AWARENESS REGARDING NEWBORN DANGER SIGNS AMONG MOTHERS IN A HOSPITAL OF RUPANDEHI

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ABSTRACT

INTRODUCTION

Newborn care is important for the proper development and healthy life of the baby and also in prevention of neonatal deaths from danger signs. The aim of the study was to find out the awareness regarding newborn danger signs among mothers in a hospital of Rupandehi.

MATERIAL AND METHODS

Institutional based descriptive cross-sectional study was conducted to find out the awareness regarding newborn danger signs among 56 mothers selected through non probability purposive sampling method. Data was collected by using semi-structured interview schedule and was analyzed by using descriptive(frequency, percentage, mean, standard deviation) and inferential statistics (chi square) with Statistical Package for Social Science software (SPSS) version 20.0. The total duration of the study was from September 5, 2018 to September 19, 2018.

RESULTS

The findings of the study revealed that half (50%) of the mothers had low level awareness regarding newborn danger signs. There was statistically significant association between mothers' level of awareness regarding newborn danger signs with education status (p=0.001).

CONCLUSION

Based on the study findings, it is concluded that still half of the respondents had low awareness regarding newborn danger signs. If all the mothers were aware regarding danger signs of their newborns. They can seek early management of the problems which help to reduce newborn morbidity and mortality. Thus, it is recommended to concerned authority to conduct awareness program to mothers regarding newborn danger signs.

KEYWORDS Awareness, Mothers, Newborn danger signs

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INTRODUCTION

A newborn or neonate is a child under 28 days of age. It is the most vulnerable period as the survival of newborn depends upon the care we provide and the child is at highest risk of dying.[1] Newborn period is the phase in life with the greatest risk of mortality as well as the maximum potential for long term physical and neurocognitive development.[2] Newborn danger signs are those life threatening clinical conditions which cause morbidity and mortality of newborn. Integrated Management of Neonatal and Childhood Illness (IMNCI) developed by WHO has listed the newborn danger signs of severe illness as history of feeding difficulty, movement only when stimulated, vomiting, respiratory rate over 60 breaths per minute (fast breathing), severe chest in drawings (difficulty in breathing), history of convulsions, high temperature more than 37.5°C, yellowish coloration of skin, low temperature less than 35.5°C, umbilical redness or pus discharge.[3]

According to World Health Organization, globally 2.6 million children died in the first month of life, approximately 7000 newborn deaths every day. In 2016, 46% of all under 5 child deaths were among newborn infants.[1] It is estimated that in Nepal nearly 43,000 children under one year of age die every twelve months where two third of them die within 28 days. The most common causes of neonatal deaths are asphyxia, birth injuries, infection, birth defects, diarrhea, pneumonia and hypothermia.[4] Nepal has the highest neonatal mortality rate in the world. The neonatal mortality rate in the year 2006 A.D. and 2011 A.D. was same as 33 per 1,000 live births, whereas in 2016 A.D., neonatal mortality rate was reduced to 21 per 1,000 per live births. In last decade, Nepal has made substantial progress in reducing child mortality. However, neonatal mortality remains a significant health challenge for developing countries like Nepal.[5]

Descriptive study on knowledge and practice of postnatal mother in newborn care conducted in Teaching Hospital, Maharajgunj, Kathmandu, Nepal shows that the mean knowledge regarding newborn danger sign was only 35.63%.[6] Cross-sectional explorative study on knowledge, attitude and practices on the care of the newborn in postnatal mothers conducted in the Maternal and Child Health (MCH) unit of B.P. Koirala Institute of Health Sciences (BPKIHS), revealed that only 48% postnatal mothers had knowledge regarding newborn danger signs.[7]

In addition to the direct causes of death, many newborn die because of their mother's poor health, lack of access to essential care and inability to recognize danger signs in newborn by their mother.[5] The study was thus conducted to find out the awareness regarding newborn danger signs among mothers.

MATERIAL AND METHODS

Institutional based descriptive cross-sectional study was conducted in postnatal ward of Universal College of Medical Science and Teaching Hospital (UCMS-TH) Siddharthnagar-1, Rupandehi district, Province-5, Nepal between 5th September to 19th September 2018. All primi and multiparous mothers who have undergone vaginal delivery and admitted in postnatal ward were included in the study while mothers who had still birth as well as who does not have any children were excluded in the study.

Sample size was 56 postnatal mothers which was determined by using Slovin's formula $N= N/1+N (e)^2$ Non-probability purposive sampling technique was used to select the sample.

