods: This study is a retrospective observational study at Queen Alia Military Hospital, involving 120 pediatric patients and their parents from January 2023 to November 2024. The participants were assessed for ineligibility for non-anesthetic procedures and parental consent was obtained. The study examined parental tested variables, including educational levels and periprocedural communication quality. Parental satisfaction levels were classified into three ordinal categories: poor, good, and excellent. The Dental Satisfaction Scale questionnaire was used to assess parental satisfaction. Chi-square analyses were used to evaluate the distributional rates across the three levels of parental satisfaction. Pearson correlations were also examined to examine the statistical significance of the variation in satisfaction levels.

Results: This study examined the satisfaction levels of pediatric patients who underwent dental procedures, focusing on extraction only, dual restoration with exodontia, or restoration with pulp therapy. The overall satisfaction rates were 6 (5%), 39 (32.5%), and 75 (62.5%), respectively. The gender distribution rates were insignificant, with 62 males (51.7%) and 58 females (48.3%) participating. The age distribution rates were insignificant, with 46.7% of patients under 6 years attending testing. This study examined five predefined variables related to post-procedural dental procedures in children. Four of these variables were related to the paediatric cohorts, while the fifth variable was the parental involvement. All variables showed significant correlations across parental satisfaction levels. The study found that post-procedural food consumption, sleep quality, and reintegration rates in social activities were positively correlated with parental satisfaction. However, recovery time had a negative correlation with parental satisfaction. The study also found a positive correlation between parental satisfaction and perioperative communication between the dental department and the parental cohort of paediatric patients undergoing dental procedures under anesthesia.

Conclusion: The study found that comprehensive dental rehabilitation for uncooperative children, along with post-procedural improvements in oral health, sleep quality, and social reintegration activities, significantly improved parental satisfaction levels and overall healthcare system quality.

Keywords: Parental satisfaction; Oral Health; Uncooperative Pediatric Patients; Anaesthesia care; Multiple logistic regression modeling

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1. Introduction

Paediatric dental treatments are becoming more important because dental health affects systemic health in children. To improve oral health, dental diseases must be treated and oral function rebuilt [1-3]. Due to severity, fear, and anxiety, many paediatric patients cannot receive local anaesthesia dental treatment. Treatment history, sensory defensiveness, dental fears, and individual differences can cause dental anxiety [4-5]. Systematic desensitization, modelling, reinforcement, distraction, hypnosis, and the 'TELL show 'Method have been suggested to manage children's dental behaviour [6-7]. However, dental fear and anxiety persist, and not all children respond well to these methods. The most important issue in paediatric dentistry is assessing how treatment methods control fear, anxiety, and cooperation [8-9].

Parental satisfaction is crucial when assessing dental services, especially as parents become more involved in their children's healthcare. The article "Satisfaction of Parents and Carers with Dental Treatment of Children Under General Anaesthesia in a Day Care Surgery Setting" by Špiljak et al. highlights the importance of better communication about treatment protocols before procedures to reduce parental anxiety and promote collaboration between carers and healthcare providers [10-11]. The previously mentioned study and others show that parental satisfaction affects child health outcomes, suggesting that improving parental experiences can improve preventive care adherence [12-13]. To improve parental satisfaction, the several authors suggest improving communication about treatment protocols before procedures to reduce parental anxiety and encourage caregiver-provider collaboration. Anaesthesiologists are also important because institutional anaesthesia care challenges can affect parental satisfaction [14-17].

Addressing these issues is essential for improving paediatric dental care. A good healthcare system improves outcomes and ensures quality. Satisfied parents are more likely to bond with doctors, which can improve treatment and prevention [18-19]. This shows how multifaceted parental satisfaction is and how it affects children's immediate and long-term health [20-21]. Literature reviews concluded that parental satisfaction is crucial to the treatment experience and health outcomes for children undergoing general anaesthesia dental procedures [22-23]. Healthcare providers can improve parental satisfaction and dental health engagement and adherence by also addressing institutional issues. The facility, lack of information, and risks of general anaesthesia dental procedures were these parents' main concerns [24-25].

