

Parental Treatment Satisfaction Scores in a Day Care Pediatric Surgical Procedures

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ABSTRACT

Objective: To determine the mean Parental treatment satisfaction scores in a day care pediatric surgical procedure.

Method: A cross-sectional study was conducted at the department of Pediatric Surgery, Liaquat National Hospital, Karachi between September 2019 to March 2020. All children of age 1-15 years of either gender admitted in Day Care Surgery for undergoing any of the pediatric surgical procedures (Hernia surgery, circumcision surgery or cysts surgery) were included. Data regarding age of child, gender, educational status of mother and father and parental age was obtained and was noted. The questionnaire covered the following areas: surgical staff and general treatment satisfaction, nursing staff and general information satisfaction; and Anesthetic staff satisfaction. The total parenteral treatment satisfaction scores were calculated.

Results: Age range of children in this study was from 1 to 15 years with mean age of 7.7 ± 5.5 years, mean age of mother was 35.1 ± 7.5 , mean age of father was 39.7 ± 6.9 , mean duration of surgery was 45 ± 13 and mean duration of anesthesia was 47 ± 5 in minutes. The mean Parental treatment satisfaction scores in a day care pediatric surgical procedure was 6.67 ± 0.7 .

Conclusion: The satisfaction level of the parents was fair enough considering the units where pediatric sedation was administered. When the physical conditions and the communication with patients and their relatives are improved and the procedure schedule is followed strictly, there will be further improvement in positive clinical results.

Keywords: Pediatric surgery, Parental, satisfaction score, Sedation

INTRODUCTION

In recent years, pediatric surgery in a daycare setting has become the standard. During the perioperative period, children require extra attention in terms of psychological stress.¹ Preoperative sedative premedication, induction of anesthesia in a familiar environment, and "steal" induction in the mother's arms are all options for reducing stress in children due for surgery.^{2,3} When providing healthcare to children, it is critical to consider parental satisfaction.

Daycare surgery is becoming more popular since it shortens hospital stays by allowing admission and discharge on the same day. In the pediatric age range, at least 70% of surgeries are performed as day cases.⁴ The availability of shorter-acting anesthetic drugs and analgesics has allowed for an increase in daycare surgery. Tonsillectomy, circumcision, undescended testes, inguinal herniotomy, and other short-term procedures with minimal blood loss are typical among these people.⁵

Separation anxiety and perioperative stress are common among children. Establishing a good relationship with the child's parents or guardians is an important part of providing complete care to the pediatric surgery patient. Parents and guardians are frequently concerned about their child's care, and it is the pediatric surgeon's job to assuage their anxieties. Skilled communication can help you foster a positive relationship with your family. The quality of medical care and communication has a strong

correlation with parent satisfaction. In previous investigations, parental satisfaction was rather high.⁶⁻⁸

The satisfaction rate is linked to a number of aspects, including physician availability, alignment between the family and healthcare professionals assessing treatment options for the patient, and the capacity to empathize with the family's emotional state.^{9,10} The quantity and variety of satisfaction questionnaires prepared for pediatric patients' parents is fairly limited. As a result, the goal of this study was to determine how satisfied parents were with their child's treatment in a day care pediatric surgical facility.

METHODS AND MATERIALS

A cross sectional study was conducted at the Department of Pediatric Surgery, Liaquat National Hospital, Karachi between September 2019 to March, 2020. A non-probability consecutive sampling technique was used to enroll the participants. By using the mean parental treatment satisfaction score in a pediatric daycare surgical procedure i.e. 4.333 ± 0.4^9 , margin of error = 0.1, level of confidence = 95%, then at least a sample of 70 was required.

All children of age 1-15 years of either gender admitted in Day Care Surgery for undergoing any of the pediatric surgical procedures (Hernia surgery, circumcision surgery or cysts surgery) were included. At least one of the parents or legal guardians were included as well. Those children who were admitted to ward post operatively, were

indoor patients or those admitted in the emergency department were excluded.

