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Original Research Article

Factors Associated with Utilization of Postnatal Care in Myagdi District of Western Nepal

Hari Prasad Kaphle[1], Neena Gupta[2], Dipak Kumar Bose[3], Anupriya Paul[4], Akanksha Singh[5], Dilip Kumar Yadav[1]

[1]Research Scholar, [2]Assistant Professor, [5]Teaching Associate,
Shalom Institute of Health and Allied Sciences, SHUATS, Allahabad, India.
[3]Associate Professor, Department of Agricultural Extension & Communication, SHUATS, Allahabad, India.
[4]Assistant Professor, Department of Mathematics & Statistics, SHUATS, Allahabad, India.

Corresponding Author: Hari Prasad Kaphle

ABSTRACT

Introduction: Although postnatal care is a critical care for both mother and baby, it receives less attention than antenatal and delivery care. The objective of this study was to determine the factors associated with the utilization of postnatal care.
Methods: A cross sectional study was conducted among 427 women who gave birth two years preceding the survey with face to face interview in Myagdi district, Nepal. Chi-squire test was applied for bivariate analysis and factors significant at $p<0.05$ were included for logistic regression analysis.
Results: The result of the study showed that only 18.5% women attended three or more postnatal visits within 6 weeks after delivery. Multivariable analysis showed that women with paid occupation (business/service), women from middle and high income households, women who lived within 2 km distance from the health facility, women who attended 4 or more ANC visits and women who delivered in health facility were more likely to attend 3 or more postnatal visits.
Conclusion: Community based awareness to rural, distant and poor women as well as adequate counseling during antenatal attendance and health facility delivery may increase in postnatal attendance.

Keywords: Postnatal care, antenatal visit, place of delivery, Nepal.

INTRODUCTION

Postnatal care is regarded as the care provided to the mother and the baby during first six weeks of childbirth. The postnatal period is a critical phase of life for both mother and newborn baby since most of maternal and child deaths occur during this period. [1]

At least three postnatal care/visits, the first visit as early as within 24 hours of delivery, second visit on the day third (48-72 hours) and third visit on the day seventh after child birth are recommended by World Health Organization. [1,2] Nepal also emphasize on three postnatal care/visits based on WHO recommendation. [3]

Postnatal care includes early identification, management of maternal and newborn health problems and referral to appropriate health facility if necessary; counseling on exclusive breastfeeding and nutrition; and provision of immunization and family planning. [3,4]

Although, it is most critical care for mother and newborn baby, it receives less attention than antenatal and delivery care from health service providers in most of the developing and underdeveloped countries. [2]

Two recent national survey showed that only 57% and 58% women and newborn received postnatal care within 2 days of birth indicating mostly those women delivered in health facilities are receiving first postnatal care. [5, 6] However second and third postnatal care is very uncommon in Nepal. Report of department of health service of Nepal showed that only 20% women completed three postnatal as per protocol in the fiscal year 2014/15. [3]

The objective of this study was to find out the factors associated with the utilization of postnatal care in Myagdi district of western, Nepal.

MATERIALS AND METHODS

A cross sectional study was conducted in Myagdi district of Western Nepal among 427 women who gave birth in the two years preceding the survey. The study was based on multi stage sampling where 10 local administrative units (wards based on new administrative reform) were selected randomly. Three communities/clusters from each selected local administrative unit were again selected randomly. Hence there were 30 communities/clusters included in this study. The numbers of respondents from each cluster were determined proportionately based on the eligible population in respective cluster in consultation with female community health volunteer. Systematic random sampling was used to determine the respondent to be interviewed.

Utilization of postnatal care was outcome variable in this study. Women attended at least 3 postnatal visits or received at least 3 postnatal care during last postnatal period (within 6 weeks after delivery) was considered as utilization of postnatal care. Similarly, women who did not attend any postnatal visit or less than 3 postnatal visits during last postnatal period were considered as non-utilization of postnatal care. Educations of women, occupation of women, family type, family size, ethnicity, religion, household monthly income, place of residence were selected as socio-demographic independent variables. Similarly, age of women, birth order, sex of last child, media exposure during pregnancy, ANC visit and place of delivery were selected as maternal/obstetric independent variables.

Data were collected in between February-September 2017 with face to face interview by two well-trained enumerators. Data entry was carried out in Epi Data 3.1 software. All the data were inserted in SPSS 16 version for analysis. The total sample included for final analysis and interpretation was 422 since 5 women refused to participate in the study. Utilization of postnatal care was described with descriptive statistics and expressed in proportion. Pearson's chi-square test was applied for bivariate analysis. Binary logistic regression analysis was done for multivariable analysis and both unadjusted and adjusted odd ratio with 95% confidence interval were obtained.

