

ASSESS THE KNOWLEDGE OF POSTOPERATIVE CHILDREN REGARDING PAIN AT SELEDCTED HOSPITALS AT BENGALURU

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ABSTRACT

Background of study: Pain assessment in children can be extremely challenging. Most professional bodies recommend that parents or caregivers should be involved with their child's pain assessment; but the evidence that parents can accurately report pain on behalf of their children is mixed. Our objective was to examine whether there were differences in postoperative pain score ratings between the child, nurse and parent or caregiver after surgery. Cognitively intact children aged four upwards, undergoing all surgical procedures, whose parents were present in the post-anesthetic recovery unit. Objective: To assess the level of pain among postoperative children Methods: .The study was conducted in selected hospital of Bengaluru by two data collectors. The questionnaire were checked for completeness, cleaned manually and entered in to Epi- Data version 4.2. Then the data was transferred in to SPSS version 21.0 for further analysis. Descriptive statistics were carried out. Finally checked association between dependent and independent variables. Result: showed that 10 (17%) postoperative children had severe pain, 16 (27%) had mild pain, and 34 (56.6%) had moderate pain. There is significant association between education status of children's and postoperative level of pain with p value <0.05 level of significant. Conclusion It is adequate to control pain in cognitively intact children based solely on pain scores assessed by children and nurses. The numerical rating scale seems to be appropriate for young children. While having parents there during recovery has benefits, it is not required for optimal pain assessment.

Keywords: Assess, Post operative, Hospital, Knowledge, Pain

INTRODUCTION

If a kid wakes up feeling uncomfortable after surgery, it is critical to recognize and address pain as quickly as possible. Inadequate pain treatment will simply exacerbate the child's worry and anxiety during their hospital stay. The three primary principles of assessing pain in children are self-reporting, measuring the parent or caregiver's reported experience of pain, and monitoring physiological arousal in response to pain.¹ Self-reporting is typically regarded as the gold standard because it provides the only direct assessment of pain. However, there are some situations in which it is difficult or impossible for children to report their own pain levels. Children who are intellectually challenged, extremely ill, or too young to talk must be assessed using a proxy measure.²

Many national bodies strongly promote parental involvement in children's pain assessments. In some cases, it is assumed that children are unable to accurately assess their own pain. Pain assessment and treatment as part of their preparation for discharge following surgery, as well as training them how to utilize pain assessment instruments to help manage their child's discomfort. The Association of Paediatric Anaesthetists in the United Kingdom also recommends that, while children's self-reports of pain are preferred, health care workers and parents should be provided with pain assessment information and training.¹ In all circumstances, children's distress should be documented and addressed accordingly. Most hospitals currently only document pain scores for children and nurses.³

When a child awakens from anesthesia in the post-anesthesia recovery unit (PACU), parents are not always immediately there. Pain is a subjective experience, and a kid may not be able to accurately express pain in unfamiliar situations. We also looked into whether pain scores were routinely recorded in the PACU and whether children's pain scores changed during their stay before being discharged to the ward.⁴

More than 80% of patients in the United States do not have adequate postoperative pain control, which is determined by the type of procedure performed and the analgesic treatments utilized. Inadequate postoperative pain management is linked to greater morbidity, poorer function and quality of life, a longer recovery period, and more opiate use. Postoperative pain in children has long been an issue, as it is frequently undertreated for a variety of reasons, including differing sensitivities to noxious stimuli and focusing on the cause rather than the symptom, resulting in pain being undertreated. Many children receive insufficient pain care, resulting in chronic pain in 20% of cases.⁵

METHODOLOGY

Study area and period

Study was conducted at selected Hospitals at Bengaluru and study period one month.

Study design

A cross sectional study was conducted to attain the objectives of the study.

Population

Source and study population: All postoperative children admitted at selected hospitals and whom can respond the required information without any difficulties.

Inclusion criteria and Exclusion criteria

Inclusion criteria:

- All postoperative children's who are admitted at selected hospitals
- Postoperative children's who are willing to participate in the study

Exclusion criteria:

- Postoperative children's who are absent during data collection period

Sample size: Convenient sampling technique selected 60 Children's

Variables

Dependent variable: Postoperative Pain

Independent variables:

Age, Religion, Gender, child education, educational status of parents, residence area, family monthly income.

Operational definition

Post operative: Is the providing postoperative care of the children after the operation

Children: is the range of ages for *persons* nearing and surpassing life expectancy.

