

Knowledge and Practice Regarding Newborn Care among Postnatal Mother in Selected Community, Bhaktapur

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ABSTRACT

Background:

Newborn care is a set of comprehensive recommendations designed by World Health Organization (WHO) to improve health of the Newborn through intervention before conception, during pregnancy, soon after birth and in postnatal period. It includes Thermoregulations, Clean delivery, Cord care, Eye care, Newborn feeding, Newborn danger sign, Kangaroo mother care, etc.

Objectives: To assess the knowledge and Practice Regarding Newborn care at home among postnatal mother in selected Community Ward no.5.

Methods: A descriptive cross sectional study design was conducted among 50 postnatal mothers to gather information on the Knowledge and Practices regarding Newborn care at home among Postnatal Mother in Selected Community Ward no.5, Madhyapur, Thimi. Non-probability purposive sampling techniques was used in this study. A Likert scale was prepared. Data was analyzed by using SPSS (Statistical Package of Social Science Software) Version 20 and various tests frequency and percentage and the findings were presented in tables.

Results: This study depicts that, 48(96%) had adequate knowledge regarding Newborn care whereas 2(4%) had inadequate knowledge regarding Newborn Care. Thus, 50(100%) of respondents had good practice regarding Newborn Care.

Conclusion: The study shows, postnatal mother had adequate knowledge and good practices regarding thermoregulation, eye care, newborn feeding, newborn danger sign, kangaroo mother care and poor awareness in cord care. While comparing knowledge with practice regarding newborn care, practice looks better in many areas.

KEYWORDS

Knowledge, Newborn Care, Postnatal mother, Practice

INTRODUCTION

Background of the Study

Newborn care is a set of comprehensive recommendation designed by World Health Organization (WHO) to improve health of the newborn through intervention before conception, during pregnancy, soon after birth and in postnatal period. It includes thermoregulation, clean delivery and cord care, initiation of breastfeeding, immunization, eye care, recognition of danger signs, care of the preterm/ low birth weight infant and management of newborn illness (Leta, 2022).

Newborn care starts from birth and among different stages of care, immediate care of newborn is equally important for newborn survival. With proper immediate care, newborn life can be saved from untimely death due to the different causes. Immediate proper care of newborn is vitally important for the survival, growth and overall development of a baby. Hence, little is known about the underlying social, cultural, economic, and other factors that determine behaviors related to immediate care of newborn. Information on these practices will form the foundation of any Behavior Change Communication (BCC) strategy for improving newborn health and survival. Practices regarding newborn care are largely governed by various factors such as knowledge of caretaker, traditional beliefs and practices, socio-economic status of family, accessibility of health services and handling by trained birth attendants {World Health Organization (WHO), 2017}.

Globally, mortality rates are still high in neonates even after great efforts to improve the health of child. In Nepal, the mortality rates of neonatal, infant and under-five over the past 15 years showed that neonatal mortality has decreased at a slower rate to infant and child mortality. The direct causes of neonate deaths are birth asphyxia, infections, prematurity, low birth weight, hypothermia, and congenital anomalies. Thus, newborn care is essential to reduce neonatal morbidity and mortality (Chaudhary et al., 2013).

Rationale

Worldwide, about two-thirds of infant deaths occur in the first month of life, about two-third die in the first week of life, and two-third die in the first 24 hours of life. The neonatal mortality rate in Nepal was 21 deaths per 1000 live births {Nepal Demographic and Health Survey (NDHS, 2016)}.

According to UNICEF 2015, the first 28 days of life is the most vulnerable time for a child's survival {United Nations Children's Fund (UNICEF), 2015}. Despite a significant reduction in childhood mortality achieved during the past 2 decades, there are still an estimated 2.7 million neonatal deaths and 2.6 million stillbirths every year. Neonatal deaths and stillbirths remain an important health problem in Nepal (World Health Organization (WHO, 2016)).

In Nepal, due to lack of knowledge among primigravida mothers for the preparation of their new role and responsibilities, most of the women get tired easily by newborn care. Deficient of Knowledge and adherence to traditional health practices leads to high risk of infants. Some traditional practices may cause tetanus, hypothermia and other life-threatening illnesses to newborn baby (Shrestha et al., 2014).

Traditionally, mothers are the caregiver for children irrespective of education, income and social class differences. Maternal education program and awareness for newborn care are the best ways to improve knowledge of mothers and to adapt healthy practices for newborn care so it is important to determine the knowledge and practice on neonatal care among postnatal mothers to intervene and educate mothers in future for proper practices.