An informed consent was taken after explaining the purpose and procedure of the study. Data regarding age of child, gender, educational status of mother and father and parental age was obtained and was noted on pre-designed Performa. Consenting Parents were provided a questionnaire to fill just before the discharge of their children from the daycare ward. The questionnaire covered the following areas: surgical staff and general treatment satisfaction, nursing staff and general information satisfaction; and Anesthetic staff satisfaction. Each had the option of Yes or No. The answer Yes carried 1 score and No carried 0 score. The total parental treatment satisfaction scores was calculated and was recorded on pre-designed approved Performa. All the procedure was done by the researcher himself.

Data analysis was done on SPSS version 20. 0. A descriptive statistical analysis of continuous and categorical variables was performed. Data on continuous variables like age of children, age of parents, duration of surgery, duration of anesthesia and parental treatment satisfaction score was presented as MEAN +/- SD and data on categorical variables including gender, type of surgery, parental education and socio-economic status were presented as frequency and percentages. Stratification was done on the basis of age of children, age of mother and father, duration of surgery, duration of anesthesia, gender of children, type of surgery, education of mother and father and socio-economic status. Post stratification T-test/ANOVA was applied. P-value less than and equal to 0.05 was taken as significant.

RESULTS

Age range of children in this study was from 1 to 15 years with a mean age of 7.7 ± 5.5 years. The mean Parental treatment satisfaction scores in a day care pediatric surgical procedure was 6.67 + 0.7 (Table 1).

Table 1: Patient characteristics (Continuous Variables)

Characteristics	mean ± Std.
Age of the Patients	7.7 ± 5.5
Age of the Mother	35.1 ± 7.5
Age of the Father	39.7 ± 6.9
Duration of Surgery (Minutes)	45 ± 13
Mean duration of Anesthesia (Minutes)	47 ± 15
Mean Parental treatment satisfaction score	6.73 ± 0.7

Out of 70 patients, 37(53.4%) were male and 33(46.6%) were female, shown in table no: 06.

33 (47%) underwent hernia surgery, 26(37%) for circumcision and 11(15.7%) for cysts. When educational status of the mother was assessed, it was found that (0)0% were uneducated, (1)1% were primary passed, (10)15% were secondary passed, 8(11%) were intermediate passed, 39(56%) were graduated and 12(17%) were highly qualified. Similarly, when father's education status was assessed, 0(0%) were uneducated and primary pass, 1(2%) were secondary pass, 13(18%) were intermediate pass, 26(37%) graduated and 30(43%) were highly qualified (Table 2).

Table 2: Patient characteristics (Categorical Variables)

Characteristics	n (%)
Gender	
Male	37 (0.53%)
Female	33 (0.47%)
Type of Surgery	
Hernia	33 (0.47%)
Circumcision	26 (0.37%)
Cysts	11 (0.16%)
Educational Status of Mother	
Uneducated	0 (0.00%)
Primary	1 (0.01%)
Secondary	10 (0.15%)
Intermediate	8 (0.11%)
Graduate	39 (0.56%)
Higher Qualification	12 (0.17%)
Educational Status of Father	
Uneducated	0 (0.00%)
Primary	0 (0.00%)
Secondary	1 (0.02%)
Intermediate	13 (0.18%)
Graduate	26 (0.37%)
Higher Qualification	30 (0.43%)
Socio-Economic Status	
Jobless	0 (0.00%)
< Rs.20,000	13 (0.19%)
> 20,000-50,000	27 (0.38%)
> 50,000	30 (0.43%)

When the results were stratified with respect to children age, father age, duration of anesthesia, type of surgery, educational status of father and socio-economic status, significant difference was observed and in the same way, when results were stratified with respect to mother age, duration of surgery, gender and educational status of mother, no significant difference was observed as shown in Table 3.