Pain:

Hospital: is the place providing promotive, preventive and curative health services to children

Data quality control

The data collection questionnaires were pretested on 5% of the sample size one week before the actual data collection date and will be reviewed in areas other than the study area. Following the pretest, the tools will be edited and changed to meet the study's objectives. The consistency of the data was monitored during the collection process by closely monitoring the data collectors and the collection method, as well as reviewing the collected data on a regular basis. Any items missing from the questionnaire that the data collectors misunderstood were immediately checked by the supervisors and corrected for the next day of data collection with the principal investigators.

Data processing and analysis

The collected data was washed, coded, and entered into the SPSS program before the actual study began. The data will be entered and analyzed using the statistical kit for social sciences (SPSS) version 20; the findings will be presented in a detailed description using frequencies, proportions, and cross tabs. Association between dependent and independent variables with a P-value less than 0.05 were considered statistically significant.

RESULT

Table:1: Socio-Demographic Characteristics of respondents

Characteristics		Frequency	Percentage (%)
Age	5-8 Years	31	52
	9-12 Years	29	48
Gender	Male	35	58
	Female	25	42
Religion	Hindu	37	62
	Muslim	16	26
	Christian	7	12
	Others	0	0
Educational status of parents	No formal education	18	30.0
	Primary	17	28
	secondary	9	15.0
	Higher secondary	10	17
	Bachelor	6	10.0

Family Monthly Income	5000-10000	24	40.0
	10000-20000	18	30.0
	More than 20000	18	30.0
Residence area	Urban	40	67
	Rural	20	33
Child education	1-5 standard	35	58
	6-12 standard	25	42

As shown in the **Table (1)**, A total of 60 postoperative children's were participated in the study, resulting in a 96% response rate. According to the study, 29 respondents (48.3%) were age group between more than 9-12 Years and 31 (52%) of the respondents were between the ages of 60-70 years respectively. Regarding the gender of respondents, 35 (58%) are male children, 25 (42%) were female children. Regarding religion of the respondents, 37(61.7%) were Hindu religion, 16(26.7%) were Muslim and 7(11.7%) were Christians.

Regarding educational status of parents 18(30%) were no formal education, 17(28.3%) were primary education, 9 (15%) were secondary education, 10(17%) higher secondary and 6(10%) were bachelor degree or higher. 60(100%) were living in rural areas. Regarding family monthly income 24(40%) were income 5000 to 10,000rs, 18(30%) were income 10,000 to 20,000 and more than 20,000.

Regarding residence areas of children's 40(67%) were urban, 20(33%) were rural areas. Regarding children education 35(58%) were 1- 5 standards and 25(42%) were 6-12 standards.

Table:2: Level of pain

Characteristics	Pain score	
	F	Percentage
Mild pain	16	27%
Moderate pain	34	56%
Severe pain	10	17%

According to Table 2, 10 (17%) postoperative children had severe pain, 16 (27%) had mild pain, and 34 (56.6%) had moderate pain.