Ethical approval was obtained from institutional review committee, Pokhara University, Nepal (Ref. no. 107/073/074, date 13/02/2017) and Institutional Ethical Committee, SIHAS, SHUATS, Allahabad (No. IEC/SHUATS/2017/B/54 on 21/03/2017) to conduct the study in three districts of Nepal (Jumla, Myagdi and Kanchanpur) representing three ecological zones (Mountain, Hill and Plain/Terai). Before conducting interview, inform consent was obtained from each respondent after explaining the purpose of the study, possible benefits and harms.

RESULTS

Description of study participants: About half of the women (50.2%) had attended secondary or higher education. Most of women were involved in nonpaid occupation (69.9%). Majorities of women belonged to joint/extended family (62.6%), medium family size (56.4%), Dalit/Janjati (disadvantaged ethnic group) (66.4%), Hindu religion (82.0%) and middle income group (45.5%). Moreover, 73.2% women resided in rural areas and 55.7% women

resided within 2 km distance from the health facility.

Similarly, about half of women were of age group 25-34 years (49.1%). Majorities of women were exposed to mass media (radio or television or newspaper or internet) at least once in a week (71.1%) during pregnancy, attended at least 4 antenatal visits (68.0%) and delivered last baby in health facility (73.2%).

Utilization of postnatal care: Among total women (422), 30.1% women did not attend any postnatal care visit, 51.4% women attended 1-2 postnatal care visit and only 18.5% women attended three or more postnatal visit within 6 weeks after delivery.

Moreover, among total women (422) only 63.0% women attended first recommended visit (within 24 hours of delivery) and 26.8% women attended second recommended visit (on day third after delivery) while only 21.8% women attended third recommended visit (on day seven after delivery).

Bivariate Analysis: Bivariate analysis between selected independent variables and outcome variable is presented in table 1 and 2. Education of women, occupation of women, family type, ethnicity, household income and distance to health facility were significantly associated with utilization of postnatal care with chi-square test ($p<0.05$) (Table 1). Similarly, birth order, women's mass media exposure during pregnancy, ANC visit and place of delivery were also significantly associated with utilization of postnatal care with chi-square test ($p<0.05$) (Table 2).

Multivariable Analysis: The result of the logistic regression analysis is presented in the table 3. Although ten factors were significantly associated with outcome variable in bivariate analysis, multivariable analysis showed only occupation of women, monthly household income, distance to health facility, 4 ANC visits and place of delivery were significant with outcome variable (Table 3).

Table 1. Utilization of postnatal care by socio demographic factors

Variables	Postnatal visit			P
	Total f (%)	<3 visits f (%)	≥3 visits f (%)	
Education of women				
Below secondary	210 (48.9)	190 (90.5)	20 (9.5)	<0.001*
Secondary and above	212 (50.2)	154 (72.6)	58 (27.4)	
Occupation of women				
Non paid (housewife/agriculture)	295 (69.9)	250 (84.7)	45 (15.3)	0.009*
Paid (business/service)	127 (30.1)	94 (74.0)	33 (26.0)	
Household head				
Male	336 (79.6)	272 (81.0)	64 (19.0)	0.555
Female	86 (20.4)	72 (83.7)	14 (16.3)	
Family type				
Nuclear	158 (37.4)	140 (88.6)	18 (11.4)	0.004*
Joint/extended	264 (62.6)	204 (77.3)	60 (22.7)	
Family size				
Small (≤4)	118 (28.0)	100 (84.7)	18 (15.3)	0.442
Medium (5-8)	238 (56.4)	193 (81.1)	45 (18.9)	
Large (≥9)	66 (15.6)	51 (77.3)	15 (22.7)	
Ethnicity				
Dalit/Janjati	280 (66.4)	237 (84.6)	43 (15.4)	0.020*
Brahmin/Chhetri	142 (33.6)	107 (75.4)	35 (24.6)	
Religion				
Hindu	346 (82.0)	279 (80.6)	67 (19.4)	0.320
Others	76 (18.0)	65 (85.5)	11 (14.5)	
Household income				
Low (Lower 33.3%)	164 (38.9)	153 (93.3)	11 (6.7)	<0.001*
Middle (Middle 33.3%)	192 (45.5)	146 (76.0)	46 (24.0)	
High (Upper 33.3%)	66 (15.6)	45 (68.2)	21 (31.8)	
Place of residence				
Rural	309 (73.2)	255 (82.5)	54 (17.5)	0.378
Urban	113 (26.8)	89 (78.8)	24 (21.2)	
Distance to health facility				
<2 KM	235 (55.7)	171 (72.8)	64 (27.2)	<0.001*
≥2 KM	187 (44.3)	173 (92.5)	14 (7.5)	
Total	**422 (100.0)**	**344 (81.5)**	**78 (18.5)**	

*Indicate statistically significant at $p<0.05$. Figure in parenthesis indicate percentage.

