

Research Article

Knowledge on Postnatal Care Among Postnatal Mothers

Sandhya Timilsina¹, Rojana Dhakal²

¹B.sc Nursing Schoolar, School of Health and Allied Sciences, Pokhara University, Lekhnath 33700, Nepal

²Lecturer, School of Health and Allied Sciences, Pokhara University, Lekhnath 33700, Nepal

*Corresponding Author:

Sandhya Timilsina

Email: sandhyatimilsina08@gmail.com

Abstract: Mothers and newborns are vulnerable to illness and deaths during the postnatal period. Postnatal period is the important part of maternal health care as the serious and life threatening complications can occur in postnatal period. The health of the mother is regarded as the indicator of health of the society so postnatal care is important for the health of mother and newborn as well. A descriptive research design was used in this study. Non probability purposive sampling technique was used to select the postnatal mothers. One hundred ninety six postnatal mothers were interviewed face to face using structured questionnaires. Most of the respondents 79(40.31%) belongs to 22-25 age groups and the mean age was 24.12 years. Majority of the respondents 182(92.86%) were Hindu. All the respondents were literate. Out of 196, 146(74.48%) of the respondents, got information from friends and family. Most of the respondents 123(62.76%) had average level of knowledge on postnatal care. Highest knowledge was in the area of danger sign of mothers and newborn and the lowest in the areas of family planning. The overall mean percentage was 64.34. There was significant association of level of knowledge with selected demographic variables; occupation ($\chi^2=5.008$) and education level ($\chi^2=48.75$). Mothers had moderate level of knowledge about postnatal care. Highest knowledge was present in danger sign and lowest in family planning. Awareness program is required to improve maternal knowledge on postnatal care.

Keywords: Knowledge, Postnatal mothers, Postnatal care, Breast feeding, Nepal

INTRODUCTION

Postnatal care is regarded as one of the most important maternal health care services for the prevention of impairment and disability resulting from child birth. The postnatal care includes systematic examination of the mother and baby and appropriate advice given to the mother during postpartum period [1]. The postnatal period is defined as the first six weeks after birth which is critical to the health and survival of a mother and her newborn. The World Health Organization (WHO) describes the postnatal care as the most critical and most neglected phase of the life of the mothers and babies as most of the death occur during the postnatal period [2].

Maternal mortality is a tragedy for individual women, for family and for their community. Worldwide nearly 600000 mothers between the age of 15-49 years die every year due to complication arising from pregnancy and childbirth. This means almost every minutes of every year maternal death occurs, 99% of which occur in developing countries. In developed countries, the maternal mortality ratio is around 27%/100000 live birth and in developing country the ratio is 20 times higher [1]

The postnatal care is especially critical for mother and newborn. It is the time to deliver

intervention to improve the health and survival of both mother and newborn [3]. After delivery the women begins to experience physiological and psychological change in her body. These changes usually occur without difficulty. However factors such as blood loss, trauma during delivery, fatigue or infection can place postpartum mother at risk [4].

Both mother and newborn are vulnerable during postnatal period especially during first 24 hours following delivery. Approximately two third of the maternal death occur in the developing countries during postnatal period [5]. Both mother and newborn are vulnerable during postnatal period especially during first 24 hours following delivery. Approximately two third of the maternal death occur in the developing countries during postnatal period [6]. More than half of these deaths occur in sub-Saharan Africa and almost one third occur in South Asia. The maternal mortality ratio in developing countries in 2013 is 230 per 100 000 live births versus 16 per 100 000 live births in developed countries [7]. Maternal mortality rate of Nepal in 2011 is 170 deaths/100,000 live births [8].

According to annual report 2069/70, Postnatal care services include: postnatal visits, identification and management of mother's and newborn in complications of postnatal period and referral to appropriate health

facility as and when needed, promotion of exclusive breastfeeding, personal hygiene and nutrition education, post-natal vitamin A and iron supplementation for the mother; immunization of newborns and postnatal family planning counseling and services [9].

Postnatal care is the important part of maternal health care as it helps to assess the health status of mother and institute an effective therapy to rectify the defect and to note the progress the baby and solve the problems and to formulate any preventive measure to be taken. It also helps to provide necessary information to the mother regarding maternal and newborn care [1]. According to demographic health survey 2011 in Nepal, only 45% of the women received postnatal care within the critical first day following delivery. One in 3 women received postnatal care within 4 hours of delivery, 7% received care within 4 to 23 hours and 4% were seen 1 to 2 days following delivery. More than 1 in 2 (54%) did not receive checkup within the recommended time [10]. Lack of appropriate care at postnatal period may result in death or disability as well as missed opportunity to promote healthy behavior, affecting mother and newborn [11].

