

Neonatal Danger Signs: Assess the Level of Knowledge Among the Post-Natal Mothers, In A View to Develop Informational Booklet In Selected Hospital, Bhubaneswar.

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Abstract:

Background:

According to WHO Global estimation in the year of 2014, shows that 10.6% of live baby births (in both cases normal vaginal delivery and caseation section) were preterm. It's very important to control the neonatal mortality rates before it becomes a terrible problem for the country. The newborn period is the most vital because it's a high-risk time to develop various health problems it may be related to genetically or it may be due to environmental causes. So, a mother or a health care provider must know about what are the warning signs for a baby may cause serious health problems.

Objectives:

To assess the level of knowledge among the post-natal mothers regarding neo-natal danger signs, in a view to developing an informational booklet.

Methods:

A non-experimental descriptive study with a quantitative survey research approach was conducted among 141 post-natal mothers by adopting a purposive sampling technique. Data was collected by the help of self-structure questionnaire tool through the interview technique. The informational booklet was given after the data was collected.

Results:

The study findings show that 48.9% of mothers having average knowledge regarding danger signs whereas 27.0% and 24.1% of mothers are having poor and good knowledge regarding danger signs respectively. It also shows that some of the socio-demographic variables like age, education of mothers and fathers, occupation of mother, family status, types of residence, parity status of mother and age of new-born are statistically significant with the level of knowledge keeping p value=0.05.

Conclusion:

The study concludes that overall mothers are having average knowledge regarding neonatal danger signs, they are the primary caregiver of a new-born so that they need to improve their knowledge by counselling or other informational methods like programme or booklets during their pregnancy or after delivery of the baby.

Keywords: Neo-natal danger signs, post-natal mothers, knowledge, informational booklet.

Introduction:

Birth of a baby brings new joy into the family. Children's are the supreme assets of a nation, from them the future develops. To have a healthy generation we need a healthy child. A child started the journey to become fit and healthy from the very beginning of life or the period which is called the neonatal period. So it's very important to take care of the child after birth for future betterment.¹ According to WHO estimation neonatal sepsis is the major cause of one million death per year and mostly 42% death occur in the first week of life.² proper identity of a neonate during liminal stage (during pregnancy and post-partum period) is ambiguous/crucial.³

Many more times parents thought that if a child crying continuously it may be due to hunger or due to sleep and it's a normal feature of a baby but after some days later they develop some serious health issues. So the parents or the care giver needs to know about the danger signs. The most dangerous period for a child life is the neonatal period. The cause of neonatal mortality includes prematurity, birth complication, infection and congenital malformation.⁴

The normal characteristics of a normal newborn are the head represents one-fourth of his total body length. The average length of a baby nearly 48-55cm and weight 2.5 to 3.5 kg. Normal vital sign of new-borns are blood pressure is 72/42 mm hg, the pulse is 120-140 beats/mints, respiration is 30-60 breath/mints and temperature is 36.4-37.4°c.⁵ Newborns are having a poor immune system. They're in the compromised state so early identification of neonatal danger sign by caregivers with prompt and appropriate referral serves as the backbone of reduction in neonatal mortality⁶ mothers have a great role in early recognition of danger signs that leads to increasing neo-natal care-seeking behaviour⁷

Most common neonatal danger signs are fast breathing, convulsion, conjunctivitis, cyanosis, pus around the umbilicus, umbilical bleeding, jaundice, poor feeding and bulging fontanelle.⁸ Neo-natal mortality rate is high in poor economic countries due to the presence of improperly skilled birth attendant during and immediately after birth as well as mothers were not receive skilled care.⁹

The health condition of a child directly contacts with the mother, she must be very aware of the early signs which can be a warning sign. Mother or the caregivers are the first people who can notice the early warning characteristics of illness and major changes or deviation from normal.¹⁰ The main aim is too early recognizing the occurrence of these danger signs would result in predict the need for seeking treatment of the newborn's.¹¹

Methods:

A quantitative survey approach with non-experimental descriptive study design was selected. As described previously the study was conducted in IMS and SUM Hospital, Bhubaneswar for 45 days to assess the level of knowledge among the post-natal mothers regarding neo-natal danger signs. The total of 141 mothers was taken as a sample by the help of purposive sampling technique under the following inclusion criteria.

