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Women's autonomy and maternal health service utilization in Birendranagar Municipality of Western Nepal

Dipa Bhattarai[1], Srijana Bhattarai[2], Pramila Dewan[3], Bhanu Bhakta Bashyal[4], Kabita Khatiwada[2]

[1]Senior Nursing Officer, [4]Public Health Administrator, Provincial Health Directorate, Karnali Province, Birendranagar, Surkhet, Nepal; [2]Lecturer, Dept. of Public Health, Modern Technical College, Sanepa, Lalitpur, Nepal; [3]Registrar, Bir Hospital, National Academy of Medical Sciences, Kathmandu, Nepal

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Correspondence:
Dipa Bhattarai
Senior Nursing Officer
Provincial Health Directorate
Birendranagar, Surkhet, Karnali Province
Nepal
Email: dipsbhatta@gmail.com

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Abstract

Introduction: Autonomy is the ability to obtain information and make decisions about one's own concerns independently. Women's autonomy in health-care decision-making is extremely important for the improvement of maternal and child better health outcomes and as an indicator of women's empowerment. The study aimed to assess the level of women's autonomy and its relationship with maternal health service utilization among postnatal women attending an immunization clinic in Birendranagar municipality, Surkhet.

Method: This descriptive cross-sectional study involved postnatal women with 45-day-old children attending an immunization clinic in Birendranagar, Surkhet. Structured questionnaires were used to interview 153 women, and the association between women's autonomy and maternal health service use was analyzed through a chi-square test.

Result: The study found that 83(54.2%) of women had low autonomy. Financial autonomy was observed in 87 (56.8%) of women, which was higher than autonomy in decision-making 51 (33.3%) and movement 47 (30.7%). Approximately 124 (81.0%) had attended four antenatal care (ANC) visits for their last pregnancy, and 149 (97.3%) delivered their last child in health facilities. However, only 25 (16.3%) attended three postnatal care (PNC) visits. There was a significant association between autonomy levels and maternal service use, particularly with ANC and PNC services ($p<0.001$).

Conclusion: Over half of the women surveyed had low autonomy, and maternal health service utilization was limited, with a significant relationship between women's autonomy and service use. Programs aimed at empowering women are recommended to enhance autonomy and improve the utilization of maternal health services.

Keywords: Delivery of Health Care, Maternal Health Service, Postnatal

INTRODUCTION

Autonomy is the ability to obtain information and make decisions about one's own concerns independently.[1,2] Women's autonomy in health-care decision- making is extremely important for the improvement of maternal and child better health outcomes and as an indicator of women's empowerment.[3, 4]

However, maternal health-seeking behaviors can vary widely depending on societal, cultural, caste, and class influences and the factors such as poverty and cultural norms limit women's autonomy also play a significant role in shaping these behaviors.[5]

Every day, approximately 810 women are dying from the preventable causes related to pregnancy and childbirth leading to high maternal mortality such as early marriage, young age at first birth, harmful traditional practices like superstition, unhygienic behavioral practice.[6-8] Underutilization of maternal health services, e.g., lack of institutional delivery, noncompliance of ANC and PNC as per protocol, are the major determinants of poor maternal outcomes.[9]

In 2017, over 295,000 women lost their lives during and after pregnancy and childbirth could be avoided, and 94.0% of them happened in low- and middle-income nations.[9] Despite this, the global maternal mortality ratio (MMR) fell 38.0% between 2000 and 2017.[10] Countries like Nepal, Pakistan, and Afghanistan continue to have high mortality rates. [11]

Nepal's maternal mortality ratio (MMR) was 850 deaths per 100,000 live births in the beginning of 1990. Over the years, it has significantly decreased: dropping by 37% to 539 in 1996, by 48% to 281 in 2006, and by another 15% to 239 in 2016. To achieve the Sustainable Development Goals (SDGs), Nepal has further reduced MMR by 71%, bringing it below 170 deaths per 100,000 live births in 2022.[12–14]

