Original Research Paper

Nursing

KNOWLEDGE OF NEONATAL DANGER SIGNS AMONG POSTNATAL MOTHERS IN SELECTED HOSPITAL, KAMRUP METRO, ASSAM.

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ABSTRACT **Background of the study:** The neonatal period is one of the critical period for a child's survival. Morbidity and mortality is very high in neonate which needs optimal care to improve survival rate of neonate. For early diagnosis of neonatal danger signs and appropriate therapeutic intervention, it is very important that mother or caregiver know the manifestations and identify the neonatal danger signs and possess positive health seeking behaviour. Aim: to find out the knowledge of postnatal mother regarding neonatal danger signs in selected hospital, Kamrup Metro Assam. **Method:** Descriptive research design was adopted and 110 postnatal mothers were selected by using non-probability convenience sampling technique in selected hospital of Kamrup (M), Assam who fulfils the inclusion criteria. Structured knowledge questionnaire was used to assess the knowledge of postnatal mothers regarding neonatal danger signs. **Results:** Data analysis was done by calculating mean, standard deviation and chi square. It was found that majority 82(74%) of the respondents had moderately adequate knowledge, 24(22%) of respondents had inadequate knowledge and 4(4%) of respondents had adequate knowledge. The mean and standard deviation of knowledge level is 12.35 and 3.89 respectively. The association was statistically tested by using chi square at p<0.001 level of significance. **Conclusion:** the study shows that, out of 110 respondent, 82(74%) had moderately adequate knowledge, 24(22%) had inadequate knowledge, 4(4%) had adequate knowledge regarding neonatal danger signs. So the investigator concluded that health care workers should provide counselling or other informational method like programme or booklets during antenatal or postnatal check-up to improve mother's knowledge.

KEYWORDS :

INTRODUCTION

Neonatal period is from birth to four weeks of age that is equal or less than 28 days of life. Neonatal danger signs (NDS) were proposed by World Health Organization (WHO) and United Nations International Children's Emergency Fund (UNICEF). Which indicate new born being at high risk of illness and death. WHO introduced around nine general danger signs which define the illness of a neonates, i.e. not able to feed, fever, severe chest in drawing, hypothermia, convulsion, birth asphyxia, fast breathing and jaundice. Any of these signs' existence needs early detection. Timely and adequate care-seeking is crucial to improve neonatal health and survival.[1]

Failure to early recognize of neonatal danger signs by mother or care giver and delay in care seeking is one of the causes for neonatal death. Every year over 2.4 million babies die during the neonatal period globally.[2]

For early diagnosis of Neonatal Danger Signs (NDSs) and the appropriate therapeutic intervention, it is important that mothers know the manifestations and identify the neonatal danger signs and possess positive health-seeking behaviour.[3]

OBJECTIVE

- To assess the knowledge on the neonatal danger signs among postnatal mothers.
- To find out the association between knowledge of postnatal mothers regarding neonatal danger signs with the selected demographic variables.

Review of Literature

Section-I: Literature related to Knowledge of Postnatal mothers regarding Neonatal Danger Signs.

Kaur H, Joshi P, Kaur M, (2019) conducted a descriptive study on danger signs of Neonatal Illness among mothers at SGRD Hospital Vallah, Amritsar. Total of 110 mothers in postnatal ward of hospital were taken as sample by purposive sampling technique, a quantitative research approach was adopted. Data was collected by using structured knowledge questionnaire. The study result revealed that the mean and SD score was 6.20 and 2.74 for the knowledge among mothers regarding danger signs of neonatal illness, and it was found that half of mothers that are 61 out of 110 had average knowledge (55%) regarding danger signs in neonate illness, 46(42) respondents had poor

knowledge and only 1 and 2 out of 110 mothers had good and excellent knowledge respectively.[4]

Section-II: Literature related to Knowledge, Practice and its associated factors among postnatal mothers on Neonatal Danger Signs.

Ekwochi U, Ndu I.K, Osuorah C.D, Amadi O.F, Okeke I. B, Obuoha E, et al (2015) conducted a community based cross sectional descriptive and analytical study on knowledge of danger signs in new born and health seeking practices of mothers at Enugu State, South East Nigeria. Total 376 mothers were included in the study by multi stage sampling technique. Data were collected by using structured questionnaire through face-to-face interview. The study result shows knowledge of more than three of the nine WHO recognized danger sign was poor (0.0-30.3%). Majority of the mothers had knowledge of one (i.e. fever) WHO recognized danger sign (95.2%). Knowledge of the WHO signs was not significantly associated with maternal socio-demographic variables considered in this study.[5]

Research Methodology

Research approach: Quantitative research study

Research design: Descriptive research design

Research variables: Knowledge of postnatal mothers regarding neonatal danger signs.

