Neonatal Danger Signs: Attitude and Practice of Post-Natal Mothers

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Abstract

Background: A mother is the nearest person to a neonate to identify, present and manage the neonates' problem, which ensure that neonate can lead a healthy life. Every year four million babies die in the first month of life and a quarter of these take place in India. About 98% of new-born deaths occur in developing countries, where most new-borns deaths occur at home. The main obstacles in improving new-born survival are that many babies are born at home without skilled attendance. Hence the present study was aimed to assess the attitude and practice of mothers to recognize neonatal danger signs and various household practices followed by mother to identify and to treat danger signs.

Materials and method: A descriptive cross-sectional study with quantitative approach was undertaken on 100 post natal mothers by convenient sampling technique with the objective to assess the attitude and practice of post natal mothers regarding neonatal danger signs. Attitude scale and self-reporting practice check-list were used as a data collection tools.

Results: Result of the study shows that 61% of mothers had moderate attitude, 39% of mothers had favorable attitude. Whereas, practice level was high among majority (90.56%) of the post natal mothers regarding neonatal danger signs. There was a statistically significant correlation (r=0.401 at 0.01 level of significance) between attitude score and practice score.

Conclusion: The study concluded that there is need to improve the attitude and practices of post natal mothers regarding neonatal danger signs either during antenatal visit, post natal period or at community level. Community based educational program should be launched to enhance knowledge, attitude and practice of post natal mothers regarding neonatal danger signs.

Keywords: Post-natal mothers; Neonates; Neonatal danger signs; Attitude; Practice; Information booklet

Introduction

In human life, the period from birth to 28 days of age is known as neonatal period (World Health Organization, 2014). Birth is a major challenge to the new-born to negotiate successfully from intra-uterine to extra-uterine life [1].

Globally 10 million under five children die every year. Majority of them die in their neonatal period. Among them 98% of these deaths occur in developing countries. Almost half of the deaths in under-five-year-olds occur in infancy. About two-thirds of infant deaths occur in the neonatal period. It has also been noted that one-third of all neonatal deaths occur on the first day of life, almost half within 3 days and nearly three-quarters within the first week of life. In developing countries, about 34 of every 1000 live births result in neonatal death [2,3].

Nigeria ranked highest in Africa in terms of number of neonatal deaths and second highest in terms of neonatal deaths worldwide. Estimated neonatal deaths which occurred in Nigeria in 2003, 37% were due to severe infections like pneumonia, sepsis, neonatal tetanus and diarrheal diseases; while preterm births and birth asphyxia accounted for another 49% [4].

In India the neonatal mortality rate (NMR) dropped significantly from 69 per 1000 live births in 1980 to 53 per 1000 live births in 1990 [2]. In recent years, however, the NMR has remained almost static decreasing only from 48 to 44 per 1000 live births from 1995 to 2000 and from 2011 to 2015 it has come down 22 to 28 per 1000 live births. A similar situation has been reported from other developing countries [2]. In Uttrakhand, Rudraprayag district has minimum NNMR (11) whereas Haridwar has maximum NNMR (50) and range is 39/1000 live births. In Dehradun neonatal mortality rate is 32 per 1000 live births.

Lack of specificity of the clinical manifestations of various neonatal morbidities has been noted, resulting in difficulty in making a definitive diagnosis, delay in seeking care and resultant high mortality [4].

The danger signs of severe illness included are 1) history of difficulty feeding, 2) movement only when stimulated, 3) temperature below 35.5°C, 4) temperature above 37.5°C, 5) respiratory rate over 60 breaths per min, 6) severe chest in drawings and, 7) history of convulsions. Assessment of these signs will result in a high overall

sensitivity and specificity for prediction the need for hospitalization of a new-born in the first week of life [4].

Health and survival of children is dependent upon the health status of mother along with awareness, education and skills in mother is the best primary health worker. In view of her constant and continued contact with her child, she is the best person to identify the early evidence of illness and major development deviation from normal [5].

