



Parental partnership program for parents of children undergoing genitourinary surgery

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ABSTRACT:

Introduction:

A child's genitourinary surgery is an extremely stressful circumstance for the parents. When a child's genitourinary surgery is scheduled, the parents worried about the procedure's result and feel helpless to improve the child's health and care. They give their child a lot of love and attention, but the bond between the parent and child is also impacted by their surgical planning. This study aimed to find out the anxiety level of parents of children undergoing genitourinary surgery and assess the effectiveness of parental partnership program on reducing anxiety level of parents of children undergoing genitourinary surgery.

Methods:

Study conducted among 50 parents of children undergoing genitourinary surgery through the convenient sampling technique at tertiary care hospital of Bhopal, India. Data was collected using self- structured socio-demographic variables questionnaires and Hamilton Anxiety Rating scale. The intervention, parental partnership program was formulated by researcher and carried out in 3days, each day lasting for 30 minutes.

Results:

Findings revealed that 18% of the parents had mild severity, 38% of the parents had a mild to moderate severity of anxiety and 44% of the parents had moderate to severe anxiety due to planned genitourinary surgery of the children. In the current study, the average anxiety levels were significantly lower after giving parental partnership program when compared to before.

Conclusion:

From the findings of the study, it can be concluded that parents of children undergoing surgery were anxious about their children's surgery and their anxiety was reduced after parental partnership program.

Key Words: Parental partnership program, Anxiety, Parents, Children, Genitourinary surgery

INTRODUCTION

Children and their parents go through challenging circumstances when a child is hospitalized or has surgery. Parents and children, all benefit from the involvement of parents in child surgical care.[1] In most cases, parents take care of their children in every way. Common parents worry about variety of things when their child needs surgery. When it comes to their child, parents become more aware of their surroundings, watchful, and cautious because they love their child and want to shield them from any challenges in life. Parents fear many aspects of their child's life, such as pain, death, the future, handicap, anaesthesia, surgical complications, and worrying about other family members. Less than half of the parents are concerned about money loss, blood transfusions, hospital stays, or appearance-related problems. Therefore, when a child needs surgery, parents become more anxious regarding the well- being of the child.[2] The parental role is significant in growth and development of the child.

Millions of children undergo surgery and other medical procedures every day, and between 50% and 75% of parents' reports of their anxiety have been linked to anxiety-related illnesses, with 47% of parents reporting significant concerns about every facet of their children's hospital stay.[3] Fear of potential complications, worry about the suffering of the child, fear of surgery, uncertainty about the results, handicap, family problems, dependency, inability to recover from anaesthesia, and fear of death were the most frequent causes of anxiety among parents.[4] Child and their parents may experience anxiety as a result of insufficient awareness and understanding about surgical procedures and perioperative care. Preoperative education could be a useful strategy for lowering anxiety levels in both the child undergoing surgery and the parents.[5]

According to the most recent data, approximately 4 million procedures are conducted yearly on average in the United States, with around 5% of children undergoing surgery each year.[6] A retrospective data from Indore, India, shows that three major surgery categories comprised the vast majority of paediatric patients: gastrointestinal (31%), trauma (19%), and urogenital (14%).[7] For children, surgery may be a very unpleasant experience since they lack the cognitive abilities to comprehend what is occurring to them

and deal with stressful conditions.[8] Children and their parents go through stressful times when they are hospitalised or have surgery. When their child is in the hospital and awaiting surgery, parents experience anxiety and disturbance.[9]

Parental anxiety may arise from the role adjustments that occur when parents join hospitals and may be increased by uncertainty about their child's course of treatment and prognosis as well as their altered parenting role. As a result, parents may become more reliant on healthcare providers.[1] Research indicates that educating parents on the pre-, intra-, and postoperative events of their child's surgical journey by textual, visual, or audio means can increase their understanding and reduce their sense of worry.[10]

Therefore, the objectives of the current study are to assess the pre- intervention anxiety level, post- intervention anxiety level of parents of children undergoing genitourinary surgery and to evaluate the effectiveness of intervention, parental partnership program.

MATERIALS AND METHODS

Study design: A pre- experimental study, one group pre- test-post- test design

Study setting: Current study was conducted at tertiary care hospital of Bhopal, Madhya Pradesh, India.

Sample size: Total 50 sample were taken based on the findings of the pilot study and statistical calculation by using convenient sampling technique.