However, several proposed pediatric and parental variables may predict parental satisfaction in paediatric hospitals, according to previous studies. This includes the recovery period after procedural induction and the waiting period before the dental procedure. For paediatric parents, communication quality is crucial to satisfaction. Other variables examined include postoperative pain intensity, food consumption, sleep duration, and quality. Few studies have compared the clinical impact of reimplementation of affected paediatrics social activities to their baseline well-health. Parental education has also been extensively studied [26-29].

This study emphasised the need to understand and address parental satisfaction in paediatric dentistry. Also, this study examined the impact of aforementioned proposed variables related to a paediatric cohort and their parents on parental satisfaction, ranging from poor to excellent. This study's secondary goal is to examine the correlations between categorised tested variables and graded parental satisfaction, adjusted for standard errors, while abstracting the distribution rates of the tested variable categories across the three parental satisfaction levels.

2. Methods

This research is a retrospective observational study to be conducted at Queen Alia Military Hospital, involving 120 paediatric patients and their respective parents who attended our dental speciality clinics from January 1, 2023, to November 2024. The study was conducted over a duration of approximately 23 months, with inclusion criteria stipulating that uncooperative paediatric patient with an average age of 6 years, who required dental care deemed challenging to administer in a clinical environment, were to receive general anaesthesia. All eligible cohorts for conducting this study underwent one of the following predefined dental procedures: extraction only, restoration combined with exodontia, or dual restoration management with adjunctive pulp therapy under general anaesthesia.

This study received approval from the institutional review board during the committee meeting on December 17, 2024, and was assigned the registration number 24_10/2024. The second and final approval for publication was obtained from our institutional directorate of technical and development at 5 Jan 2025. Due to the retrospective design of this study, the informed consent form from paediatric parents was waived, and the study was strictly adhered to the standards established in the Helsinki ethical research protocols.

The paediatric cohort was comprised of children aged 3 to 10 years for this study, and all participants were meticulously assessed for ineligibility regarding non-anesthetic procedures with parental consent. Any paediatric patient whose subjective assessment indicated a high likelihood of tolerating local anaesthetic techniques and who had medical conditions or histories that precluded the administration of one of the three aforementioned dental procedures under general anaesthesia, as well as those with a deficiency in assessed and collected retrievable data exceeding 5% for either the paediatric cohort or their corresponding parents, were excluded from this study.

The data for this study was primarily obtained through a composite triad: the documented information in our institutional electronic recording system, known as Hakeem; the written notes from our dental clinics department; and for debated or uncertain data, we addressed these knowledge gaps by directly contacting eligible paediatric parents using their recorded telephone numbers from our private archives. Nonetheless, the accessible data encompassed primarily two dimensions: independent variables pertaining to the paediatric patients who underwent one of the three specified dental procedures, and independent variables that were partially or exclusively related to the parents of the paediatric cohort.

Paediatric studies analysed data primarily encompassing demographic information such as gender and age categories, delineated as below or above the six-year threshold. The investigation focused on the specific types of dental procedures performed, post-procedural pain tolerability, quantity of food consumption following the procedure, and sleep quality relative to standard categories associated with poor recovery. Additionally, the extent of post-procedural reintegration into social activities and the paediatric recovery timeframe following the procedure were examined.

The independent variables examined in this study, pertaining to the paediatric cohort's parents, referred to as parental tested variables, primarily encompassed their educational levels and the quality of periprocedural communication. However, this study also addressed the waiting time for processing the intended procedure to briefly investigate the impact of delays on parental satisfaction levels. The primary outcomes of this study were the levels of parental satisfaction, which were classified into three ordinal categories: poor satisfaction, designated as Level I; good satisfaction, designated as Level II; and excellent satisfaction, designated as Level III. It is important to note that the categorisation of the involved parents was primarily subjective and largely dependent on the parents' responses. The Dental Satisfaction Scale questionnaire, a parent-reported instrument, was principally utilised in this study to assess parental satisfaction levels about their paediatric patients who underwent dental procedures under general anaesthesia.

