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Knowledge and Utilization of Postnatal Care Services among Mothers Residing in a Community of Jhapa District

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ABSTRACT

Introduction

Postnatal care is the most important maternal health care intervention for prevention of impairments, disabilities and also reduction of maternal mortality. However, mothers often only seek postnatal care in the event of complications after birth. The aim of this study is to assess the knowledge and utilization of postnatal care services among mothers in a community at Buddhashanti, Jhapa.

Methods

A descriptive cross sectional research design was adopted. Sample was taken from married women in the reproductive age group, residing in Buddhashanti rural municipality of Jhapa District, who had a live baby less than 24 months old, attending immunization outreach clinics. Non-probability purposive sampling was used to collect data. The sample size was 104. Data were collected using a self-developed, semi-structured questionnaire through interview. Descriptive statistics such as frequency mean and standard deviation were used in the analysis of collected data. Association between dependent and independent variables was measured by using the Chi- square test.

Results

The finding of the study revealed that less than half (32.7%) of the mothers had good knowledge on postnatal care. Similarly, the majority (87.5%)of mothers had not utilized postnatal care services. Study revealed that level of knowledge had significant association with ethnicity, educational level of respondent and number of ANC visits with p- value 0.002, 0.038, 0.040 respectively. Furthermore, utilization of postnatal care had association with occupation of respondent and type of delivery (p- value<0.05).

Conclusions

This study showed that respondents had poor knowledge on postnatal care and the majority of respondents had not utilized postnatal care services. Study revealed that ethnicity; educational level of respondent and no. of ANC visit had association with level of knowledge. Furthermore, occupation of respondent and type of delivery had association with utilization of postnatal care.

Keywords: knowledge; mothers; reproductive age group; utilization of postnatal care service.

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INTRODUCTION

Postnatal period is defined as the period one hour after the delivery of the placenta and includes the six weeks after birth and is critical for the newborn and the mother. This period is called the postpartum period. The services provided during this period are referred to as postnatal care (PNC) service[1].

Major changes occur during the postnatal period, which determine the well-being of mothers and newborns. Yet, this is the most neglected time for the provision of quality services. Lack of appropriate care during this period could result in significant ill health and even death. Rates of provision of skilled care are lower after childbirth when compared to rates before and during childbirth. Most maternal and infant deaths occur during this time.[1]

Maternal and child health care is one of the components of primary health care. Following birth, 75% maternal death occurs due to the complication of pregnancy childbirth and postpartum period. Common causes are bleeding after childbirth, infections (usually after childbirth), high blood pressure during pregnancy (pre-eclampsia and eclampsia), complications from delivery, unsafe abortion. The remainder are caused by or associated with infections such as malaria or related to chronic conditions like cardiac diseases or diabetes.[2,3] Lack of knowledge/ unawareness about benefits of postnatal services, insufficient human resources for health, delay in seeking care, scarce equipment, lack of transportation, and delay in referrals services are major convincing factors of maternal deaths. [3, 4] In North-eastern Nigeria, only 16.9% of the respondents attended postnatal care services within 42 days after delivery. Most of the mothers (60.9%) were not knowledgeable about postnatal care services.[5] Around seventy five percent of newborn deaths happen in the main seven day stretch of life; 25-45% of these deaths occur in the initial 24 hours. A major risk factor that may contribute to the death of newborns is the gap in the continuum of care along the lifecycle (mother to newborn to child). That is why the WHO endorses that mothers take postnatal care within the first 24 hours followed by postnatal check on the second or third day, and then on the seventh day after delivery. Nepal also follows WHO recommendations.[6,1]