Nepal needs to reduce its MMR by at least 7.5% to achieve target of SDG.[15] Although Nepal has been addressing severe inequities in maternal health access, utilization, it needs to work increasing the timely and effective utilization of maternal service by addressing issues related women's autonomy. In developing countries like Nepal, this type of study is important, because scenario of women's empowerment and status of autonomy and women's maternal health care seeking behavior is not satisfactory. So this study aimed to assess the level of women's autonomy and its relationship with maternal health service utilization among postnatal women attending an immunization clinic in Birendranagar municipality, Surkhet

METHOD

Descriptive cross sectional study design based on quantitative approach was used to find out women's autonomy and maternal health care utilization. Data was collected from a sample drawn across 17 immunization centers and 32 immunization clinics within the Birendranagar municipality, located in the Surkhet district. The study focused on postnatal women with 45-day-old infants who attended these immunization clinics in Birendranagar. The total calculated sample size of the study was 153 taking prevalence of women's autonomy p as 46.55%.[16] The study employed a cluster sampling technique. The researcher first identified all immunization clinics within Birendranagar municipality and reviewed records of the first pentavalent immunization to identify eligible women. A list of clusters was then created based on the municipality's 16 wards. Using a lottery method, 9 out of the 16 clusters were randomly selected. All eligible women from the chosen wards were then interviewed. The data were collected using face to face interview through a structured Questionnaire, developed based on literature review. The instrument consisted of following three parts.

Part I: It consisted of socio demographic variables consisting 16 questions.

Part II: It consisted of 3 points Likert scale to assess women's autonomy with 19 items. The total score was computed from likert scale and mean was calculated as 38. On the basis of mean, the score equal to mean and above was considered as women's having high autonomy, and below mean, it was considered as low autonomy. The tool's Cronbach's α value was (0.84). The tool was constructed and validated in Nepal.[17]

Part III: This section included a total of 11 questions related to the utilization of maternal health services, covering antenatal care (ANC), delivery care, and postnatal care (PNC)

Approval for the study was granted by the Institutional Review Board (IRB) of the National Academy of Medical science (NAMS), Nepal (IRB approval no.52207879) in 1 Jul 2021. A formal request letter from the Bir Hospital Nursing Campus was submitted to the administration of Birendranagar municipality in Surkhet to obtain permission for data collection. With the municipality's approval, the study was conducted over a four-week period (5 Jul 2021 - 5 Aug 2021). Written informed consent was obtained from participants using an information and consent sheet prepared in Nepali. Consent was confirmed with participants' signatures after they were fully informed about the study. Participant privacy and confidentiality were strictly maintained.

The study included women who gave live birth and came in immunization clinic for first dose of pentavalent vaccine and others who did not meet the criteria were excluded.

The data collected were promptly checked for completeness and accuracy. Each day, the researcher herself edited, coded, and entered the data. Data entry was performed using SPSS (Statistical Package for Social Sciences) version 22. Descriptive statistics, including numbers and percentages for categorical variables, and mean and standard deviation for quantitative variables, were used to analyze the data. For inferential analysis, a chi-square test was conducted to examine the association between women's autonomy levels and maternal service utilization. The study's findings were presented in tables.

RESULT

The finding revealed that 64(41.9%) of respondents were aged 20-24 years, with a mean age of 24.92±4.55 years. The majority 135(88.2%) identified as Hindu, and nearly half 76(49.7%) were of Brahmin or Chhetri ethnicity. Almost all respondents 151(98.7%) were literate, with 76(50.3%) having attained secondary-level education. Additionally, a large portion of respondents 114(74.5%) were unemployed and identified as homemakers (Table 1).

The eighteen items Likert scale of women autonomy in different categories are summarized in table 2. The study found that 70(45.7%) of respondents had a high level of autonomy. The most prevalent of these was financial autonomy, which 87(56.9%) of respondents claimed, followed by decision-making autonomy 51(33.3%) and mobility autonomy 47(30.7%) (Table 2 and 3).

