

Original Research Article

Barriers in utilization of maternal and child health services among Musahar in Dudhauri Municipality of Sindhuli district, Nepal

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ABSTRACT

Background: Maternal and Child Health remains a public health challenge in Nepal. This study explored information regarding barriers in the utilization of Maternal and Child Health services among women of Musahar community.

Methods: A cross-sectional study was carried out in Dudhauri Municipality, Sindhuli using qualitative and quantitative methods. Qualitative data were obtained from, In Depth Interview among health workers and a Focus Group Discussion among FCHVs of Musahar community. Interview was carried out using questionnaire for quantitative study among 121 mothers of under 5 children. The data was analyzed using SPSS software version 21. Chi Square test was applied to test the associations while p value <0.05 was considered significant.

Results: The average age and age at marriage of respondents were 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. Among them, 29.8 did not have ANC while 47.1 had 4 or more ANC visits, 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. Home delivery for first child was 56.2% while for last child was 33.9%. Almost 1/5th of the children were not vaccinated. Qualitative study identified social factors like negligence, family pressure, shyness, and unhealthy financial decisions as important barriers.

Conclusions: Utilization of maternal and child health services was poor among Musahar mothers and children which indicates a serious public health concern.

Keywords: Barriers, Maternal and child health, Musahar, Utilization

INTRODUCTION

According to WHO, Maternal and Child Health (MCH) Services can be defined as “promoting, preventing, therapeutic or rehabilitation facility or care for the mother and child.” 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 Utilization of MCH services is not sufficient because of different barriers in Nepal. Musahar community being a marginalized community have been

deprived of many essential facilities due to various social, financial, educational limitations.²

The aim of this study was to assess the proportion of MCH services utilization among the women and children of Musahar community and the barriers faced by them in the process of accessing these services. The qualitative study also explored the perception of service providers and Female Community Health Volunteers (FCHV) about the barriers in MCH service utilization among the respondents. The information derived from this study can

be utilized to draw the attention of local government to plan, implement and evaluate MCH service with special strategies to break the barriers prevalent in marginalized community like Musahar.

METHODS

A cross sectional study was conducted to explore the barriers of utilization of MCHS by qualitative and quantitative study from 14th May to 16th July 2019. For quantitative study, 121 women having children less than 5 years of age residing in Musahar community were selected. Musahar are a tribal community considered as Dalit community found in the Terai region of Nepal. They are famous as named by “rat eaters” which is one of the most socially and economically marginalized groups. The study was conducted in Dudhauri Municipality, Ward number of Sindhuli District which is the major residential area of Musahar Community.⁷⁻⁹ Dudhauri Municipality is in Sindhuli district of province 3 which is divided in to 14 wards. According to the data provided from Municipality office, total population of this municipality was 84,425 among them 1641 were Musahar residing in 199 households. However, under 5 years aged children were found in 121 households only. Due to the less number of study population, census was done by including all the women with child under five years of age and who were able to provide informed consent were included in the quantitative study to collect information. To prevent recall bias, questionnaire was made simple and easily understandable, interviewer was trained and enough time was provided to remember long memories. Socio-economic status of the respondents was classified by using criteria of \$1.90 per day per person given by World Bank.³ For this study, dependent variable was barrier in the utilization of MCHS while independent variables were economic factors, socio-cultural factors, availability and accessibility of MCH services and so on.

In the process of data collection, first of all, permission was taken from Municipality and came to know that Musahar are residing in ward number 7, 8 and 9. Then, Ward Chairperson of each Ward was contacted to get information about the household as well as permission to collect data. According to the information and help of local FCHVs, household of Musahar were found out. Among the all Musahar, there were 121 women having children less than 5 years were eligible to participate in the study. They were interviewed using predesignated semi structured questionnaire.

For qualitative study, In Depth Interview (IDI) was done with an Auxiliary Nurse Midwifery (ANM) who was responsible to provide MCH services to the study population as a grass root level female health worker from Dudhauri Health Post and with the Health Officer of Health Office (HO) which is a structure in between local and province level of health system of Nepal formally known as District Health Office (DHO). One Focal Group Discussion (FGD) was conducted with 6 participants

among FCHVs who were providing services in the Musahar community.

FCHVs are volunteers who provide basic level of health services in the community and selected by members of Mothers’ Group for Health to advocate healthy behavior. Interview and FGD were conducted to collect information by using the interview and FGD guideline of Mohan Poudel et al was used for qualitative study whereas semi-structured questionnaire were used for quantitative study. 4 Pre-testing of the questionnaire was done among Musahar community of Mahotari District, Bardibas. Proposal was approved by the Institutional Review Committee (IRC), Manmohan Memorial Institute of Health science (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. For the entry and analysis of quantitative data, SPSS software version 21 was used while qualitative data were analyzed through 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 were 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 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 more than half of the respondents and majority (61.2%) of them had to travel on 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%. Similarly, more than 1/4th (28.9%) of the respondents did not use iron tablet while 20.7% were not vaccinated with Tetanus Diphtheria (TD) (Table 3). 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 visit (Table 4). Home delivery decreased drastically in between the birth of first and last child of the

respondents. Skill Birth Attendance (SBA) during delivery was 62% while 1/3rd of them depend on their mother-in-laws 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 5).

