

Awareness Regarding Care of Newborn among Post Natal Mothers in Teaching Hospital Lalitpur

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ABSTRACT

Background: Neonatal period is the critical time for extra uterine adjustment. During this crucial period of life, they need to provide appropriate care including warmth, normal breathing, hygiene, skin care, immunization, care of umbilical cord and early exclusive breast feeding to improve the survival of children. The aim of this study is to identify the level of awareness regarding care of newborn among post-natal mother in Patan hospital.

Method: A descriptive cross sectional study was conducted among 76 post-natal mothers using purposive sampling technique. Data was collected between “16th to 29 of January 2022” by using self- developed structure interview questionnaire. The data were analyzed using SPSS version 20 in descriptive statistic and inferential statistic

Results: The result of the study revealed that 52.6% of respondents had good awareness, 47.4% had poor awareness regarding care of newborn. Majority of respondents had adequate awareness on exclusive breastfeeding, maintaining hand hygiene, immunization and bathing. While only 22.4% of respondents were aware about demand feeding and 30.3% aware on neonatal jaundice. Most of respondents received four times ANC services. There was significant association between type of family and level of awareness on newborn care where p value 0.036. However, there was no significant association between age, education, occupation, and complete ANC visit with awareness on newborn care with p value >0.05 at 5% level of significance.

Conclusion: This study concludes that more than half of respondents' had adequate level of awareness. This finding shows that to improve the awareness on newborn care they need an antenatal education for primi para mother.

Key words: awareness, newborn care, post-natal mother

INTRODUCTION

A newborn or neonate is a child under 28 days of age. Neonatal period is the critical time for extra uterine adjustment.¹ During this crucial period of life they need to provide appropriate care including warmth, normal breathing, hygiene, skin care, immunization, care of umbilical cord, early exclusive breast feeding, to improve both

the survival and having healthy children.^{2,3} Children are our future and utmost precious resources, after birth health of neonate depend upon the health care practice adopted by family especially mothers.⁴ Globally 2.4 million children died in the first month of life in 2020. There are approximately 1 million newborn deaths first 24 hours birth day. The proportion

death rate of neonate in among the under five children was 47% of all child deaths in under five children and about one third dying on the day of birth and close to three quarters dying within the first week of life.² The most common causes of neonatal deaths worldwide are preterm birth, intra-partum-related complications (birth asphyxia or lack of breathing at birth), infections and birth defects. Given that most of these deaths can be easily prevented or treated with cheap and effective interventions.²

In Southern Asia, the proportion of neonatal deaths is highest (62 per cent) despite a relatively high under-five mortality rate. India contributes the highest global share of deaths among the neonatal death in the world.¹ In India neonatal mortality was 21.7 per thousand live births in 2019.^{5,6}

Neonatal mortality still remains a major public health problem and the leading cause of mortality in children below 5 years of age in Nepal. Nepal faces a lot of health challenges, as majority of people are uneducated, poor or less health conscious, as a result health status indicator of Nepal lag far behind these of developed countries. One of the main reasons of this is due to the low maternal awareness regarding care of newborn.⁴ Newborn survival has become an important issue to improve the child health status and for achieving sustainable development goal. Neonatal health status enhances by providing appropriate basic newborn care.⁸

RATIONALE OF THE STUDY

Globally 99% of the newborn death was happening in low and middle-income countries where poor resources setting.⁹ About half of the deaths occur at home while they cared by mother, relatives and traditional birth attendance.

According to the Nepal's Demographic Health Survey 2016, 1 in 48 babies die in their first 28 days of life, around 17% of neonatal deaths have occurred within the first hour of life. Overall, more than half of neonatal deaths have occurred within the first day of life (57%) where more than half

of the neonates (56%) died at home. During neonatal period early exclusive breast feeding and hypothermia management could prevent 70% of current neonatal death through the essential newborn care.⁷

According to study conducted at BPKIHS, on knowledge regarding care of newborn which found that 95% knew about the immunization whereas only 1.5% knew about cord care, 44.6% knew about breastfeeding & 7.7% knew about sign of neonatal illness.⁸ Newborn care practice such as taboo and superstition associated with caring for the mother, which is adversely affect the newborn and child health. Adequate awareness on newborn care will improve household practice on newborn care and use of the health service often at community level. Therefore researcher is interested to identify the awareness of primi post-natal mother regarding care of newborn.

MATERIALS AND METHODOLOGY:

A descriptive cross sectional study was conducted among 76 post-natal mothers using purposive sampling technique. Ethical approval was taken from the research committee of Patan Academy of Health Science, School of Nursing and Midwifery, Lalitpur Nursing Campus. Before taking interview Informed verbal consent were taken from the each respondents and the purpose of the study was explained. The collected data were analyzed by using SPSS version 20. Descriptive statistics and inferential statistics manly Chi-square test were used. There was total 7 components on awareness related to newborn care questionnaire and total score 43 was considered 100%. Awareness level was categorized by mean score; score above the mean considered good awareness and below the mean considered as poor awareness.

