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A Study to Assess the Knowledge and Practice on Newborn Care Among Postnatal Mothers at a Selected Hospital Golaghat District, Assam

Malashree Hazarika[1], Dhiramani Baishya[2]

[1,2]Tutor (M.Sc. Obstetrics and Gynaecological Nursing) VKNRL School of Nursing, Ponka Grant, Bishnupur, Numaligarh, Dist: Golaghat (Assam), Pin: 785699

Corresponding Author: Malashree Hazarika

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ABSTRACT

Neonatal period is a very crucial period of life. All newborns require care in this period to minimize the risk of illness and maximize their growth and development. The objective of the study was to assess the knowledge and practice on newborn care among postnatal mothers. A quantitative non-experimental approach with a descriptive research design was selected for the present study. The study was conducted among 50 postnatal mothers in maternity ward in VKNRL Hospital, Numaligarh, Golaghat, Assam. Data were collected by using self-structured questionnaire on newborn care. The study results revealed that majority i.e, 54% had moderate 26% had poor and 20% of the postnatal mothers had adequate knowledge regarding newborn care. Whereas, 54% of the postnatal mothers had moderate, 24% had adequate, and 22% had poor practice on newborn care. The mean value of knowledge on newborn care among postnatal mothers is 14.58 and SD is 2.12. The mean value of practice on newborn care among postnatal mothers is 7.38 and SD is 1.5. There was a significant association between knowledge on newborn care and selected demographic variables such as educational status, mode of delivery of postnatal mothers. There was a significant association between practice and educational status of the postnatal mothers. It can be concluded that participants had moderate knowledge and practice on newborn care.

Key words: Newborn care, postnatal mothers, knowledge, practice.

INTRODUCTION

According to World Health Organization, ‘‘Essential newborn care is to improve the health of the newborn through interventions before conception, during pregnancy and soon after birth, it includes clean delivery and cord care, thermoregulation, initiation of breastfeeding, eye care, immunization, management of newborn illness, care of preterm/low birth weight infants and initiation of breathing and resuscitation.’’[1]

World Health Organization (WHO) reported that the first month of life is the most vulnerable period for child survival, with 2.4 million newborns dying in 2020. In 2020, nearly half (47%) of all under-5 deaths occurred in the newborn period (the first 28 days of life), an increase from 1990 (40%), because the global level of under-5 mortality is declining faster than that of neonatal mortality. Children who die within the first 28 days of birth suffer from conditions and diseases associated with lack of quality care or immediately after birth and in the first days of life.[2] So, it is necessary for the mother to understand these aspects of child birth and new born care practices and be prepared to react for the potential danger signs.

The basic objectives of newborn care are initiation of normal breathing, prevention of hypothermia, initiation of breastfeeding, protection of infection and identification of danger signs. Newborn care practices are

important to decrease the neonatal morbidity and mortality. These practices include maintenance of temperature, exclusive breastfeeding, skin care, eye care, prevention of infection, immunization etc. A mother should have basic knowledge and skills pertaining to these essential newborn cares. The present study was aimed to assess the knowledge and practice on newborn care among postnatal mothers.

MATERIALS AND METHODS

A quantitative non-experimental approach with a descriptive research design was selected for the present study. The study was conducted among 50 postnatal mothers in maternity ward of VKNRL Hospital, Numaligarh, Golaghat, Assam. Data were collected by using self-structured questionnaire on newborn care. Collected data were analyzed using descriptive or inferential statistics.

Instruments:

Based on the problem statement, the tool for collecting the data were self-structured questionnaires that comprised of demographic data, structured questionnaire to assess the knowledge and structured observation check-list to assess the practice. Self-structured questionnaires which consist of 10 items on demographic data like age, religion, educational status, occupation, family income, type of family, residence, mode of delivery, parity and source of information. 20 structured questionnaires were prepared to assess the knowledge of the postnatal mothers on newborn care. Structured observation check-list was prepared consisting of 10 questions to assess the practice of the postnatal mothers on newborn care. The reliability of the tool was established by using "Spearman – Brown split half method" and it was found to be 0.9 which was reliable and statistically significant.

Data collection procedure:

Prior permissions were taken from relevant institutions before beginning of data collection procedure. The study participants who fulfilled the inclusion criteria were selected as sample by non-probability convenience sampling technique. The investigator introduced herself and explained the purpose of the study. An informed written consent was obtained from each participant before collecting the data. The participants were interviewed on self-structured questionnaires on newborn care and the investigators had ticked the valid answer given by the participants. A structured observation check-list was filled-up by the investigator after observing their practices on newborn care.

RESULTS

The study findings revealed that out of 50 postnatal mothers, majority of the postnatal mothers i.e. 78% was in the age group of 21 to 30 years, majority of the them i.e. 90% were Hindu, 44% had high level education, 90% were housewife, 34% had family income between 45,001 to above, 64% had nuclear family, 68% were from rural area, 62% had done cesarean section, 56% were primipara mothers and 58 % of their source of information were from health workers.

