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Research Article

A Study to Assess the Knowledge on Perception and Health Care Seeking Behavior Regarding Neonatal Danger Signs among Postnatal Mothers in Selected Hospital at Bijapur, with a View to Develop Information Booklet

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Abstract

Aim: The aim of this study was to evaluate the knowledge on perception and health care seeking behavior regarding neonatal danger signs (NDSs) among postnatal mothers. **Materials and Methods:** A descriptive survey design was used for the study. The study was conducted at Government Hospital, Bijapur. The sample comprised 60 postnatal mothers of selected Government Hospital, Bijapur. Sample was selected using non-probability, convenient sampling technique. Data were collected using a structured knowledge questioner. Data were analyzed using descriptive and inferential statistics. **Results:** The result of this study showed that the pre-test majority of the respondents of the percentage of knowledge scores in general information about NDSs was 38.88.5%, causes of danger signs were 41%, signs and symptoms of danger signs were 41.66%, prevention of danger signs was 49.44%, and management of NDSs was 46.19%, it shows the administration of information booklet. The pre-test, majority of subjects 31 (51.66%) had average knowledge, 17 (28.33%) had good knowledge, and 12 (20%) had poor knowledge. The calculated Chi-square value was less than the table value and $P > 0.05$; hence, there was no significant association between pre-test knowledge score and selected sociodemographic variables. It shows that there was significant association between the gain in knowledge scores and selected demographic variable. **Conclusion:** The findings of the study concluded that the majority of subject had average knowledge on perception and health care seeking behavior regarding NDSs among postnatal mothers.

Key words: Danger signs, knowledge, neonate, perception

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Introduction

Birth of a baby brings a joy into the family. The most exciting affair in the lives of a couple is having a neonate baby. You and your partner may feel overwhelmed at the beginning after all, there's so much to learn. As soon as your little baby arrives, your life will be changed forever. It's a good idea to start preparing for that change early. Newborn or neonate refers to an infant in the first 28 days after birth. The normal neonate characteristics are head represents one-fourth of his total body length. Its circumference is equal to that of abdomen or chest. The average size is 33–35 cm. Some newborn have a fine, downy body hair called lanugos. The newborn may also have Mongolian spots and various other birthmarks. New born genitals are enlarged and reddened. The physical and mental wellbeing of a baby depends on the correct management of events in prenatal period. The newborn baby is the most super sensitive, delicate, and susceptible from which can easily harmed if not taken care.[1]

Neonatal outcomes are affected by maternal health and other factors such as care during pregnancy, childbirth,

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and immediately after birth. Globally, about three-fourths of all neonatal deaths occur during the early neonatal period (0–7 days). Further, 25–45% of all neonatal deaths occur in the first 24 h after birth. Maternal complications carry a high risk of neonatal death, particularly in the early neonatal period. Neonate can become seriously ill and any type of infections may be dangerous, so illness at this age requires immediate attention. Health of children has been considered of vital importance to all societies because children are the basic resources for the future of mankind. We are aware that mortality among sick neonates is very high and facilities for appropriate care of very sick neonates are less. It may take a long time for a sick neonate to reach a hospital.[2]

Many communities keep babies indoor for the 1st month after birth. If the baby become ill during the period of that seeking health care is often delayed, yet sick babies often die within a few hours or delays can be fatal. Poor knowledge on part of mothers can lead to disastrous results in the field of care giving. Mother has to regulate the child's behavior, attitudes, outlook, and home environment in family, since these are the basic factors that influence the growth of neonate. If the mothers are not acquainted with a recognition and referral of neonate danger signs, it might affect the rearing of their children. Providing timely education in the form of intervention to mothers could fill these gaps in knowledge.[3]

Vital statistics are considered as indicator of health. One of the important vital statistics is birth rate and death rate. The health status of child can be accessed through morbidity and mortality. Newborn survival is very sensitive indicator of population growth and socioeconomic development. Neonatal death is of serious national health concern. According to the present report, globally 10 million children die annually before 5 years, most of them in the early neonatal period. More than 98% of these deaths occur in developing countries. Almost half of the deaths in under-5-year-olds occur in infancy. Of the infant deaths, about two-thirds occur in newborn period. It has also been noted that one-third of all newborn deaths occur in 1st day of life, almost half within 3 days and nearly three-quarters within the 1st week of life. In developing countries, about 34 of every 1000 live births result in newborn death.[4]

Neonatal mortality and morbidity are still high in Africa, Asia, Latin America, and developing countries of which one of the important contributing factors is jaundice. It is present in 60% of term newborns and 80% of preterm. The maximum risk of jaundice is kernicterus. This causes at least 10% of mortality and 70% morbidity.[5]

Objectives of the study

The objectives of the study were as follows:

1. To assess the knowledge on perception of postnatal mothers regarding neonatal danger signs (NDSs)
2. To assess the health care seeking behavior of postnatal mothers regarding NDSs
3. To prepare and administer information booklet on knowledge regarding NDSs
4. To find the association between pre-test knowledge score with selected sociodemographic variables.