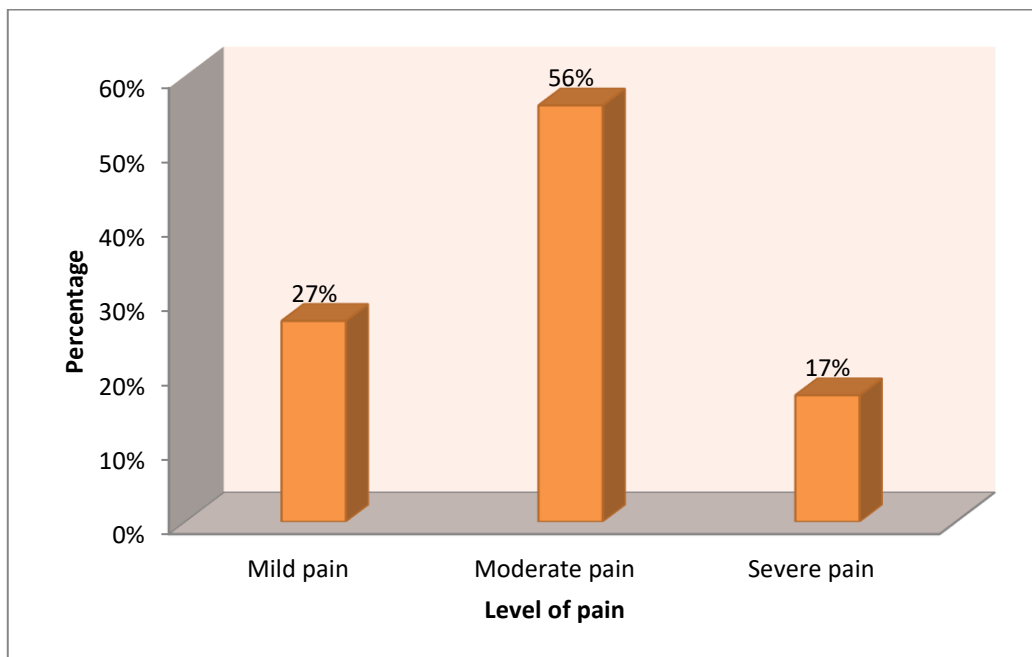


Fig:1: Level of pain

Table: III: Associate the between level of pain among postoperative children with selected demographic variables. (N=60)

variables		Level of pain			Total	Chi square df	P value
		Mild	Moderate	Severe			
Age (In Year)	5-8	9	25	6		2.372	0.873 NS
	9-12	7	9	4	20		
Gender	Male	10	19	4		0.3301	0.391 NS
	Female	6	16	5	27		
Religion	Hindu	9	20	4	33	0.9753	0.807 NS
	Muslim	3	6	3	12		
	Christian	4	8	3	15		
Educational status	No formal education	6	12	2	20	2.0523	0.562 NS
	Primary education	3	10	2	15		
	Secondary	2	8	3	13		
	Higher Secondary education	2	2	2	6		
	Graduation and Above	3	2	1	6		
Family monthly income	<5000-10000	6	15	3	24	7.5993	0.355 NS
	10000-20000	4	4	2	10		
	>20000	6	15	5	26		
Residence area	Urban	9	20	6	35	2.5432	0.326
	Rural	7	14	4	25		
Child education	1-5 standard	10	15	5	30	1.8232	0.002
	6-12 standard	6	19	5	30		

CI, confidence interval; S significant, NS-Non significant

Table 3 demonstrates that demographic factors including Education of children's significantly association with postoperative pain of children. age, gender, religion, educational status and family monthly income and residence area were no statistically significant relationship with postoperative pain of children at the P<0.05 level of significance.

DISCUSSION

Although we found good agreements between pain scores given by children, nurses and parents immediately after surgery, it could be argued that our study was underpowered to detect *clinically* significant differences. Power analysis suggests that a study of this size would have had sufficient power to detect a difference in pain scores of 1.34 out of ten between the groups. This begs the question as to what is a clinically relevant difference between each group's ability to rate pain. We contend that a difference of one out of ten is not clinically important, and therefore our study was of sufficient size to detect a clinically important difference.⁶

Parents and careers may benefit from being taught pain assessment tools if they are to be effective in assessing and managing their child's pain. This is especially useful in pediatric ambulatory surgery, where parents undertake a significant component of postoperative care at home. Parents should be provided with information that is easily understood. Tait and colleagues found that only a small amount of information regarding post-operative pain control was presented in written form yet many parents would have preferred both verbal and written information.¹⁰ Whilst it is desirable for parents to be present at all times during a child's admission to hospital, this may not always be possible. Our study has shown, at least after surgery, that PACU nurses are capable of accurately assessing and treating children with pain.⁷

REFERENCES

1. Howard R, Carter B, Curry J, et al. Pain assessment. *Pediatric Anaesth.* 2018;18(Suppl1):14–8.
2. Royal College of Nursing, UK Clinical practice guidelines: the recognition and assessment of acute pain in children. London: Royal College of Nursing. 2019 Available from: http://www.rcn.org.uk/data/assets/pdf_file/0004/269185/003542.pdf.
3. R Development Core Team. R: A language and environment for statistical computing. R Foundation for Statistical Computing, Vienna, Austria. 2020
4. Voepel-Lewis T, Malviya S, Tait AR. Validity of parent ratings as proxy measures of pain in children with cognitive impairment. *Pain Manag Nurs.* 2018;6:168–74
5. Malviya S, Voepel-Lewis T, Tait AR, et al. Pain management in children with and without cognitive impairment following spine fusion surgery. *Paediatr Anaesth.* 2017;11:453–8.
6. West N, Oakes L, Hinds PS, et al. Measuring pain in pediatric oncology ICU patients. *J Pediatr Oncol Nurs.* 2022;11:64–8.
7. Stein PR. Indices of pain intensity: construct validity among preschoolers. *Pediatr Nurs.* 2016;21:119–23.