Original Article

J Nepal Health Res Counc 2023 Apr-Jun;21(59): 291-6

Women's Autonomy and Utilization of Maternal Health Care Services

Tulasha Dahal,[1] Sarswati Neupane,[1]Pratikshya Chapagain,[1] Ranjeeta Khanal[1]

[1]Tribhuvan University, Institute of Medicine, Biratnagar Nursing Campus, Biratnagar.

ABSTRACT

Background: Maternal health care means the health care that a woman receives during pregnancy, childbirth and postnatal period. Utilization of above service is crucial for the wellbeing of a mother and new born. The objective of the study is to find out women's autonomy and maternal health care utilization in a community of Morang district.

Methods: Cross-sectional study was conducted in the Gramthan Rural municipality which is located at Morang district. Study population was married women having at least one child under 12 month of age. Simple random sampling techniques was used to select the wards whereas purposive sampling technique was used to collect data with semi- structured interview schedule.Data analysis was done through binary logistic regression was used to findout the association between maternal health care utilization service with autonomy and demographic variables. All variables with a p-value 0.10 included in multivariate logistic regression.

Results: Out of 318 women 36.5% had high level of autonomy and maternal health service was utilized by 29.2%. In bivariate analysis, women's high level of autonomy was 2.033 times higher utilization of maternal health services than women's with low autonomy. Respondents with unemployment, 0.528 times higher utilization of maternal health services than employment (p-value 0.011, CI 0.322-0.866). Ethnicity was also associated with utilization of maternal health services. In multivariate analysis education remained associated with utilization of maternal health services (p-value 0.004, 0.015, 95% CI 1.830-23.342, 1.197-5.184). It was found that the respondents with primary and secondary level education were 65% and 24% more utilized maternal health services than illiterate.

Conclusions: Both level of autonomy and maternal services utilization are not satisfactory and poor specially illiterate women in a community of morang district. Women's autonomy should be enhance to increase maternal health care utilization.

Keywords: Autonomy; maternal health care; utilization

INTRODUCTION

Pregnancy and childbirth accounts for approximately 810 maternal deaths from preventable causes in the world daily and 94% death occur low and middle income countries. Nepal is committed to achieving 70% deliveries by SBA by 2020 to achieve the SDG target of 90% in 2030. Nepal is one of the countries where maternal mortality ratio is still high. In Nepal, 84% of pregnant women received antenatal care from skilled provider at least once and 69% had four ANC visits, and 58% of the births were assisted by health worker and 57% were delivered in health facility and PNC check-up respectively.[1-4]

Demographic factors, location, availability,accessibility of health services, involvement in household decisions, determine the utilization of maternal health care services. However, women autonomy plays vital role for the utilization of health care services, status of women often limits their autonomy to make decisions about many aspects of their own lives the.[5-9] The study aimed to find out women's autonomy and maternal health care utilization in a community of Morang district.

METHODS

The cross-sectional design was used to find out women's autonomy and maternal health care utilization in a community of Morang district. Simple random sampling using lottery method-without replacement was used to select the wards. Wards were added by simple random sampling. The required sample size is 318.First of all, approval from the Ethical Review Board (ERB) of Nepal Health Research Council was obtained. Then the

Correspondence: Ms Tulasha Dahal, Tribhuvan University, Institute of Medicine, Biratnagar Nursing Campus, Biratnagar, Morang, Nepal. Email: tulasadahal15@gmail.com, Phone: +9779842024665.

permission letter was obtained from the respective Rural Municipality and each wardsThe list of women having at least one child under 12 months was taken from Ward officen. Each woman was visited in their respective home for data collection with the help of female.

It consists of 23 items scale on 3 domains of women's autonomy. The maximum score is 46.The overall autonomy score was divided in to high and low categories taking median of score as a cutoff point i.e. 23. Regarding socioeconomic status Kupuswami scale was used. The duration of data collection time was 12 weeks. The collected data was enteredin Epi-data (Version 3.1) and transferred into Statistical Package for Social Sciences 'SPSS Statistics for windows, version 16(SPSS Inc.., Chicago, III., USA) software for further analysis. . Data was analysed by using descriptive statistics i.e. frequency, percentage, mean, median, percentage, standard deviation. Inferential statistics (chi-square test) was used. Binary logistic regression was used to find out the association of maternal health care service with autonomy and demographic variables. All variables with a p-value≤ 0.10 in bivariate analysis were included in multivariate logistic regression. P-value <0.05 was considered significant at 95% level of significance.