Assumptions

1. The post-natal mothers will have limited knowledge of NDSs
2. Information booklet will improve knowledge of mothers regarding NDSs.

Hypothesis

H_0-There is no significant association between pre-test knowledge score with selected sociodemographic variables.

H_1-There is significant association between pre-test knowledge score with selected sociodemographic variables.

Materials and Methods

Research approach

The research method adopted for the present study is descriptive approach.

Research design

Non-experimental design and descriptive survey approach to assess the postnatal mother's knowledge on perception and health care seeking behavior regarding NDSs.

Variables

Dependent variables

The dependent variable of this study is knowledge of postnatal mother at selected District Hospital, Bijapur.

Independent variables

The independent variable is information booklet on knowledge regarding NDSs.

Extraneous variables

Extraneous variables such as age, religion, number of children, educational status, occupation, and source of information.

Setting of the study

Setting of the study was "Government Hospital at Bijapur."

Population

The population of the study is postnatal mothers of selected Government Hospital, Bijapur.

Sample and sampling technique

In the present study, postnatal mothers of selected Government Hospital, Bijapur, using non-probability, convenient sampling technique by the investigator.

Sample size

Total sample size for this study is 60 postnatal mothers of selected Government Hospital, Bijapur.

Sampling criteria

Inclusion criteria

Postnatal mothers admitted in maternity ward who are in the age between 18 and 40 years, who are able to read and write Kannada, and who were present and willing to participate in the study.

Exclusion criteria

The following criteria were excluded from the study: Who were below 18 and above 40 years of age, who cannot read and write Kannada, and who were unavailable during the study.

Interpretation of score

It was prepared coding for Part "A" which consists of demographic variable and for Part "B." Part "B" consisted of 30 multiple choice questionnaires to assess the knowledge of postnatal mothers of selected government hospital. One mark will be given for each correct response and Zero mark is given for each wrong response and also for not responded questions. The range of possible score varies from a minimum of 0 to maximum 25 marks which are represented in form of percentage for interpretation.

- Adequate knowledge: 21–30 score
- Moderately adequate knowledge: 11–20 score
- Inadequate knowledge: 0–10 score.

Statistics

Descriptive statistics

1. To analyze the demographic data by percentage and frequency distribution
2. To compute mean, median, mode, standard deviation, and range of knowledge on perception and health care seeking behavior scores of postnatal mothers regarding NDSs.

Inferential statistics

1. There will be no statistical association between the knowledge on perception and health care seeking behavior scores of postnatal mothers regarding NDSs and their selected sociodemographic variables at 0.05 level of significance.
2. Chi-square to working out the association with demographic variables and knowledge assessment.

Results

The data were entered into master sheet for tabulation and statistical processing the obtained data were analyzed, organized, and presented under the following headings:

Section I

Distribution of subject characteristics according to sociodemographic variables.

Section II

Analysis and interpretation of knowledge on perception and health care seeking behavior scores of postnatal mothers regarding NDSs.

Section III

Testing of hypotheses.

Section I

Table 1 reveals that distribution of subject characteristics according to sociodemographic variables. Maximum subjects, that is, 30 (50%) were in the age group of 16–18 years, 15 (25%) were in the age group of 19–21 years, 12 (20%) were in the age group of 22–24 years, and 3 (5%) of them were in the age group of 25 years and above. Maximum subjects, that is, 35 (58.33%) were Hindu, 20 (33.33%) were Muslim, and 5 (8.33%) were Christian. Maximum subjects 23 (38.33%) were had 0–2 years of duration of married life, 19 (31.66%) had 2–4 years of duration of married life, 11 (18.33%) had 4–6 years of duration of married life, and 7 (11.66%) had 6 years and above duration of married life. Maximum subjects, that is., 30 (50%) were reside in urban areas, 20 (33.33%) in rural areas, 6 (10%) were in semi-urban area, and 4 (6.33%) in slum. Eighty maximum subjects, that is., 34 (56.66%) were having two children, 11 (18.33%) were having three and above children, 9 (15%) were having one child, and 6 (10%) were having no children. Maximum subjects, that is, 28 (46.66%) were illiterate, 14 (23.33%) were had primary education, 9 (15%) were had high school level education, 6 (10%) of them had under graduation, and 3 (5%) of them had post-graduation and above level of education [Table 1].