METHODOLOGY

A descriptive, cross sectional study design was used to gather information on the Knowledge and Practices regarding Newborn care at home among Postnatal Mother in Selected Community Ward no.5. The population of the study was postpartum mothers till 30 days attending in selected community. Sample size was 50 for the study. Non-probability purposive sampling technique was done to select desired sample for data collection. Semi-structured question related to knowledge and practice was administered. Validity and reliability of the instrument was maintained. Before data collection formal approval for research was taken from authority (Hope International College). Data was collected by researcher from 2079-07-30 (2022/11/16) to 2079-08-10 (2022/11/26). herself at the place of their residence in a separate room about half an hour. About 7-8 subjects was interviewed in a day and data was collected for 2 weeks duration. 15-20 minutes was allocated to fill the data. Ethical clearance was obtained from the authority of Hope International College. A letter requesting permission to carry out this study was given on behalf of the Hope International College, Mahalaxmasthan, Lalitpur, to the administrative authority of selected community ward no-5. Written permission was taken to protect the privacy and right of the respondent. Informed consent was taken from each study respondents before data collection. Confidentiality of the subjects was maintained by assuring them that the information given by them will not be disclosed and be used only for the study purpose. Anonymity was maintained by using serial number or code number in questionnaire. Collected data was checked, reviewed for its completeness and accuracy. Data processing was done by using statistical Package for Social Sciences (SPSS) version 20. Data was analyzed and calculated according to nature of variables by using different statistical techniques like frequency, percentage, mean, standard deviation. Interpretation of data was done based on objective of the research.

Validity and Reliability

The content validity of the test instrument was established by consulting with advisors, subject matter experts, and literature review. The reliability of the instrument was maintained by pretesting among 10% of postnatal mothers of selected Community Ward No. 5, Bhaktapur. Based on pretesting, questions were revised and finalized for the data collection.

RESULTS

Table 1: Socio-Demographic Information of Respondents

VARIABLES	FREQUENCY	n=50 PERCENT (%)
AGE		
10 – 20	1	2.0
21 – 30	30	60.0
31 – 40	19	38.0
Mean, Standard deviation:	29.66, ± 3.794	
RELIGION		
Hindu	47	94.0
Buddhist	2	4.0

Christian	1	2.0
EDUCATION		
Secondary	11	22.0
+2 and above	39	78.0
OCCUPATION		
Housewife	17	34.0
Business	12	24.0
Service	21	42.0
TYPE OF FAMILY		
Nuclear	25	50.0
Joint	25	50.0
NO. OF CHILDRENS		
1	35	70.0
2	14	28.0
3	1	2.0
ANC VISIT		
Yes	50	100.0
AGE OF BABY		
1 – 10days	16	32.0
11 – 20days	24	48.0
21 – 30days	10	20.0
Mean: Standard deviation:15.24, ±5.971		

VARIABLES	FREQUENCY	PERCENT
GENDER OF BABY		
Male	18	36.0
Female	32	64.0
WEIGHT OF BABY		
2000 – 2500gm	19	38
2600 – 3000gm	23	46
3100 – 3500gm	5	10
3600 – 4000gm	3	6

Table 1 reveals that, among the respondents, 30 (60%) were from 20-30 age interval whereas 1 (2%) were from 10-20 age interval, 47 (94%) of respondents were Hindu and 1(2%) were Christian, 39(78%) were +2 and above, 11(22%) were secondary, 21(42%) were service, 17(34%) were housewife and 12(24%) were business, 25(50%) had nuclear family and 25(50%) had joint family, 35(70%) have 1 baby and 1(2%) have 3 baby, 50(100%) of respondents visit for

ANC checkup. Among the respondents, 50(100%) know about the newborn care, 24(48%) of baby from 10-20 age interval and 10(20%) from 21-30 age interval, (64%) were female baby and 18(36%) were male baby, 23(46%) of baby from 2600- 3000gm whereas 3(6%) of baby from 3600-400gm

Table 2: Knowledge Regarding Newborn Care

	n=50	
Knowledge regarding newborn care	frequency	Percentage
Define Newborn		
Baby Birth to 28 days	29	58
Birth to 60 days	17	34
Birth to 6 months	4	8
Define Newborn Care*		
Basic care given from birth up to 28 days	29	58
Basic care given from birth up to 60 days	17	34
Basic care given from birth up to 6 months	4	8
Components of Newborn Care*		
Thermoregulations	50	100
Eye care	50	100
Cord care	50	100
Newborn feeding	50	100
Newborn danger sign	50	100
Kangaroo mother care	50	100
Exclusive breastfeeding	50	100
Baby warm		
Wrap the baby with warm towel and keep in warm surface	50	100
Assess the body temperature of the newborn		
Touching the forehead / extremities	50	100
Measures applied to maintain body temperature		
Skin to skin contact	39	78
Tightly wrap the baby with cloths	11	22
Exposure of newborn baby to sunlight for some time		
Yes	50	100
Removal of cotton clothes nappies		
After urination and defecation	48	96
After 20 - 50 minutes	1	2
After 30 – 35 minutes	1	2
Newborn bath		
Immediately following birth	2	4
Within 24 hours	1	2
After 24 hours	47	94