RESULTS

Table 1. Socio demographic Characteristics of the Respondents(n=318).

Characteristics	n	Percentage
Age in completed years		
<20	38	11.9
21-30	224	70.4
31-40	56	17.6
Mean age ± (SD)26.12(±4.8)		
Literacy status(Mother)		
Illiterate	42	13.2
literate/Primary	42	13.2
middle school	64	20.1
Secondary	92	28.9
Higher secondary	48	15.1
Bachelor and above	30	9.4
Literacy status of husband		
Illiterate	12	3.8
literate/Primary	27	8.5
middle school	78	24.5
Secondary	104	32.7
Higher secondary	59	18.6
Bachelor and above	38	11.9
Type of family		
Nuclear	139	43.7
Joint	179	56.3

The study result reveals that majority of respondents (70.4%) belonged to age group 20 years to 30 years and mean age and SD of the respondent was 26.12±4.8 years. Almost all respondents (83.0%) were literate and among them nearly one third of them (28.9%) were educated up to secondary level of education. Likewise, almost all of respondent's husbands (96.2%)) were literate. Among them, slightly more than one third (32.7%) had attained secondary level education and 56.3% of the respondents were from joint family.

Table 2. Socio demographic Characteristics of the Respondents(n=318).

Characteristics	n	Percentage
Ethnicity		
Brahmin/chhetri	81	25.5
aadibasi / Janajati	150	47.2
Madhesi	48	15.1
Muslim	39	12.3
Occupation of husband		
Employment	305	95.9
Unemployment	13	4.1
Occupation of wife		
Employment	155	48.7
Unemployment	163	51.3
Economic status		
Upper lower	111	34.9
Lower middle	131	41.2
Upper middle	75	23.6
Upper	1	0.3
Number of children		
one child	114	45.3
2-4	172	54.1
>4	2	0.6
Distance to health facility (walking distance in minute)		
≤30	230	72.3
< 30 min	88	27.7

The study results represent that nearly half of the respondents (47.2%) were from Janajati caste group followed by upper caste Brahmin and chhetri (23.5%). Half of respondents (51.3%) were unemployment and most of 95.9% husband were employed. Regarding

economic status, 40.9% family were from lower middle class, only 0.6% were from upper class. Slightly more than half (54.1%) had two to four children. Likewise, (72.3%) of respondents had access to health facility within thirty minutes of distance.

Table 3. Level of Autonomy of the Respondents(n=318).

Variables	n	Percentage
Decision making Autonomy		
High	156	49.1
Low	162	50.9
Movement Autonomy		
High	122	38.4
Low	196	61.6
Financial Autonomy		
High	74	23.3
Low	244	76.7
Overall Autonomy		
High	116	36.5
Low	202	63.5

Total score is 46, median score 23 was taken as cut of point.

The half of the respondents (50.9%) had high decision making autonomy. Regarding movement autonomy, more than half of the respondents (61.6%) had low autonomy whereas majority of the respondents (76.7%) had low financial autonomy and more than half of the respondents (63.5%) had low level of autonomy.

The result of study shows bivariate analysisof utilization maternal health services with Women's Autonomy and demographic variables in which utilization of maternal health services was associated with women's autonomy, educational status, occupation and ethnicity where as other variables like age, husband's educatio n, husband's occupation, type of family, no of children and economic status was not associated.

With women's autonomy for those with high autonomy were 2.033 times higher utilization of maternal health service than women's with low autonomy (p-value 0.005, CI 1.240-3.334). Likewise, utilization of maternal health services were 0.129 and 0453 times higher among primary and secondary level than illiterate (p-value 0.000 and 0.006, CI0.42-0.397, 0.256-0.800).

Among the respondents with unemployment, 0.528 times higher utilization of maternal health services than employment (p-value 0.011, CI 0.322-0.866). Ethnicity was also associated with utilization of maternal health services with odds of 2.689 (p-value 0.005, CI 1.346-5.374).

Table 4. Association of utilization maternal health care with Women's Autonomy and demographic variables (Bivariate Analysis) (n=318).