Table 1. Socio-demographic characteristics of the respondents (n=153)

Variables	*f* (%)
Age (in completed years)	
15-19	13(8.5%)
20-24	64(41.9%)
25-29	55(35.9%)
≥30	21(13.7%)
Mean age ± SD: 24.92±4.552	
Religion	
Hindu	135(88.2%)
Buddhist	1(0.65%)
Christian	12(7.8%)
Islam/Muslim	5(3.4%)
Ethnicity	
Dalit	36(23.5%)
Janajati	15(9.8%)
Madhesi	1(0.6%)
Muslim	6(3.9%)
Brahmin, Chhetri	76(49.7%)
Others	19(12.4%)
Educational status	
Illiterate	2(1.3%)
Literate	151(98.7%)
Level of education (n=151)	
1-8 Basic education	36(36.1%)
9-12 Secondary education	76(50.3%)
Higher education	39(25.8%)
Occupation (n=153)	
Government service	9(5.8%)
Private service	10(6.53%)
Business	13(8.4%)
Agriculture	5(3.2%)
Labor	2(1.3%)
Home maker	114(74.5%)

SD - Standard Deviation

Table 2. Autonomy of the respondents described in the Likert Scale

Autonomy in maternal health service utilization	Responses			
1. Decision Making autonomy	**Independent N(%)**	**Jointly N(%)**	**Not involved N(%)**	***Mean±SD***
Regular health check- up of herself	32(20.9%)	56(36.6%)	65(42.5%)	1.78±0.77
Being pregnant	14(9.2%)	112(73.2%)	27(17.7%)	1.92±0.51
Regular antenatal checkup.	42(27.5%)	73(47.7%)	38(24.8%)	2.03±0.72
Choice of place of delivery	22(14.4%)	81(52.9%)	50(32.7%)	1.82±0.66
Regular postnatal checkup.	16(10.5%)	72(47.1%)	65(42.5%)	1.68±0.65
Emergency maternal health care	21(13.7%)	52(33.9%)	80(52.3%)	1.61±0.71
Health check- up in minor disorder	87(56.9%)	42(27.4%)	24(15.7%)	2.41±0.75
Select vehicle for going to health facility	22(14.4%)	44(28.7%)	87(56.9%)	1.58±0.73
Use of contraceptives.	28(18.3%)	108(70.6%)	17(11.11%)	2.07±0.53
2. Financial autonomy	**Independent N(%)**	**Joint N(%)**	**Always N(%)**	***Mean±SD***
Regular access to source of money	66(43.1%)	49(32.0%)	38(24.8%)	2.18±0.80
Working outside home for income	51(33.3%)	52(33.9%)	50(32.6%)	2.01± 0.81
Saving money for your birth preparedness and complication readiness	62(40.5%)	49(32.0%)	42(27.4%)	2.13±0.81
Lend/spend money as per personal and child need and interest	58(37.9%)	64(41.8%)	31(20.2%)	2.18±0.74
Spend money to purchase medicines	89(58.2%)	35(22.8%)	29(18.9%)	2.39±0.78
Spend money to purchases food and cloth	51(33.3%)	59(38.5%)	43(28.1%)	2.05±0.75
3. Movement autonomy	**Never N(%)**	**Sometimes N(%)**	**Always N(%)**	***Mean±SD***
Seek hospital/health care facility	34(22.2%)	51(33.3%)	68(44.4%)	1.78±0.78
Morning and evening walk during pregnancy period.	92(60.1%)	30(19.6%)	31(20.3%)	2.40±0.80
Seek help from non-familiar male without arousing suspicion.	47(30.7%)	11(7.2%)	95(62.1%)	1.69±0.91
Visit to natal family or relatives' house	23(15.0%)	31(20.3%)	99(64.7%)	1.50±0.74

Table 3. Autonomy Score of the Respondents (n=153)

Level of Autonomy	*f* (%)
Decision making autonomy	
High	51(33.3%)
Low	102(67.7%)
Financial autonomy	
High	87(56.8%)
Low	66(43.1%)
Movement autonomy	
High	47(30.7%)
Low	106(69.3%)
Overall autonomy	
High	70(45.7%)
Low	83(54.2%)

In terms of the use of maternal health services, every respondent 153 (100.0%) reported having antenatal care during their most recent pregnancy. According to protocol, eighty-one percent 124 (81.3%) of respondents have gone to four or more ANC visits. More than four-fifths 143 (85.0%) gave birth in government hospitals, while the majority 149 (97.4%) did so in medical facilities. Furthermore, the majority of respondents 149 (97.4%) received a postnatal checkup in the medical facility right after following birth. However, according to official guidelines, only 25 (16.3%) had gone to three postnatal checkups (Table 4).