- a) Post-natal mothers who are willing to participating in the study. Also available during data collection time and having a newborn baby.

- b) Mothers who can Read, write and understand Odia/ English/ Hindi language.
- c) Those are excluded were children having critical illness and congenital or structural deformity.

A structured interview schedule was prepared for collecting demographic data. Further, a self-structured questionnaires' was prepared to assess their knowledge on danger signs through interview technique. It was composed of twenty-eight items on neonatal danger signs such as Fast breathing, Diarrhoea, Poor feeding, Fever, Hypothermia, Convulsion, Excessive crying, Bulging fontanel, Unconsciousness, Abdominal distension, Vomiting etc. having multiple options of each one. The subjects are asked to choose the option according to their knowledge what they feel the score for the right answer was '1' and wrong answer it was '0' a total of the score was 28 out of which poor knowledge score was 0-9, whereas average knowledge was 10-19 and good knowledge score was 20-28. In the end, each participant has given an information booklet for their knowledge improvement and getting help to manage the condition. Data were analysed by the method of Descriptive and Inferential statistic.

Result:

The demographic findings show that Majority (53.9%) of mothers belong to the age group between 18 to 25 years, (40.4%) are between 26 to 35 years, and (5.7%) are above 35 years of age. Whereas Less than half women (41.8%) are educated up to higher secondary level and the education status of the father are more than half (51.1%) up to Graduation level. Among them (68.8%) are Housewife. Out of all religion (89.4%) are Hinduism. Many of them (59.6%) are having their monthly family income is Rs>20,000/per month. Most of the participants (61%) are belongs to Nuclear family and maximum subjects (63.1%) are belongs to the Urban area. According to the parity of mothers (53.2%) are primipara. Most of them (53.2%) have gone through Normal Vaginal Delivery. The majority (98.6%) have preferred institutional delivery. About (7.09%) mothers are having a history of previous abortion. Out of all the participants only (67.4%), the newborns Early Neonate (0-7) whereas (32.6%) are late neonate and there is no case of Stillbirth history among all the participants.

The result shows that Maximum 48.9% of mothers are having average knowledge with a score between (10-19) whereas 27% mothers are having poor knowledge with the score (0-9), & only 24.1% mothers are having good knowledge score between (20-28) regarding neo-natal danger signs

There is an extremely statistically significant association between knowledge of the post-natal mother regarding neo-natal danger signs with selected demographic variables like age of mothers, Education of mother and parity status, whereas only statistically significant is Occupation of the mother, Education of the father, Family status, Type of residence and age of newborn by keeping p value=0.05

Discussion:

The present study reveals that 27% of mothers having poor knowledge (0-9), 48.9% of Mothers with average knowledge (10-19) according to the study and there are only 24.1% of mothers are selected with good Knowledge (20-28) regarding neo-natal danger signs. To support the above findings a similar study was conducted by GA Bulto, 2019, that one-fifth 82 (20.3%) of postpartum mothers had poor knowledge about neo-natal danger signs.¹ To support the above findings another study conducted by N Degefa, 2018, the result reveals that approximately two-fifth (40.9%) mothers had good knowledge about neo-natal danger sign¹³. Another supportive study conducted by, DAS. S Oct 2013, that the pre-test means score regarding the information booklets about danger signs of a newborn baby was 47.06, mean percentage was 14.11 and post-test mean percentage 95.77, mean percentage 28.73. Data reveals that mean percentage of pre-

test knowledge was lower than their post-test mean percentage with a mean percentage difference of 14.62, obtained percentage difference was found to be statistically significant as evidence from the value of Z- 22.38 at $P \leq 0.05$ It can thus be inferred that difference obtained between the both tests was a two different and not to chance.¹⁴

Another study was conducted by MOLA G, 2017, that the significant predictor of a good level of knowledge on neonatal danger sign included those who attended secondary education, were an urban residence, attended 2-3 antenatal check-up visit, had an institutional delivery and attended postnatal care visit.¹⁵

Conclusion:

Based on the findings, it was observed that maximum 48.9% of mothers are having average knowledge with a score between (10-19) whereas 27% mothers are having poor knowledge with a score (0-9), & only 24.1% mothers are having good knowledge score between (20-28) regarding neo-natal danger signs. And at last, all the participants are benefitted by getting information booklet regarding danger signs and its management. Further study to be needed for emphasizing its treating of factors causing danger signs.