According to the Nepal Demographic Health Survey (NDHS), 23.9% of maternal deaths occur in the ante-partum and 15.5% occur in the intrapartum period, the majority, 60.6% of maternal deaths, occur during the immediate postpartum period. During this period women often only seek postnatal care in the event of complication. The study suggests a wide gap in the coverage of care before and after delivery ie. Women receiving antenatal care (84%) and those receiving postnatal care utilization within 2 days following birth is only (57%). Postnatal care is frequently missing, even for women who give birth in a health facility.[7] other studies done in Nepal showed that the median percentage of overall knowledge regarding postnatal care among mothers was 51.2% and inadequate knowledge 47.37%. [8, 9]

The utilization of postnatal care might be influenced by knowledge on postnatal care, furthermore, literature review yield limited studies on the topic in the context of Jhapa, therefore, this study is aimed to assess the knowledge and utilization of postnatal care services among mothers in a community of Buddhashanti Rural Municipality of Jhapa District.

METHODS

A descriptive cross sectional research design was adopted. This study was conducted in a community of Buddha shanti rural municipality of Jhapa District of Nepal. The sample size of the study was calculated from, $n = z^2pq/d^2$ where z=1.96, p= 43.2%, = 0.432 (6), q= 1-p= 0.568, allowable error L=10%=0.1, with 10 percent non-response rate. The final sample size taken was 104. Purposive sampling technique was used to collect data from married women in the reproductive age group (15–49) years of age, residing in the study area who have a live baby less than 24 months old, attending immunization outreach clinics and are willing to participate in the study. Face to face interview was done to collect the data using Semi-structured questionnaires by the researcher. Throughout the study ethical consideration was taken to protect the rights and welfare of the participants of the study. Study was conducted only after the approval from the Research Committee of Nursing Campus, Biratnagar.

Written permission was taken from the academic faculty of the college from the administration of Buddhashanti rural municipality of Jhapa. Verbal and written consent was taken from all the participants of this study. The data was collected from 2074-1-30 to 2074-2-12. The data collection tool included socio-demographic data, knowledge on postnatal care and utilization of postnatal care services. Collected data was entered in Statistical Package for Social Sciences (SPSS) version 20.0. Descriptive statistics were used in the analysis of collected data. Chi square test was applied to find out the association between dependent and independent variables. The cutoff point for association was considered p-value 0.05. Findings were presented on relevant tables.

RESULTS

In this study, 49.0% of respondents were from the 21-25 year age group while only 9.6% were from the 31-35 year age group. The mean age and standard deviation was 24.20 ± 4.16. In regard to ethnicity, Brahmin/ chhetri and Janajati were 40.4% with the least Muslim (1.9%). As far as educational level is concerned, 30.8% respondents had secondary level education followed by higher secondary (26.9%) level. Majority of respondents were home makers (93.3%). In regard to husband's education, 29.8% had a higher secondary level of education followed by secondary (26.9%) level of education. The occupation of respondents' spouses were Abroad (32.7%) followed by daily wage labor (25%) with the least (6.7%) being service. Similarly, about obstetric characteristics of respondents, 64.4% of mothers were primipara. Regarding ANC visits, 78.8% had four or more ANC visits and 2.9% had only one ANC visit during their last pregnancy. Ninety four percent (94.2%) mothers gave birth to their last child at a health facility while 5.8% had delivered at home. As far as type of delivery is concerned, 51.9% had vaginal delivery whereas 48.1% had delivered their last child through caesarean section.

This study showed that 67.3% had poor knowledge whereas 32.7% had good knowledge on postnatal care.While only 12.5% of mothers utilized postnatal care service. Furthermore,there is association between number of ANC visits and level of knowledge among respondents (p-value 0.040) while there is no association of other obstetric characteristics with level of knowledge. Likewise there is an association between occupation of respondent and utilization of postnatal care (p-value 0.040). Other demographic characteristics not associated with utilization.