Sample inclusion criteria

1. Parents of children between the age group of 3- 12 years and undergoing genitourinary surgery.
2. The parents who were willing to participate in this study.
3. The parents of children whose genitourinary surgery was planned at selected tertiary care hospitals in Bhopal.

Sample exclusion criteria

1. The parents of children who were not planned for genitourinary surgery.
2. Parents of children in the age groups of less than 3 years and more than 12 years.
3. The parents were not willing to participate in this study.
4. Parents of children who were critically ill.
5. The parents of children who were undergoing emergency surgery.

Intervention: Parental partnership program

- Parental partnership program: In this study, intervention was planned as 3day mutual interactive session between the parents of children undergoing genitourinary surgery and researcher, which involves active participation of the parents. In this series of activities was planned based on meaning, pre-operative care, postoperative care, follow- up and fundamental care of genitourinary surgery followed by discussion, re- addressal question and feedback sessions which ensured the active participation of parents. Parental partnership program was given at the bed side of the paediatric patients in the tertiary care hospital, Bhopal, Madhya Pradesh, India.
- At the end of first- and second-day session, re- addressal question sheet was distributed by the researcher to the parents and collected after 10minutes, if any wrong answers were given by the parent, then at the same time correct answers were explained to them by the researcher.
- At the end of first- and second-day session, a feedback sheet was also distributed to the parents by the researcher and on the next day it was collected and queries were solved.
- This program was given on two days before the surgery of the child, one day before the surgery and on the day of the child's surgery, but completed before the surgery itself. Each day 30 minutes time for the parental partnership program was assured.

Research instrument/ tool: validity and reliability

In the current study, the tool was divided into two sections, section A & B. Section A consists of socio-demographic variables and was further subdivided into parent's proforma and child's proforma. Section B consists of Hamilton Anxiety Rating Scale.[11] Only section A was prepared by the researcher while section B was a standardized tool available in public domain.[11]

Parent's proforma in socio- demographic variables, consists of parent's age, gender, religion, educational status, occupation, residential area. While Child's proforma consists of child's age, gender, previous hospitalization of the child & history of any previous surgery.

Hamilton Anxiety Rating Scale consists of 14 items, each defined by a series of symptoms. Each item was scored on a scale of 0 (not present) to 4 (severe) based on five- point Likert scale. Total anxiety score ranges from 0 to 56. Interpretation of anxiety scoring was mild severity if score was less than or equal to 17, mild to moderate severity anxiety score 18-24, moderate to severe anxiety score 25-56.[11]

For the current study, section A, research tool was sent to 18 experts and after that Scale Content Validity Index (S-CVI) was calculated.[12] The S-CVI for Section A was 0.98 which was found to be acceptable range for the validity of the tool.

Hamilton Anxiety Rating Scale is a standardized tool with established validity and reliability. (Cronbach's alpha value= 0.756). [13,14]

Data collection procedure

Following approval from Institutional Human Ethics Committee-Student Research All Institute of Medical Sciences, Bhopal, study was carried out at the tertiary care hospital of Bhopal, Madhya Pradesh, India. Data collection was done from 11/10/2023 to 02/11/2023. The research included all parents whose children underwent genitourinary surgery and who met the sample selection criteria. Following an explanation of the study's goals and methodology, parents of children undergoing genitourinary surgery between the age group of 3-12years, informed consent were taken from parents.

A pre-test using the Hamilton Anxiety Rating Scale and socio- demographic data were completed. Following that, the parental partnership program was implemented as scheduled, and parents were given post-tests by using the Hamilton Anxiety Rating Scale.

Data analysis

After data collection for the current study, the researcher intended to use both descriptive and inferential statistics based on objectives of the study. Following data collection, data was coded and a master data sheet was created. Statistical package for social sciences (IBM SPSS version 19), a statistical software, was used to analyse the data. Data was gathered, tallied, and shown as tables and graphs. The Kolmogorov-Smirnov tests were utilized to check whether the data was normally distributed or not. Analysis of the data for sociodemographic variables was done using frequency and percentage distribution. For the assessment of pre-intervention and post-

intervention anxiety levels of parents of children undergoing genitourinary surgery, frequency and percentage distribution were used. Since the data were not found to be normally distributed, the Wilcoxon Signed Rank test was employed to compare the pre-intervention and post-intervention anxiety level scores to assess the efficacy of the parental partnership program.

