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Original Research Article

Knowledge Regarding Safe Infant Sleeping Arrangements, among Mothers

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ABSTRACT

Introduction: Sudden infant death syndrome (SIDS) and other sleep-related infant deaths, such as accidental suffocation and strangulation in bed and ill-defined deaths, are collectively known as sudden and unexpected infant death (SUID). It is seen that caregivers and a noncompliance to the recommendations to the safe sleeping arrangements as the infant grows, which has increased the incidence of SIDS.

Methodology: The research approach used was non-experimental approach and research design was descriptive survey design. A sample size of 40motherswhose child was between the age 0-1 year were selected. Data collection was for a period of 2 weeks using a structured questionnaire. A pilot study was done to establish practicability, validity and reliability of tool and design. The data obtained were analysed using appropriate statistical procedures like Chi- square test

Results: The findings of the study proved that 80% mothers had average, 17.5% had poor and 2.5% had good knowledge regarding safe infant sleeping arrangements. There was no significant association between knowledge and demographic variables such as age, education, number of children and area of residence.

Key words: knowledge; safe infant sleeping arrangement

INTRODUCTION

One of the important developmental interventions in the infantile period is the selection of appropriate sleeping environment and arrangement. Safe infant sleeping arrangements refers to the arrangements provided by the mother or the primary care giver in order to avoid injury and promoting the general health of the child. According to the guidelines given by the American Academy of Paediatrics, the arrangements that are considered to be safe are for the infants are, use of firm surface, regular parental care, breast feeding, appropriate position, safe place, and safe home environment. [1]

Understanding the family dynamics and the reason for choosing a particular sleeping environment in conjunction with the awareness of dangerous bed sharing practices, are important considerations in offering guidance to parents in their choice of sleeping arrangements for their infant. No sleep environment is completely risk free, but much can be done to educate parents on the provision of safer sleeping environments for their infants.

It was found that more than 3500 babies die suddenly and unexpectedly while sleeping. In 2010 CPSC and FDA released a safety warning related to infant sleep positions. [2] In USA, Infants deaths due to sudden infant death syndrome account for over 2000 deaths per year. [3] The third leading cause of infant mortality and infant deaths in United States is due to sleep related suffocation and undetermined causes

have quadrupled over the past two decades [4]

A primary risk factor of sleep related suffocation or undetermined cause of infant death is sharing a sleep surface with an adult, which is thought to lead to death in 64% of 3136 sleep related sudden un expected infant deaths in a national study. [5]

A study done at Canada shows bed sharing with parent can lead to frequent wakening and sleeping alone is more preferable for infants. The National Infant Sleep Position study done at United States demonstrated that bed sharing is increasing in the United States and the proportion of infants sharing an adult bed doubled between 1993 and 2000. [6] Infants sleep for more than half of a day so the care should focus on how to minimize the interruptions and accidents during the sleep. Although great importance is given for educating the mothers regarding the safe sleeping arrangements, parents would negotiate safe sleep messages once they are knowledgeable about infant care.

Nurse should offer counsel on the relative risk of unexpected infant death for children sleeping alone or with their parents. They should do so with an understanding of parental expectations and goals, while also taking into account the need to provide a secure physical and emotional sleeping environment for their children.

Hence the student researchers felt the need to assess the knowledge of mothers of infants about the adoption of safe sleeping arrangement for their child.

Problem Statement

A study to assess the knowledge regarding safe infant sleeping arrangements, among mothers of children (0-1year), in a selected hospital, Calicut

Objectives

- Assess the level of knowledge regarding safe infant sleeping arrangement among mothers.
- Find out association between knowledge of mothers and selected demographic variables.

MATERIALS AND METHODS

The research approach used in the study was non-experimental approach with descriptive survey design. The study was done at Pediatric OPD, Wards, ICU of Aster MIMS Hospital, Calicut. 40 mothers whose child is within the age of 0-1 year and seeking treatment from the same hospital were selected as samples after obtaining an informed consent. Mothers who were not willing to participate and whose child was more than 1 year of age were excluded from the study. The sampling technique used was purposive sampling technique.

Tool used for the study

The tool used in the present study was structured questionnaire to assess the knowledge among mothers regarding safe sleeping arrangements. It consisted of 2 sections. Section 1 consisted of questionnaire related to demographic variables such as age of mother, religion, number of children, educational status, occupation of mother, annual income, area of residence, age of the child, and a general question like the usual position, the mothers put their child to sleep.

Section 2 included of 20 objective type multiple choice questions related to importance of safe sleeping arrangements, parental habits, clothing for child, position for breast feeding, position in which baby should be put to sleep, bed sharing. The multiple choice questions had three alternatives each with right answer allotted a scoring of one and every wrong answer has given a score of zero. The total attainable score in knowledge questionnaire was 20. Inorder to identify a respondent as having good, average or poor knowledge, the researchers divided the group into 3 categories based on the scores attained.

Data collection process

The researchers obtained permission from the concerned authorities to conduct the study. 40 mothers who fulfilled the inclusion criteria were selected by purposive sampling and an informed consent was taken. Privacy was maintained throughout

the data collection procedure. The questionnaire to obtain baseline information and a semi structured questionnaire to assess the knowledge was administered to the mothers.

