Original Research Article

Knowledge on Newborn Care among Postnatal Mothers

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ABSTRACT

Background: Children are the future of any nation. Care of the children had always traditionally been the forte of mothers irrespective of education, income and social class differences. Educating mothers to create awareness about essential obstetric and neonatal care are the key steps in achieving the goals of reproductive and child health programme.

Methodology: A descriptive cross-sectional study was carried out using face to face interview schedule on different aspects of newborn care questionnaire. Non-probability purposive sampling technique was used to select sample of the study. Two hundred forty five (245) postnatal mothers were interviewed between November-December 2014.

Results: Most of the respondents 88(35.9%) belong to 18-21 age groups and the mean age was 23.5 years. Majority of respondents 222(90.6%) were Hindu and 242(98.7%) were literate. One hundred and fifty one (61.6%) have average knowledge while 94(38.4%) have good level of knowledge regarding knowledge on newborn care. There was significant association of level of knowledge with selected demographic variables; occupation (χ^2=5.341) and educational status (<0.00792 fisher exact test).

Conclusion: Mother had moderate level of knowledge about newborn care. Highest knowledge was present in treatment modalities and lowest in immunization. Awareness program and newborn care education are required to improve mothers' knowledge.

Key Words: Knowledge, Postnatal mothers, newborn care, Breastfeeding

INTRODUCTION

Neonates are at risk for various health problems, even though they are born with average birth weights. The morbidity and mortality rates in newborn infants are high. They need optimal care for improved survival. Neonatal care is highly cost-effective because saving the life of a newborn baby is associated with survival and productivity of the future adult. Although parents are ultimately responsible for this care, nurses usually assume a major care - giving role while the infant is in the nursery. [1]

Neonatal mortality or death is one of the major causes of concern with newborns

all over the world, especially developing and under developed countries. Despite some remarkable improvements in neonatal health in recent years, the high mortality rates remain unchanged in many countries. [2] Globally, four million newborns die before they reach one month of age. The neonatal period is only 28 days yet it accounts for 38% of all deaths under 5 years of age. Three quarters of neonatal deaths happen in the first week after birth. [3] According to United Nations Children's Fund, one in five infants who die within one month after birth is from Nepal. [4] Care practices immediately after delivery play a major role in causing neonatal morbidities and mortalities. Essential newborn care practices were outlined to decrease the neonatal morbidity and mortalities. [5]

All newborns get care as per the perception and socio-cultural behavior of the society influenced by women's social status, health status and home care practices for mother and newborn care services. [6] Insufficient knowledge of parents regarding newborn care could lead to parent's confusion, decrease quality of care and threaten neonatal health. Neonatal care includes clean cord care, thermal care, initiating breastfeeding immediately after birth within an hour and immunization. The traditional practices like applying cowdung on the umbilical stump, oil instillation into nose etc contribute to newborn s risk of morbidity and mortality. [7]

This study aims to assess the existing level of knowledge among postnatal mothers on newborn care and to find-out the association of level of knowledge among postnatal mothers on newborn care with their selected demographic variables.

MATERIALS AND METHODS

The descriptive research design was employed to assess the knowledge of postnatal mothers on newborn care. The study was conducted in maternity Ward, Gynecological ward and Neonatal care unit of Western Regional Hospital, Pokhara Nepal. The study population comprises of postnatal mothers who delivered their first baby. The study was carried out during November- December 2014. Non-Probability Purposive sampling technique was used to select the sample of the study. The sample size of the study was 245 postnatal mothers.

The instruments was modified after reviewing literature, pretesting and reliability of the instruments as well as consulted with supervisor. The research was based on primary data which was collected using Structured Interview Schedule by researcher herself. Level of knowledge was classified as Poor (0-21), Average (22-42) and Good (43-63) based on the score get by the responses to knowledge questionnaire. The study was conducted after receiving permission from, School of health and Allied Sciences, Pokhara University and Western Regional Hospital, Pokhara. Informed written consent was obtained from the participants and the confidentiality of the received information was maintained. The collected data was tabulated and analyzed using SPSS.