RESULT

Among the 76 post-natal mothers, majority of respondents (93.4%) were from age above 20 years, the mean age was 26.36 years and minimum age is 16 years. Most of

respondents (93.4%) had got secondary and higher education. Similarly, more than half of the respondents (57.90%) belonged to

joint family. Most of respondents (98.70%) received Antenatal service more than four times during ANC period.

Table. 1 Respondent's response on Breastfeeding N=76

Variable	No.(%)
Initiation of breastfeeding after birth	
Within one hours ^b	65 (85.5%)
Two hours	9(11.8%)
Three hours	1(1.3%)
More than three hours	1(1.3%)
First feed	
Breast milk ^b	75(98.7%)
Honey	1(1.3%)
Need of breastfeeding	
On demand ^b	17(22.4%)
Every 2 hourly	59(77.6%)
Exclusive breastfeeding	
Feeding only mother milk ^b	70(92.1%)
Feeding Brest milk with water	3(3.9%)
Feeding with cow milk and other milk Supplement	3(3.9%)
Duration of exclusive breastfeeding	
3 months	1(1.3%)
5 months	1(1.3%)
6 months ^b	74(97.4%)

Note: ^a for multiple response question, ^b correct answer

Table.1 shows that most of respondents (85.50%) gave the right answer regarding initiating breastfeeding after birth, likewise all most all of the respondents (98.90%) answered that breastfeeding is first feeding to newborn, only one respondent answered honey is the first food to the newborn. Regarding need of breastfeeding only 22.4% of the respondents responded that newborn

should breastfeed on demand. On awareness regarding meaning of exclusive breastfeeding most of the respondents (92.1%) answered that feeding only mother's milk, similarly on the duration of exclusive breastfeeding 97.4 % of respondents answered correctly that 6 months period is the exact duration of exclusive breastfeeding.

Table 2. Respondents' Response on Cord care, Eye care and immunization N=76

Variables	No. (%)
Material used in cord care	
Cleaning with warm water and cotton ^b	61 (80.3%)
Soap and water	1(1.3%)
Oil	14(18.4%)
Material used in eye care	
Cleaning eye with clean swab ^b	50 (65.8%)
Applying kajal (eyeliner)	10 (13.2%)
Milk	13(17.1%)
Oil	3(3.9%)
Appropriate time of first vaccination	
Soon after birth ^b	56(73.7%)
After one month	6 (7.9%)
After 42 days	6(7.9%)
Don't know	8(10.5%)

Note: ^b correct answer

Table 2 illustrates that most of the respondent's (80.3%) gave the right answer regarding material used in cord care that is cleaning with warm water and cotton. Regarding material used in eye care, about two third of the respondents (66%) correctly

answered that cleaning eye by clean swab separately while 17.1% of the respondents gave wrong answer that breast milk is used for eye care similarly 13.2% answered applying kajal in eye. All of the respondents were aware that vaccine prevents disease

while 73.7% of the respondents know about given soon after birth.
first vaccine Bacille Calmatte Guerin is

Table 3. Respondent's response on Newborn danger sign N=76

Variables	No. (%)
Danger signs^a	
Yellowness of eye palm sole	69(90.7%)
Red, pus discharging umbilicus and surrounding skin red	72 (94.7%)
Eye swollenness, sticky, red or draining pus	71(93.4%)
Baby stop or unable to breastfeeding	65(85.5%)
Abnormal jerking movement of limbs and eye	57(75.0%)
Difficulty and fast breathing	61 (80.2%)
Blister on skin	70 (92.1%)
Fever	64(84.1%)
Baby cold to touch	67(88.1%)
Baby previously active and become lethargic	61(80.2%)
Abdominal distention	60(78.9%)

Note: ^aMultiple response question

Table 3. Regarding the awareness on danger signs of newborn, most common danger sign identified by respondents was red pus discharging umbilicus and surrounding skin red (94.7%), followed by swollen eye, sticky red or pus discharging eyes (93.4%), blister on skin(92.1%), baby cold to touch (88.1%), newborn become lethargic, (80.1%) abnormal jerking movement (75%) respectively.

Table 4. Respondents' Overall Level of Awareness Regarding Care of Newborn N=76

level of awareness	No. (%)
Good awareness (>75 %)	40(52.6%)
Poor awareness (51%-75%)	36(47.4%)

Table 4. Shows that more than half of respondents 40 (52.6%) had good level of awareness regarding care of newborn and 36(47.4%) respondents had poor awareness. As seen from table 5 there was significant association between type of family and mother with awareness regarding care of newborn (p= 0.036) and no significant association between age, education, occupation and completed ANC with awareness regarding care of newborn where p value 0.663, 0.184, 0.454 and 0.221 respectively.