Demographic variables:

In this study the demographic variables were age, educational status, occupation, family income, parity, place of residence, number of antenatal visit and number of previous child having neonatal danger signs during neonatal period.

Setting: The study was conducted at District Hospital Sonapur, Kamrup (M), Assam.

Population: Post natal mothers

Target population:

postnatal mothers who delivered live new born in the last 28 days.

Accessible population: postnatal mothers who delivered live new

born in the last 28 days in selected hospital of Kamrup (M), Assam.

Sample: Postnatal mothers in selected hospital of Kamrup (M), Assam. Who fulfils the inclusion criteria.

Sample size: sample size was 110

Sampling technique: Non probability convenient sampling technique.

Inclusion criteria:
• who are willing to participate and give consent
• who delivered babies in last 28 days
• whose new born got admitted to NICU

Exclusion criteria:
• who cannot read and write Assamese language.
• who delivered stillborn

Technique: the technique used for this study is self-report

Scoring key:
the correct answer was given score of 1(one) and wrong answer score 0 (zero). The total score on knowledge regarding neonatal danger signs was 28.

Categories of knowledge level:
Inadequate knowledge <33% (< 9marks)
Moderately adequate knowledge 33-66% (9-18marks)
Adequate knowledge >66% (> 18marks)

Content validity of the tool:
The prepared instrument along with the problem statement and objectives was submitted to five nursing experts in the field of Child Health Nursing, one nursing expert in the field of Obstetrics & Gynaecology and three medical experts in the field of Paediatrics & neonatology.

Ethical consideration:
• Ethical permission to proceed with the study was taken from the "Ethical Committee" (INS trust), GNRC Dispur, Guwahati, Assam.
• Written permission from the Joint Director of Health Services, Satpukhuri of Kamrup (M), Assam was obtained before starting the final data collection procedure for the study.
• Brief introduction and the purpose of the study were explained to the Medical Superintendent of selected Hospital of Kamrup (M), Assam.

Reliability of the tool:
The reliability of the tool was done by using split half method of Karl's Pearson Formula for reliability; the finding of reliability of knowledge tool was 0.80, which shows good reliability of the tool.

Pilot study:
The study was conducted from 30th November, 2021 to 6th December, 2021. 17 samples were selected using convenience sampling technique, and the study was found to be feasible.

Main study: 17th January 2022 to 4th February 2022.

RESULTS:
Table-I: Frequency And Percentage Distribution Of Postnatal Mothers According To Demographic Variables. n=110

DEMOGRAPHIC VARIABLES	FREQUENCY (F)	PERCENTAGE (%)
AGE		
≤18 years	3	2.7
19 – 21 years	45	40.9
22 – 24 years	50	45.5
25 – 27 years	11	10.0
>28 years	1	0.9
EDUCATIONAL STATUS		
Primary school	17	15.5
High school	79	71.8
Higher secondary	10	9.1
Graduate and above	4	3.6
OCCUPATION		
Homemaker	98	89.1
Daily wage earner	11	10.0
Government employee	1	0.9
Private employee	-	-
FAMILY MONTHLY INCOME		
<Rs.10,001	99	90.0
Rs.10,002-29,972	11	10.0
Rs.29,973-49,961	-	
Rs.49,962-74,755	-	
Rs.74,756-99,930	-	
Rs.99,931-199,861	-	
>Rs.199,862	-	
PARITY		
Primi mother	91	82.7
Multipara mother	19	17.3
PLACE OF RESIDENCE		
Rural	104	94.5
Urban	6	5.5
NUMBER OF ANTENATAL VISIT		
1st visit	14	12.7
2nd visit	8	7.3
3rd visit	37	33.6
4th visit	51	46.4
HISTORY OF PREVIOUS CHILD HAVING NEONATAL DANGER SIGNS DURING NEONATAL PERIOD		
Yes	11	10.0
No	99	90.0

Table-II: Frequency And Percentage Distribution Of Nurses According To The Level Of Knowledge
n=110

Level of Knowledge	Frequency (f)	Percentage (%)
Inadequate (<33%)	24	21.82
Moderately Adequate (33 – 66%)	82	74.55
Adequate (>66%)	4	3.63