Face to face interview was carried out using pretested semi-structured interview schedule for collecting data. The questionnaire was translated into Nepali and then retranslated into English and again into Nepali language and necessary correction was made. Simple descriptive statistics such as frequencies, percentage, means and standard deviation were calculated and to finding association between the different variables in relation to the outcome variable was measured by chi-square test with 95% confidence interval.

Research proposal was approved from Research Committee of Universal College of Nursing Sciences before data collection. Ethical approval was obtained from Institutional Review Committee of Universal College of Medical Sciences. Administrative approval was obtained from the concerned authority of UCMS-TH. Written informed consent was obtained from each respondent by clarifying the objectives of the study.

RESULTS

Regarding socio demographic variables, mean age of the respondents was 28.04. Similarly 46.40% were Madhesi, 87.50% of respondents were literate. Likewise 94.60% of respondents were homemaker. In the same way, 53.60% of respondents havemore than two children and 57.14% of respondents belong to joint family. Alike, 96.40% of respondents' spouse were literate, 25% of respondents' spouse were foreign employee.

Regarding respondent's awareness on meaning of newborn, 57.14% of respondents answered the meaning of newborn as birth to 28 days of life (Table 1).

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Table 1. Respondent's awareness regarding newborn

n= 56

Meaning of newborn	Frequency	Percentage
0 to 28 days *	32	57.14
29 to 58 days	8	14.28
59 to 89 days	12	21.44
90 to 120 days	4	7.14

Correct response

With regards awareness on danger signs of newborn, 98.20% of respondents answered abdominal distension as a danger signs of newborn and 41.10% answered lethargy as a danger signs of newborn (Table 2).

Table 2. Respondents' awareness regarding danger signs of newborn

n= 56

Danger signs	Correct Responses Frequency	Percentage
Poor sucking	30	53.60
Persistent vomiting	50	89.30
Fast breathing	46	82.10
Chest indrawing	33	58.90
Bluish discoloration of skin	39	69.60
Low body temperature (cold body)	41	73.20
High body temperature (hot body)	48	85.70
Yellowish discoloration of skin	52	92.90
Pus discharge from umbilical cord	54	96.40
Skin rashes with blister	42	75.00
Pus discharge from eye	47	83.90
Abdominal distension	55	98.20
Lethargy (weakness)	23	41.10
Convulsion	50	89.30
Unconsciousness	53	94.60

Mean percentage score of danger signs- 78.92

As regards respondents' overall awareness on newborn danger signs, 50% had high awareness and 50% had low awareness (Table 3).

Table 3. Respondents' overall awareness regarding newborn danger signs

n= 56

Level of awareness	Frequency	Percentage
High	28	50.00
Average	-	-
Low	28	50.00

Mean score 14.34   *Total score - 21*

Table 4 represents the association between levels of awareness regarding newborn danger signs with different independent variables. Among different variables, variables such as caste and education status of respondents were statistically significant with level of awareness regarding newborn danger signs with *p* value lesser than 0.05. This indicates literate mothers as well as Brahmin/chhetri and madeshi were highly aware about danger signs of newborn in comparison to illiterate and other caste group respectively (table 4).

Table 4. Association between respondents' level of awareness regarding newborn danger signs and socio-demographic variables

n= 56

Variables	Level of High n (%)	Awareness Low n(%)	χ^2	*p*-value
Age of mothers				
17-22	9 (56.25)	7 (43.75)		
23-28	13 (48.14)	14 (51.85)	0.379	0.945
29-34	5 (45.45)	6 (54.54)		
35-40	1 (50.00)	1 (50.00)		
Caste				
Brahmin / Chhetri	9 (75.00)	3 (25.00)		
Pahadi Dalit	1 (50.00)	1 (50.00)		
PahadiJanajati	6 (75.00)	2 (25.00)		
Madhesi	11 (42.30)	15 (57.67)	10.912	0.028[#]
Muslim	1 (12.50)	7 (87.50)		
Education status				
Literate	28 (57.14)	21 (42.86)	10.707	0.001[#]
Illiterate	-	7 (100.00)		
Occupation				
Homemaker	26 (49.38)	27 (50.92)		
Service holder	1 (100.00)	-	4.178	0.243
Business person	1 (100.00)	-		
Tailor	-	1 (100.00)		
Type of family				
Nuclear	13 (72.22)	5 (27.78)		
Joint	12 (37.50)	20 (62.50)	5.704	0.058
Extended	3 (50.00)	3 (50.00)		
Number of children				
One	14 (53.88)	12 (46.62)	0.287	0.592
Two and above	14 (46.66)	16 (53.34)		

