2016

ORIGINAL ARTICLE

Knowledge regarding shaken baby syndrome among mothers of infants

Radha MS[1] Lavanya Subhashini[2] Baby GK[3]

1. *Professor, Sri Devaraj Urs College of Nursing, Tamaka, Kolar.*
2. *Associate Professor, Sri Devaraj Urs College of Nursing, Tamaka, Kolar.*
3. *Asst Lecturer, Sri Devaraj Urs College of Nursing, Tamaka, Kolar.*

ABSTRACT

INTRODUCTION: Shaken baby syndrome is the most common cause of death or serious neurological injury resulting from child abuse. It is a form of child abuse that is characterized by brain injury.

OBJECTIVES: 1. To assess the knowledge of mothers regarding shaken baby syndrome.2. To determine association between mothers' knowledge score and selected socio-demographic variables.

METHOD: Quantitative descriptive approach and survey research design was adopted for study. A structured knowledge questionnaire was used to collect the data from a sample of 100 mothers, selected by convenient sampling technique in a selected hospital in Tumkur, Karnataka.

RESULTS AND CONCLUSION: The findings of the study showed that majority (68%) of mothers had poor knowledge, 25% had average knowledge and 7% had good knowledge about shaken baby syndrome. Findings also revealed that demographic variables like educational status of mothers and number of children had significant association with the knowledge score of mothers. Hospital and community based awareness programmes for the parents on potential dangers of the shaking the infants and toddlers are the need of the hour.

KEYWORDS: Shaken baby syndrome, Knowledge, Mothers, Infants.

Introduction

Shaken Baby Syndrome, Battered Baby syndrome are all variant forms of child abuse that has many names but a single outcome. Shaken baby syndrome is a serious and clearly definable form of child abuse. It occurs when a child is shaken violently as part of an adult or caregiver s pattern of care or because an adult or care giver momentarily succumbs to the frustration of having responded to a crying baby. Shaken baby syndrome is clearly definable medical condition.[1]

Author for correspondence:
Lavanya Subhashini
Associate Professor
Sri Devaraj Urs College of Nursing, Tamaka, Kolar-563101
Mobile Number-09008900768

WHO estimates that 40 million children are subjected to abuse and neglect around the world. In 2007, India published a report on one of the largest surveys done on child abuse with shaken baby syndrome as one of the component and found that two out of every three children are physically abused and 88.6% of them suffered at the hands of their parents[2]

When someone forcefully shakes the baby, the child s head rotates about the neck uncontrollably because infant s neck muscles aren t well developed and provides a little support for their head. This violent movement pitches in the infant brain, and within the skull, and sometimes

rupturing of blood vessel, nerves and tearing of the brain tissues occurs. The brain may strike inside the skull which causes bruising and bleeding. The outcome can range from no apparent effect to permanent disability, including development delay, seizures, paralysis, blindness and even death. Survivor may have significant delayed effect of neurological injury resulting in a range of impairments seen over the course of the child s life including cognitive, defects and behavioral problems.[3-7]

A key aspect of prevention is increasing awareness of the potential dangers of shaking children among parents and caregivers.

Objectives

1. To assess the knowledge of mothers regarding shaken baby syndrome.
2. To determine association between the knowledge of mothers regarding shaken baby syndrome and their selected socio-demographic variables.

METHODOLOGY

A non experimental Quantitative approach with survey research design was adopted. The study was conducted at Sri R L Jalappa Hospital & Research centre, Kolar, Karnataka. Ethical clearance was obtained from Institutional Ethical committee and formal permission obtained from authorities of the Hospital. Data was collected from 100 mothers having infants aged between birth to 1 year, who accompanied children to pediatric wards and OPD of the selected hospital and who could speak and understand Kannada or Telugu. Convenient sampling technique was used to recruit the sample. Pre validated structured Knowledge Questionnaire was used to collect the data from mothers after obtaining informed verbal consent. Tool consisted of two sections. Section I with base line data and section II knowledge questionnaire with 20 item meaning, causes, signs and symptoms prevention of shaken baby syndrome. Total scor was categorized and interpreted as goo knowledge (above 15 score ;75%), moderat knowledge (10-14 scores ,50 to 70 %), poo knowledge (less than 10 score below 50% Validity and reliability of the tool was done befor administration of the tool. The Karl Pearso Correlation co-efficient r value was 0.75.

Results

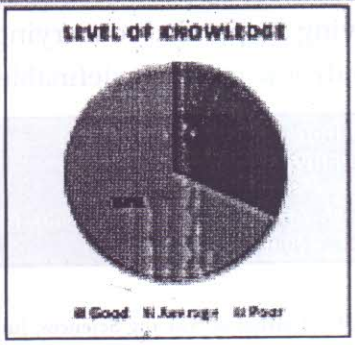
I. Demographic characteristics of mothers an infants

Majority (75%) of the mothers were in the ag group of 21-25 years, 39% of them had high scho and PUC education. Majority (69%) of th mothers were housewives 61% belonged to joi family, 59% had more than one child. Half (50% of the mothers were from rural area, majorit (80%) of the mothers were Hindus, 90% ha information about shaken baby syndrom through mass media. Most of infants (45%) we between the age group of 1-4 months and 53 were females.