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Ethical Statement- this study was approved by the institutional ethical committee. All the subjects are provided with their written consent before participation in this study.

Conflict of interest-the authors declare that there was no conflict of interests.

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Table: 1 Socio-demographic profile of the post-natal mothers, (N=141)

<i>Demographic Characteristics</i>	<i>Frequency (f)</i>	<i>Percentage(%)</i>
Age		
18 to 25 years	76	53.9
26 to 35 years	57	40.4
Above 35 years	8	5.7
Education of mother		
Primary	2	1.4
Secondary	40	28.4
Higher Secondary	59	41.8
Graduation	40	28.4
Education of father		
Primary	1	0.7
Secondary	8	5.7
Higher Secondary	60	42.6
Graduation	72	51.1
Occupation of mother		
Housewife	97	68.8
Govt. employee	35	24.8
Private/corporate employee	4	2.8
Others	5	3.5
Religion of mother		
Hindu	126	89.4
Muslim	15	10.6
Christian	0	0.0
Others	0	0.0
Income per month		
<5000 rupees	20	14.2
5000-10,000 rupees	1	0.7
10,000-20,000 rupees	36	25.5
>20,000 rupees	84	59.6
Family status		
Nuclear family	86	61.0
Joint family	55	39.0
Type of residence		

Urban	89	63.1
Rural	52	36.9
Parity status of the mother		
Primipara	75	53.2
Multipara	66	46.8
Type of delivery		
Normal vaginal delivery	75	53.2
Caesarean section	66	46.8
Instrumental delivery	0	0.0
Others	0	0.0
Place of delivery		
Home delivery	2	1.4
Institutional delivery	139	98.6
History of previous abortion		
Yes	10	7.09
No	131	92.9
Age of new-born		
Early neonate(0-7)	95	67.4
Late neonate(7-028)	46	32.6
Any stillbirth		
Yes	0	0
No	100	100

Table: 2 Representing distribution of subjects according to the levels of knowledge of post-natal mothers regarding neonatal danger signs.

Knowledge of mothers	Frequency	Percentage
Poor	38	27.0
Average	69	48.9
Good	34	24.1
Total	141	100

Fig: 1 knowledge of post-natal mother regarding neo-natal danger sign.

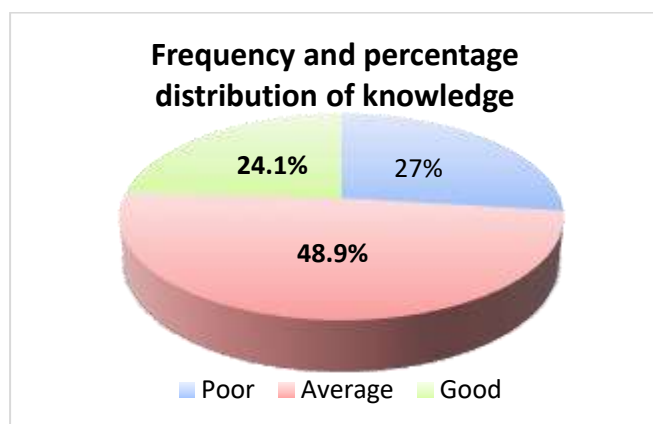


Table: 3 Association of socio-demographic variables and level of knowledge among the post-natal mother regarding neonatal danger signs.

SL NO.	Variables	Df	Chisquare value	Significance
1.	Age (year)	4	13.53432	P=0.0089**
2.	Education of Mothers	6	16.93921302	P=0.0095**
3.	Education of Father	6	16.13161	P=0.0131*
4.	Occupation of mothers	6	18.72911	P=0.0046**
5.	Religion of mothers	6	6.15423	P=0.4061
6.	Income per month	6	11.14701	P=0.0839
7.	Family status	2	6.544631	P=0.0379*
8.	Type of Residence	2	7.196284	P=0.0274*
9.	Parity status of the mother	2	9.778154	P=0.0075**
10.	Type of delivery	6	10.17678	P=0.1174
11.	Place of delivery	4	5.499053	P=0.2398
12.	No.of abortion	6	2.986046	P=0.8106
13.	Age of New Born	2	6.580092	P=0.0373*
14.	Any Still Birth	2	0	P=1.0000

X^2 = chi square p=0.05 * statistically significant ** extremely significant