Table 1. Level of Knowledge of Mothers. n =104

Knowledge score	Frequency (f)	Percentage (%)
Good	34	32.7
Poor	70	67.3

Table 2. Utilization of Postnatal Care Services. n = 104

Variable	Frequency (f)	Percentage (%)
Postnatal care utilization		
Utilized	13	12.5
Not utilized	91	87.5

Table 3. Association between Level of Knowledge and Selected. n = 104

Variables	Level of Knowledge		*p*-value
	Good (%)	Poor (%)	
Age group (In years)			
15-30	32(30.8%)	62(59.6%)	0.492
31-35	2(1.9%)	8(7.7%)	
Ethnicity			
Brahmin/chhetri	21(20.2%)	21(20.1%)	
Janajati	6(5.8%)	36(34.6%)	0.002
Others*	7(6.7%)	13(12.5%)	
Educational level			
Less than lower secondary**	8(7.7%)	24(23.1%)	
Secondary	7(6.7%)	25(24.0%)	0.038
Higher secondary and above***	19(18.3%)	21(20.2%)	
Occupation			
Homemaker			
Others****	32(30.8%)	65(62.5%)	1.000
	2(1.9%)	5(4.8%)	
Educational level of spouse			
Less than lower secondary**	5(4.8%)	24(23.1%)	
Secondary	9(8.7%)	19(18.3%)	0.073
Higher secondary and above***	20(19.2%)	27(26.0%)	

Others = Dalit, Madhesi and Muslim. **Less than lower secondary= can read and write, Primary and Lower secondary. ***Higher secondary and above= higher secondary and University level **** Others = Service, business, daily wage labor.

Table 4. Association between Level of Knowledge and Obstetric Characteristics. n = 104

Variables	Level of Knowledge		*p*-value
	Good (%)	Poor (%)	
Parity			
Primipara	19(18.3%)	48((46.2%)	0.275
Multipara	15(14.4%)	22(21.2%)	
ANC visit during last pregnancy			
< 4 times	3(2.9%)	19(18.3%)	0.040
Four or more times	31(29.8%)	51(49.0%)	
Place of last delivery			
Home	0(0.00%)	6(5.8%)	0.174
Health facility	34(34.7%)	64(61.5%)	
Type of delivery			
Vaginal	20(19.2%)	34(32.7%)	0.404
Caesarean	14(13.5%)	36(34.6%)	

Table 5. Association between Utilization of Postnatal Care Services and Selected Demographic Characteristic. n = 104

Variables	Utilization of Postnatal care		*p*-value
	Utilized (%)	Not utilized (%)	
Age group (In completed years)			
15-30	11(10.6%)	83(79.8%)	0.610
31-35	2(1.9%)	8(7.7%)	
Ethnicity			
Brahmin/chhetri	5(4.8%)	37(35.6%)	
Janajati	7(6.7%)	35(33.7%)	0.426
Others *	1(1.9%)	19(18.3%)	
Educational level			
Less than lower secondary**			
Secondary	4(3.8%)	25(24.0%)	
Higher secondary and	3(2.9%)	25(24.0%)	0.773
above ***	6(5.8%)	41(39.4%)	
Occupation			
Home maker			
Others****	10(6.7%)	87(83.7%)	0.040
	3(5.8%)	4(3.8%)	
Educational level of spouse			
Less than lower secondary**	4(3.8%)	28(26.9%)	
Secondary	3(2.9%)	29(27.9%)	0.938
Higher secondary and above***	6(5.8%)	34(32.7%)	

*Others= Dalit, Madhesi and Muslim. **Less than lower secondary= can read and write, Primary and Lower secondary. *** Higher secondary and above = Higher secondary and University level. **** Others = Service, business, daily wage labor.