Variables	Not Utilized	Utilized	Unadjusted OR	CI	p Value
Age					
<20	22(6.9)	9(2.8)	1.048	0.399-2.757	0.924
21-30	162(50.9)	68(21.4)	1.076	0.565-2.047	0.824
31-40	41(12.9)	16(5)	Ref		
Autonomy					
High	71(22.3)	45(14.2)	2.033	1.240-3.334	0.005*
Low	154(48.4)	48(15.1)	Ref		
Educational status					
Illiterate	30(9.4)	12(3.8)	0.491	0.220-1.099	0.083
Primary	38(11.9)	4(1.3)	0.129	0..42-0.397	0.000*
Secondary**	114(35.8)	42(13.2)	0.453	0.256-0.800	0.006*
Higher secondary and above	43(13.5)	35(11)	Ref		
Husbands education					
Illiterate	10(3.1)	2(0.6)	0.354	0.073-1.709	0.196
primary	26(8.2)	1(0.3)	0.068	0.009-0.524	0.010
Secondary**	127(39.9)	55(17.3)	0.767	0.455-1.292	0.319
Higher secondary and above	62(19.5)	35(11)	Ref		
Mother's Occupation					
Employment	120(37.7)	35(11)	0.528	0.322-0.866	0.011*
Unemployment	105(33)	58(18.2)	Ref		
Husband Occupation					
Employment	214(67.3)	91(28.6)	2.399	0.508-10.763	0.275
Unemployment	11(3.5)	2(0.6)	Ref		

Type of family					
Nuclear	102(32.1)	37(11.6)	1.255	0.768-2.051	0.365
Joint	123(38.7)	56(7.6)	Ref		
Ethnicity					
Brahmin/ Chhetri	49(15.4)	32(10.1)	2.689	1.346-5.374	0.005*
Aadibasi/ Janajati	106(33.3)	44(13.8)	1.709	0.905-3.222	0.099
Others ***	70(22)	17(5.3)	Ref		
Distance to health facility					
<30 minutes	160(50.3)	70(22)	1.236	0.712-2.148	1.236
>30 minutes	65(20.4)	23(7.2)	Ref		
No. of children					
1 child	95(29.9)	49(15.4)	1.524	0.938-2.476	0.089
>1 child	130(40.9)	44(13.8)	Ref		
Economic Status					
Upper class	55(17.3)	21(6.6)	0.902	0.508-1.599	0.723
Middle class	170(53.5)	72(22.6)	Ref		

**P value significant <0.05, **Secondary=middle school and secondary, ***Other=madhesi and muslim, upper class=upper and upper middle class and middle class=upper lower and lower middle class OR=odds Ratio, CI= Confidence interval*

Table 5. Associationof utilization maternal health care with Women's Autonomy and demographic variables (Multivariate analysis) (n=318).

Variables	Unadjusted OR	Adjusted OR	CI	pValue
Autonomy				
High	2.033	0.662	0.386-1.137	0.135
Low	Ref	Ref		
Educational status				
Illiterate	0.491	2.341	0.861-6.361	0.095
Primary	0.129	6.537	1.830-23.342	0.004
Secondary**	0.453	2.491	1.197-5.184	0.015
Higher secondary and above	Ref	Ref		
Wife Occupation				
Employment	0.528	2.121	1.200-3.748	0.010
Unemployment	Ref	Ref		
Ethnicity				
Brahmin/ Chhetri	2.689	0.973	0.418-2.264	0.950
Aadibasi/ Janajati	1.709	0.934	0.463-1.883	
Others ***	Ref	Ref		
No of children				
1 child	1.524	0.797	0.467-1.363	0.407
>1 child				

*Significant p- value <0.05, ** Secondary=middle school and secondary, *** OR=Odds ratio, CI= Confidence Interval*

Table 5 shows the multivariate analysis of association between utilization of maternal health service with women`s autonomy and demographic variables in which education and wife occupation are associated with maternal health care utilization where as other variables such as autonomy, ethnicity and number of children was not associated with utilization of maternal health care service.

This study showed that the education remained associated with utilization of maternal health services (p-value 0.004,0.015, 95% CI 1.830-23.342, 1.197-5.184). It was found that respondents with primary and secondary level education were 65% and 24% more utilized maternal health services than illiterate. Occupation also remained associated, with odds ratio of 2.121(p-value 0.010,95% CI 1.200-3.748) for employment, the respondents who were unemployed were 2.121 times high utilized maternal health service than employed.