This study employed chi-square analyses as the primary statistical test to evaluate paediatric and parental independent variables, categorised as binary or ordinal. The analysis aimed to elucidate the distributional rates across the three levels of parental satisfaction (Level I-III) by cross-tabulating the tested variable categories with their corresponding satisfaction levels. However, it is important to note that the statistical significance of the variation in these distributional rates was the primary focus of our study. Furthermore, the Pearson correlations for the assessed variable categories concerning the rated parental satisfaction levels were examined, with these correlations represented as values adjusted for their standard errors.

The Microsoft Excel version 20 was utilised in this study as the primary tool for collecting, revising, and filtering retrospective data from both paediatric and parental sources. The Statistical Package for the Social Sciences (SPSS) version 25 from Intel Corporation was primarily utilised in this study to statistically analyse the intended data and to elucidate their distribution rates, significance, and correlation. It is noteworthy that the level of statistical significance established in this study was set at 5%.

3. Results

Paediatric patients who were referred to our dental unit at Queen Alia Military Hospital underwent one of three specified dental procedures: extraction only, dual restoration with exodontia, or restoration with pulp therapy. The overall parental satisfaction rates in this study, categorised into three levels—poor satisfaction (Level I), good satisfaction (Level II), and excellent satisfaction (Level III)—were determined as 6 (5%), 39 (32.5%), and 75 (62.5%), respectively. Notably, this study did not demonstrate statistical significance concerning the three aforementioned dental procedures (p -value=0.473). In this study, approximately 5% (6 cases) of the paediatric cohort underwent extraction only. Approximately 89.2% (107 cases) were performed for dual restoration with exodontia, while about 5.8% (7 cases) were conducted for restoration management involving pulp therapy.

The gender distribution rates among the three levels of parental satisfaction exhibited statistically insignificant variation (p -value=0.248), with a total of 62 males (51.7%) and 58 females (48.3%) participating in this study. The age

distribution rates across satisfaction levels I-III were statistically insignificant (p-value=0.750) when the paediatric procedural anaesthesia was categorised into two age groups: under 6 years and over 6 years. Notably, the percentage of paediatric patients under 6 years of age who attended testing was 46.7% (56 cases), while those over 6 years constituted 53.3% (64 cases).

This study reveals a statistically significant correlation between parental education levels and parental satisfaction. The education levels ranged from the lowest category of high school to the highest, including master's degrees and beyond. The distribution across the three parental satisfaction levels was statistically significant (p-value=0.024), with approximately 43.3% (52 cases) at the high school level, 39.2% (47 cases) at the bachelor's degree level, and 17.5% (21 cases) at the master's degree or higher level. Initially, when conducted a chi-square analysis to examine the parental educational levels across the three primary investigated parental satisfaction levels. The highest rate of excellent parental satisfaction was observed in the high school educational category (37 (49.3%)), while the good parental satisfaction level was noted among parents with bachelor's degrees (22 (56.4%)). The highest rate of poor parental satisfaction was observed among parents with a master's degree or higher, comprising 3 individuals (50.0%) of the studied cohort. The Pearson correlation indicated a weak but statistically significant negative correlation between the increase in parental educational levels and the enhancement of parental satisfaction levels [-0.119±0.099]. The results of cross-tabulation analyses regarding paediatric demographic and procedural specifications, along with parental educational levels are fully expressed below in **Table 1**.

