

Research Article

Barriers in Utilization of Maternal and Child Health Services among Musahar in Dudhauri Municipality of Sindhuli District, Nepal

Gautam Laxmi* and Subedi Jwala

Department of Public Health, Tribhuvan University, Nepal

***Corresponding author:** Gautam Laxmi, Department of Public Health, Manmohan Memorial Institute of Health Science, Soaltee mode, Kathmandu, Nepal**Received:** April 30, 2020; **Accepted:** May 23, 2020;**Published:** May 30, 2020**Abstract**

Background: Maternal and child health remains a public health challenge in Nepal. Due to illiteracy and low level of health awareness among Musahar they could not grab the available health services. This study identify information regarding barriers in the utilization of Maternal and Child health services among Musahar Mothers.

Methodology: A cross-sectional study was carried out in Dudhauri municipality, Sindhuli using qualitative and quantitative method. Qualitative data were obtained from two Key Informant Interview among health workers and one Focus Group Discussion among FCHVs of Musahar community. Interview was carried out using questionnaire for quantitative study among 121 mothers of under 5 children residing in Musahar community. SPSS version 21 was used to manage data. Descriptive statistics and chisquare test were used to describe data and to test the association.

Results: The average age and age at marriage of respondents was 24.6 ± 5.7 years and 16.22 ± 2.8 respectively, 76% were illiterate, 93.2% lies below poverty line and 73.6% were home maker. In case of utilizing Maternal and child health services 29.8 did not had ANC while 47.1 had 4 or more ANC visit, 64.5% institutional delivery and 29.8% PNC visit. Social barriers and lack of information are major barriers contributing to more than half of no ANC visit and which contribute to >60% in case of PNC and distance also added in case of institutional delivery. Home delivery for first child was 56.2% while for last child it was 33.9%. Almost 1/5th of the children were not vaccinated. FGD and KIIs identified social factors like negligence, family pressure, shyness, and unhealthy financial decisions as important barriers.

Conclusion: Utilization of maternal and child health services was poor among Musahar mother and children which indicates, a serious public health concern. Awareness program to remove obstacles for utilizing MCHs should be conducted by concerned authorities.

Keywords: Barriers; Maternal and child health services; Musahar; Utilization; Health workers

Abbreviation

ANC: Antenatal Care; ANM: Auxiliary Nurse Midwifery; BPH: Bachelor of Public Health; FCHV: Female Community Health Volunteer; FGD: Focus Group Discussion; IRC: Institutional Review Committee; KII: Key Informant Interview; MCH: Maternal and Child Health; MPH: Master in Public Health; NDHS: Nepal Demographic and Health Survey; PNC: Postnatal Care; SBA: Skilled Birth Attendant; TD: Tetanus and Diphtheria

Introduction

According to WHO, Maternal and Child Health Services can be defined as "promoting, preventing, therapeutic or rehabilitation facility or care for the mother and child." There are different barrier which prevent mothers and children from utilizing Maternal and Child Health Services (MCHS).

Mother and children constitute a "special risk" group in case of illness, deaths, in the term of pregnancy and childbirth of mothers, and growth and development in case of children [1]. Musahar community being a marginalized community have been deprived of many essential facilities due to various social, financial, educational limitations [2].

This study attempts to assess the utilization of maternal and child health services among Musahar and the barriers with the utilization of Maternal and Child Health Services. Identifying the barriers, the result of this study can be utilized to draw the attention of local government, in strategic planning related to maternal and child health services especially for marginalized community.

Methodology

A cross sectional study was conducted to explore the barriers of utilization of MCHS by qualitative and quantities study. For

quantitative study 121 mother's having less than 5 years of children among Musahar were included. For qualitative study Key Informant Interview (KII) of Auxiliary Nurse Midwifery (ANM) of local Health Post and Health Officer of Health Office and Focal Group Discussion (FGD) among Female Community Health Volunteers (FCHVs) was conducted. The study was conducted in Dudhauri Municipality, ward number 7, 8, 9 of Sindhuli District which is the major residential area of Musahar Community. Since there was small number of study population, census was carried out to collect information. Musahar women who had at least one child <5 years and able to provide informed consent were included while primigravida were excluded from the study. Interview and FGD were conducted to collect information by using the interview and FGD guideline of Mohan Poudel et al. [3] was used for qualitative study whereas semi-structured questionnaire were used for quantitative study. Pre-testing of the questionnaire was done among Musahar community of Mahotari District, Bardibas. Proposal was approved by the Institutional Review Committee (IRC), MMIHS. Informed consent was taken with each respondent before interview and all ethical considerations, including confidentiality and privacy was maintained to respect for human dignity and the principle of justice. Quantitative data were managed according to the objective of study using SPSS-21.0 software and qualitative data were analyzed by content analysis. Descriptive statistics was used to study the characteristics of variables and Chi-square test was used to test the association. Variables with p value <0.05 were considered to be significant in 95% confident interval.