Note: (*= Multiple answers)

n=50

VARIABLES	FREQUENCY	PERCENTAGE
Frequency of bath of newborn after first week of life		
Once a week	47	94
Once in 4 week	3	6
Appropriate time for oil massage		
Before bath		
After bath		
After feeding	1	2
Before feeding	22	44
	26	26
Oil massaging help the newborn	1	2
Keep the baby warm 8 16 Good blood circulation and keep the skin healthy		
Do you clean cord at home	8	
	42	
Yes		
Cord should be kept clean		
To prevent infection	50	100
Cord is cleaned by		
Exposing cord to clean environment	50	100
Apply oil		
Umbilical cord fall on		
3-6 days		
7-10 days		
11-14 days	13	26
The cord should be clean	37	74
Morning, afternoon, evening		
Once daily	3	6
After each nappy is changed	22	44
When cord is soiled	25	50
Dry thoroughly 25 50		
Wash with clean water	2	4
Wash with clean water soap, dry thoroughly	12	24
	36	72
apply antimicrobial on cord	25	50
Clean the newborn eyes	1	2
Yes 50 100	1	2
Method of cleaning		

With clean cotton	2	4
By applying kajal		
Materials to clean eyes		
Oil	50	100
Lukewarm water		
Milk	47	94
Eye drop	3	6
Application of kajal in the eyes		
No 7 14	1	2
Yes 43 86	45	90
Remedial measures to apply to baby's infected eyes	3	6
Prescribed medicine	1	2
Use of milk	48	96
Use of oil	1	2
Hand washing practice before touching the baby		
No	1	2
Yes	49	98
Early breastfeeding of newborn		
Immediately after birth	2	4
Within 1 hour	47	94
After 2 hour	1	2
First milk should be feed to the baby		
Yes	50	100
Frequency of feeding		
Hourly	2	4
2 hourly	47	94
As baby cries	1	2
The breast milk is fed		
6 months	50	100
Knowledge on Newborn danger sign		
Yes	50	100
Knowledge on kangaroo mother care		
Uses skin to skin contact	50	100
Kangaroo position to the infants		
Placed between the mothers breast	50	100
Importance of Kangaroo mother care		
Post term infants weighing over 4000gm	1	2
Low birth weight infants	48	96
Jaundiced infants	1	2
Kangaroo mother care can be given		
Only mothers	43	86
By both mothers and fathers	7	14

Table 2 shows that, majority of the respondents 50 (100%) replied that thermoregulations, eye care, cord care, newborn feeding, newborn danger sign, 29 kangaroo mother care and exclusive breastfeeding are the components of newborn care. Whereas 50 (100%) responded that baby should kept warm by wrapping the baby with warm towel and keep in warm surface and 50 (100%) responded that touching the forehead/ extremities the body temperature will assess. Likewise, 39 (78%) answered that newborn body temperature will maintained by skin-to-skin contact. Majority of respondents 50 (100%) answered that they expose newborn baby to sunlight for some time whereas 48 (96%) responded that they remove cotton clothes nappies after urination and defecation. Likewise, 47(94%) responded the appropriate time for first bath is after 24 hours. Majority of respondents 47(94%) once a week newborn should be bathed after first week of life. Whereas 26(52%) responded that after feeding is the appropriate time for oil massaging. In addition, 42(84%) answered that oil massaging help the newborn for good circulation and keep the skin healthy. Likewise, 50(100%) responded that they clean cord at home.

Majority of respondents 50(100%) replied that cord should be kept clean to prevent infection. Whereas 37(74%) responded that cord should be clean by applying oil. And 25(50%) umbilical cord fall on 11-14 days. Likewise, 36(72%) responded that frequently the cord should be cleaned after each nappy is changed. Majority of respondents 25(50%) answered that when soiled the cord should clean by drying thoroughly. Whereas 50(100%) responded that they clean the newborn eyes. In addition, 47(94%) responded that newborn eyes will clean with 34 clean cotton. Likewise, 45(90%) replied that newborn eyes should be clean by lukewarm water. Majority of respondents 43(86%) applied kajal in newborn eyes. Whereas 48(96%) applied prescribed medicine to baby's infected eyes. Likewise, 49(98%) wash their hand before touching the baby. Majority of respondents 47(94%) answered that after 1 hour of birth the baby should start breastfeeding. Whereas 50(100%) respondents think the first milk should be feed. And 47(94%) answered that it's better to feed the baby every 2 hourly. And 50(100%) the baby should be feed only breast milk up to 6 months. Likewise, 50(100%) respondents know about newborn danger sign. Majority of respondents (92%) answered that all of seven components make them feel the baby is in danger condition. Whereas 36(72%) respondents do not see above danger sign. Likewise, 50(100%) respondents replied that they will take hospital their newborn if they see above danger sign.