Table 1 Results of cross-tabulation analyses regarding paediatric demographic and procedural specifications, along with parental educational levels

	Satisfaction levels				R±SEV	Sig
	Level I	Level II	Level III	Level I-III		
	(6, 5%)	(39, 32.5%)	(75, 62.5%)	120		
Gender						
F	2 (33.3%)	17 (43.6%)	43 (57.3%)	62 (51.7%)	-0.152±0.089	0.248
M	4 (66.7%)	22 (56.4%)	32 (42.7%)	58 (48.3%)		
Age (Yrs)						
<6	3 (50.0%)	20 (51.3%)	33 (44.0%)	56 (46.7%)	+0.063±.091	0.750
≥6	3 (50.0%)	19 (48.7%)	42 (56.0%)	64 (53.3%)		
Dental TRT						
Extraction only	1 (16.7%)	2 (5.1%)	3 (4.0%)	6 (5.0%)	+0.148±0.089	0.473
Restoration w Exo	5 (83.3%)	36 (92.3%)	66 (88.0%)	107 (89.2%)		
Restoration w Pulp	0 (0.0%)	1 (2.6%)	6 (8.0%)	7 (5.8%)		
Educational Level						
High school	2 (33.3%)	13 (33.3%)	37 (49.3%)	52 (43.3%)	-0.119±0.099	0.024
Bachelor	1 (16.7%)	22 (56.4%)	24 (32.0%)	47 (39.2%)		
Master or higher	3 (50.0%)	4 (10.3%)	14 (18.7%)	21 (17.5%)		

Chi-square analyses were performed in this study to examine the variations in distribution rates of the aforementioned independent variables across the three levels of parental satisfaction: Poor satisfaction level (Level I), Good satisfaction level (Level II), and Excellent satisfaction level (Level III). Furthermore, the Pearson correlations were also extracted in these conducted cross-tabulation analyses. The threshold for statistical significance in this study was established at 5%.

- R: Pearson correlation.
- SEV: Standard error of value.
- Sig: Statistically significant.
- F: Female.
- M" Male. Yrs: Years.
- TRT: Treatment.

- EXO: Exodontia or exodontics.

In this study, we evaluated five predefined variables, four of which pertained to the paediatric cohorts under investigation: post-procedural food quantity consumption, overall quality of post-procedural sleep, duration of post-procedural recovery periods in days, and the resumption of social activities post-procedure. The fifth tested independent variable pertained to the parental involvement of the paediatric cohort, articulated as the quality of periprocedural communication. All five predefined independent variables demonstrated statistical significance when we assessed their distributional rate variances across the three examined levels of parental satisfaction (Level I-III).

Nonetheless, the postprocedural food consumption rate, postprocedural sleep quality, and postprocedural reintegration rates in social activities exhibited statistically significant mild to moderate positive Pearson correlations [$+0.400\pm 0.118$, $+0.441\pm 0.104$, and $+0.199\pm 0.092$, respectively]. The postprocedural restoration of standard food intake, sleep quality, and social engagement exhibited the highest distribution rates [70 (93.3%), 74 (98.7%), and 70 (93.3%), respectively] in the excellent parental satisfaction level (Level III), in contrast to the lower distribution rates [0 (0.0%), 2 (33.3%), and 5 (83.3%), respectively] observed in the poor parental satisfaction level (Level I).

In contrast to three associated paediatric independent variables, the recovery time, also designated as an independent variable pertinent to the examined paediatric cohort, exhibited a mild statistically significant negative Pearson correlation [-0.247 ± 0.104] concerning the progression of the recovery period in relation to the enhancement of parental satisfaction levels. In instances, the distribution rates of high parental satisfaction (Level III) demonstrated approximately 62.7% (47 cases) when the postoperative recovery period did not exceed 2 days; conversely, the rates declined to approximately 5.3% (4 cases) when the recovery period exceeded 7 days for the paediatric patients treated.

This study primarily aimed to investigate the role of perioperative communication between the dental department of our institution and the parental cohort of paediatric patients undergoing one of three specified dental procedures under anaesthesia. We found a statistically significant mild positive Pearson correlation [$+0.248\pm 0.097$], indicating that all parents who reported an excellent level of satisfaction described high levels of communication during the perioperative processes with the dental care facility. Nonetheless, the results of cross-tabulation analyses regarding post-procedural pain, food quantity, and sleep quality, in addition to pre-procedural waiting and post-procedural recovery times, as well as perioperative communication patterns, are comprehensively presented below in Table 2.