DATA ANALYSIS

Data was analysed by using descriptive and inferential statistics

Table 1: Frequency distribution and percentage of mothers based on age, religion and educational status of mothers

Sl no	Demographic variables	f	%
1	**Age**		
	18-25 years	15	37.5%
	26-35 years	21	52.5%
	More than 35 years	4	10%
2	**Religion**		
	Hindu	12	30%
	Muslim	15	37.5%
	Christian	13	32.5%
3	**Educational status**		
	Primary	1	2.5%
	High school	9	22.5%
	Graduate or post graduate	30	75%

Table 1 show that, 52.5% mothers belong to age group between 26-35 years, 30% are Hindus, 37.5% are Muslims and 32.5% are Christians and 75% mothers are graduated or post graduated.

Table 2: Distribution of knowledge scores of mothers

Area	Mean	SD
Knowledge	**10.23**	**2.37**

Table 2 shows that 32 (80%) had average, 7 (17.5%) had poor and only 1 (2.5%) had good knowledge regarding safe infant sleeping arrangements.

Table3: Mean and standard deviation of knowledge scores.

Knowledge level	Frequency	Percentage (%)
Poor	7	17.5 %
Average	32	80 %
Good	1	2.5 %

Table 3 shows that mean knowledge score of mothers was 10.23 with standard deviation of 2.37.

Table 4 shows that there is no significant association between knowledge scores with demographic variables like age, education, area of residence and number of children at 0.05 level of significance. Table value is 3.84

Table 4: Association between knowledge and selected demographic variables n=40

Sl no	Demographic variables	Below mean	Above mean	Chi-square value
1	**Age**			
	18-25 years	6	9	**1.098**
	More than 25years	13	12	
2	**Education**			
	Upto high school	6	4	**0.84**
	Graduate / post graduate	13	17	
3	**Area of residence**			
	Rural	8	4	**2.516**
	Urban	11	17	
4	**Number of children**			
	1	8	10	**0.226**
	2	8	9	
	>2	2	3	

RESULTS

The study proved that 32 (80%) had average, 7 (17.5%) had poor and only 1 (2.5%) had good knowledge regarding safe infant sleeping arrangements. There is no significant association between knowledge scores with demographic variables like age, education, area of residence and number of children at 0.05 level of significance.

DISCUSSION

Present study revealed that 80% of mothers had average knowledge on safe infant sleeping arrangements, 17.5% had poor knowledge and 2.5% had good knowledge. A similar study done at Colorado among adolescent mothers found that mothers had poor knowledge regarding the infant sleeping practices and arrangements. [7] A study done in California among mothers of children less than 3 months proved that 69% of mothers had poor knowledge regarding safe infant sleeping practices. [8]

In a study aimed to examine the sleeping arrangements for infants from birth to 1 year of age and to assess the association between such arrangements and maternal characteristics using responses to the 3-, 6-, 9-, and 12-month questionnaires from the Infant Feeding Practices Study II in which approximately 2300 women responded at 3 months, and 1800 at 12 months, proved that at 3 months, 85% of the infants slept in the same room as their mother, and at 12

months that rate was 29%. At 3 months, 26% of the mothers did not use the recommended supine position for their infant's night time sleep. The rate of noncompliance increased to 29% by 6 months and 36% by 12 months. The bed-sharing rates were 42% at 2 weeks, 34% at 3 months, and 27% at 12 months. Approximately two thirds of those who bed shared with their infant also shared the bed with their husband or partner, and 5% to 15% shared it with other children. The major reasons for bed sharing were to calm a fussy infant, facilitate breastfeeding, and help the infant and/or mother sleep better. The major reasons for not lying down with the infant were safety concerns. Non-Hispanic black mothers were more likely than non-Hispanic white mothers to use non supine infant sleep positions and to bed share. [9]

Nursing implication

Nursing practice

- Nurses can stimulate proper infant sleeping arrangements such as proper positioning, avoiding parental bad habits, promoting sleeping in a crib with adequate security measures, safe environment for sleep, and breast feeding before going to sleep. This will avoid the risk of sudden infant death and other complications related to improper sleeping arrangements. Thus it promotes the development of physical, psychological, and neurological systems of the infants.

Nursing Education

Nursing curriculum should provide opportunities to the students to plan and implement teaching programs to mothers and must emphasize to provide clinical experiences for establishing communication and facilitating awareness programmers

Nursing administration

- The nurse administrator must identify the learning needs of the nurse and general public attending their institution and organize various programmers to enrich the nurses with updated information of safe infant sleeping arrangements..
- The nursing administrator should encourage nurses at all levels to impart health education to target group.
- The nursing administration should have enough budget for conduction of various educational and health promoting programs.

Nursing research

Evidence based nursing practice is to be promoted to ensure mothers follow safety guidelines.

Recommendations

- The study can be repeated by taking a large sample that would help to generalize the findings of the study.
- The study can be conducted as a way to discuss the attitude of mothers about safe infant sleeping arrangements and their ability and skills in providing safe infant sleeping arrangements.
- A survey can be conducted to find out the prevalence of complication due to improper sleeping arrangements.
- A clinical observation and comparison of efficacy and results with various sleeping arrangements aids can be conducted.
- A study can be conducted to expand the term safe infant sleeping arrangements to therapeutic sleeping arrangements with advances in knowledge and technology.

CONCLUSION

Most of the respondents had average knowledge regarding safe infant sleeping arrangements. There was no significant association between the level of knowledge and the demographic variable such as age of mother, educational status, occupation, and age of the child, number of the child and the area of residence.

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