



Correspondence

Ms Sujata Ojha

School of Nursing and
Midwifery, Karnali
Academy of Health
Sciences, Jumla, Nepal

Email:

ojhasujata4@gmail.com;

Received: 26 December 2021

Accepted: 1 June 2022

Citation: Ojha S, Lama M, Shrestha S, Maharjan R, Bhattarai SG, Awasthi M. Women's Autonomy And Utilization of Maternal Health Services In Rural Tertiary Level Hospital of Karnali Province, Nepal. *Nep J Obstet Gynecol.* 2022;17(34):73-78. DOI: <https://doi.org/10.3126/njog.v17i34.48055>

Women's Autonomy And Utilization of Maternal Health Services In Rural Tertiary Level Hospital of Karnali Province, Nepal

Sujata Ojha, Monika Lama, Sharmila Shrestha, Ramu Maharjan,
Sarswoti Gautam Bhattarai, Mona Awasthi
School of Nursing and Midwifery, Karnali Academy of
Health Sciences, Jumla, Nepal

ABSTRACT

Aim: To assess the effect of women's autonomy on utilization of maternal health services in selected tertiary level hospital of Karnali Province.

Methods: Cross sectional descriptive research design was adopted in Karnali Academy of Health Science (KAHS). Nepal. Pregnant women after 22 weeks of gestation to term who came for the delivery in KAHS irrespective of mode of delivery and postnatal women within 6 weeks postpartum irrespective of place and mode of delivery were taken as study population. Probability sampling technique was used. Semi-structured interview schedule was used to collect data after informed consent.

Result: The study found that 52.5 percent of respondents utilized maternal health services and 38.6 percent had full autonomy in their life in regards to movement, financial and decision making autonomy. Significant association was found between utilization of maternal services and women autonomy. Regarding the effect of autonomy on maternal health service utilization, significant association was seen between movement autonomy and utilization of maternal health services (p -value=.002, OR= 0.432, C.I: 0.253-0.735). Income, facilities of transportation and decision making power of husband are the factors affecting utilization of maternal health services.

Conclusions: The study provides more insight between the utilization of maternal health services and autonomy of women, lower the movement autonomy of the women lower the utilization of maternal health services. Actions that increase women's autonomy at home could be effective in helping assure good maternal health.

Keywords: maternal health services, women's autonomy, utilization

INTRODUCTION

Nepal has one of the highest maternal mortalities in Asia, 239 deaths per 100,000 live births. About 41% of births occur at home.^{1,2} Many women deliver with relatives, friends, untrained traditional birth attendants, or even alone with multiple risk factors identified including the absence of skilled care at birth, delayed health-seeking and lack of access to health facilities and unilateral decision of male partner.³ The low utilization of maternal health

care services is one of the major contributing factors of the high maternal morbidity and mortality in developing countries.^{4,5} The lack of access to adequate prenatal, natal and postnatal care services is evident in low utilization of maternal services in many countries.⁶ In communities with strong patriarchal traditions women have limited autonomy for seeking maternal services and before seeking services women are expected to negotiate or receive permission from their spouses or other family members.⁷

The barriers of maternal healthcare service utilization include the lack of transportation, a long distance to a health facility, cultural beliefs inculcating a preference for home births, fear of health facility treatments, and lack of awareness regarding the importance of skilled delivery.^{8,9} Women's autonomy includes both control over resources and ideologies which enable the woman to overcome external barriers, access to resources and change traditional ideologies.^{10,11}

In most part of South Asia, women have inferior status in society and also within the household. In Nepal, women had less opportunity in many areas such as educational attainment, participation in decision making and health care service utilization as compared to men.¹² This lowers the autonomy and decision-making power of women resulting the adverse effects on health.¹³

Thus this study will assess the effect of women's autonomy on utilization of maternal health services.

METHODS

Descriptive cross sectional research design was used to assess the pregnant women after 22 weeks of gestation up to term who deliver in KAHS and postnatal women within 6

weeks postpartum irrespective to place and mode of delivery. The required sample for this study was calculated using Cochran, 1977 formula with the prevalence of 0.27¹⁴ and margin of error 5 percent and obtained sample was 303.