Results

The average age, age at marriage and age at first pregnancy of respondents were 24.6±5.7, 16.22±2.8 and 18.02±2.64 years respectively. Most of the respondents were <30 years and service utilization was higher among this group except PNC. Most of them were married and pregnant before 20 years. Age of respondents was associated with ANC but age at marriage and first birth was not associated with service utilization. Majority of them were housemaker utilizing MCH services in less proportion. Family type was associated with service utilization, > 2/3rd were from nuclear family, ANC and Institutional delivery was higher among them except for PNC. Most of them were below poverty line and service utilization was not associated with economic status (Table 1).

Level of education was very low among respondents and their family however service utilization was higher among educated group. Education of the respondents and her mother-in-law's was associated with ANC and institutional delivery whereas husband's education was associated with ANC. More than half have ≤2 children and proportion of service utilization was higher among them which was associated with ANC. Health service was not accessible to >1/2 of the respondents and majority (61.2%) of them had to travel by foot but it was not associated with service utilization (Table 2).

Among the total 121 respondents, the proportion of ANC checkup was 70.2% however total recommended 4 ANC visit was 47.1%. The major barriers for incomplete ANC checkup were social barriers (38.8%) like negligence and perception of ANC is not needed if there is no complication, distance up to the health facilities. The barriers of no ANC were also social barriers (29.2%) economic and cultural barriers were more contributing in no ANC than in incomplete ANC

Table 1: Sociodemographic characteristics and utilization of maternal health services.

Characteristics	N	%	ANC		Inst. delivery		PNC	
			Yes	No	Yes	No	Yes	No
Age			P=0.03		P=0.97		P=0.55	
<30	111	91.7	74.8	25.2	64.9	35.1	29.7	70.3
≥30	10	8.3	20	80	60	40	30	70
Age at marriage			P=0.91		P=0.23		P=0.48	
<20	111	91.7	71.6	28.4	63.3	36.7	29.4	70.6
≥20	10	8.3	70	30	90	10	40	60
Age at first birth			P=0.85		P=0.43		P=0.05	
<20	110	90.9	70	30	62.7	37.3	27.3	72.7
≥20	11	9.09	72.7	27.3	81.8	18.2	54.5	45.5
Occupation			P=0.59		P=0.76		P=0.02	
Farmer	22	18.2	77.3	22.7	68.2	31.8	36.4	63.6
Labor	9	7.4	77.8	22.2	66.7	33.3	66.7	33.3
House maker	90	74.4	67.8	32.2	63.3	36.7	24.4	75.6
Type of Family			P=0.00		P=0.04		P=0.34	
Nuclear	84	69.4	69	31	61.9	38.1	35.7	64.3
Joint	37	30.6	73	27	70.3	29.7	16.2	83.8
Socio-economic status			P=0.60		P=0.09		P=0.76	
Above poverty line	8	6.6	70.8	29.2	37.5	62.5	25	75
Below poverty line	113	93.4	69	31	66.4	33.6	30.1	69.9

Table 2: Relation of Educational status and other characteristics with maternal health services utilization.