This study aims to explore the knowledge regarding postnatal care among postnatal mothers and to find out the association of level of knowledge on postnatal care among postnatal mothers with their selected demographic variables.

MATERIALS AND METHOD

The descriptive research design was adopted to assess the knowledge on postnatal care among postnatal mothers. The study was conducted in Postnatal and Gynecological Ward of Western Regional Hospital, Pokhara, Nepal. The study population comprises of postnatal mothers. The study was carried out during May –June 2015. Non probability purposive sampling technique was used to select the sample of the study. The sample size of the study was 196 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 by structured interview schedule. Level of knowledge was classified as Poor (0-29), Average (30-59) and Good (60-88) based on the score get by the responses to structured interview schedule. The study was conducted after receiving permission from, School of health and Allied Sciences, Pokhara University and Western Regional Hospital, Pokhara Nepal. 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

Demographic Performa of respondents

Out of 196 respondents 79(40.31%) were in between the age group of 22-25 years. Majority of the respondents 182(92.86%) belonged to Hindu religion and 101(51.53%) respondents belonged to nuclear family. All of the 196 respondents were literate. Among them 54(28.13%) of respondents had secondary level of education. Majority of the respondents 152(77.55%) were house worker and 76(38.78%) of respondents monthly income ranged between Rs7000-14000.

With regards to obstetrical score 121(61.73%) of respondents were primi and 75(38.27%) of the respondents were multigravidae. Among multigravidae 64(85.33%) of respondents had 2 children. With regards to the type of delivery most of the respondents 124(63.27%) had undergone normal vaginal delivery. All respondents had some sorts of knowledge on postnatal care. Out of 196 respondents, majority of the respondents 146(74.48%) got information from friend and family. [Table 1]

Level of knowledge of respondents

The study results shows that most of the respondents 123 (62.76%) had average knowledge whereas 72(36.73%) had good knowledge and 1(0.51%) had poor knowledge on postnatal care. The maximum knowledge score was 78 and minimum knowledge score was 27. The overall mean knowledge score was 56.62.[Table 2]

Knowledge aspects of respondents regarding postnatal care

The result of study illustrates that highest knowledge was in the area of danger signs of mothers and newborn, the mean percentage was 82.70 with mean and SD of 8.27 ± 1.48 . In the area of family planning mean percentage was 40.50 with mean and SD of 4.05 ± 2.22 which was lowest. In the area of hygiene the mean percentage was 76.93 with mean and SD of 10.77 ± 2.16 . Similarly mean percentage in the area of basic concept of postnatal care was 69.14 with mean and SD of 9.68 ± 2.40 . Mean percentage in the area of breastfeeding was 68.50 with mean and SD of 2.78 ± 0.87 . Likewise mean percentage in the area of nutrition was 61.50 with mean and SD of 7.38 ± 2.02 . In the area of immunization mean percentage was 61.43 with mean and SD of 4.30 ± 1.29 . In the area of rest and exercise and postnatal checkup mean percentage was 58.56 and 51.50 with mean and SD of 5.27 ± 1.70 and 4.12 ± 1.41 respectively.[Table 3]

Association of level of knowledge with their selected demographic variables

The study reveals that there is significant association of level of knowledge with selected demographic variables; educational level ($\chi^2 = 48.75$) and occupation ($\chi^2 = 5.008$). There is no association with other demographic variables.[Table 4]

Table 1: Socio-demographic characteristics of the respondents, n=196

SN	Variables	Frequency (f)	Percentage (%)
1	Age (in years)		
	18-21	63	32.14
	22-25	79	40.31
	26-29	34	17.35
	≥30	20	10.20
2	Religion		
	hindu	182	92.86
	buddhist	12	6.12
	christian	2	1.02
	muslim	0	0
3	Types of family		
	nuclear	101	51.53
	joint	95	48.47
4	Education		
	literate	196	100
	illiterate	0	0
4.1	If literate		
	formal	192	97.96
	informal	4	2.04
4.1.1	If formal		
	primary level	23	11.98
	lower secondary level	30	15.63
	secondary level	54	28.13
	higher secondary level	47	24.48
	bachelor level or above	38	19.78
5	Occupation		
	houseworker	152	77.55
	jobholder	19	9.70
	business	23	11.73
	labor	2	1.02
6	Income of family(Rs/month)		
	7000-14000	76	38.78
	14001-21000	61	31.12
	21001-27000	30	15.30
	≥28001	29	14.80
7	Obstetrical score		
	primi	121	61.73
	multi	75	38.27
7.1	If multi, number of children		
	2	64	85.33
	3	8	10.67
	≥4	3	4.00
8	Type of delivery		
	normal vaginal delivery	124	63.27
	caesarean section	72	36.73
9	Postnatal day		
	1	16	8.16
	2	110	56.12
	3	30	15.31
	≥4	40	20.41
10	Do you have any information on postnatal care		
	yes	196	100
	no	0	0
10.1	If yes, source of information		
	radio/television	9	4.60
	health personal	39	19.90
	friends and family	146	74.48
	newspaper and books	2	1.02