Table 4. Maternal Health Service Utilization (n=153)

Variables	*f* (%)
Antenatal checkup	153(100%)
Number of ANC visit	
<4	29(19.0%)
≥4	124(81.2%)
Place of delivery	
Home delivery	4(2.6%)
Institutional delivery	149(97.3%)
Type of health facility (n=149)	
Government Hospital	130(87.2%)
Health post birthing center	13(8.7%)
Private hospital	6(4.0%)
Immediate postnatal care	
Yes	149(97.4%)
No	4(2.6%)
2nd postnatal care	38(24.8%)
PNC as protocol	25(16.3%)

ANC-Antenatal care, PNC-Postnatal care

Table 5. Association of maternal care utilization and women's autonomy

Variables	Level of autonomy			
Antenatal care Utilization	**Autonomy**		**Chi-square**	***p***
	High	**Low**		
Utilized	65	59	11.71	**<.001**
Not utilized	5	24		
Intra-natal Care Utilization				
Utilized	69	80	0. 71	0.399
Not utilized	1	3		
Postnatal care utilization				
Utilized	21	4	17.61	**<.001**
Not utilized	49	79		

The study's results showed a significant (p <.005) correlation between women's autonomy and the number of ANC visits. The study also demonstrated a correlation between postnatal care use and women's autonomy (Table 5).

DISCUSSION

According to the study's findings, 45.7% of women reported feeling very autonomous. This finding is consistent with a research that found 46.5% of women in Kapilvastu, Nepal, demonstrated overall autonomy.[17] On the other hand, women in India had a little higher autonomy percentage of 53.6%.[18] Similar results were observed in Ethiopia, where high degrees of autonomy were reported by 41.4% of women.[19] However, just 14% of Bangladeshi women reported having great autonomy, while 21.9% of Nigerian women reported having high autonomy.[20–21] Larger sample sizes from demographic health surveys and regionally specific cultural customs could be the cause of these discrepancies.

According to the study, 33.3% of participants had control over their decisions, which is in line with results from a study conducted in Nepal where 32.7% of women reported having this kind of autonomy.[17] In Nigeria, 40.5% of women reported having more autonomy in making decisions, which was a little higher rate.[22] These discrepancies could result from changes in research environments and cultural backgrounds.

According to the research, 30.7% of women had mobility liberty and 56.9% had financial autonomy. These findings contrast with research conducted in Kapilvastu, Nepal, where 50.7% of women reported having mobility autonomy and 37.2% reported having financial autonomy.[17] A study conducted in Ethiopia found that while mobility autonomy was higher at 56.7%, financial autonomy was equivalent at 52.7%.[19] In contrast, a study in Chitwan, Nepal, found that only 29.7% of women made independent financial decisions.[23] These differences may reflect variations in cultural and regional settings.[24]

The study found that 43.1% of women had regular access to money, which contrasts with findings from Ethiopia, where 65.2% of women reported regular access to financial resources.[19] Furthermore, compared to a study conducted in India, where 51.1% of women had comparable financial freedom, 37.9% of study participants were able to spend their money in accordance with their requirements and interests.[25] The survey also showed that 22.2% of participants did not require authorization to enter medical facilities. This is less than the rate in Ethiopia, where 43.9% of women were able to go to medical facilities on their own to get care.[19]

The use rates for PNC, institutional delivery, and ANC services in the current study were 16.3%, 97.4%, and 81.0%,

respectively. ANC service utilization, institutional delivery, and PNC service utilization were found to be 88.3%, 98.7%, and 21.7%, respectively, in a study carried out in Nepal's Baglung district.[26] ANC was 57.4%, institutional delivery was 70.5%, and PNC was 47.2%, According to a study conducted in Nepal's Nuwakot district.[27] For ANC and institutional delivery, the results of this study are better than the national and Karnali Province averages, but for PNC, they are lower.[28]

The smaller sample size could be the cause of this discrepancy. However, according to a study conducted in India, 52.0%, 81.0%, and 69.0% of participants, respectively, had four or more ANC visits, institutional deliveries, and PNC services.[29] The larger sample sizes and different regional settings could be the cause of these discrepancies.