ETHICAL CONSIDERATIONS

Ethical permission was taken from Institutional Human Ethics Committee- Student Research, All India Institute of Medical Sciences Bhopal. (Letter of Permission no. AIIMS/BPL/IHECSR/July/22/MscN/01)

The investigator provided the Participant Informed Consent form and Participant Information Sheet regarding the details of the study. Researcher explained the study in detail, to all the parents of children undergoing genitourinary surgery before enrolment to the study. Written informed consent was obtained after giving full disclosure regarding study participation. Confidentiality regarding the sample information was maintained by using code numbers by the investigator, data sharing was limited to the authors only. This study involved no financial gain, and there was no physical harm to any of the participants.

RESULTS

Description of sociodemographic variables of parents and children

This section deals with the description of the sociodemographic characteristics of the sample (parents and children undergoing genitourinary surgery) in terms of frequency and percentage.

Table 1: Frequency and percentage distribution of parent's proforma (n=50)

Socio- Demographic Variables		Experimental Group	
Parent's Performa	Options	Frequency	Percentage
Age of Parents	a) Up to 25 years	8	16
	b) 25-30 years	21	42
	c) 30- 35 years	12	24
	d) more than 35 years	9	18
Gender of parents	a) Male	22	44
	b) Female	28	56
	c) Other	0	0
Religion	a) Hindu	47	94
	b) Muslim	3	6
	c) Christian	0	0
	d) Others	0	0
Educational status	a) No formal education	2	4
	b) Secondary education	38	76
	c) Graduation	9	18
	d) Post graduation or above	1	2
Occupation	a) Home- maker	23	46
	b) Laborer	12	24
	c) Professional	4	8
	d) Any other	11	22
Residential area	a) Urban	23	46

	b) Rural	14	28
	c) Semi Urban	13	26

Table 2: Frequency and percentage distribution of child's proforma (n=50)

Socio- Demographic Variables		Experimental Group	
Child's Performa	Options	Frequency	Percentage
Age	a)3-6 years	32	64
	b)6-9 years	2	4
	c)9-12 years	16	32
Gender	a) Male	39	78
	b) Female	11	22
	c)Others	0	0
Previous hospitalization of the child	a) yes	22	44
	b) no	28	56
History of any previous surgery	a) yes	13	26
	b) no	37	74

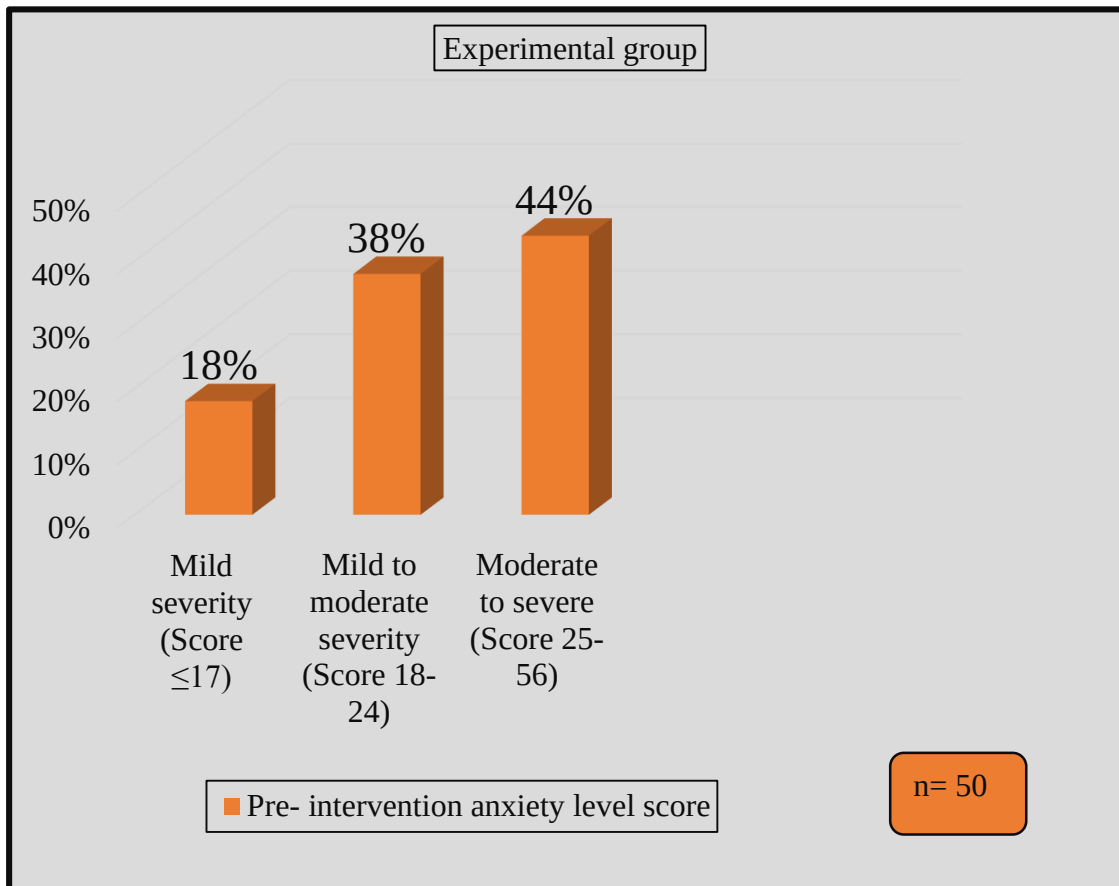
Pre- intervention anxiety level of parents of children undergoing genitourinary surgery