Table 2: Distribution of the respondents according to the level of knowledge, n=196

Level of knowledge	Frequency(f)	Percentage (%)
Poor	1	0.51
Average	123	62.76
Good	72	36.73

Table 3: Knowledge aspect of respondents regarding postnatal care, n=196

SN	Knowledge aspects	Max. Score	Mean±SD	Mean Percentage(%)
1	Basic concept of postnatal care	14	9.68±2.40	69.14
2	Post natal check up	8	4.12±1.41	51.50
3	Nutrition	12	7.38±2.02	61.50
4	Breastfeeding	4	2.78±0.87	68.50
5	Immunization of newborn	7	4.30±1.29	61.43
6	Danger sign of mothers and newborn	10	8.27±1.48	82.70
7	Hygiene	14	10.77±2.16	76.93
8	Family planning	10	4.05±2.22	40.50
9	Rest and exercise	9	5.27±1.70	58.56
	Overall	88	56.62±15.55	64.34

Table 4: Association of the level of knowledge with selected demographic variables, n=196

SN	Variables	Total scores		χ ² value	DF	p-value
		Median≤57	Median>57			
1	Age in years			3.612	1	0.057NS
	<25	82	60			
	>25	23	31			
2	Type of family			0.687	1	0.407NS
	nuclear	57	44			
	joint	48	47			
3	Education level			48.75**	4	0.001**
	primary	20	3			
	lower secondary	20	10			
	secondary	39	15			
	higher secondary	16	31			
	bachelor level and above	6	32			
4	Occupation			5.008*	1	0.024*
	houseworker	88	64			
	working	17	27			
5	Obstetrical score			0.288	1	0.591NS
	primi	63	58			
	multi	42	33			
6	Source of information			0.005	1	0.944NS
	friends and family	78	68			
	others	27	23			

NS=Non significant;** highly significant; * significant;χ²3.84 at 1 DF, 9.49 at 4 DF

DISCUSSION

In present study most of the respondents 79(40.31%) were in between the age group of 22-25 years. Majority of the respondents 182(92.86%) belonged to Hindu religion and 101(51.53%) respondents belonged to nuclear family. Out of 96 respondents 54(28.13%) of respondents had secondary level of education. Majority of the respondents 152(77.55%) were house worker and 76(38.78%) of respondents monthly income ranged between Rs7000-14000. Out of 196 respondents, 123 (62.76%) had

average knowledge whereas 72(36.73%) had good knowledge on postnatal care.

A descriptive study was conducted at Kasama urban clinic in KasamaNorthern Zambia to assess the knowledge and attitude of woman about postnatal care. Sample size was 245 women of reproductive age group. Sample was selected by simple random sampling method. The structured interview schedule was used to collect data. In this study 28.2% of the respondents were between the age group of 20-24 years, 44.5% of the respondents had obtained secondary level of education,

49% of the respondents were house worker, and 66.1% of the respondents had 1-3 children and 147 (60%) of the study participants had knowledge about postnatal care. The findings of this study clearly support present study [12].

In this present study 69(35.20%) of the respondents mentioned correct definition of postnatal care and 68(34.69%) of the respondents correctly defined postnatal period. The finding of study was supported by the study which was conducted to assess the women knowledge of health behavior in puerperium in Bialystok. Sample size was 100. Data was collected using structured questionnaire. The study result shows that 55% of respondents correctly defined puerperium, however 19% of them couldn't explain what it means. Near 1/3 women answered that bloody puerperal excrements may be present to the end of puerperal period [13].

In present study all the respondents had some sort of knowledge about component of postnatal care and its importance. Most of the respondents 186(94.90%) mentioned to restore the health of mother. Majority of the respondents 190(96.94%) mentioned personal hygiene, rest and exercise as the component of postnatal care. This finding was supported by the descriptive cross sectional study which was done in Zomba Central Hospital, Malawi to assess the knowledge, views and practice of mother regarding postnatal care. Subjects were 154 mothers. Participants were selected by convenient sampling. Structured interview schedule was used to collect data. The study result shows that almost all the participants were knowledgeable about some aspect of postnatal care. Sixty seven point eight percentage of participants know benefit of postnatal checkup, 33.8% participants knew about vaccination, cord care and weight check. Twenty seven point eight percentages of participants were not sure how the six week postnatal care promotes the health of mothers [14].