Materials and Methods

A descriptive cross sectional study with quantitative approach was undertaken in Doiwala block, Dehradun District for a period of 1 month (December 2014-January 2015) to assess attitude and practice of post natal mothers regarding neonatal danger signs. Total 100 post natal mothers were selected by convenient sampling technique under following inclusion criteria. (1) All post-natal mothers who were having a baby of one month of age; (2) Mothers who were below the age of 40 years; (3) Mothers who were willing to participate. Only 53 mothers have reported that their neonate had neonatal danger signs. So only these mother practices were assessed. Data were collected by using Attitude rating scale and self-reporting practice check-list. Data were analyzed by using inferential and descriptive statistics.

Results

Sample characteristics	Frequency (f)	Percentage (%)
Age (years)		
20-24	57	57
25 and above	43	43
Education		
Primary	20	20
Secondary	33	33
Higher secondary	47	47
Occupation		
Working	4	4
Non-working	96	96
Monthly Income		
10,000 and below 10,000	88	88
Above 10,000	12	12
Family Type		
Nuclear	21	21
Joint	79	79
Living Area		
Rural	9	9
Semi-urban	91	91
No. of Children		
1	56	56
2	29	29
3 and more then 3	15	15
Pre-Exposure		
Yes	24	24
No	76	76
Baby Gender		
Boy	49	49
Girl	51	51
Birth month of baby		
Below 9 month	5	5
At 9 month	69	69
Above 9 month	26	26

Table 1: Socio demographic profile of the post-natal mothers, (N=100).

The above Table 1 regarding demographic variables of study participants revealed that more than half (57%) of participants were in the age group of 20-24 years, Majority (80%) of participants had secondary and higher secondary education, (96%) non-working, (88%) monthly income less than 10,000, (79%) belonging to joint family, (91%) living in semi-urban area. More than half (56%) had one child, whereas only one fourth (1/4) (24%) of mothers had previous exposure on knowledge regarding neonatal danger signs. The ratio of baby gender among participants was almost equal (51%-49%) and most of (69%) of baby born at full term.

Aspect	Category	Frequency	Percentage %
Unfavourable	20-46	0	0
Moderate	47-73	61	61
Favourable	74-100	39	39

Table 2: Frequency and percentage distribution of attitude level of post-natal mothers regarding neonatal danger signs.
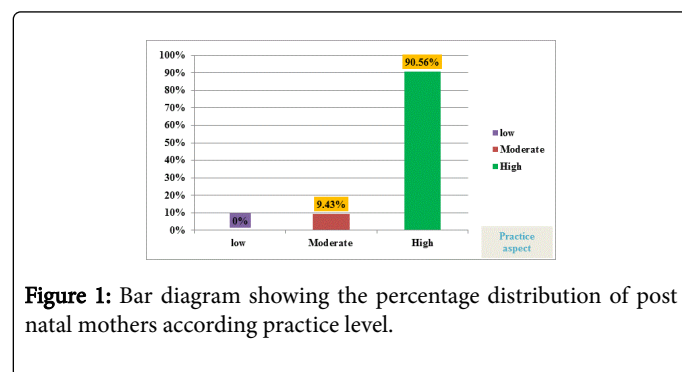

Figure 1: Bar diagram showing the percentage distribution of post natal mothers according practice level.

Table 2 reveals that, the attitude level was moderate among 61% of the post natal mothers regarding neonatal danger signs, 39% of the mothers having favorable level of attitude.

In above Figure 1 shows that level of practice among post natal mothers was high (90.56%), shows that majority of mothers are able to recognize the neonatal danger signs and symptoms and takes preventive actions regarding them.

Aspect	Statement	Max. Score	Mean	SD	Mean%
Attitude (N=100)	20	100	71.78	7.898	71.78
Practice (N=53)	32	32	25.55	2.325	79.84

Table 3: Attitude and practice mean and SD score of post natal mothers regarding neonatal danger signs.

Table 3 reveals that the mean attitude of post natal mother was 71.78. Hence, it is to be interpreted that mothers were having moderate attitude regarding recognize and prevention of neonatal danger signs.

	Mean	SD	r-value	P-value
Attitude	70.92	7.859	0.401	0.003
Practice	25.55	2.325		

Table 4: Correlation between attitude score and practice score of post-natal mothers regarding neonatal danger signs.