Figure 1: Distribution of pre- intervention anxiety level of parents of children undergoing genitourinary surgery.

Figure 1 exhibits the pre-intervention anxiety level of parents of children undergoing genitourinary surgery. It shows that only 18% (9) of the parents had mild severity of anxiety, 44% (22) of the parents had moderate to severe anxiety and 38% (19) of the parents had a mild to moderate severity of anxiety. The classification of anxiety was done according to the Hamilton Anxiety Rating Scale score. The score was interpreted before providing the intervention parental partnership program to the experimental group.

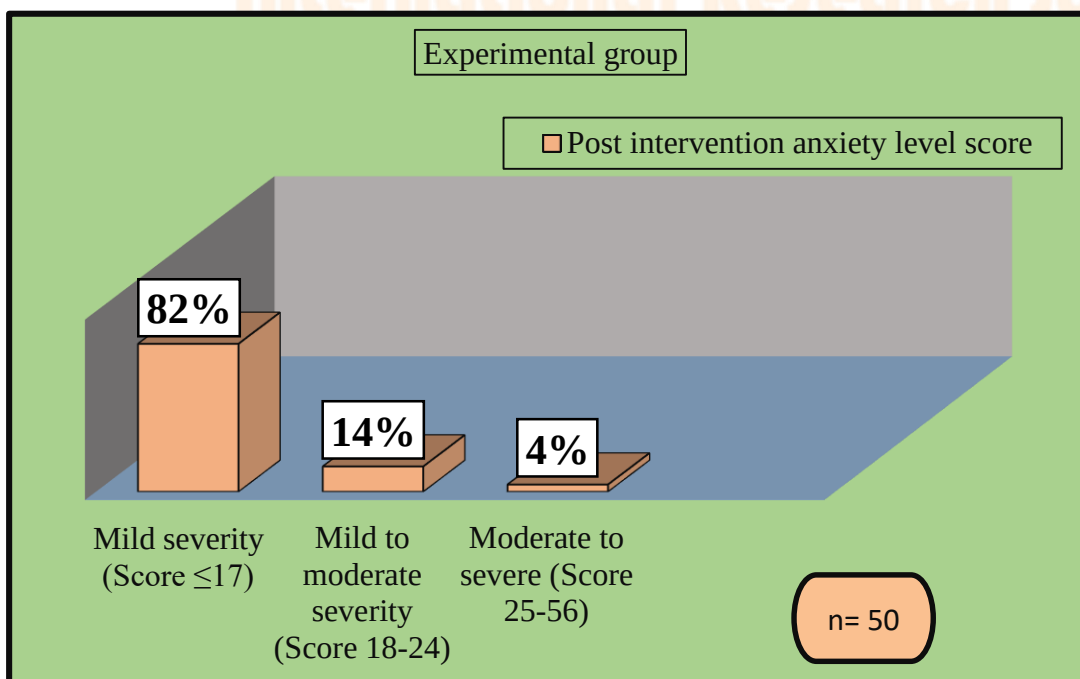
Post- intervention anxiety level of parents of children undergoing genitourinary surgery

Figure 2: Distribution of post- intervention anxiety level of parents of children undergoing genitourinary surgery.

Figure 2 shows the post-intervention anxiety level of parents of children undergoing genitourinary surgery. The anxiety level score was categorized based on the Hamilton Anxiety Rating Scale score after the intervention parental partnership program. There were 82% (41) of the parents with mild severity. Further, it also shows that 14% (7) of the parents had mild to moderate severity of anxiety, while only 4% (2) of the parents had moderate to severe anxiety.