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

Characteristics	N	%	ANC (%)		Inst. Delivery (%)		PNC (%)	
			Yes	No	Yes	No	Yes	No
Age (average age of respondents 24.6±5.7 years and age at marriage 16.22±2.8 years)			p=0.03		p=0.97		p=0.55	
<30 years	111	91.7	74.8	25.2	64.9	35.1	29.7	70.3
≥ 30 years	10	8.3	20.0	80.0	60.0	40.0	30.0	70.0
Age at marriage			p=0.91		p=0.23		p=0.48	
<20 years	111	91.7	71.6	28.4	63.3	36.7	29.4	70.6
≥ 20 years	10	8.3	70.0	30.0	90.0	10.0	40.0	60.0
Age at first birth			p=0.85		p=0.43		p=0.05	
<20 years	110	90.9	70.0	30.0	62.7	37.3	27.3	72.7
≥ 20 years	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<0.001		p=0.04		p=0.34	
Nuclear	84	69.4	69.0	31.0	61.9	38.1	35.7	64.3
Joint	37	30.6	73.0	27.0	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	25.0	75.0
Below poverty line	113	93.4	69.0	31.0	66.4	33.6	30.1	69.9

Table 2: Association of educational status, number of children, and distance to health institution and decision making 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	76.0	64.1	35.9	57.6	42.4	26.1	73.9
Literate	29	24.0	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	73.6	62.2	37.8	60.0	40.0	25.6	74.4
Literate	32	26.4	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	64.0	36.0	30.6	69.4
Literate	6	5.1	83.3	16.7	50.0	50.0	16.7	83.3
Number of children			p=0.005		p=0.11		p=0.70	
≤2	64	52.9	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	26.0	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	75.0	25.0	83.3	16.7	16.7	83.3
Not involve in decision making	81	66.9	69.7	39.3	62.4	37.6	31.2	68.8

Table 3: Status of ANC services utilization.

Status	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
Iron tablets consumption (n=121)		
Yes	86	71.1
No	35	28.9
TD vaccine (n=121)		
Yes	96	79.3
No	25	20.7

Major reasons behind the delivery conducted by non-health professionals were social barriers and distance to the health institution. In the social barriers, majority of them thought that there is no need to have SBA for delivery if there was no complication (Table 6). 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 7).

One out of five children 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. History of death of child was prevalent among 1/4th of mothers which was mostly during perinatal period (Table 8).

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.

Table 4: Barrier faced by respondents in the utilization of ANC services.

Factors	Frequency	Percentage	Sub categories	Frequency	Percentages
Reason of incomplete ANC checkup (n=45)					
Cultural barriers	9	11.3	Taboos	5	41.7
			Traditional healers	5	41.7
			Others	2	16.7
Social barriers	31	38.8	Family pressure	5	8.8
			Shyness	14	24.6
			No complication	15	26.3
			Negligence	23	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	15	88.2
			Large family	2	11.8
Cultural barriers	13	14.6	Taboos	10	58.8
			Traditional healers	5	29.4
			Religious beliefs	2	11.8
Social barriers	26	29.2	Family pressure	3	8.1
			Shyness	14	37.8
			No complication	11	29.7
			Negligence	9	24.3
Lack of information	20	22.5			
Long distance	12	13.5			
Attitude of health worker	1	1.1			
Others	2	2.2			

Table 5: Place of delivery, person conducted delivery and reasons of delivery conducted by SBA.

Variables	Place of birth	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
If non health personal	Mother - in- law	19	46.3
	Neighbours	19	46.3
	Others	3	7.3
Reason to deliver by SBA	Media exposure	3	3.8
	Family support	15	18.8
	Friendly behavior of HW	12	15
	FCHVs support	8	10
	Knowledge on the importance of SBA	15	18.8
	Due to complication	27	33.8

Table 6: Reasons of delivery assisted by non-health workers.

	Reasons	Frequency	Percentage	Sub categories	Frequency	Percentage
Reason to deliver by Non health worker	Economic barriers	8	11.1	Unemployment	8	100
				Taboos	15	93.8
	Cultural barriers	14	22.2	Religious beliefs	1	6.3
				Family pressure	8	30.8
	Social barriers	19	29.2	Shyness	2	7.7
				No complication	14	53.8
				Negligence	2	7.7
	Lack of information	6	6.9			
	Long distance	19	25.0			
	others	4	5.6			

Table 7: Utilization of PNC services by respondents and associated factors.