About knowledge on Kangaroo Mother Care, majority of respondents 50(100%) answered that kangaroo mother care is a method of caring for infants which uses skin-to-skin contact. Whereas 50(100%) respondents answered kangaroo position is the infants is placed between mothers breasts. Likewise, 48(96%) respondents answered kangaroo mother care is particularly important in low-birth-weight infants. Majority of respondents 50(100%) answered that kangaroo mother care should be started as soon as possible after birth, whereas 50(100%) respondents answered that one advantages of kangaroo mother care is to prevent jaundiced. Likewise, 43(86%) respondents answered that kangaroo mother care can be given by only mothers.

Table3: Respondents Overall Knowledge Level Regarding Newborn Care

n=50

Level of knowledge	Level	frequency	percentage
Inadequate knowledge	<50	2	4
	>50	48	96
Adequate Knowledge			
Mean knowledge score: 42.76			
Standard deviation: 2.631			

Table 3 depicts that, 48(96%) had adequate knowledge regarding Newborn care whereas 2(4%) had inadequate knowledge.

Table 4: Practice Regarding Newborn Care

n=50

Practice regarding Newborn care	Always	Sometimes	Never	Mean Score	Standard Deviation
Do you keep your baby warm?	50 (100%)	0 (0%)	0 (0%)	3	.000
Do you clean your babies' eye regularly?	50 (100%)	0 (0%)	0 (0%)	3	0.000
Do you look for any bleeding abnormalities in the baby's cord?	49 (98%)	1 (2%)	0 (0%)	2.98	.141
Do you clean the baby's cord regularly?	50 (100%)	0 (0%)	0 (0%)	3	.000
Do you breastfeed your baby every 2 hourly?	50 (100%)	0 (0%)	0 (0%)	3	.000
Do you clean your breast before feeding it to your baby?	50 (100%)	0 (0%)	0 (0%)	3	.000
Do you apply the proper breastfeeding techniques?	50 (100%)	0 (0%)	0 (0%)	3	.000

Do you observe if the baby is sucking properly while breastfeeding	50 (100%)	0 (0%)	0 (0%)	3	.000
Do you observe the danger sign in baby?	50 (100%)	0 (0%)	0 (0%)	3	.000
Do you provide KMC to your baby?	4 8%)	45 (90%)	1 (2%)	2	314
Do you provide KMC while lying on vertical position?	41 (82%)	9 (18%)	0 (0%)	2.8	.388
Do you practice KMC 24hr a day?	0 (0%)	0 (0%)	50 (0%)	1	.000

Table 5: Respondents Level of Practice regarding Newborn Care.

n=50

Level of knowledge	Level	Frequency	Percentage
Good practice	>50%	50	100
Mean practice score: 2.00 Standard deviation: .000			

DISCUSSION

This present study showed that 49(98%) of respondents had adequate knowledge regarding keeping the newborn baby warmth by wrapping with dry clothes. This finding is supported by a study done by Saha, et al in village of Tongi in Gazipur district where (87%) respondents knew that baby should be kept warmth by wrapping with dry cloth. This may be because nowadays people are more aware to their baby’s health (Saha, 2020).

This present study reported that majority 48(96%) had adequate knowledge, 50(100%) had good practice regarding Newborn care. This study is supported by Yisak and Ewunetei (2020) in Ethiopia where (83%) had good knowledge and (90%) had good practice of newborn care (Ewunetei, 2020).

In this present study 47 (94%) of the participants initiated breastfeeding within one hour of birth. This finding is higher than the findings in a study done in district *Matairi*, Pakistan which shows that breast milk was initiated within one hour by 41%. This difference might be due to awareness interventions in the study community by various organizations working on child health.

In this present study, majority of the participants 47(94%) reported of bathing newborn after 24 hours and once a week duration having a custom of early bathing to clean and purify the baby instantly. Despite this, the practice percentage is much lower in Badin if compared with 78.5% people in *Gilgit*, 82% people in Karachi, Pakistan and 60% people in Southern Tanzania. The difference seen here can be due to a difference in socio-cultural characteristics in different regions.

CONCLUSION

A descriptive cross-sectional study was conducted to assess the knowledge and Practice Regarding Newborn care at home among postnatal mother in selected Community Ward no.5. Based on findings and discussion of this study. The study shows, postnatal mother had adequate knowledge and good practices regarding thermoregulation, eye care, newborn feeding, newborn danger sign, kangaroo mother care and poor awareness in cord care. While comparing knowledge with practice regarding newborn care, practice looks better in many areas.

AUTHOR CONTRIBUTION

Anamika Dangol (Correspondence author), Ruja Shrestha (PI), Bhawana Bhandari (Co-author), Sita Pandey (Co-author), Bhim maya Yakha (Co-author)

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