Effectiveness of parental partnership program by comparing the pre- intervention anxiety level score and post-intervention anxiety level score.

Before applying the statistical test, the data were checked for normality, and based on the results, inferential statistics were applied.

Tests for normality

Kolmogorov-Smirnov test was used to assess the normality of the data.

Table 3: Normality of data

(n= 50)

Sample	Variable	df	Kolmogorov-Smirnov test p value
Experimental group	Pre- test total score	50	0.041
	Post- test total score	50	0.019

Interpretation of table 3: The calculated p value is less than set p value (0.05) in the experimental group. This depicts that the data collected was not normally distributed.

The data was found to be not-normally distributed, p-value<0.05. Hence, Wilcoxon Signed Rank test (non- parametric test) was used to compare the anxiety level before and after intervention and the results were given below:

Table 4: Comparison of the pre- intervention anxiety level score and post-intervention anxiety level score of parents of children undergoing genitourinary surgery. (n= 50)

Sample	Variable	Median (Q1, Q3)	Z Statistic	p value
Experimental group	Pre- test total score	24 (20,34)	6.16	<0.001
	Post- test total score	12 (8,16)		

Q1 & Q3 were first and third quartiles.

Interpretation of table 4: Here Q1 and Q3 were the first and third quartiles, and the average anxiety levels were significantly lower after intervention when compared to before intervention. This was found to be statistically significant, with as set p-value <0.05 within the experimental group.

DISCUSSION

Findings from a study held in Chennai, India in the year 2016, depicts the effectiveness of pre operative orientation programme on post operative anxiety among the mothers of children undergoing cardiac surgery as findings from the study suggest that there was a statistically significant difference between the experimental and control groups at p<0.05.[15]

Similarly, a study from Egypt in the year 2021, assessed the effect of educational guidelines on mothers' emotional status regarding children undergoing cardiac catheterization. Results from the study showed that mothers' overall mean scores for depression, anxiety, and stress were significantly higher prior to the implementation of educational guidelines. However, following the guidelines' implementation, there was a highly statistically significant decrease in mothers' overall mean scores for these conditions.[16]

A study from Morgantown, West Virginia in the year 2017, the effectiveness of video education on pre-operative parental knowledge and anxiety suggests that parental state anxiety levels pre and post test showed a significant change (p = 0.000). Hence, it shows the efficacy of video education in reducing the pre- operative parental anxiety.[17]

A single centre randomized control trial: effect of multimedia teaching tools in parental anxiety and comprehension of informed consent procedure in paediatric surgical procedures held in All India Institute of Medical Sciences, Jodhpur, India in the year 2020. It was shown in the result of the study that there was a statistically significant difference in the percentage fall in the state anxiety score between multimedia tool groups & conventional group (p < 0.0001). Therefore, it can be concluded that the consent procedure assisted by multimedia tools effectively lowers parental anxiety.[18]

Similarly, findings of systematic review and meta-analysis: effectiveness of family-centred educational interventions in the anxiety, pain and behaviours of children/adolescents and their parents' anxiety in the perioperative period published in the year 2022, indicated that family-centred educational interventions likely result in a significant decrease in parental and child anxiety and enhance the behaviour of the children during the induction of anaesthesia.[19]

The present study's findings are consistent with a study in Mangalore, Karnataka, India conducted in the year 2016, with title impact of multimodal preoperative preparation program on parental anxiety. Since results shows that parental anxiety scores in the intervention group were considerably lower than those in the control group (p < 0.05).[9]

A study conducted in the year 2022 in Taichung, Taiwan, on impact of educational videos on maternal anxiety caused by children's heart surgery it had been shown that mothers' anxiety on the day of discharge and after education reduced more if a digital video disc was included, compared to only routine teaching. Compared to mothers getting just routine education, the anxiety levels of mothers whose children experienced surgery or post-surgical difficulties on the day of discharge decreased more if they viewed the digital video disc (p-value .001).[20]

CONCLUSION

From the findings of the study, it can be concluded that parents of children undergoing surgery were anxious about their children's surgery and anxiety was reduced after parental partnership program. The parental partnership program on the anxiety level of parents of children undergoing genitourinary surgery was found to be effective in reducing the anxiety levels of parents. Nursing personnel should assess and manage the anxiety of the parents before genitourinary surgery of the child. The intervention parental partnership program should be recommended to reduce anxiety of parents before genitourinary surgery of their children.

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