Table 3: and label it as Association between socio-demographic and clinical factors associated with parental satisfaction

Characteristics	Satisfaction Score mean ± Std.	P-Value
Age of the Patients		0.000001
1-8 years (n=27)	5.3 ± 0.9	
>8-15 (n=43)	6.4 ± 0.79	
Age of the Mother		0.7169
25-35 (n=44)	6.03 ± 0.9	
>35-45 (n=26)	6.1 ± 0.5	
Age of the Father		0.019
25-35 (n=23)	6.1 ± 0.69	
>35-45 (n=47)	6.45 ± 0.7	
Duration of Surgery		0.092
< 30 minutes (n=29)	6.4 ± 0.6	
30 Minutes (n=41)	6.7 ± 0.8	
Duration of Anesthesia		0.0198
< 30 minutes (n=33)	6.3 ± 0.7	
30 minutes (n=37)	6.7 ± 0.7	
Gender		0.262
Male (n=37)	6.4 ± 0.9	
Female (n=33)	6.2 ± 0.5	
Type of Surgery		0
Hernia (n=33)	5.9 ± 0.7	
Circumcision (n=26)	6.7 ± 0.3	
Cysts (n=11)	6.9 ± 0.4	
Educational Status of Mother		0.532

Uneducated (n=0)	-	
Primary (n=1)	6.1 ± 0.3	
Secondary (n=10)	6.7 ± 0.7	
Intermediate (n=8)	6.4 ± 0.69	
Graduate (n=39)	6.7 ± 0.7	
Higher Qualification (n=12)	6.9 ± 0.7	
Educational Status of Father		0.0049
Uneducated (n=0)	-	
Primary (n=0)	-	
Secondary (n=1)	5.1 ± 0.3	
Intermediate (n=13)	6.1 ± 0.6	
Graduate (n=26)	6.7 ± 0.9	
Higher Qualification (n=30)	6.9 ± 0.7	
Socio-Economic Status		0.0007
Jobless (n=0)	-	
< Rs. 20,000 (n=13)	6.1 ± 0.7	
21,000-50,000 (n=27)	6.3 ± 0.7	
> 50,000 (n=30)	6.9 ± 0.7	

DISCUSSION

The majority of pediatric patients undergoing anesthesia for an interventional procedure are unable to convey their demands or sentiments properly. Families play an important role in determining both the amount of enjoyment and the level of quality at this point.¹¹ According to an assessment of parental satisfaction in critical care, parental satisfaction questionnaires need to be improved.¹²⁻¹³

Gozal et al. assessed global satisfaction with pediatric procedural sedation by asking parents whether they were “very satisfied, satisfied, or not very satisfied” with their service, but they made no attempt to quantify parental satisfaction or investigate predictors of satisfaction following pediatric procedural sedation.¹² Interestingly, the Picker Institute Europe survey also noted that 55% of the respondents who rated their inpatient episode as “excellent” also indicated problems with 10% of issues mentioned on the questionnaire. They concluded that global satisfaction ratings were likely to provide a “limited and optimistic” picture unless detailed questions about specific aspects of patients’ experiences were included.¹⁴

Iacobucci et al. found a high overall parental satisfaction score with children undergoing general anesthesia, with a median score of 9 on a scale from 0–10.¹⁶ This finding is similar to the results of our study, which had a median overall parental satisfaction score of 10 on an identical scale.

The American Heart Association reported in its guideline that children may be accompanied by their parents during invasive procedures and/or resuscitations, because the parents’ presence would not only make a contribution to the patients’ recovery but also help calm down both the families and the children.^{13,14}

High parental anxiety leads to increased anxiety in children, prolonged recovery process, higher pain scores, increased use of narcotic analgesics, and extended hospitalization periods.^{17,18} However, as the parents included in this study were observed and identified to have the ability to control their emotions, they were allowed to stay with their children, and this may have had a role in achieving a high satisfaction level.

There are some limitations to our study. The nurses and anesthesiologists who participated in the study were aware of it, and this could have influenced their practice during the study period. In addition, the sample size used in this study was very small which may not be truly represented.

CONCLUSION

Given the units where pediatric sedation was provided, the parents’ satisfaction rating was reasonable. Positive clinical outcomes will increase further when physical circumstances and communication with patients and their relatives are enhanced, and the procedure schedule is closely followed.

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