Probability sampling technique was used and assessment tool was Women's Autonomy and Utilization of Maternal Health Care Services.¹⁵ Pretesting was done among 33 (10% of total population) participants in KAHS. The participant of pretesting was excluded from the study. Content validity of the instrument was established by consultation with research advisor, subject matter experts, faculties and colleagues. Two stage back translation of research instrument was done. Reliability of the instrument was maintained through Cronbach's alpha(0.79) of the Nepali version of the instrument. Necessary modification was done in order to ascertain relevancy, stability and completeness of the instrument.

Ethical approval and informed consent was taken. Semi-structured interview performed. The data was analyzed using Statistical Package for Social Sciences (SPSS) version 16. The descriptive analysis such as frequencies, percentage, mean and standard deviation was used. In inferential statistics Chi-square test and logistic regression was used to identify the factors affecting women's level of autonomy and maternal health service utilization with (p-value <0.05) at 95% confidence interval (CI).

RESULT

Out of 303 respondents 54.1% were of age 27 years (26.8±6.9). Almost two-third were from urban area. Majority of them had formal education, employment, family income of more than NPR 10000 per month; used to stay in joint family; had to travel more than 5 km to reach health facility; had availability

of health personnel and transportation. But, only one-fourth done health insurance. In respect to parity more than half were primigravida and almost one-third had faced obstetric complications in previous pregnancy. [Table-1]

Table-1: Socio-demographic characteristics of respondents(n=303)

Characteristics	N	%	
Age	<27 years	139	45.9
	≥27 years	164	54.1
Residence	Urban		
	Rural		
Occupation	Employed	220	16.5
	Unemployed	83	83.5
Monthly family income	NPR<10000	50	16.5
	NPR ≥10000	253	83.5
Type of family	Nuclear	66	21.8
	Joint	237	78.2
Distance to health facility (n=275)	<5km	44	14.5
	≥5km	231	85.5
Availability of facility	Health Personnel	257	84.8
	Transportation	264	87.1
Registered health insurance		79	26.1
Parity	Primigravida	188	62
	Multigravidae	115	38
Obstetric complications in past pregnancy		94	31.0

By median score (>15) among 303 respondents, the utilization of maternal health services received by 159 (52.5%) and underutilization by 144 (47.5%).

In terms of level of autonomy only 117 (38.6%) of the women have full autonomy in their life. Decision making autonomy of respondents was 116 (38.3%), movement autonomy was 102 (33.7%) and financial autonomy was 96 (31.7%). The respondents who practiced all three level of autonomy was only 14(4.6%). [Table-2]

A logistic regression analysis was performed to predict the regression analysis of utilization of maternal health services and level of women autonomy where significant

association was seen between autonomy and utilization of maternal health services (p -value=.0024, OR= 0.582, C.I: 0.364-0.930). Furthermore, the study revealed that effect of movement autonomy is significantly associated with women's autonomy on utilization of maternal services (p -value=.002, OR= 0.432, C.I: 0.253-0.735). [Table-3]

Table-2: Level of Autonomy of Respondents (n=303)

Level of Autonomy	N	%
Overall Autonomy		
No (< 20)	186	61.4
Yes (>20)	117	38.6
Movement Autonomy		
No	201	66.3
Yes	102	33.7
Financial Autonomy		
No	207	68.3
Yes	96	31.7
Decision Making Autonomy		
No	187	61.7
Yes	116	38.3

A logistic regression analysis was performed to predict the factors contributing to utilization of maternal health services. Only the factors with $p < 0.05$ was taken into consideration. Seventy seven percent prediction was done by the regression analysis with Nagelkerke R^2 is 28 percent and Cox & Snells R^2 is 21 percent. Multicollinearity was checked, Variance Inflation Factors (VIF) was less than 10. Hosmer and Lemeshow test was done to test the goodness of fit ($p=0.216$). It has been observed that respondents with income of less than 10,000 are 75% less likely to utilize the maternal health services (OR = 0.256; 95% CI: 0.117-0.557). Similarly, Respondents with no facilities of

Table-3: Utilization of maternal services

Autonomy	Underutilization N (%)	Utilization N (%)	Adjusted OR (95% CI)	p-value
No	98 (52.7)	88 (47.3)	0.582 (0.364-0.930)	
Yes	46 (39.3)	71 (60.7)	1	0.024