Factors		Frequency	Percentage			
PNC use (n=121)	Yes	36				29.8
	No	85				70.2
Reason of not utilizing PNC services	Factors	Frequency	Percentage	Sub Categories	Frequency	Percentage
	Economic barriers	14	8.3	Unemployment	13	92.9
				Large family	1	7.1
	Cultural barriers	16	11.25	Taboos	9	45
				Religious beliefs	1	10
				Traditional healers	9	45
	Social barriers	37	23.7	Family pressure	5	8.9
				Shyness	3	5.4
				No complication	33	58.9
				Negligence	15	26.8
	Lack of information	61	37.3			
	Attitude of HW	3	1.8			
	Long distance	28	17.2			
	others	1	0.6			

Table: 8 Child health related information

Variable		Frequency	Percentage
Vaccination to child	Yes	97	80.2
	No	24	19.8
Vitamin A (n=121)	Yes	91	82.7
	No	19	17.3
De worming (n=121)	Yes	85	77.3
	No	25	22.7
Reason of not taking de worming tablets (n=25)	Social factors	9	31
	Lack of information	9	31
	Attitude of health workers	5	17.2
	Baby sleep	3	10.3
	Sickness of child	3	10.3
Growth monitoring (n=121)	Yes	31	25.6
	No	90	74.4
Child suffer from any kind of sickness within 1 year(n=121)	Yes	104	86
	No	17	14
Type of sickness of child (n=104)	Measles	27	14.9
	Pneumonia	47	26
	Malnutrition	15	8.3
	Diarrhea	58	32.0
	Others	34	18.8
Place for check up	FCHVs	14	9.2
	Hospital	82	53.6
	Traditional healers	51	32.7
	Others	7	4.6
Loss of any child (n=121)	Yes	30	24.8
	No	91	75.2
Time of death age of child	At pregnancy	9	30
	Within 28 days	16	53.3
	28 days-1year	3	10.0
	1year-5year	2	6.7

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 experience complicated problems". FCHVs reported that "lack of education is the main reason they are not obeying and believing us and if we request them to go hospital,

they said "Why should we go to hospital, if any complication occurs then only we 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. Early marriage and early child bearing was common in study area where illiteracy and poverty also existed. 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.

Around 1/4th of women and men were illiterate in this study which was among 1/3rd of women and 1/10th of men aged 15-49 according to NDHS 2016; illiteracy was very high among men and women in Musahar community and there was no much gender gap in educational status.⁵ According to a report by World Bank, 41% of the population of Nepal was poor in 2018 which was 93.2% in the present study.⁶ Education and economic status are major determining factor for utilizing the available health services which was very low in the study population.

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 However the annual report 2074/75 of Department of Health Service showed the proportion of 4 ANC visit in province 3 was 49% which was 50% in case of National data.⁷ 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 which revealed that service utilization during pregnancy is very low among Musahar community in comparison to National data.⁵

This study showed that 64.5% of the respondent delivered in a health facility which was lesser than that of province 3 (71%) and slightly higher than national data (57%).⁴ Even though study area is in province, the service utilization among Musahar is lower than other community.³

In the present study, 70.2% did not have postnatal checkup 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 were even lower than this study which might be due to geographical diversity.⁸

Musahar mothers went to health facilities if they had complications, similarly a study showed that women and their family thought that utilization of MCH services is necessary when a complication occurs.⁹

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.¹⁰

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 which might be the effect of education and economic status.¹¹

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%).¹² 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 among 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.¹⁰ 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.^{11,13,14}

According to the study by Sanjel et al. in Jordan there was a significant association between age and ANC utilization.^{15,16} A study conducted in Kenya found an association between parity of children and ANC utilization, this study also showed similar association.¹⁷ This showed 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 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.^{18,19}

Probability sampling was not applicable due to the small number of study population which may influence the generalization of the findings.

CONCLUSION

Early marriage and early pregnancy was common among the study population. Educational and economic status of the respondents was very low. ANC, institutional delivery and PNC service utilization was poor which leads to poor maternal health status. Status of child health was also poor because of the low service utilization rate. Poor utilization of MCH services among Musahar mother and

children which indicates a serious public health concern. Sustainable development goal cannot be achieved without improving maternal and child health services. From both qualitative and quantitative studies, it shows low utilization of MCH services due to the lack of knowledge about the importance of MCH service, economic hardship, cultural barriers, negligence, distance to health institution and perception that health services are needed only in case of complications are the major barriers of MCH service utilization. Health education and awareness raising program to change the perception about the importance of MCH services and to improve maternal and child health by removing obstacles should be planned and implemented.

Overall, poor MCH service utilization due to negligence, lack of education, unhealthy financial decision, long distance to health facilities, culture and tradition leads to poor maternal and child health status in Musahar community. So, program focused on marginalized community like Musahar to improve their health status and barriers obstructing them from utilization of available services should be removed by concerned authorities.

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