Characteristics	N	%	ANC		Inst. delivery		PNC	
Education of respondents			P<0.00		P=0.005		P=0.11	
Illiterate	92	76	64.1	35.9	57.6	42.4	26.1	73.9
Literate	29	24	89.7	10.3	86.2	12.8	41.4	58.6
Husband's Education			P<0.001		P=0.21		P=0.11	
Illiterate	89	73.55	62.2	37.8	60	40	25.6	74.4
Literate	32	26.45	93.5	6.5	77.4	22.6	41.9	58.1
Mother-in-law's Education			P<0.001		P=0.026		P=0.75	
Illiterate	111	94.9	69.4	30.6	64	36	30.6	69.4
Literate	6	5.1	83.3	16.7	50	50	16.7	83.3
Number of children			P=0.005		P=0.11		P=0.70	
≤2	64	52.89	81.3	18.8	70.3	29.7	31.2	68.8
> 2	57	47.1	56.4	43.6	56.4	43.6	28.1	71.9
Distance to health institution			P=0.41		P=0.07		P=0.43	
≤ 30 minute	57	47.1	66.7	33.3	56.1	43.9	26.3	73.7
>30 minute	64	52.9	73.4	26	71.9	28.1	32.8	67.2
Decision making			P=<0.001		P=0.15		P=0.29	
Involve in decision making	40	33.1	75	25	83.3	16.7	16.7	83.3
Not involve in decision making	81	66.9	69.7	30.3	62.4	37.6	31.2	68.8

visit. Lack of information contribute similarly in both of the cases. More than 1/4th (28.9%) of the respondents did not use iron tablet

Table 3: Barriers of utilization of ANC services by respondents.

Characteristics	Frequency		Percentage	
ANC checkup				
Yes	85		70.2	
No	36		29.8	
Time of ANC Checkup(n=85)				
1	5		5.9	
2	19		22.4	
3	21		24.7	
4	23		27.1	
5 and more	17		20	
Factors	Frequency	Percentage	Sub categories	Percentages
Reason of incomplete ANC checkup (N=45)				
Cultural barriers	9	11.3	Taboos	41.7
			Traditional healers	41.7
			Others	16.7
Social barriers	31	38.8	Family pressure	8.8
			Shyness	24.6
			No complication	26.3
			Negligence	40.4
Lack of information	18	22.5		
Long distance	14	17.5		
Attitude of health worker	1	1.3		
Others	2	2.5		
Reason of no ANC checkup(N=36)				
Economic barriers	16	18	Unemployment	88.2
			Large family	11.8
Cultural barriers	13	14.6	Taboos	58.8
			Traditional healers	29.4
			Religious beliefs	11.8
Social barriers	26	29.2	Family pressure	8.1
			Shyness	37.8
			No complication	29.7
			Negligence	24.3
Lack of information	20	22.5		
Long distance	12	13.5		
Attitude of health worker	1	1.1		
Others	2	2.2		

while 20.7% were not vaccinated with TD (Table 3).

Home delivery decreased drastically in between the birth of first and last child of the respondents. Skill birth attendance during delivery was 62% while 1/3rd of them depends on their mother-in-law's and neighbors. Major factors for SBA delivery were due to complication (33.8%) followed by knowledge (18.8%) and family support (18.8%). Many of them perceive that there is no need of SBA if there is no complication and distance also a barrier for delivery by SBA (Table 4).

Only 29.8% of the study population utilize PNC services as per protocol, they utilized services mainly due to complication (72.2%). Lack of information (37.3) was major barrier for not having PNC services followed by cultural barriers (23.7%) and long distance (17.2%) (Table 5).

Table 4: Place of delivery and associated factors.

Variables		Frequency	Percentage			
Place of birth of first baby (N= 79)	Hospital	39	43.8			
	Home	50	56.2			
Place of birth of last baby (N=121)	Hospital	78	64.5			
	Home	41	33.9			
Assistance during delivery	SBA	75	62			
	HW other than SBA	5	4.1			
	Non health personal	41	33.9			
Reason to deliver by Non health worker	Reasons	Frequency	%	Sub categories	%	
	Economic barriers	8	11.1	Unemployment	100%	
	Cultural barriers	14	22.2	Taboos	93.8%	
				Religious beliefs	6.3%	
	Social barriers	19	29.2	Family pressure	30.8%	
				Shyness	7.7%	
				No complication	53.8%	
Lack of information	6	6.9	Negligence	7.7%		
				Long distance	19	25.0
				others	4	5.6

Table 5: Utilization of PNC services by respondents and associated factors.