Section II

The data presented in Table 2 shows that the pre-test mean knowledge score is 20, median is 21, mode is 20.5, standard deviation is 2.94, and range is 16 [Table 2].

The data presented in Table 3 reveals that in the pre-test, majority of subjects 31 (51.66%) had average knowledge, 17 (28.33%) had good knowledge, and 12 (20%) had poor knowledge [Table 3].

The data presented in Table 4 reveals that the mean percentage of knowledge scored was 43.44% [Table 4].

The data presented in Table 5 reveals that the percentage of knowledge scores in general information about NDSs was 38.88.5%, danger signs was 45.33%, causes of danger signs was 41%, signs and symptoms of danger signs was 41.66%, prevention of danger signs was 49.44%, and management of NDSs was 46.19% [Table 5].

Table 1: Frequency and percentage distribution of subjects according to sociodemographic variables *n*=60

Sr. No	Sociodemographic variables	Frequency	Percentage
1	Age (in years)		
	a. 16–18	03	05
	b. 19–21	30	50
	c. 22–24	12	20
	d. 25 and above	15	25
2	Religion		
	a. Hindu	35	58.33
	b. Muslim	20	33.33
	c. Christian	05	8.33
	d. Others	00	00
3	Duration of married life (In years)		
	a. 0–2	23	38.33
	b. 2–4	19	31.66
	c. 4–6	11	18.33
	d. 6 and above	07	11.66
4	Place of residence		
	a. Rural	20	33.33
	b. Urban	30	50
	c. Semi urban	06	10
	d. Slum	04	06.66
5	Number of children		
	a. Zero	06	10
	b. One	09	15
	c. Two	34	56.66
	d. Three and above	11	18.33
6	Educational status of mother		
	a. Illiterate	28	46.66
	b. Primary	14	23.33
	c. High school	09	15
	d. Under graduate	06	10
	e. Post graduate and above	03	05
7	Source of information regarding NDSs		
	a. Self-experience	20	33.33
	b. Television	19	31.66
	c. Radio	08	13.33
	d. Mass media	13	21.66

NDSs: Neonatal danger signs

Table 2: Mean, median, mode, standard deviation, and range of knowledge on perception and health care seeking behavior scores of postnatal mothers regarding NDSs *n* = 60

Area of analysis	Mean	Median	Mode	Standard deviation	Range (H-L)
Pre-test	20	21	20.5	2.94	16

NDSs: Neonatal danger signs

Section III

Testing of hypothesis

Table 6 revels that there will be no statistical association between the knowledge on perception and health care seeking behavior scores of postnatal mothers regarding NDSs and their selected sociodemographic variables at 0.05 level of significance. The findings of the study revealed that there is no significant association between pre-test knowledge score with the selected demographic variables the calculated Chi-square value was less than

table valve and $P > 0.05$; hence, there was no significant association between pre-test knowledge score and selected sociodemographic variables such as age Chi-square value is 6.919, religion Chi-square value is 7.128, duration of marriage life Chi-square value is 7.642, place of residence calculated Chi-square value is 4.674, number of children Chi-square value is 8.915, and educational states of mother Chi-square value is 3.111, source of information. Chi-square value is 7.349. Hence, the null hypothesis was accepted [Table 6].

Discussion

The findings of this study have been discussed with reference to the objectives and hypothesis. The pre-test, majority of subjects 31 (51.66%) had average knowledge, 17 (28.33%) had good knowledge, and 12 (20%) had poor knowledge and the percentage of knowledge scores in general information about NDSs was 38.88.5%, danger signs was 45.33%, causes of danger signs was 41%, signs and symptoms of danger signs was 41.66%, prevention of danger signs was 49.44%, and management of NDSs was 46.19%.

Table 3: Frequency and percentage distribution of knowledge on perception and health care seeking behavior scores of postnatal mothers regarding NDSs $n = 60$

Knowledge score	Pre-test	
	Frequency (f)	Percentage
Good (23 and above)	17	28.33
Average (17–23)	31	51.66
Poor (17 and below)	12	20

NDSs: Neonatal danger signs

Table 4: Percentage of knowledge on perception and health care seeking behavior scores of postnatal mothers regarding NDSs n=60

Mean % of knowledge score of subjects			
Group	Total score	Knowledge scored	Percentage of knowledge scored
Postnatal mothers	1800	782	43.44