DISCUSSION

The present study represent that only 36.5% of respondents had high autonomy where as 63.5% had low autonomy which is contrast to the study done in Haryana India where 66.3% had high autonomy compared to the present study.[10-12] The current study reveals that half

of the respondents (50.9%) had high decision making autonomy. Regarding movement autonomy, more than half of the respondents (61.6%) had low autonomy whereas majority of the respondents (76.7%) had low financial autonomy.. which are consistent with the findings from study done in Kapilvastu Nepal where 46.5% had overall autonomy 50.18% had decision making autonomy and 50.67% had movement autonomy.[10]Similarly, present study only (23.3%) of women had financial autonomy which is contrast to the study finding done in South western Bangladesh where 55% of women had financial autonomy. [11] Although many program conducted to raised women status in Nepal but autonomy level is still low in women in our country.

Present study showed that only 29.2% of women utilized the overall maternal health care services. This finding is consistent with the study conducted in Nepal whereas only 27% women utilized of overall maternal health care service.[7]This study finding is contradictory with the finding of study conducted in rural municipality of Nepal more than half women 55% utilized maternal health care services.[13] The government has launched many health care scheme related to matenal health care services but utilization is still low in women due to lack of knowledge and decision making capacity.

In bivariate analysis of utilization of maternal health services was associated with women's autonomy, educational status, occupation and ethnicity. In this study, women with high autonomy were two times higher utilization of maternal health services with low autonomy. (p-value 0.005, CI: 1.240- 3.334). This is similar with the finding of research done by taking overall data of Nepal where autonomy retained its significance after inclusion of other variables and women who had higher autonomy were more likely to utilize all maternal health service (OR = 1.40, 95% CI: 1.18 - 1.65).[7]Similar study done in Ethiopia showed that autonomous women were more likely to use ANC (AOR= 1.4, 95% CI=1.2-1.6) and delivery (AOR=1.3, 95% CI=1.1-1.7).[14] Which was similar to the findings of research done in India where utilization of healthcare service was higher among the women having a high level of autonomy 37% and 33% greater likelihood of receiving ANC (AOR:1.37,95% CI:1.25-1.50), and PNC (AOR:1.33,95% CI:1.24-1.42) respectively compared to women having low autonomy.[15] The possible explanation is that women autonomy enhances the decision making capability about their own health.

Literacy was significantly associated with maternal health care utilization which is similar with study conducted in Darjeeling and Uttar Pradesh.[16,17] Women with primary and secondary level education were 0.129 and 0453 times more likely to utilize maternal health services than illiterate (p-value-0.000 and 0.006, CI:0.42-0.397, 0.256-0.800) which is similar with findings from study done in Nepal, where women who gained secondary and above education were 4 times more likely to utilize maternal health service (OR=4.06, 95% CI:3.25-5.07) [7]. Educated mothers may be aware of their health and seek health services and utilized more.

In this study ethnicity was statistically significant with maternal health care utilization in bivariate analysis with (OR 2.689 *p*= 0.005, CI:1.346-5.374) which are similar with findings of study from Nepal where upper caste group and rich group had utilized more maternal health service and had shown strong association with maternal health care utilization with *p* value < 0.0017. Present study showed that unemployment was 0.528 times higher utilization of maternal health service than employed women (p-value 0.011, CI: 0.322-0.866). But A study in Ethiopia is contradicts with this study that women who had job were more likely to use skilled ANC services (AOR=1.1, 95% CI=1.1-1.3).[14] This seems that only financial independence isnot sufficient for health service utilization in country like Nepal because there may be so many responsibilities of women which can hinder self need and health service utilization. However, age of respondents, type of family, distance to health facility, educational status and occupation of husband, economic status, number of children were not significantly associated with maternal health care utilization in this current study.

CONCLUSIONS

This study concluded that only one third of women have high level of autonomy. Maternal health care utilization is very low among women whereas literate women have high level of autonomy than illiterate. Women who are unemployed utilized maternal health care service effectively than employed. Women's autonomy is significantly associated with the use of antenatal, delivery postnatal services and overall utilization.

ACKNOWLEDGEMENTS

The researchers would like to offer our sincere gratitude to Nepal Health Research Council for providing provincial Research Grant and ethical clearance certificate to proceed this research. We are grateful to Gramthan Rural municipality Province one for providing permission letter to conduct this study Our sincere thanks to all those mothers who provided valuable information and time during data collection.