Furthermore, Figure 1 features a 3D illustration that consolidates the majority of our outcomes of interest. The established parental satisfaction levels varied from poor satisfaction (Level I) to good satisfaction (Level II) and excellent satisfaction (Level III), while accounting for the notable effect of evaluated paediatric recovery durations in days: up to 2 days, 3-7 days, and exceeding 7 days, alongside the impact of perioperative communication quality, classified as intermittent (Blue) versus regular (Red).

Table 2 Outcomes of cross-tabulation analyses concerning post-procedural pain, food quantity and sleep quality, along with preprocedural waiting and postprocedural recovery times, as well as perioperative communication patterns

	Satisfaction levels				R±SEV	Sig
	Level I	Level II	Level III	Level I-III		
	(6, 5%)	(39, 32.5%)	(75, 62.5%)	120		
Post-Procedural Pain						
Tolerable	4 (66.7%)	29 (74.4%)	56 (74.7%)	89 (74.2%)	-0.027±0.094	0.911
Intolerable	2 (33.3%)	10 (25.6%)	19 (25.3%)	31 (25.8%)		
Post-Procedural Food Qty						
Poor	6 (100.0%)	3 (7.7%)	5 (6.7%)	14 (11.7%)	+0.400±0.118	0.000
Standard	0 (0.0%)	36 (92.3%)	70 (93.3%)	106 (88.3%)		
Post-Procedural Sleep Qly						
Poor	4 (66.7%)	4 (10.3%)	1 (1.3%)	9 (7.5%)	+0.441±0.104	0.000
Standard	2 (33.3%)	35 (89.7%)	74 (98.7%)	111 (92.5%)		
Waiting Time (Months)						

<3	3 (50.0%)	24 (61.5%)	48 (64.0%)	75 (62.5%)	-0.100±0.100	0.608
3-6	1 (16.7%)	9 (23.1%)	19 (25.3%)	29 (24.2%)		
>6-9	2 (33.3%)	6 (15.4%)	8 (10.7%)	16 (13.3%)		
Recovery Period (Days)						
≤2	2 (33.3%)	18 (46.2%)	47 (62.7%)	67 (55.8%)	-0.247±0.104	0.002
3-7	1 (16.7%)	18 (46.2%)	24 (32.0%)	43 (35.8%)		
>7	3 (50.0%)	3 (7.7%)	4 (5.3%)	10 (8.3%)		
Social activity						
Restricted	1 (16.7%)	9 (23.1%)	5 (6.7%)	15 (12.5%)	+0.199±0.092	0.040
As Usual	5 (83.3%)	30 (76.9%)	70 (93.3%)	105 (87.5%)		
Peri-Procedural Interactions						
Limited	1 (16.7%)	2 (5.1%)	0 (0.0%)	3 (2.5%)	+0.248±0.097	0.019
Regular	5 (83.3%)	37 (94.9%)	75 (100.0%)	117 (97.5%)		

Chi-square analyses were performed in this study to examine the variations in distribution rates of the aforementioned independent variables across the three levels of parental satisfaction: Poor satisfaction level (Level I), Good satisfaction level (Level II), and Excellent satisfaction level (Level III). Furthermore, the Pearson correlations were also extracted in these conducted cross-tabulation analyses. The threshold for statistical significance in this study was established at 5%.

- R: Pearson correlation.
- SEV: Standard error of value.
- Sig: Statistically significant.
- Qly: Quality.
- Qty: Quantity.

