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KNOWLEDGE REGARDING PAIN MANAGEMENT OF CHILDREN AMONG NURSES IN SELECTED HOSPITALS OF BHARATPUR

Poonam Armaja Pun* and Pratima Koirala

School of Nursing, Chitwan Medical College, Bharatpur, Chitwan, Nepal.

ABSTRACT

Pain is one of the most misunderstood, under diagnosed and under treated in children. If left untreated, it can affect different domains of health throughout their lives. Nurses play an important role in assessing and managing pain among children during hospitalization. The objective of this study was to assess the knowledge regarding pain management of children among nurses in selected hospitals of Bharatpur. A descriptive cross sectional research design was used for this study. A total of 91 nurses who were working were selected by non-probability enumerative sampling technique. Structured self-administered questionnaires was used to this study show that mean score for knowledge was 9.53. 46.2% of nurses had adequate knowledge and 53.8% of nurses had inadequate knowledge regarding pain management of children.

KEYWORDS: Knowledge, Nurse, Pain management.

INTRODUCTION

The terminology pain is "an unpleasant sensory and emotional experience associated with actual or potential tissue damage, or described in terms of such damage".[1] It is a well known fact that children suffer from pain due to treatment and procedures in health care, their procedural pain due to medical treatment has been undertreated and under-recognized. The goal of pain management is to reduce pain, distress and anxiety.[2]

Acute pain is one of the most common adverse stimuli experienced by children, occurring as a result of injury, illness, and necessary medical procedures. It is associated with increased anxiety, avoidance, somatic symptoms, and increased parent distress. Despite the magnitude of effects that acute pain can have on a child, it is often inadequately assessed and treated. Numerous myths, insufficient knowledge among caregivers, and inadequate application of knowledge contribute to the lack of effective management. The pediatric acute pain experience involves the interaction of physiologic, psychologic, behavioral, developmental, and situational factors. Pain is an inherently subjective multifactorial experience and should be assessed and treated.[3]

Management of pain in the child must be individualized. Age, sex, cultural background, caregiver's response, and past experiences affect the child's response. The newborn baby, the infant, and the toddler are unable to localize and describe the severity of pain. During the preschool period, the child acquires the ability to verbally describe the pain experience. The nurse must be aware of the child's response to pain through assessment of behavioral responses.[4]

MATERIAL METHODS

A descriptive cross -sectional study design was used to assess the knowledge regarding pain management of children among nurses. The research setting was different pediatric units (Pediatric Ward, NCU, NICU and PICU) of Chitwan Medical College Teaching Hospital, Bharatpur Hospital and Niko Children's Hospital of Bharatpur. Those nurses who were currently working in pediatric units of Chitwan Medical College Teaching Hospital, Bharatpur Hospital and Niko Children's Hospital of Bharatpur with at least 3 months experience were the study population. Non probability enumerative sampling technique was used. There was 91 nurses working in different pediatric units of Chitwan Medical College Teaching Hospital, Bharatpur Hospital and Niko Children's Hospital and all the nurses were taken as a study sample. The research instrument was structured self administered questionnaire developed by the researcher herself after reviewing the related literatures. The content validity of the instrument was established by consulting with research advisor and subject expertise. Pretesting of the instrument was done among 9 nurses in Narayani Samudaya Hospital which was excluded from the main sample population.

Administrative approval was taken from the research committee, Chitwan Medical College Teaching Hospital. Data collection permission was obtained from the hospital authority of selected hospitals.

The collected data was checked and entered in IBM statistical Package for Social Sciences (SPSS) statistics version 20.0. Descriptive statistics was used to calculate (frequency, percentage, mean and standard deviation) for socio-demographic variables and inferential statistics (Chi-square and fisher test) was used to find out association between nurses' knowledge regarding pain management of children with selective variables. The findings of study were presented in different tables.

RESULTS

Table 1: Respondents' Level of knowledge regarding Pain Management of Children n=91.

Level of Knowledge	Frequency	Percentage
Adequate knowledge (>9.53)	42	46.2
Inadequate knowledge (<9.53)	49	53.8
Total	91	100.0

Mean Percentage: 38.12%, Maximum: 16, Minimum: 6, Possible Score: 25

Table 1 shows that, out of 91 nurses, 46.2% of nurses have adequate knowledge and 53.8% of nurses have inadequate knowledge regarding pain management of children.