According to the survey, 87.2% of women gave birth in government hospitals, compared to 8.8% in HP/birthing facilities and 4.9% in private institutions. A similar trend was noted in a research in Kapilvastu, Nepal, where 5% of deliveries occurred in private institutions, 7% in HP/birthing facilities, and 88.0% in government hospitals.[17]

According to the study, 97.4% of participants had at least one PNC visit, 24.8% had two visits, and only 16.3% had three visits within seven days of giving birth. 98.7% of respondents had one postnatal exam, 34.7% had two, and 22.0% had three, according to a comparable study done in Baglung, Nepal.[26] In comparison, a study in North India found that 31.5% of women received three PNC visits.[30]

The present study found a significant association between women's autonomy and maternal service utilization ($p < .001$). This finding is consistent with studies in India and Nepal, where regression results indicated that women's autonomy was significantly associated with increased odds of utilizing maternal healthcare services.[17-18] A similar result was reported in a study in Bangladesh, where a strong association was found between women's autonomy and the use of four or more ANC visits, institutional delivery, and PNC utilization.[31]

Furthermore, the present study showed a statistically significant association between women's autonomy and antenatal service utilization ($p < 0.005$). A similar finding was observed in a study in Nepal, where women's decision-making autonomy was significantly associated with attending at least four ANC visits.[32] Another study from India also supports the current study's findings, showing that women's autonomy increased the odds of using antenatal care services by about four times for women with decision-making autonomy compared to those with rural women.[33]

A consistent finding was also observed in Nigeria, where women's autonomy had a statistically significant association with ANC visits.[22] The findings of the study showed a statistically significant association between women's autonomy and post-natal service utilization, $p < 0.001$). This result aligns with studies conducted in Ethiopia and Bangladesh, which also found that higher autonomy was significantly associated with increased post-natal service utilization.[34-35]

The participants were restricted to the Birendranagar municipality in Surkhet, which may have resulted in a lack of representation of women from other regions. This is one of the study's drawbacks. The study's cross-sectional design also makes it difficult to investigate potential changes in women's service use over time. The analysis is unable to demonstrate causality; it can only show a statistical relationship between autonomy and maternal service use. The main recommendation for the study includes need for comprehensive government efforts to enhance women's autonomy, particularly in decision-making and mobility, to improve the utilization of maternal health services, especially antenatal and postnatal care in the local levels. It also recommends the intensive use of information, education, and communication materials to raise awareness at the community level, particularly through the mobilization of Female Community Health Volunteers (FCHVs) and community nurses, to enhance women's autonomy and promote proper use of maternal health services.

CONCLUSION

Based on the results of the study, it is concluded that women's level of autonomy in Birendranagar Municipality, Surkhet District, tends to be low. They exhibit more autonomy in financial aspects than in decision-making and movement aspects. The study also found that women generally had low utilization of overall maternal health services, with only about one-seventh of women utilizing maternal health services appropriately. Postnatal care utilization remained low, despite relatively high utilization of prenatal and delivery care. Maternal health service consumption was strongly predicted by women's autonomy, which was also substantially correlated with the use of prenatal and postnatal services.

DECLARATIONS

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Conflict of Interest

Author declares no any conflict of interest with others regarding this research work.

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None

Ethical Clearance

Ethical clearance was obtained from IRB of National Academy of Medical Sciences, Bir Hospital with Ref. No. 52/2078/79.

Consent of the Study

It was taken from the participants of the study.

Consent for Publication from Authors

All the authors and the participants consented to the publication of the findings.

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