RESULTS

Socio-demographic characteristics of respondents; Out of 245 postnatal mothers interviewed, with regards to age shows that most of the respondents 88(35.90%) were in between the age group of 18-21 years, majority of respondents 222(90.6%) belonged to Hindu community, Most of the respondents 149(60.8%) belonged to joint family and 79(32.5%) had obtained secondary level education, majority of respondents 218(89.0%) were housewives and113(46.1%) respondents monthly income was ≥28001(RS/month).

Table 1: Socio-demographic characteristics of respondents.
n =245

S.No.	Variables	Frequency (f)	Percentage (%)
1	Age in years		
	18-21	88	35.9
	22-25	87	35.5
	26-29	56	22.9
	≥30	14	5.7
2	Religion		
	Hindu	222	90.6
	Christians	9	3.7
	Buddhist	13	5.3
	Others	1	0.4
3	Type of family		
	Nuclear	96	39.2
	Joint	149	60.8
4	Educational status		
	Illiterate	3	1.3
	Informally literate	8	3.4
	Primary level	9	3.6
	Lower secondary level	56	22.8
	Secondary level	79	32.5
	Higher secondary level	44	17.6
	Bachelor	34	13.9
	Master and above	12	4.9
5	Occupation		
	Housewife	218	89.0
	Service	13	5.3
	Business	13	5.3
	Labor	1	0.4
6	Monthly income		
	7000-14000	18	7.3
	14001-21000	52	21.3
	21001-28000	62	25.3
	≥28001	113	46.1
7	Place of delivery		
	Home	2	0.8
	Health institutions	243	99.2
8	Type of delivery		
	Vaginal	191	78
	Operation(LSCS)	54	22
9	Type of antenatal care		
	Primary health care	78	31.8
	Secondary health care	12	4.9
	Tertiary health care	150	61.2
	No antenatal checkup done	5	2.0
10	Age of newborn(in days)		
	1-7	241	98.4
	8-14	3	1.2
	15-21	0	0
	22-28	1	0.4
11	Sex of newborn		
	Female	106	43.3
	Male	139	56.7
12	Weight of newborn(in kg)		
	<1.5	0	0
	1.5-2.5	38	15.5
	2.6-3.5	178	72.7
	>3.5	29	11.8
13	Information on newborn care		
	Yes	245	100
	No	0	0
13.1	If yes, Source of information		
	Radio/TV	26	10.6
	Health workers	73	29.8
	Friends/family	134	54.7
	Others(study/training)	12	4.9

With regard to type of delivery 191 (78%) respondents had undergone normal delivery. Most of the respondents 150(61.2%) attend tertiary health center for antenatal care, Majority of newborn baby 241(98.94%) were in between the age group of 1-7 days. The minimum age of newborn was 1 day and maximum age was 22 days. Out of 245 newborn baby 139(56.7%) were male whereas 106(43.3%) were female. Most of newborn baby 178(72.7%) had weight in between 2.6-3.5 kg. With regards to information regarding newborn care all 245 respondents had some sort of knowledge. [Table 1]

Level of knowledge of postnatal mothers
The study reveals that out of 245 respondents, 151(61.60%) had average knowledge whereas 94(38.40%) had good knowledge. None of the respondents had poor level of knowledge. The total score for level of knowledge was 63. Minimum score was 23 and maximum score was 57.[Table 2]

Table 2: Distribution of subjects according to the level of knowledge   **n = 245**

Level of knowledge	Frequency(f)	Percentage (%)
Poor	00	00.0
Average	151	61.6
Good	94	38.4

Respondent's response to knowledge aspects of newborn care
The study shows that highest knowledge was in the area of treatment modalities regarding newborn care, the mean percentage was 95.50 with mean and SD of 1.91±0.38. In the area of immunization, the mean percentage was 46.30 with mean and SD of 4.63±4.08 which was the lowest. In the area of danger signs mean percentage was 74.50 with mean and SD of 7.45±3.96. Likewise mean percentage in the area of cleanliness was 68.49 with mean 7.53 and SD of 4.05.Mean percentage in the area of breastfeeding was 67.41 with mean and SD

of 6.74±3.53. In the area of warmth and basic newborn care, mean percentage was 65.22 and 62.20 with mean and SD of 6.52±4.37 and 6.22±3.88 respectively. The overall mean percentage was 65.09 with mean and SD of 41.00±24.25.[Table 3]