Table 6. Association between Utilization of Postnatal Care Services and Obstetric Characteristics. n =104

Variables	Utilization of Postnatal care		*p*-value
	Utilized (%)	Not utilized(%)	
Parity			
Primipara	8(7.7%)	59(56.7%)	1.000
Multipara	5(4.8%)	32(30.8%)	
ANC visit during last pregnancy			
<4 times	4(3.8%)	18(17.3%)	0.466
Four or more times	9(8.7%)	73(70.2%)	
Place of last delivery			
Home	1(1.0%)	5(4.8%)	0.561
Health facility	12(11.5%)	86(82.7%)	
Type of delivery			
Vaginal	2(1.9%)	52(50.5%)	0.006
Caesarean	11(10.6%)	39(37.5%)	

DISCUSSION

The study revealed that out of 104 respondents, 49% belonged to age group 21-25 years of age and mean age is 24.20 which is similar to the study conducted on Knowledge on Postnatal Care Among Mothers, which shows that 40.31% respondents belonged to age group 22-25 years and the mean age was 24.12 years.[10]

In regard to obstetric characteristics, in present study 94.2% mothers gave birth to their last child at a health facility while only 5.8% were delivered at home. The result is similar to the findings of a study on Postnatal Care Service Utilization among Mothers in Eeastern Region of Nepal which showed that 89.4% respondents gave birth at health facilities while 10.6% delivered elsewhere (home, vehicle etc).[11] The finding of the study is supported by the Annual report 2072/73 as it shows that the institutional delivery rate for Jhapa district is more than 60%.[12]

This study showed that 78.8% respondents had four or more ANC visits during their last pregnancy which is supported by the findings of NDHS 2016 which revealed that 69% mothers have four or more ANC visits in their most recent birth.[7] This high rate of ANC visits could be due to safe motherhood service provided by governmental and nongovernmental organizations to women such as aama surakshya karyakram and trained female community health workers for motivation of utilization of antenatal visits to pregnant women. This study revealed that 32.7% respondents had good knowledge on postnatal care which is consistent with a finding of study conducted by Nepal and north-eastern Nigeria which showed that 39.1% and 36.73%mothers had good knowledge on postnatal care.[5,10]

This study revealed that only 12.5% postnatal mothers had utilized postnatal care (three postnatal check up as recommended) which is consistent with Annual report 2072/73 which showed that 18% postnatal mothers had 3 postnatal check up as per protocol nationally where as in Eastern development region, it is 23%.[12]The important reason for not utilized postnatal service is low level of knowledge on postnatal care. like was in other studies on Proportion and factors affecting for post-natal care utilization in developing countries: A systematic review showed the weighted percentage of postnatal service utilization was 36 and PNC37.4% received any PNC within two weeks of delivery in Madhya Pradesh(13)which is contradictory with the findings of this study. [14]

The present study showed an association between level of knowledge with ethnicity (p-value 0.002) and number of ANC visits (p-value0.040). This might be a high rate privileged group of respondents and ANC visits in this study. whereas another study showed that mother's and husband's higher educational level; higher wealth quintile of the family; occupation; mother's age at last delivery; number of ANC visit; and number of pregnancy were found associated with postnatal care utilization.[14]

In the present study there is s association between level of knowledge and educational level of respondent (p-value0.042) which is consistent with the finding of the study.[9, 10]

This study showed that there is an association between utilization of postnatal care and occupation of respondents which is contradictory to the findings of the study conducted in Eastern Region of Nepal which showed no association of respondents occupation with postnatal visit.[11] It might be due to a difference in sample size.[15]

This study showed association between utilization of postnatal care and type of delivery and (p- value 0.006) which showed that mothers delivered by cesarean section were more likely to get postnatal care services than mothers delivered by spontaneous vaginal delivery that is similar to the findings of study conducted in Northwestern Ethiopia and India.[15.16] This might be cesarean sections occur in health facilities and women remain in the facility for a prolonged period of time after birth.

CONCLUSIONS

The finding of the study shows that more than half of the respondents had poor knowledge on postnatal care. Similarly the majority of mothers had not utilized postnatal care services. Study revealed that ethnicity; educational level of respondent and number of ANC visits had association with level of knowledge. Furthermore, occupation of respondent and type of delivery had association with utilization of postnatal care. Mass media regarding the importance of postnatal care needs to be disseminated covering different geographical areas including female community health volunteers in order to improve utilization of maternal and child health services

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