Table 5. Association between Age, Education, Occupation, Type of family and ANC visit with Awareness regarding Newborn care N=76

Variables	Awareness on newborn care		X ² / Fisher's exact test	P Value
	Poor N (%)	Good N (%)		
Age				
Below twenty years	3(3.9%)	2(2.6%)	0.343	0.663
Above twenty years	33(43.42%)	38(50%)		
Education				
Primary level	4(5.3%)	1(1.3%)	2.268	0.184
An above primary level	32(42.1%)	39(51.3%)		
Occupation				
Service				
Yes	9(11.8%)	14(18.4%)	0.898	0.454
No	27(35.5%)	26(34.2%)		
Type of family				
Single	20(26.3%)	12(15.8%)	4.962	0.036*
Joint family	16(21.2%)	28(36.8%)		
Complete antenatal visit				
Yes	34(44.7%)	40(52.6%)	2.282	0.221
No	2(2.6%)	0 (0%)		

Chi square test: p value (<0.05) level of significant.

Fisher Exact Test where p value less than 0.05 (2 tailed) is significance

DISCUSSION

This study showed that more than half of the mother had good awareness regarding newborn care. The acquisition of knowledge of newborn care among primi para mother is commonly viewed as a key strategy to improve maternal and child health.

This study revealed that 52.6% of respondents had good awareness regarding care of newborn, 47.4% had poor awareness. This is supported by previous study done in Pokhara Nepal on knowledge and practice regarding newborn care where among 150 post-natal mothers 60.7% mother had good knowledge and 39.3% had poor knowledge.³ Similarly study conducted in Rwanda among 192 post-natal mothers showed that 65.1% had good knowledge and 34.9% had poor knowledge regarding essential newborn care.¹⁰

The finding of the present study is contradicted with the study done in Chitwan Nepal where 38.7% of respondents had good knowledge, 41.3% had average knowledge and 20% had poor knowledge regarding newborn care.¹¹ Another study conducted in Dolpa Nepal among 302 mothers, identified that more than half of mothers (51.3%) demonstrated poor knowledge regarding newborn care.¹² The differences in the findings is due to the differences in study setting as the respondents in this study were from the capital city of Nepal with high literacy and well availability of the health service

This study shows that 100% of respondents responded that newborn should feed colostrum. However a study conducted in Ethiopia revealed that 18.7% of mother incorrectly answered that cow's milk, formula feeding (48%), plain water (12.3%) and sugar water (8.3 %) should be given before starting breast feeding¹³. Present study findings are contradicted with this study due to their differences in level of education where most of respondents were from primary level of education and have different cultural practice.

This study revealed that only 22.4% of respondents were aware on demand feeding,

A contradictory finding was observed in a study conducted in Ghana where more than 90 % of postnatal mothers had good knowledge regarding demand breastfeeding.¹⁴ This study result is contradict with our present study due to difference in population where most of respondents were multiparous while all respondents were primi para mother in our study.

The awareness regarding immunization in our study was satisfactory as about cent percent respondents were aware about immunizing the child to prevent different communicable disease. Similarly, 73.7% of the respondents know about first vaccine Bacille Calmatte Guerin was given soon after birth. This result supported by study done in Sudan where 91.7% of mothers aware on need of vaccine and 81% of mothers knew that vaccine prevents disease.¹⁵

Regarding danger signs of newborn in present study, most common danger sign identified by respondents were red pus discharging umbilicus and surrounding red skin (94.7%), followed by on swollen eye sticky red or pus discharging eyes (93.4%), blister on skin (92.1%), baby cold to touch (88.1%), lethargic newborn (80.1%) and abnormal jerking movement (75%). Similar study conducted in Palpa Nepal revealed that, cent percent of respondents aware about unable to suck as neonatal danger signs followed by fever (99.1%), breathing difficulties and jaundice (88.2%), umbilical cord infection (83.6%), hypothermia (62.7%) and least number of respondents (18.2%) were aware about convulsion as a neonatal danger signs¹⁶. This result is similar to our study because the age group and educational level of respondents were also similar

CONCLUSIONS

On the basis of the findings, it can be concluded that more than half of respondents had good awareness on newborn care, and nearly half of respondents had poor awareness regarding

newborn care. Similarly, most of the respondents were aware on all of the newborn danger signs. Based on the study findings, it is concluded that to improve the awareness on newborn care they need an antenatal education for primi para mother.

Limitations: The study was conducted in only gynae and post-partum ward of Patan Hospital. These finding can't be generalized for other setting especially in community.

A non-probability purposive sampling technique was used for selection of sample which lacks randomization. Hence, sampling selection bias might occur.

Recommendations

The study could also be done in antenatal clinic so it helps to prepare more aware mother regarding care of newborn.

Direct observational study, using checklist to assess level of practice on newborn care could be done.

Comparative studies among primiparous and multiparous post-natal mothers could be done in larger group of population.

Declaration by Authors

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