Table II: Shows the frequency and percentage distribution of level of knowledge regarding neonatal danger signs among postnatal mothers. The table shows that 82(74.55%) had moderately adequate knowledge, 24(21.82%) had inadequate knowledge and 4(3.63%) had adequate knowledge regarding neonatal danger signs among postnatal mothers. n=110
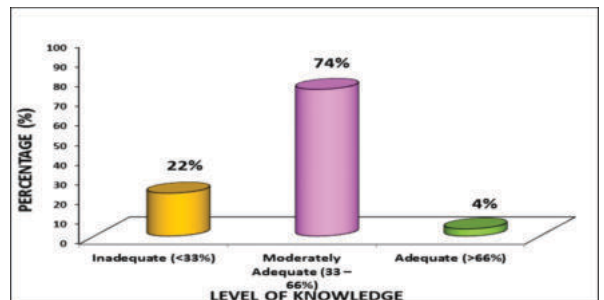

Figure-1: Cylindrical Diagram Showing Percentage Distribution Of Level Of Knowledge Regarding Neonatal Danger Signs Among Postnatal Mothers

Table-III: Mean, Sd And Range Of Score Of Knowledge Of The Respondents According To Their Knowledge On Neonatal Danger Signs n=110

LEVEL OF KNOWLEDGE	FREQUENCY (f)	PERCENTAGE (%)	MEAN	SD	RANGE OF SCORE	TOTAL SCORE
Inadequate (<33%)	24	22	12.35	3.89	3-20	28
Moderately Adequate (33–66%)	82	74				
Adequate (>66%)	4	4				

Table-IV: Association Of Knowledge With Selected Demographic Variables.   **n=110**

DEMOGRAPHIC VARIABLES	CHI SQUARE VALUE	df	P-VALUE	REMARK
Age	13.286	8	0.102	NS
EDUCATIONAL STATUS	5.071	6	0.535	NS
OCCUPATION	20.446	4	0.0001	S*** as p <0.001
FAMILY MONTHLY INCOME	4.106	2	0.128	NS
PARITY	1.954	2	0.377	NS
PLACE OF RESIDENCE	0.374	2	0.830	NS
NUMBER OF ANTENATAL VISIT	9.282	6	0.158	NS
HISTORY OF PREVIOUS CHILD HAVING NEONATAL DANGER SIGNS DURING NEONATAL PERIOD	4.230	2	0.12	NS

*p<0.05, S – Significant, N.S – Not Significant

Table- IV: Shows the analysis depicted that only variable occupation (x^2=20.446, p=0.0001) had shown statistically significant association with level of knowledge regarding neonatal danger signs among postnatal mothers at p<0.001 level.

The other demographic variables like age, educational status, family monthly income, parity, place of residence, number of antenatal visit and history of previous child having neonatal danger signs during neonatal period had not shown statistically significant association with level of knowledge regarding neonatal danger signs among postnatal mothers.

DISCUSSION:
In this study result shows that the knowledge level of post natal mothers on neonatal danger signs, majority of mothers i. e. 82(74.55%) had moderately adequate knowledge, 24(21.82%) had inadequate knowledge and 4(3.63%) had adequate knowledge. Chi square analysis showed that there is significant association of knowledge with occupation. To support the above findings a similar study which was conducted at SGRD Hospital Vallah, Amritsar by Harmeet K, Pooja J and Manmeet K, (2019), that only 1 and 2 out of 110 mothers had good and excellent knowledge regarding neonatal danger signs.

CONCLUSION:
The knowledge of neonatal danger signs was assessed by using structured knowledge questionnaire. The finding of this study shows that out of 110 postnatal mothers of selected hospital of Kamrup (M), Assam. Majority i.e. 82(74.55%) had moderately adequate knowledge, 24(21.82%) had inadequate knowledge and 4(3.63%) had adequate knowledge. The mean and standard deviation of knowledge level is 12.35 and 3.89 respectively. Chi square analysis showed that there is significant association of knowledge with occupation, and other demographic variables like age, educational status, family monthly income, parity, place of residence, number of antenatal visit and history of previous child having neonatal danger signs during neonatal period, had not shown statistically significant association with level of knowledge regarding neonatal danger signs. Intervention modalities focusing on maternal/parental counselling on the commonest symptom of neonatal danger signs particularly during ANC/PNC follow-up as well as during institutional delivery is very important in order to increase mothers' knowledge in recognition of neonatal danger signs also to decrease the rate of morbidity and mortality in neonates.

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