Table 2: Association between Respondents' Level of Knowledge regarding Pain Management of Children and Socio-demographic Variables (n=91).

Variables	Level of Knowledge		P value*
	Adequate No. (%)	Inadequate No. (%)	
Age			
<23 years	26(43.3)	34(56.7)	0.453
>23 years	16(51.6)	15(48.4)	
Ethnicity			
Brahmin/Chhettri	27(48.2)	29(51.8)	0.618
Others	15(42.9)	20(57.1)	
Religion			
Hinduism	38(45.2)	46(54.8)	0.699#
Buddhism	4(57.1)	3(42.9)	
Marital Status			
Married	17(56.7)	13(43.3)	0.158
Unmarried	25(41)	36(59)	

Significance level < 0.05   * Chi-square test   # fisher's exact test

This table shows that, the socio-demographic characteristics and level of knowledge is statistically not significance with age (p=0.453), ethnicity (p=0.618), religion (p=0.699), marital status (p=0.158).

Table 3: Association between Respondents' Level of Knowledge regarding Pain Management of Children and Professional related Variables n=91.

Variables	Level of Knowledge		P value*
	Adequate No. (%)	Inadequate No. (%)	
Professional qualification			
PCL level	35(50.7)	34(49.3)	0.121
Bachelor level	7(31.8)	15(68.2)	
Professional designation			
Staff Nurse	35(46.7)	40(53.3)	0.832
Senior Staff Nurse	7(43.8)	9(56.2)	
Total working experience in pediatric unit(months)			
<15.65	27(47.4)	30(52.6)	0.763
>15.65	15(44.1)	19(55.9)	
Total work experience in nursing(years)			
<2.09	32(50.8)	31(49.2)	0.183
>2.09	10(35.7)	18(64.3)	
Currently working Unit			

General Unit	19(50)	19(50)	0.533
Intensive Care Unit	23(43.4)	30(56.6)	
Received in-service education on pain management of children			
Yes	1(25)	3(75)	0.621#
No	41(47.1)	46(52.9)	
Availability of pain management protocol of children			0.894
Yes	16(47.1)	18(52.9)	
No	26(45.6)	31(54.4)	

Significance level < 0.05   * Chi-square test# fisher's exact test

This table shows that, the professional related characteristics and level of knowledge is statistically not significance with professional related variables.

DISCUSSION

This study revealed that 46.2% of nurses have adequate knowledge and 53.8% have inadequate knowledge regarding pain management of children which is consistent to the finding of Arahna,[5] which revealed that 47% nurses have adequate knowledge and 53% have inadequate knowledge regarding pain management of children. This might be due to less time gap between the study and similar study subjects. In contrast, a study conducted by Miftah, Tilahun, Fantahun, Adulkadir and Gebrekirstos,[6] in North Ethiopia revealed that 58.6% nurses have adequate knowledge and 41.4% have inadequate knowledge regarding pain management of children which might be due to difference in study design.

This study revealed that the mean score of nurses was 9.53±2.75 which is similar to the findings of of Patnaik, Swain, Behera, Jain and Nayak[7] which revealed the mean score for knowledge of pain management of children among nurses was 10.88±2.81 (range: 3-16.87%) and a study conducted by Ortiz et al.[8] in Mexico revealed that the mean score of nurse's knowledge regarding pain management of children was 16.0±3.2. This might be due to less time gap between the study and similar study subjects and study design.

This study revealed that there is association between age, professional qualification, current working unit and previous exposure to training on pain assessment and management with the level of knowledge which is similar to the findings of Aranha.[5] This study revealed that there is no association between years of experience with level of knowledge, this is contrast with the study of Aranha,[5] which showed statistical significant between the years of experience and level of knowledge regarding pain management of children.

CONCLUSION

Based on the findings, it is concluded that less than half of the nurses have adequate knowledge regarding pain management of children (meaning, causes, affects, assessment and management of pain) whereas more than half have inadequate knowledge. This issues need to be addressed through appropriate in-service education, training programs and interventional strategies on pain management of children.

None of the socio-demographic and professional related characteristics are associated with the nurse's knowledge regarding pain management of children.

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