*p value significant at <.05

transportation is 76% less likely to utilize maternal health services (OR = 0.24; 95% CI: 0.003-0.184). In regard to decision making authority, respondents are twice times more likely to utilize the maternal health services if their husband are decision maker at home rather than of mother in law

(OR= 2.075 ; 95% CI: 0.975-4.417). Thus, income, facilities of transportation and decision making power of husband are the factors affecting utilization of maternal health services. No associated factor was found to be significant with the autonomy of women. [Table 4]

Table-4: Logistic regression analysis of factors contributing to utilization of maternal health services.

Variables	Utilization, n (%)		Adjusted OR (95% CI)	p-value
	Underutilization	Utilization		
Income				
Less than 10,000	38 (76.0)	12 (24.0)	1	0.001*
More than 10,000	105 (43.8)	135 (56.3)	0.256 (0.117-0.557)	
Family type				
Nuclear	48(72.7)	18(27.3)	1	0.211
Extended	96(40.5)	141(59.5)	0.622 (0.295-.310)	
Availability of Transportation				
No	31 (79.4)	8(20.6)	1	0.001*
Yes	106(40.2)	158(59.8)	0.24 (0.003-0.184)	
Distance to health facility				
Less than 5km	46(63.9)	26(36.1)	1	0.178
More than 5km	98(42.4)	133(57.6)	0.620 (0.309-1.243)	
Obstetric complications				
No	85(40.7)	124(59.3)	1	0.002*
Yes	59(62.8)	35(37.2)	1.666 (0.910-3.050)	
Decision maker				
Husband	125(51.9)	116(48.1)	1	0.003*
Mother in law	19(30.6)	43(69.4)	2.075 (0.975-4.417)	

χ^2 : Pearson Chi Square Test
Confidence Interval

1: Reference Category
OR: Odds Ratio

*p value significant <.05

CI:

DISCUSSION

The study was conducted to assess the utilization of maternal health services in selected rural tertiary hospital of Nepal. The

study revealed that 52.5 percent of respondents had utilized the maternal health services in rural Nepal. This finding of the study is contrast to the study conducted in India where status of women in safe motherhood was studied. It showed that only 35.9 percent of the respondents had utilized

the maternal health services¹⁶ These differences may be due to the growing awareness and maternal health programs that have been continuously focusing on maternal health and its upliftment in Nepal. The study demonstrates that, antenatal care services utilization was seen in 180(59.4%). This finding is consistent with the study conducted in Nepal where ANC services has been observed 52 percent in Nepal.¹⁷

Regarding the level of women autonomy only 38.6 percent of the women have full autonomy in their life which is parallel to the study conducted in Nepal based on National Health demographic Survey with the sample of 4148 women.^{13,18} This may be due to patriarchal societies and lower authorities among women living in rural areas where everything should be in accordance to the family members regardless to their interests and wishes.

There is significant association between level of utilization of maternal services and level of women autonomy (p -value= .023) which is consistent with the findings of the study.¹³ Similarly the result is supported by the study where women's autonomy was significantly associated with increased odds of maternal healthcare services in India. Women with high autonomy had 37% and 33% greater likelihood of receiving ANC (AOR: 1.37, 95% CI: 1.25–1.50) and PNC care (AOR: 1.33, 95% CI: 1.24–1.42).¹⁹

The study demonstrated the effect of women's autonomy on utilization of maternal services where significant association was seen between movement autonomy and utilization of maternal health services (p -value= .002, OR= 0.432, C.I: 0.253-0.735). It denotes that women with no movement autonomy are 57 percent less likely to utilize the maternal health services. These findings are described by the study¹⁵

conducted in Nepal where decision making autonomy and freedom of movement autonomy scored better than other autonomy that is financial and autonomy of women.