Significance level at p < 0.05

DISCUSSION

The findings of the study showed that 57.14% of respondents knew the meaning of newborn as from birth to 28 days of life. The finding is not consistent with the study conducted in Chitwan, Nepal which shows that 85.30% of respondents knew the meaning of newborn as from birth to 28 days of life.[8]

This study shows that 53.60% of respondents knew poor sucking or feeding as a danger sign. The finding is consistent with the study conducted in Chencha, Ethiopia which shows that 56% of respondents knew poor sucking or feeding as danger sign.[9]

In this study 89.30% of respondents knew persistent vomiting as a danger sign. The finding is consistent with the study conducted in Varanasi, India which shows that 85.10 of respondents knew persistent vomiting as a danger sign.[10]

In the present study 82.10% of respondents knew fast breathing as a danger sign. The finding is not consistent with the study conducted in Varanasi, India which shows that 40.20% of respondents knew fast breathing as a danger sign[10]

Similarly, chest indrawing as a danger sign was known to 58.90% of respondents. The finding is not consistent with the study conducted in Wolkite, Kenya which shows that 46.60% of respondents knew chest indrawing as a danger sign.[11]

A large number, 69.60% and 73.20% of respondents knew bluish discoloration of skin and low body temperature (cold baby) as a danger signs respectively. The findings are not consistent with the study conducted in Chitwan, Nepal which shows that 36% and 88% of respondents knew bluish discoloration of skin and low body temperature (cold baby) as a danger signs respectively.[8]

Similarly, 85.70% and 92.90% of respondents knew high body temperature (hot baby) and yellowish discoloration of skin as a danger signs respectively. The findings are consistent with the study conducted in Chitwan, Nepal which shows that 88% and 94.70% of respondents knew high body temperature (hot baby) and yellowish discoloration of skin as a danger signs respectively.[8]

The results shows that 96.40% of respondents knew pus discharge from umbilical cord as a danger sign. The finding is not consistent with the study (2016) conducted in Chitwan, Nepal which shows that 20% of respondents knew pus discharge from umbilical cord as a danger sign.[8]

It has been found that 75%, 83.90% and 98.20% of respondents knew skin rashes with blister, pus discharge from eye and abdominal distension as a danger signs respectively. The findings are not consistent with the study conducted in Kathmandu, Nepal which shows that 12.30% of respondents knew skin rashes with blister and pus discharge from eye as a danger signs and 10.80% of respondents knew abdominal distension as a danger sign.[12]

The findings of this study showed that 41.10% of respondents knew lethargy (weakness) as a danger sign. The finding is consistent with the study conducted in Chencha, Ethiopia which shows that 42.10% of respondents knew lethargy (weakness) as a danger sign.[9]

About 89.30% of respondents knew convulsion as a danger sign. The finding is not consistent with the study conducted in

Gedeo, Ethiopia which shows that 19.30% of respondents knew convulsion as a danger sign.[13]

The findings of the study showed that 94.60% of respondents knew unconsciousness as a danger sign. The finding is not consistent with the study conducted in Wardha, India which shows that 13.90% of respondents knew unconsciousness as a danger sign.[14]

The findings of the present study showed that there was statistically significant association between respondents' level of awareness and education status ($p= 0.001$) which is consistent with the study conducted in Mekelle, Ethiopia which shows statistically significant association between respondents' level of awareness and education status($p= 0.001$).[15]

The sample size of the study is less and study is conducted in single setting. Therefore, external validity might be decreased. The findings of the study will be helpful to concerned authority of the hospital to organize awareness program regarding newborn danger signs among mothers. The findings of the study will be useful as baseline information for other researchers to conduct further research.

CONCLUSION

On the basis of findings of study it is concluded that half of the respondents have low awareness regarding newborn danger signs. Less than half of respondents know lethargy (weakness) as a danger signs in newborn. There is statistically significant association between respondents' level of awareness regarding newborn danger signs with education status and caste. On the basis of findings of the study, the concerned authority of hospital is recommended to conduct awareness program regarding newborn danger signs among mothers and interventional study can be done to enhance the awareness among mothers.

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CONFLICT OF INTERESTS

None

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