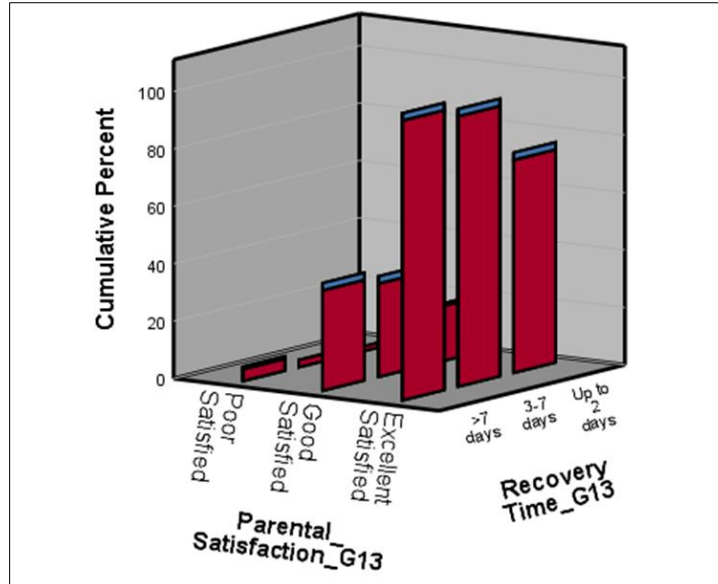


Figure 1 A 3D illustration that compiles the majority of our outcomes of interest. The predefined parental satisfaction levels ranged from poor satisfaction (Level I) to good satisfaction (Level II) and excellent satisfaction (Level III), while considering the significant impact of the assessed paediatric recovery times in days: up to 2 days, 3-7 days, and over 7 days, as well as the influence of perioperative communication quality, categorised as intermittent (Blue) versus regular (Red)

4. Discussion

This study was conducted at the Queen Alia Military Hospital in Amman, Jordan, within our institutional dental department for paediatrics, focussing on oral health care for paediatric patients through one of the predefined dental procedures: extraction only, restoration management with exodontia, or restoration management with pulp therapy, all under general anaesthesia. This study primarily aimed to assess the statistical significance of various predefined independent variables associated with both the tested paediatric subjects and their respective parents, in relation to the outcomes concerning parental satisfaction levels—categorized as poor, good, or excellent—while considering the adjusted Pearson correlation and its standard errors. Nonetheless, the assessed predictive variables for parental satisfaction, as previously outlined, encompass primarily the extent and quality of perioperative communication, postprocedural recovery durations, and other pertinent paediatric postprocedural enhancements in specific monitored metrics of food intake and sleep quality, as well as reintegration into customary social activities.

This study concluded that various investigated variables may considerably affect parental satisfaction levels in both positive and negative directions, and these potential independent variables may pertain to both the tested paediatric subjects and their parents. It is noteworthy that all participants in this study had dental procedures under general anaesthesia due to the challenges associated with performing these procedures using local anaesthesia. Our study shown that the postprocedural recovery duration significantly influenced parental satisfaction compared to the preprocedural waiting period. This study categorizes the preprocedural waiting time period into three classifications: less than 3 months, 3 to 6 months, and greater than 6 months. Elevated levels of parental satisfaction were seen for the procedure, with the majority of parents content with the quality of information and communication with professionals during the perioperative period. The subjects examined encompassed carer satisfaction registration, aftercare oral hygiene and dietary recommendations, and adverse events recorded in instances of multiple registrations, wherein the majority of parents articulated apprehensions regarding the potential risks of general anaesthesia for their children.

A restricted set of variables was recognised as significant in previous paediatric hospital studies investigating parental satisfaction regarding multidimensional factors related to paediatric procedural dentistry, with or without the associated parental influences on overall satisfaction, impressions, and perceptions [30-34]. Several contextual characteristics associated with the evaluated paediatric parents may forecast their pleasure. Among the proposed independent variables are the duration of the recuperation period following procedural induction and the waiting period before performing the intended dental treatment [35-37].