PNC use (N=121)	Factors		Frequency	Percentage	
	Yes		36	29.8%	
	No		85	70.2%	
Reason of not utilizing PNC	Factors	Frequency	%	Sub Cat Variables	%
	Economic barriers	14	8.3%	Unemployment	92.9
				Large family	7.1
	Cultural barriers	16	11.25	Taboos	45
				Religious beliefs	10
				Traditional healers	45
	Social barriers	37	23.7	Family pressure	8.9
				Shyness	5.4
				No complication	58.9
				Negligence	26.8
Lack of information	61	37.3			
Attitude of HW	3	1.8			
Long distance	28	17.2			
others	1	0.6			

One out of five child was not vaccinated and children were suffering mainly from diarrhea (32%) and pneumonia (26%) among whom almost 1/3rd seeking care from traditional healers. Almost 3/4th of the children were not monitored for their growth while 22.7% and 17.3% did not take deworming tablet and vitamin A respectively. Death of child was prevalent among 1/4th of mothers which was mostly during perinatal period.

The qualitative study among health officer, ANM and FCHVs also indicate that cultural barriers like faith on traditional healers, economic and social barriers like unhealthy financial decision, family pressure, shyness, negligence together with lack of knowledge, attitude of health workers and unavailability of health workers, early pregnancy were major contributing factors to prevent mothers from utilizing maternal health services. The ANM from Dudhauri health post said that “cultural practice like visiting traditional healers still exists among Musahar mothers and child. They don't want to spend money for a health checkup until and unless they experienced a complicated problems”. FCHVs reported that “lack of education is the main reason they are not obeying and believe us and if we request them to go hospital then they said why should they go to hospital, if any complication occurs then only they go to the hospital.”

Discussion

This study assessed the barriers in utilizing maternal and child health services perceived by mothers, health workers and FCHVs of marginalized Musahar community. Study findings suggest that utilization of MCH services is poor because of illiteracy, cultural, social and economic barriers as well as distance up to the health facilities. The age at marriage and age at first pregnancy of respondents was 16.22 ± 2.8 and 18.02 ± 2.64 years respectively while NDHS 2016 [4] showed the average age at marriage was 17.9 years and at first birth among women age 25-49 was 20.4 years. Marriage and child bearing was earlier among Musahar mothers.

Around 1/4th women and men were illiterate in this study which was among 1/3rd women and 1/10th men age 15-49 according to NDHS 2016 [4]; illiteracy was very high among men and women in Musahar community and there was no much gender gap in educational status. According to a report by World Bank 41% of the population of Nepal was poor in 2018 [5] which was 93.2% in the present study. Education and economic status are major determining factor for utilizing available health services which were very low among Musahar community.

This study showed that 29.8% had no ANC visit while 47.1% had 4 or more ANC which was 16% and 69% respectively in NDHS [4] report. Similarly, 71.1% of the Musahar mothers took iron tablet while 79.3% were protected with TD which was 91% and 89% respectively according to NDHS report [4] which revealed that service utilization during pregnancy is very low among Musahar community in comparison to National data.

This study showed that 64.5% of the respondent delivered in a health facility which was lesser than that of province 3 (72.8%) [1] and slightly higher than national data (57%). Even though study area is in province 3, the service utilization among Musahar is lower than other community. In the present study 70.2% did not had postnatal check within 42 days which was 42% according to NDHS which revealed that PNC service utilization was very low among study population. A study conducted in Palpa district among Dalit women showed 41.3 % had institutional delivery and 19.2% received PNC which are even lower than this study [6] which might be due to geographical diversity.

Musahar mothers went to health facilities if they had complications, similarly a study showed that women and their family

thoughts that utilization of MCHs services is necessary when a complication occurs [7]. This study shows that some of the perceived barriers were lack of awareness, negligence, and misconceptions, which is similar a study conducted in Eastern Nepal [8].

In this study, it was found that 58.8% of Musahar children receive complete vaccination and 82.7% child received Vitamin A supplementation which is relatively lower to the study done in western rural Nepal, where 97.4% received complete vaccination and 98.4% received Vitamin A supplementation [9] which might be the effect of education and economic status.

A study conducted in Ethiopia found the barrier of PNC was long distance (19.25%), lack of information (30.47%) and lack of guardian for children care (16.07%) [10]. It was quite similar with this study which were Long distance (17.2%), lack of information (37.3%), and social factors (37.3%). This could be due to lack of awareness of the mothers on possible postnatal complications.