In Table 4, Karl Pearson test was used to find the correlation between the attitude score and practice score among post natal mothers regarding neonatal signs and it was found statistically significant (P<0.003). Hence, it can be interpreted statistically that as positive attitude of postnatal mothers increases, the practice of post natal mothers towards neonatal danger signs also increases.

Association between attitude score, practice score and selected demographic variables

Sr. No	Demographic data	Below median (<71)	Above median (71>)	Chi square	df	P-value	Significance
1	**Age**						
	20-24	26	31	0.202	1	0.887	NS χ^2
	25 and above	19	24				
2	**Education**						
	Primary	16	4				
	Secondary	12	21	-----	2	0.001	Sig F
	Higher secondary	14	30				
3	**Occupation**						
	Non-working	42	54	-----	1	0.0416	Sig F
	Working	4	0				
4	**Monthly income**						
	10,000 and below	38	50	0.979	1	0.322	NS χ^2
	Above 10,000	7	5				
5	**Family type**						
	Nuclear	11	10	0.585	1	0.444	NS χ^2
	Joint	34	45				
6	**Living area**						
	Rural	2	7	----	1	0.1799	NS F
	Semi urban	43	48				
7	**No. of children**						
	1	23	33				
	2	12	17	3.35	2	0.188	NS χ^2

	3 or more then 3	10	5				
8	**Pre exposure**						
	Yes	6	18	5.1	1	0.024	Sig χ²
	No	39	37				
9	**Baby gender**						
	Boy	18	31	2.65	1	0.103	NS χ²
	Girl	27	24				
10	**Birth month of baby**						
	Below 9 month						
	At 9 month	2	3	-----	2	0.9375	NS F
	Above 9 month	32	37				
		11	15				

Table 5: Association between attitude score and selected personal profile of post natal mother, (N=100).

Table 5 shows that there was statistically significant association between attitude score of participants and education (p<0.001), occupation (p<0.0416) and previous exposure (p<0.024) on knowledge regarding neonatal danger signs. Hence it can interpret statistically that the mother who were having higher education they were having positive attitude towards neonatal danger signs. Also the mother who were having previous exposure on knowledge regarding neonatal danger signs and mothers who were non-working they were having relatively positive attitude towards neonatal danger signs.

Association between practice score and selected personal profile of post natal mother

There was no statistically significance association between practice score and selected personal variables of the participants regarding neonatal danger signs.

Discussion

In this study it was found that most of mothers were having moderate attitude regarding neonatal danger signs. These findings are parallel to the previous study done by Darling et al. This study findings showed that majority (61%) of mothers were having favorable attitude regarding new-born care [6].

The present study reveals that, the practice level was high among majority (90.56%) of the post natal mothers regarding neonatal danger signs, only 9.43% of the mothers having adequate level of practice and regarding neonatal danger signs and none with low practice level. These findings are supported by a study done by Darling et al. This study finding showed that more than half of the post natal mothers 57% had high practice level, 43% had moderate practice level and none with low practice level [6].

The findings of the present study concluded that there was statistically significant correlation (r=0.401 at 0.01 level of significant) between the attitude score and practice score among post natal mothers regarding neonatal signs. The present study findings are supported by Rodrigo et al. The findings of the study showed that there was a significant correlation between attitude and behavior scores of mothers on neonatal jaundice [7].

The present study findings revealed that there was significant association between attitude score of participants and education, occupation and previous exposure on knowledge regarding neonatal danger signs. The findings of the study are supported by a previous study done by Rabiyeepoor et al. The study findings revealed that Knowledge and attitude scores of mother regarding jaundice were correlated with the past experiences of neonatal jaundice and educational levels [8].

The findings of shows that there was no significance association between practice score and personal variables of the participants regarding neonatal danger signs. The findings of the study are supported by previous study done by Castalino et al. The study findings revealed that Relationship between knowledge and practice score of the mother was not statistically significant at 0.05 level (r=0.276, p=0.140) [9].

Conclusion

The findings of the study will help the nursing professionals working in hospital and community areas to educate the mothers about the recognition of neonatal danger signs and measure they should take as early as possible to care the baby with danger signs. Health education should be provided during antenatal visits, in post natal wards and Neonatal intensive care unit; before discharging of the mothers from the hospital would be beneficial and helpful to reduce neonatal morbidity and mortality rate.

Acknowledgement

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