A study conducted by Mathew MG et al. involved 200 children who underwent full-mouth rehabilitation under general anaesthesia for the management of early childhood caries. The results indicated a notable enhancement in oral health-related quality of life and parental contentment. Parents indicated favourable perceived results and a notable enhancement in their child's oral and overall health. The research determined that the intervention fulfilled the parents' expectations [38]. In our study, we identified a negative link between the progression of the recovery period and parental satisfaction levels, with elevated satisfaction rates in paediatric patients (62.7%) observed when the recovery duration was under 2 days. In a separate study examining the influence of waiting periods on parental satisfaction, Sargin M et al. utilised the Paediatric Anaesthesia Parent Satisfaction (PAPS) survey to compare parental satisfaction between two groups of children, one with developmental delays and the other without. The results indicated no substantial disparity in satisfaction among the groups, with the exception of the lowest score recorded in the "Before anaesthesia" segment. The research revealed that parental satisfaction is equivalent for children with developmental delays and those without [39]. In our study, which emphasised the waiting and delay periods in months prior to the procedure, we did not uncover a statistically significant correlation between waiting lengths and parental satisfaction levels. A study conducted by Karaca S et al., comprising 214 children with severe early childhood caries under general anaesthesia, shown that comprehensive dental rehabilitation under general anaesthesia dramatically enhanced their physical and social quality of life. to examine the significant enhancement of oral health, functionality, and social activity following procedure implementation, The study assessed patients' oral complaints, functional limits, emotional and social circumstances, and parental satisfaction prior to and 18 months post-treatment. The findings indicated a substantial reduction in symptoms and functional impairments post-treatment, accompanied by a high parental satisfaction score of 98.14%. This indicates that oral rehabilitation can markedly enhance the quality of life for children and their families [40]. We similarly revealed a statistically significant postprocedural enhancement in food quality, also referred to as oral health quality, as well as improvements in sleep quality and social reintegration activities in relation to parental satisfaction levels.

Moreover, a significant element influencing paediatric parents' satisfaction levels pertains to the quality of communication [41-42]. Few prior research have focused on examining the therapeutic effects of parental educational levels, which have variably influenced parental satisfaction [43-45]. Our study, however, demonstrated a statistically

significant difference among the various parental educational levels, ranging from high school to master's degree and beyond. Infrequently addressed and underappreciated variables, such as dental professionalism, significantly affect parental satisfaction. Prior research indicates that parents' assessments of their child's dental treatment under general anaesthesia may be influenced by the conduct of dental professionals and their children. Regrettably, we did not examine the significant significance of dental staff professionalism in relation to parental satisfaction levels. This study was limited by its retrospective design, single centre, relatively small sample size, and restricted tested factors, which hindered our ability to conduct more advanced regression analysis to explore the correlations with the adjusted propensity ratios. Further prospective multicenter randomised studies with larger sample sizes are strongly recommended to conduct research simulating parental satisfaction, aiming to identify stronger predictors of parental satisfaction and to explore causality rather than mere associations [46-48].

5. Conclusion

This study demonstrated that comprehensive dental rehabilitation under general anaesthesia for uncooperative children, accompanied by paediatric postprocedural enhancements in oral health, sleep quality, and social reintegration activities, significantly impacted parental satisfaction levels and consequently improved the overall quality of the healthcare system. Furthermore, both the postoperative recovery duration and the extent of preoperative communication shown a statistically significant impact on parental satisfaction levels in this study. This study found a statistically significant, albeit weak, unfavourable association between greater parental educational levels and their tendency for satisfaction. We did not identify a significant correlation between waiting periods and parental satisfaction levels. However, considering the previously mentioned significant paediatric and parental variables may influence the likelihood of achieving greater parental satisfaction and, consequently, an enhanced overall quality of the healthcare system.

Compliance with ethical standards

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Disclosure of conflict of interest

There is no conflict of interest in this manuscript

Statement of ethical approval

There is no animal subject involvement in this manuscript. This study received approval from the institutional review board during the committee meeting on December 17, 2024, and was assigned the registration number 24_10/2024. The second and final approval for publication was obtained from our institutional directorate of technical and development at 5 Jan 2025. Due to the retrospective design of this study, the informed consent form from paediatric parents was waived, and the study was strictly adhered to the standards established in the Helsinki ethical research protocols.

Statement of informed consent

Owing to the retrospective design of this study, the informed consent form was waived.

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