In regards to overall barriers to MCH services in this study, it was found that stubbornness, negligence, lack of education, Attitude of health Worker, Unhealthy financial decision, traditional healer. Another study conducted in Mid and Far Western Nepal showed the distance to health facilities, unavailability of transport service and poor availability of SBAs were the major barriers [8]. Various studies have shown that major barriers were inadequate medical equipment and essential medicine, shortage of skilled staff, large family size, unnecessary expenditure on health care, mother and family member health literacy and so on [9,11,12].

According to the study by Sanjel et al. and in Jordan there was a significant association between age and ANC utilization [13,14]. A study conducted in Kenya found an association between parity of children and ANC utilization, [15] this study also showed similar association. This showed that if women are aged and have prior experience of delivery might be confident that they can deliver safely even without utilizing MCH services. The current study did not detect an association of education, socio-economic status, distance to the health facility, decision making power with utilization of MCH services which was contrary to the findings of many studies [16,17].

In conclusion, utilization of maternal and child health services was poor among Musahar mother and children which indicates, a serious public health concern. Program focused on marginalized community like Musahar by improving their overall status obstacles for utilizing MCHs should be removed by concerned authorities.

References

1. Bhattarai P, JJo. NHRC. Factors Associated with Use of Maternal Health Services in Nepal: Analysis of the 2016 Nepal Demographic and Health Survey. 2019; 17: 301-307.
2. Shah S, Shetty S, Singh D, Mathias J, Upadhaya A, Pandit R. JMPH. Prevalence of Undernutrition among Musahar Children Aged Between 12 To 59 Months in Urban Siraha District, Nepal. 2016; 4: 00093.
3. Paudel M, Javanparast S, Newman L, Dasvarma G. JJoH, Population, Nutrition. Health system barriers influencing perinatal survival in mountain villages of Nepal: implications for future policies and practices. 2018; 37: 16.
4. Health Mo. Nepal Demographic Health Survey. 2016.
5. Bank TW. The World Bank In Nepal. 2018.
6. Poudel R. Utilization of Maternal Health Care Services. Among Dalit Women

- of Palpa District. 2013.
7. Onta S, Choulagai B, Shrestha B, Subedi N, Bhandari GP, Krettek AJGha. Perceptions of users and providers on barriers to utilizing skilled birth care in mid-and far-western Nepal: a qualitative study. 2014; 7: 24580.
 8. Lama S, Krishna AK. IJKUMJ. Barriers in utilization of maternal health care services: Perceptions of rural women in Eastern Nepal. 2014; 12: 253-258.
 9. Khanal V, Bhandari R, Adhikari M, Karkee R, Joshi C. JIjoph. Utilization of maternal and child health services in western rural Nepal: a cross-sectional community-based study. 2014; 58: 27.
 10. Tesfahun F, Worku W, Mazengiya F, Kifle M. Knowledge, perception and utilization of postnatal care of mothers in Gondar Zuria District, Ethiopia: a cross-sectional study. 2014; 18: 2341-2351.
 11. Probandari A, Arcita A, Kothijah K, Pamungkasari EP. JBhsr. Barriers to utilization of postnatal care at village level in Klaten district, central Java Province, Indonesia. 2017; 17: 541.
 12. Sumankuuro J, Crockett J, Wang S. Perceived barriers to maternal and newborn health services delivery: a qualitative study of health workers and community members in low and middle-income settings. 2018; 8: e021223.
 13. Sanjel S, Ghimire R, Pun KJ. KUMJ. Antenatal care practices in Tamang community of hilly area in central Nepal. 2011; 9: 57-61.
 14. Abbas AA, Walker GJ. JIJoE. Determinants of the utilization of maternal and child health services in Jordan. 1986; 15: 404-407.
 15. Nzioki JM, Onyango RO, Ombaka JH. JAJoPHR. Socio-demographic factors influencing maternal and child health service utilization in Mwingi: a rural semi-arid district in Kenya. 2015; 3: 21-30.
 16. Kaphle HP, Gupta N, Shrestha N. Determinants for the utilization of antenatal care in nepal. International Journal of Medicine and Pharmaceutical Science (IJMPS). 2018; 8: 7-18.
 17. Deo KK, Paudel YR, Khatri RB, Bhaskar RK, Paudel R, Mehata S, et al. Barriers to utilization of antenatal care services in Eastern Nepal. 2015; 3: 197.