II. Knowledge of mothers regarding shake baby syndrome

The figure 1 depicts that majority (68%) mothers had poor knowledge, 25% had avera knowledge level and only 7% had goo knowledge regarding Shaken Baby Syndrome.

Figure 1. Percentage of mothers according level of knowledge on Shaken Baby Syndrom



of pain among neonates in various neonatal units around the world. The NFCS is used to identify facial expressions to assess the level of pain. NFCS is a standardized and well established scale which has been validated by several researchers and is in use for assessment of pain among neonates in various settings.[13] SPSS software (version 16) was used for the statistical analysis.

RESULTS

I. Description of the socio-demographic characteristics

As seen in table 1 majority (75%) of newborn babies age assessed for pain were less than 3 days , 58.3% were males. Most (63.3%) of newborn were born as normal vaginal delivery and mos of their birth weight (48.3%) were above 2,500gm Of the procedures, newborn babies assessed majority underwent intravenous cannulation (50%).

II. Comparison of NFCS and NIPS pain assessment scales

As shown in table 2 the mean pain score on NIPS was 5.77 ± 0.621 and the mean pain score on NFCS was 7.50 ± 1.200. Paired t test done between NIPS and NFCS reveals that there is a significant difference between the pain rating on both the scales.

Table 1: Distribution of neonates according to socio-demographic characteristics n=60

Demographic characteristics		F	%
Age	< 3 days	45	75
	>3 days	15	25
Sex	Male	35	58.3
	Female	25	41.6
Mode of Delivery	Normal Delivery	38	63.3
	Lower Segment Cesarean Section	32	36.6
Birth Weight	<1,499gm	2	3.3
	1,500-1,999gm	5	8.3
	2,000-2,499gm	24	40
	>2,500gm	29	48.3
Name of Procedure	Intravenous cannulation	30	50
	Veinupucture	12	20
	Nasogartric tube insertion	18	30

Table 2: Mean Pain scores obtained on both pain scales n=150

Variable	Mean Pain Score	SD	t value	p value
NIPS	5.77	0.621	13.39	<0.001**
NFCS	7.50	1.200		

** Highly Significant at 0.001 Level.

III. Correlation of pain scores

There is a significant positive correlation between both the pain scales as shown in table 3.

It is interpreted that both the scales can be used in assessing pain during procedure.

Table 3. Intraclass correlation on NIPS and NFCS n=60

Pain Scale	Pain Score	r	p value	95% CI
NIPS	5.77 ± 0.621	0.634	<0.001	0.38-0.78
NFCS	7.50 ± 1.200			

r intraclass correlation

IV. Association of pain scores with selected variables

There was no association between the pain scores and the selected variables like age, sex and mode of delivery.

DISCUSSION

Although more than 40 infant pain instruments exist, many were devised solely for research purposes; several of the newly developed instruments largely overlap with existing instruments. Integration of pain management into daily practice remains problematic.[14]

The finding of the present study shows that more pain is reported by NFCS. However there is a significant positive correlation between both the pain scales, the Neonatal Infant Pain Scale (NIPS) and Neonatal Facial Coding System NFCS can be used to assess procedure related pain among term newborn babies in India. Comparison of three neonatal pain scales during minor painful procedures (Neonatal Infant Pain Scale (NIPS), the Neonatal Facial Coding System (NFCS), and the Douleur Aigue du Nouveau-ne (DAN)) stated that NIPS was more sensitive to evaluate pain during minor painful procedures in neonates.[15] Comparison of four neonatal pain scale revealed DAN to be convenient than NIPS, PIPP and NPAS.[16] While comparing FLACC and NIPS, both have excellent sensitivity and specificity for pain assessment in infants.[17] Higher inter-observer reliability of NIPS than PIPP was also found by Bellieni CV etal.[18]

CONCLUSION

Both Neonatal Infant Pain Scale (NIPS) and Neonatal Facial Coding System NFCS can be used to assess procedure related pain in newborn babies. The implications for nursing from this study include an emphasis of the need for nurses to assess neonate s pain, intervene and document appropriately. Accurate assessments of the neonate s pain, along with all of the other factors that play a role in pain perception are vital to the outcome. The findings of the study have brought many implications in nursing practice, education, administration and research.

REFERENCES

1. Merskey H. Pain terms: A list with definitions and notes on usage: recommended by the IASP Subcommittee on Taxonomy. Pain 1979;6:249.
2. Marshall RE, Stratton WC, Moore JA, Boxer SB. Circumcision: I. Effects upon newborn behavior. Infant Behave Dev 1980;3:1-14.
3. U.N General Assembly. Conventions on the rights of the child. Available at : http://www. cirp.org/library/ethics/UN-convention. Assessed December 23, 2014.
4. American Academy of Pediatrics, Committee on Drugs and Section on Anesthesiology Guidelines for the elective use of conscious sedation, deep sedation, and general anesthesia in pediatric patients. Pediatrics 1985; 76:317-321.
5. Franck LS, Greenberg CS and Stevens BJ. Pain assessment in infants and children. Pediatr Clin North Am 2000 47(3):487-513.
6. Pots NL, Mandleco BL. Pediatric Nursing caring for children and their families. Thomson learning; 2002. p. 519-525.