CONFLICT OF INTEREST

The authors declare no conflict of interest.

REFERENCES

1. World Health Organization (WHO). Maternal mortality Fact sheet;2019;Availablefrom:https://www.who.int/news-room/fact-sheets/detail/maternal-mortality
2. Department of Health Services Ministry of Health and Population. Annual Report2073/74(2016/2017).2017;Available from: https://dohs.gov.np/wp-content/uploads/2018/04/Annual_Report_2073-74.pdf
3. Department of Health Services Ministry of Health and Population. Annual Report2074/75(2017/2018).2017; Available from: https://dohs.gov.np/annual-report-2074-75/
4. Nepal Demographic and Health Survey 2016. Kathmandu, Nepal:Ministry of Health andPopulation (MOHP) [Nepal], New ERA,and ICF International Inc, 2017. Available from:https://dhsprogram.com/pubs/pdf/FR336/FR336.pdf
5. Paudel G, Yadav UN, Thakuri SJ, Singh JP, Marahatta SB. Utilization of services forinstitutional deliveries in Gorkha District. Journal of Nepal Health Research Council.2016. 19(33), 18-3. [JNHRC]
6. Shrestha R. Maternal mortality in Nepal: addressing the issue. Inquiries Journal.2012;4(10). [Article]
7. Adhikari R. Effect of Women's autonomy on maternal health service utilization in Nepal:a cross sectional study. BMC women's health. 2016 Dec 1;16(1):26. [Article]
8. Sado L, Spaho A, Hotchkiss DR. The influence of women's empowerment on maternal health care utilization: evidence from Albania. Social Science & Medicine. 2014 Aug 1;114:169-77.[Article]
9. Osamor PE, Grady C. Women's autonomy in health care decision-making in developingcountries: a synthesis of the literature. International journal of women's health.2016;8:191. doi: 10.2147/IJWH.S105483
10. Bhandari TR, Kutty VR, Ravindran TS. Women's Autonomy and its correlates in Western Nepal: a demographic study. PloS one. 2016 Jan 22;11(1):e0147473.doi: 10.1371/journal.pone.0147473
11. Biswas AK, Shovo TE, Aich M, Mondal S. Women's autonomy and control to exercise reproductive rights: A sociological study from rural Bangladesh. Sage Open. 2017 Jun;7(2):2158244017709862. Retrivedfrom:10.1177/2158244017709862.
12. Pandey KK, Singh RD. Womens status, household structure and the utilization of maternal health Services in Haryana (India). Journal of Statistics Applications & Probability Letters. 2017;1:1-0. Retrived from: 10.18576/jsapl/040101
13. Ghimire N, Khatry R, Shakya V. Maternal health services utilization among mothers in a rural municipality: Maternal health services utilization among mothers. Journal of Patan Academy of Health Sciences. 2021 Apr 30;8(1):121.[Article]
14. Tarekegn SM, Lieberman LS, Giedraitis V. Determinants of maternal health service utilization in Ethiopia: analysis of the 2011 Ethiopian Demographic and Health Survey. BMC pregnancy and childbirth. 2014 Dec;14(1):1-3. doi:10.1186/1471-2393-14-161
15. Mondal D, Karmakar S, Banerjee A. Women's autonomy and utilization of maternal healthcare in India: Evidence from a recent national survey. PLoS One. 2020 Dec 9;15(12):e0243553.doi:10.1371/journal.pone.0243553
16. Bhattacherjee S, Datta S, Saha JB, Chakraborty M. Maternal health care services utilization in tea gardens of Darjeeling, India. Journal of basic and clinical Reproductive Sciences. 2013;2(2):77-84.doi:10.4103/2278-960X.118645
17. Srivastava A, Mahmood SE, Mishra P, Shrotriya VP. Correlates of maternal health care utilization in Rohilkhand Region, India. Annals of medical and health sciences research. 2014;4(3):417-25.doi:10.4103/2141-9248.133471
18. Wani RT. Socioeconomic status scales-modified Kuppuswamy and Udai Pareekh's scale updated for 2019. Journal of family medicine and primary care. 2019 Jun;8(6):1846.doi:10.4103/jfmpc.jfmpc_288_19