Factors affecting the utilization of maternal health services was analyzed using bivariate logistic regression where respondents with income of less than 10,000 are 75% less likely to utilize the maternal health services (OR = 0.256; 95% CI: 0.117-0.557). This finding is parallel with the study²⁰ where positive relationship between income and utilization of healthcare services. Higher odds of maternal healthcare utilization were found among women with highest household wealth index quartiles rather than on lowest wealth indices. Limited financial resources may lead to difficulties paying for the cost of healthcare.²¹

Similarly, respondents with no facilities of transportation are 76 percent less likely to utilize maternal health services (OR = 0.24; 95% CI: 0.003-0.184). This finding is consistent with the study where geographical and terrains affect the utilization of maternal health services utilization.²² In regard to decision making authority, respondents are twice times more likely to utilize the maternal health services if their husband are decision maker at home rather than of mother in law (OR= 2.075 ; 95% CI: 0.975-4.417). This is in parallel with the study which found that women who made sole decision on their health care were 1.61 times more likely to use antenatal care than the women making joint decision with husbands (OR=1.61).²³ Thus, income, facilities of transportation and decision making power of husband are the factors affecting utilization of maternal health services.

CONCLUSIONS

Based on findings, this study concluded that utilization of maternal health services and

level of women autonomy tends to low. Moreover, the study provides more insight between the significant association of utilization of maternal health services and autonomy of women. Lower the movement autonomy of the women lower the utilization of maternal health services. Furthermore, family income of the respondents, availability of transportation and decision making power of the husband are factors affecting utilization of maternal health services. The findings of this study imply that women's autonomy is needed to be improved for the better use of maternal health care services which results in low morbidity and mortality among the women of reproductive age group. Similarly, availability of transportation, education, and family income, shared decision making power and employment opportunities should be increased to improve the autonomy of women in health care as well as to increase the utilization of maternal and health care services.

ACKNOWLEDGEMENT

I would like to thanks to the entire team of research along with my family members for continuous supervision and guidance.

REFERENCES

1. Sparic R, Mirkovic L, Malvasi A, Tinelli A. Epidemiology of uterine myomas: a review. *Int J Fertil Steril.* 2016;9:424-35.
2. Cunningham FG, Gant NF, Lenevok KJ, Gilstrap Lc, Hauth Jc, Wenstrom KD. Editors: Abnormalities of reproductive tract. In *Williams Obstetrics 22nd edition.* New York McGraw Hill:2005:961-3.
3. Lurie S, Piper I, Woliovitch I, Glezerman M. Age related prevalence of sonographically confirmed uterine myomas. *J Obstet Gynecol.* 2005;25:42-4.
4. Bonney V. Cesarean myomectomy: remarks on the operation. *Proc R Soc Med.* 1914;7:121-3.
5. Borton CA, Grimes DA, March CM. Surgical management of leiomyoma during pregnancy. *Obstet Gynecol.* 1989;74:707-9.
6. Song D, Zhang W, Chames MC, Guo J. Myomectomy during cesarean delivery. *Int J Gynecol Obstet.* 2013;121(3):208-13.
7. Gurung A, Wrammert J, Sunny A.K, Gurung R, Rana N. Incidence, risk factors and consequences of preterm birth-finding from a multi-centric observational study for 14 months in Nepal. *Arch Public health.* 2020;78:64. <https://doi.org/10.1186/s13690-020-00446-7>.
8. Blencowe H, Cousens S, Oestergaard MZ, Chou D, Moller AB, Narwal R, et al. National, regional, and worldwide estimates of preterm birth rates in the year 2010 with time trends since 1990 for selected countries: a systematic analysis and implications. *Lancet.* 2012;379(9832):2162–72.
9. Sparić R, Kadija S, Stefanović A, Spremović Radjenović S, Likić Ladjević I, Popović J, Tinelli A. Cesarean myomectomy in modern obstetrics: More light and fewer shadows. *J Obstet Gynaecol Res.* 2017;43(5):798-804.
10. Malvasi A, Stark M, Tinelli A. Cesarean myomectomy. In: Tinelli A, Malvasi A (eds). *Uterine myoma. Myomectomy and Minimally Invasive treatment,* 1st edn. Berlin: Springer. 2015;237-52.
11. Kaymak BO, Ustunyurt E, Okyay RE, Kalyoncu S. Myomectomy during cesarean section. *Int J Gynecol Obstet.* 2005;89:90-3.
12. Li H, Du J, Jin I, Shi Z, Liu M. Myomectomy during cesarean section. *Acta Obstetrica Gynecologica Scandinavica.* 2009;88(2):183-6.