Table 1.1: Frequency and percentage distribution of sample according to knowledge on newborn care among postnatal mothers. N=50

Knowledge	Frequency(f)	Percentage (%)
Adequate (17-20)	10	20%
Moderate (14-16)	27	54%
Poor (1-13)	13	26%

The data presented in the table 1.1 shows that majority 27(54%) of postnatal mothers had moderate knowledge, 13(26%) of postnatal mothers had poor knowledge and 10(20%) of postnatal mothers had adequate knowledge on new born care.

Table 1.2: Frequency and percentage distribution of sample according to practice on newborn care among postnatal mothers. N=50

Practice	Frequency (f)	Percentage (%)
Adequate (17-20)	12	24%
Moderate (14-16)	27	54%
Poor (1-13)	11	22%

The data presented in the table 1.2 shows that majority 27 (54%) of postnatal mothers had moderate practice, 12 (24%) of postnatal mothers had adequate practice and

11 (22%) of postnatal mothers had poor practice on new born care.

Table 1.3: Mean and Standard Deviation of knowledge and practice scores on newborn care among postnatal mothers. N=50

Statistics	Knowledge Score	Practice Score
Mean	14.58	7.38
Standard Deviation	2.12	1.5

Table 1.3 explained that the postnatal mothers had mean knowledge score of 14.58 with standard deviation of 2.12 and mean practice of 7.38 with standard deviation of 1.5.

Table 1.4: Chi-square value to determine the significance of association between knowledge on newborn care among postnatal mothers with demographic variables. N=50

Sl. No	Socio Demographic variables	Level of knowledge			Total	X^2	df	P value	Remarks
		Poor	Moderate	Adequate					
1	**Age in years**								
	21-30years	11	20	7	38	0.77	2	.680	NS
	31-40 years	2	7	3	12				
	Total	13	27	10	50				
2	**Religion**								
	Hinduism	13	24	9	46	1.584	2	.453	NS
	Islam	0	3	1	4				
	Total	13	27	10	50				
3	**Educational status**								
	Primary level	2	1	0	3	14.07	6	.028	S
	Middle level	4	13	2	19				
	High level	5	12	3	20				
	Graduate and above	2	1	5	8				
	Total	13	27	10	50				
4	**Occupation**								
	Housewife	13	24	8	45	7.232	6	.299	NS
	Daily worker	0	1	0	1				
	Govt. job	0	2	1	3				
	Private job	0	0	1	1				
	Total	13	27	10	50				
5	**Family income**								
	15000-25000	4	8	2	14	4.756	6	.575	NS
	25001-35000	3	5	0	8				
	35001-45000	3	4	2	9				
	45001 –above	3	10	6	19				
	T0tal	13	27	10	50				
6	**Type of family**								
	Joint family	4	12	3	19	1	2	.606	NS
	Nuclear family	9	15	7	31				
	Total	13	27	10	50				
7	**Residence**								
	Urban	4	8	6	18	3.11	2	.211	NS
	Rural	9	19	4	32				
	Total	13	27	10	50				
8	**Mode of delivery**								
	Normal vaginal delivery	10	7	4	21	9.375	2	.009	S
	Cesarean section	3	20	6	29				
	Total	13	27	10	50				
9	**Parity**								
	Primipara	10	15	3	28	5.0319	2	.080	NS
	Multipara	3	12	7	22				
	Total	13	27	10	50				
10	**Source of information**								
	Neighbour	5	10	4	19	1.054	4	.901	NS
	Media	0	2	1	3				
	Health care worker	8	15	5	28				
	Total	13	27	10	50				

(At 0.05 level of significance) S- Significant, NS- Non-Significant

Table 1.4 shows that there is a significant association between the level of knowledge on newborn care among postnatal mothers with selected demographic variables educational status and mode of delivery by using chi-square test at 0.05 level of significance.

Table 1.5: Chi-square value to determine the significance of association between practice on newborn care among postnatal mothers with demographic variables. N=50