NDSs: Neonatal danger signs

The similar study conducted by the Dongre *et al*. on Perceptions and Health Care Seeking about Newborn Danger Signs Among Mothers in Rural Wardha had about 67.2% mothers knew at least one newborn danger sign. Majority of mothers (87.4%) responded that the sick child should be immediately taken to the doctor but only 41.8% of such sick newborns got treatment either from government hospital (21.8%) or from private hospital (20%) and 46.1% of sick babies received no treatment. As told by mothers, the reasons for not taking actions even in presence of danger signs/symptoms were ignorance of parents, lack of money, faith in supernatural causes, non-availability of transport, home remedy, non-availability of doctor, and absence of responsible person at home. For almost all the danger signs/symptoms supernatural causes were suspected and remedy was sought from traditional faith healer (vaidu) followed by doctor of primary health center and private doctor.[6]

Similar study conducted by Bulto *et al*. on knowledge of NDSs, care seeking practice, and associated factors among postpartum mothers at public health facilities in Ambo town, Central Ethiopia shows that one-fifth 82 (20.3%) of postpartum mothers have good knowledge about NDSs. Only 60.5% of mothers whom their baby developed danger-sign sought medical care for their baby from health facility immediately. Mothers who have diploma/more education (AOR = 5.25, confidence interval [CI] 1.48–18.59), whose current baby developed danger-signs (AOR = 3.18 CI 1.06–9.52), having postnatal care follow-up (AOR = 2.29, CI 1.24–4.24), and receiving counseling on newborn care after delivery (AOR = 1.78, CI 1.04–3.04) were factors associated with having good knowledge on NDSs. In this study, the level of postpartum mother's knowledge on NDSs and care-seeking practice was low.[7]

Similar study conducted by Guta *et al*. on Knowledge of NDSs and Associated Factors among Mothers of <6-month-old Child in Dire Dawa, Ethiopia: A Community-based Cross-sectional Study shows that about 285 (40.8%) (95%

Table 5: Percentage of knowledge on different areas of perception and health care seeking behavior scores of postnatal mothers regarding NDSs n=60

Mean % of knowledge score of subjects			
Area of knowledge	Total score	Knowledge scored	Percentage of knowledge scored
General information about NDSs	360	140	38.88
Danger signs	300	136	45.33
Causes of danger signs	300	123	41
Signs and symptoms of danger signs	240	100	41.66
Prevention of danger signs	180	89	49.44
Management of NDSs	420	194	46.19

NDSs: Neonatal danger signs

Table 6: Association between the knowledge on perception and health care seeking behavior scores of postnatal mothers regarding NDSs and their selected sociodemographic variables *n*=60

Sl. No	Sociodemographic variables	Good	Average	Poor	Chi-square		Df
					Cal	Tab	
1	Age (in years)						
	a. 16–18	1	2	0	6.919	12.592	6
	b. 19–21	9	15	6			
	c. 22–24	5	6	1			
	d. 25 and above	2	8	5			
2	Religion						
	a. Hindu	10	20	5	7.128	12.592	6
	b. Muslim	4	9	7			
	c. Christian	3	2	0			
	d. Others	0	0	0			
3	Duration of married life (In years)						
	a. 0–2	3	14	6	7.642	12.592	6
	b. 2–4	5	10	4			
	c. 4–6	5	5	1			
	d. 6 and above	4	2	1			
4	Place of residence						
	a. Rural	2	11	7	4.674	12.592	6
	b. Urban	8	18	4			
	c. Semi urban	3	2	1			
	d. Slum	4	0	0			
5	Number of children						
	a. Zero	1	2	3	8.915	12.592	6
	b. One	3	2	4			
	c. Two	10	22	2			
	d. Three and above	3	5	3			
6	Educational status of mother						
	a. Illiterate	6	15	7	3.111	15.507	8
	b. Primary	4	9	1			
	c. High school	4	4	1			
	d. Under graduate	2	3	1			
	e. Post graduate and above	1	1	1			
7	Source of information regarding NDSs						
	a. Self-experience	2	11	7	7.349	12.592	6
	b. Television	8	9	2			
	c. Radio	3	4	1			
	d. Mass media	4	8	1			

NDSs: Neonatal danger signs

CI: 37.3–44.3) of mothers had good knowledge of NDSs and 97.1% (95% CI: 94.1–99.3) of mothers sought medical care at a health facility. Mothers who were governmental employed (AOR = 2.14, 95% CI: 1.17–3.9), whose fathers' educational level is secondary or above (AOR=2.3, 95% CI: 1.18–4.49), four/more antenatal care visit (AOR=4.3, 95% CI: 1.5–12.3), whose baby developed danger signs (AOR=3.5, 95% CI: 2.13–5.73), and those mothers received education on NDS (AOR=7, 95% CI: 4.2–11.5) had a significant association with knowledge of NDSs.[8]

Conclusion

The findings of the study concluded that the majority of subject had average knowledge on perception and health care seeking behavior regarding NDSs among postnatal mothers.

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