Table 3: Knowledge aspects of postnatal mothers regarding newborn care   n = 245

SNo	Knowledge aspects	Max.Score	Mean±SD	Mean percentage (%)
1	Basic newborn care	10	6.22±3.88	62.20
2	Breastfeeding	10	6.74±3.53	67.41
3	Warmth	10	6.52±4.37	65.22
4	Cleanliness	11	7.53±4.05	68.49
5	Immunization	10	4.63±4.08	46.30
6	Danger signs	10	7.45±3.96	74.50
7	Treatment modalities regarding newborn	2	1.91±0.38	95.50
	Overall	63	41.00±24.25	65.09

Association of level of knowledge with their selected demographic variables
The study results explains that there is significant association of level of knowledge with selected demographic variables; occupation (χ^2=5.341) and educational status (0.00792 fisher exact test). In others variable like age, type of family and source of information there is no association.[Table 4]

Table 4: Association of level of knowledge with selected demographic variables.   n = 245

SNo	Variables	Total score		χ^2 value	p-value
		Median ≤40	Median >40		
1	Age in years(mother)				
	≤25	93	82	2.746	p>0.05 NS
	>25	29	41		
2	Type of family				
	Nuclear	50	46	0.136	p>0.05 NS
	Joint	74	75		
3	Educational status				
	Formal education	114	120	0.00792(Fisher exact test)	P<0.05 S*
	Informal+Illiterate	11	0		
4	Occupation				
	Housewife	116	102	5.341	p<0.05 S*
	Working	8	19		
5	Source of information				
	Friends/Family	74	60	2.479	p>0.05 NS
	Others	49	62		

NS=Non significant; S*=significant χ^2 3.84 at 1 Df

DISCUSSION
In present study most of the respondents 88(35.9%) were in between the age group 18-21 years. Majority of respondents 222(90.6%) belonged to Hindu whereas only 9(3.7%) respondents were Christians. Most of the respondents 149(60.8%) belonged to joint family. Maximum of respondents 79(32.5%) had achieved secondary level education. Majority of respondents 218(89.0%) were housewife. Majority of newborn baby 241(98.94%) were in between the age group of 1-7 days. Out of 245 newborn baby 139(56.7%) were male whereas 106(43.3%) were female. Most of newborn baby 178(72.7%) had weight in between 2.6-3.5 kg. With regard to information regarding newborn care all 245 respondents had some sort of knowledge about newborn care. This finding was similar to a study which was carried out in Tertiary care hospital of Udupi

district. The study reveals that most of the respondents 24(80%) were in the age group 21-30 years. Mean age was 27.5 years .Most of them 19(63.3%) belonged to joint family. Regarding religion 25(83.3%) was Hindu. Most of the respondents 14(46.7%) had obtained upto secondary level education. Most of respondents 17 (56.7%) were housewives. Regarding type of delivery 15(50%) respondents had normal delivery. Most of the new born 21(70%) were below 6 days of age, most of the new born 19(63.3%) were male while 16(53.3%) were above 3000 grams of birth weight. Most of the respondents 21(70%) received information from friends/family. [8]

In the present study, most of the respondents 151(61.60%) had average knowledge whereas 94(38.40%) had good knowledge. The findings of the study were consistent with another study which was conducted at Dhaka Shishu Hospital, Bangladesh. Subjects were 384 mothers. The study states that 5.8% mothers had excellent knowledge on neonatal care, 55.3% mothers had optimum knowledge, and 39% mothers had poor knowledge. [9]

In this study there is significant association of level of knowledge with selected demographic variables; occupation (χ^2=5.341) and educational status (0.00792 fisher exact test). In others variable like age, type of family and source of information there is no association. This is well supported by study conducted in Iran. This study shows that there is significant association between level of knowledge and educational status (p<0.05) along with occupation (p<0.05). [10]

CONCLUSION

The major conclusion was drawn on the basis of objectives and study findings. The study findings concluded that most of the respondents 151(61.6%) had average knowledge on newborn care. The study too shows that least knowledgeable area was immunization and most knowledgeable area was treatment modalities. This may be most probably due to less exposure to mass media. The more education and information should be needed to increase level of knowledge of post natal mothers as well as to decrease neonatal death.

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