In present study, most of the respondents 180(91.84%) mentioned that crying and not sucking is danger sign of newborn. This study was supported by the cross-sectional study conducted at Manglore to assess the knowledge of mothers on newborn warning sign. Sample size was 70. Non probability purposive sampling technique was used to select samples. Data was collected through structured questionnaire. This study shows that 62% had good knowledge, 36% had average knowledge, 1% had poor knowledge and 1% had excellent knowledge on newborn warning sign [15].

In present study, most of the respondents 193(98.47%) mentioned that heavy bleeding is the danger sign of mothers, 179(91.33%), 108(55.10%) and 93(47.45%) of respondents mentioned that postpartum eclampsia, sub involution of the uterus and puerperal infection are the danger signs of postnatal mothers

respectively. All the respondents 196(100%) had knowledge of visiting health care centers if any health problem arises. This study was supported by the cross-sectional study which was conducted at Ghana to assess the birth and emergency planning of postnatal mothers. Sample size was 483. Structured interview schedule was used to collect data. The study reveals that 13.3% of total respondents were not aware about obstetrical danger sign, 15.7% knew at least one danger sign, 23.8% knew at least two danger sign, 22.2% knew three danger sign, 20.7% mentioned four danger sign and 4.3% mentioned five danger sign, 60.4% of respondents mentioned hemorrhage as the obstetrical danger sign [16].

Regarding knowledge of personal hygiene present study shows that most of the respondents 189(96.43%) mentioned perineal care as the best way of infection prevention. Regarding perineal hygiene 179(91.33%) of respondents had knowledge on clean perineum with warm water, 168(85.71%) had knowledge on keeping vulva clean and dry, 163(83.16%) had knowledge on changing pad frequently and 53(27.04%) had knowledge on cleaning perineum from front to back. This study was supported by the cross-sectional study conducted in port Harcoun teaching hospital, Niger to evaluate knowledge and practice of perineal hygiene among postnatal mothers. The sample size was 224. Participants were selected by systematic random sampling. Data was collected by using structured questionnaire. The study reveals that 56.9% use sanitary pads for perineal hygiene, 90% has knowledge regarding application of pad from vulva to anus and cleansing of perineal area from front to back. 88% had knowledge and practice regarding cleaning of perineal area after each emptying of bowel and bladder [17]

In this study, majority of respondents 186(94.90%) stated condom and 81(41.33%) of respondents stated norplant as the temporary method of family planning whereas 51(26.02%) respondents stated minilap as a permanent method of family planning and 136(69.39%) of respondents did not know about the any permanent method of family planning. This study was supported by the cross sectional descriptive study that was conducted to assess awareness and practice of family planning methods in gynecology outpatient department of Nepal Medical College and Teaching Hospital. Sample size was 200 women of reproductive age. Semi structured questionnaire was used to collect data. The study reveals that most of the respondents (93.0%) were aware of at least one of family planning methods. The best known method of temporary contraception was depoprovera (78.0%) followed by oral contraceptive pills (74.0%) and condom (71.0%). Among permanent family planning methods, awareness about female sterilization (81.0%) was more than male sterilization (77.0%) [18].

This study shows that there is significant association of level of knowledge with selected demographic variables; educational level ($\chi^2=48.75$) and occupation ($\chi^2=5.008$). The other variables like age, type of family, obstetrical score, source of information has no significant association. This finding was supported by the study conducted to assess the knowledge and attitude of woman about postnatal care at Kasama urban clinic. Sample size was 245 women of reproductive age group. Sample was selected by simple random sampling method. The structured interview schedule was used to collect data. The finding of the study shows that there was significant association between educational level and knowledge on postnatal care ($p<0.001$). No association was observed between knowledge on postnatal care and age group ($p=0.006$) and between the number of children ($p=0.417$) [12].

CONCLUSION

The present study highlights the knowledge on postnatal care among postnatal mothers. It shows that participants had average knowledge on postnatal care. The study shows that the most knowledgeable area was danger sign of mother and newborn and the least knowledgeable area was family planning. Awareness programmes are required to improve knowledge on the different aspects of postnatal care. Further studies can be conducted to make more clear views and to plan for future on reproductive rights and to utilize the reproductive health services by people.

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