Sl. No	Socio Demographic variables	Level of Practice			Total	X^2	Df	P value	Remarks
		Poor	Moderate	Adequate					
1	**Age in years**								
	21-30years	11	19	8	38	4.49	2	.105	NS
	31-40 years	0	8	4	12				
	Total	11	27	12	50				
2	**Religion**								
	Hinduism	11	25	10	46	2.19	2	.334	NS
	Islam	0	2	2	4				
	Total	11	27	12	50				
3	**Educational status**								
	Primary level	2	1	0	3	21.14	6	.0017	S
	Middle level	4	12	3	19				
	High level	4	10	6	20				
	Graduate and above	1	4	3	8				
	Total	11	27	12	50				
4	**Occupation**								
	Household	11	25	9	45	7.014	6	.319	NS
	Daily worker	0	1	0	1				
	Govt. job	0	1	2	3				
	Private job	0	0	1	1				
	Total	11	27	12	50				
5	**Income**								
	15,000-25,000	6	5	3	14	9.3	6	.157	NS
	25,001-35,000	1	5	2	8				
	35,001-45,000	0	8	1	9				
	45,001-above	4	9	6	19				
	Total	11	27	12	50				
6	**Type of family**								
	Joint family	16	13	5	19	5.12	2	.077	NS
	Nuclear family	10	14	7	31				
	Total	11	27	12	50				
7	**Residence**								
	Urban	1	11	6	18	4.38	2	.111	NS
	Rural	10	16	6	32				
	Total	11	27	12	50				
8	**Type of delivery**								
	Normal vaginal delivery	5	12	4	21	0.46	2	.794	NS
	Cesarean section	6	15	8	29				
	Total	11	27	12	50				
9	**Parity**								
	Primipara	6	17	5	28	1.529	2	.465	NS
	Multipara	5	10	7	22				
	Total	11	27	12	50				
10	**Source of information**								
	Neighbour	6	8	5	19	5.84	4	.211	NS
	Media	0	1	2	3				
	Health care worker	5	18	5	28				
	Total	11	27	12	50				

(At 0.05 level of significance) S- Significant, NS- Non-Significant

Table 1.5 shows that there is a significant association between the level of practice on newborn care among postnatal mothers with selected demographic variables educational status by using chi-square test at 0.05 level of significance.

DISCUSSION

The main objective of the present study was to assess the knowledge and practice on newborn care among postnatal mothers in a selected hospital VKNRL Hospital, Numaligarh, Assam. The overall knowledge score revealed that majority 27(54%) of postnatal mothers had moderate knowledge, 13(26%) of postnatal mothers had poor knowledge and 10(20%) of postnatal mothers had adequate knowledge on new born care. The mean score is 14.58, which showed that the postnatal mothers had moderate knowledge on new born care. The present study is supported by Priyanka Bansal et.al (2016)[3] conducted a descriptive study to assess the knowledge of postnatal

mothers regarding essential newborn care in a selected health centre, Badarpur in Delhi. The results revealed that majority (68%) of the postnatal mothers had average knowledge scores and only 12% postnatal mothers had above average knowledge scores, whereas rest 20% of the subjects had poor knowledge regarding essential newborn care. An information guideline regarding essential newborn care was disseminated to postnatal mothers.

The overall practice score of the present study revealed that majority 27 (54%) of postnatal mothers had moderate practice, 12 (24%) of postnatal mothers had adequate practice and 11 (22%) of postnatal mothers had poor practice on new born care. The mean score is 7.38, which showed that the postnatal mothers had moderate practice on newborn care. Similar study was conducted by Amina Khatun et.al (2018)[4] on knowledge and practice on essential newborn care among postnatal mothers in Bangladesh. The results revealed that the postnatal mothers reported a moderate level of total knowledge, with the mean score was 9.99 ± 1.85 maximum and the moderate level of total practice, mean score was 3.20 ± 0.28 maximum. Older age group had higher knowledge and practice than younger age group on essential newborn care. The findings showed that mothers had moderate knowledge and practice on essential newborn care.

Chi square test revealed that there is a significant association between the level of knowledge on newborn care among postnatal mothers with selected demographic variables educational status and mode of delivery at 0.05 level of significance. A similar study conducted by Sandalokeswari, (2015)[5] on effectiveness of planned teaching programme on knowledge and practice of postnatal mothers with regard to essential newborn care at Kovilpalayam, Coimbatore. The study results revealed that the obtained x^2 values of age of the mother is (14.67), education (12.36), parity (11.18) was significant at 0.05 level. It reveals that there was a significant relationship between post test knowledge score with age, education, parity. The analysis of the data showed that x^2 values of parity (10.18) are significant at 0.05 level. It reveals that there was a significant relationship between post test practice score with parity.

The present study also showed that the demographic variable educational status is associated with practice score on newborn care among postnatal mothers found by using chi-square test at 0.05 level of significance. A study conducted by Awoke Kebede (2016)[6] is in contrast to our study on knowledge, practice and associated factors of newborn care among postnatal mothers. The result shows that 55.3% mothers had good knowledge and 60.6% had good practice of newborn care. The study findings revealed that there is a significant association between demographic variables age of the mother, occupation, the month of pregnancy at first ANC visits with knowledge, attitude and practice on newborn care among postnatal mothers.

Recommendation

- The sample size of study can be conducted on large sample for generalization.
- The study can be conducted among postnatal mothers in community setting.

CONCLUSION

A newborn infant or neonate is a child under 28 days of age. It is a time of rapid change and development where patterns for infancy, like feeding and bonding are developed. It is also the period when they are the most risk for post-birth complications. Therefore, good knowledge and practice can help the postnatal mothers to reduce the complications at its earliest and decrease infant mortality and morbidity rate.

Conflict of Interest: None

Ethical Approval: Approved

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