Table 2. Utilization of postnatal care by maternal/obstetric factors

Variables	Postnatal visit			P
	Total	<3 visits	≥3 visits	
	f (%)	f (%)	f (%)	
Maternal age				
15-24	176 (41.7)	139 (79.0)	37 (21.0)	0.417
25-34	207 (49.1)	171 (82.6)	36 (17.4)	
35-44	39 (9.2)	348 (7.2)	5 (12.8)	
Birth order				
<3	188 (44.5)	141 (75.0)	47 (25.0)	0.002*
≥3	234 (55.5)	203 (86.8)	31 (13.2)	
Sex of the child				
Male	241 (57.1)	201 (83.4)	40 (16.6)	0.249
Female	181 (42.9)	143 (79.0)	38 (21.0)	
Media exposure during pregnancy				
Yes	300 (71.1)	232 (77.3)	68 (22.7)	0.001*
No	122 (28.9)	112 (91.8)	10 (8.2)	
ANC visit				
≥4	287 (68.0)	216 (75.3)	71 (24.7)	<0.001*
<4	135 (32.0)	128 (94.8)	7 (5.2)	
Place of delivery				
Home	113 (26.8)	149 (96.1)	6 (3.9)	<0.001*
Hospital	326 (73.2)	195 (73.0)	72 (27.0)	
Total	**422 (100.0)**	**344 (81.5)**	**78 (18.5)**	

*Indicate statistically significant at p<0.05. Figure in parenthesis indicate percentage.

Table 3. Factors associated with utilization of postnatal care by logistic regression analysis

Variables	Unadjusted OR (95% CI)	Adjusted OR (95% CI)
Type of family		
Nuclear	1	1
Joint/extended	2.28 (1.29-4.04)*	2.04 (0.72-5.79)
Ethnicity		
Dalit/Janjati	1	1
Brahmin/Chhetri	1.80 (1.09-2.97)*	1.13 (0.53-2.41)
Education		
Below secondary	1	1
Secondary and above	3.57 (2.06-6.20)*	1.24 (0.68-2.23)
Occupation		
Unpaid	1	1
Paid	1.95 (1.17-3.24)*	1.93 (1.08-3.44)*
Household income		
Low	1	1
Medium	4.38 (2.18-8.78)*	2.31 (1.05-5.10)*
High	6.49 (2.91-14.46)*	2.66 (1.04-6.75)*
Media exposure		
No	1	1
Yes	3.28 (1.62-6.61)*	0.31 (0.11-0.88)
Distance to health facility		
>2 km	1	1
≤ 2 km	4.62 (2.49-8.56)*	2.17 (1.03-4.59)*
Birth order		
≥3	1	1
<3	2.18 (1.32-3.66)*	1.12 (0.60-2.08)
ANC visit		
<4	1	1
≥4	6.01 (2.68-13.46)*	2.40 (1.22-4.69)*
Place of delivery		
Home	1	1
Hospital	9.16 (3.88-21.66)*	4.69 (1.48-14.83)*

*Indicate statistically significant at p<0.05. Figure in parenthesis indicate percentage.

DISCUSSION

This study found very few proportions of women (18.5%) attended 3 or more postnatal visit. The study is consistent with a recent study from Tanzania. [7] Postnatal care is a negated component of maternal health service compared to antenatal and delivery care. [1, 2]

This study showed that women involved in paid (business/service) occupation (AOR 1.08, 95% CI: 1.08-3.44) were more likely to utilize postnatal care than those women involved in unpaid occupation (housework/agriculture). Financial barrier may hinder for getting health service for women involving in unpaid occupation.

Similarly, higher household income was also associated with more likely to utilize postnatal care. Another study also reported that women from rich families were more likely to utilize immediate postnatal care. [8] Financial capacity may enhance the utilization of post natal care in rich family.

One of the encouraging finding of this study showed that living within 2 kilometer of distance from the health facility (AOR 2.17, 95% CI: 1.03-4.59) increased the likelihood of utilization of postnatal care. Shorter the distance to health facility higher the utilization postnatal care is established by another study also. [9]

This study found women attended 4 or more antenatal visits during pregnancy were about two and half times (AOR 2.40, 95% CI: 1.22-4.69) more likely to utilize

postnatal care than those women attended less than 4 antenatal visits. The findings of this study concur with previous studies. [7, 8, 10] Frequent contacts with health workers during pregnancy provide opportunities for adequate counseling for subsequent care. [11, 12]

Consistent with other studies, this study showed that women delivered at hospitals/health facilities (AOR: 4.69, 95% CI: 1.48-14.83) were more likely to utilize postnatal care than those delivered at home. [10,13] It is recommended to stay at least 24 hour in health facility after delivery which provides an opportunity of getting first postnatal care. [1]

There are some limitations of this study also. Three postnatal visits considered in this study were not actually based on the recommended days. The study was based on cross sectional data provided by women which may have some recall bias.

CONCLUSION

Very few women attended three or more postnatal visits in this study. Women's occupation, family income, distance to health facility, 4 antenatal attendance, and place of delivery were revealed as significant factors for utilization of postnatal care. Community based awareness to rural, distant and poor women as well as adequate counseling during antenatal attendance and health facility delivery may increase in postnatal attendance.

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