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

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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 Dudhauli 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 Mushar 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 KIs 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

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.
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 Dudhahi Municipality, ward number 7, 8, 9 of Sindhu 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. Pre-testing of the questionnaire was done among Musahar community of Mahotari District, Bardibas. Proposal was approval by the Institutional Review Committee (IRC), MMHIS. 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 ANC whereas semi-structured questionnaire were used for qualitative study. Pre-testing of the questionnaire was done among Musahar community of Mahotari District, Bardibas. Proposal was approval by the Institutional Review Committee (IRC), MMHIS. 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.

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

| Characteristics | N | % | ANC | Inst. delivery | PNC |
|-----------------|---|---|-----|----------------|-----|
| Age             |   |   |     | P=0.11         |     |
| <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=0.09         |     |
| <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  |
| Occupation      |   |   |     | 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=0.04         |     |
| 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=0.76 |     |
| 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=0.009        |     |
| Illiterate      | 92| 76 | 84.1| 35.9           | 57.6| 42.4| 28.1| 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 |     |
| 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 |     |
| 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 |     |
| ≤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 |     |
| ≤ 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 |     |
| 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|

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).

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

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 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.
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 1/3 rd 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).

One out of five child was not vaccinated and children were suffering mainly from diarrhea (32%) and pneumonia (26%) among whom almost 1/3 rd seeking care from traditional healers. Almost 3/4 th 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 1/4 th of mothers which was mostly during perinatal period.

### 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**

- **Cultural barriers**
  - 9 (11.3)
- **Social barriers**
  - 31 (38.8)
- **Lack of information**
  - 18 (22.5)
- **Long distance**
  - 14 (17.5)
- **Attitude of health worker**
  - 1 (1.3)
- **Others**
  - 2 (2.5)

### 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       |

**Reasons**

| Reasons | Frequency | % |
|---------|-----------|---|
| Economic barriers | 8 | 11.1 |
| Cultural barriers | 14 | 22.2 |
| Social barriers | 19 | 29.2 |
| Lack of information | 6 | 9.1 |
| Long distance | 19 | 25.0 |
| others | 4 | 5.6 |

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

| Factors                  | Frequency | Percentage |
|--------------------------|-----------|------------|
| PNC use (N=121)          |           |            |
| Yes                      | 36        | 29.8       |
| No                       | 85        | 70.2       |

**Reasons**

| Reasons                  | Frequency | % |
|--------------------------|-----------|---|
| Economic barriers        | 14        | 8.3% |
| Cultural barriers        | 16        | 11.25 |
| Social barriers          | 37        | 23.7 |
| Lack of information      | 61        | 37.3 |
| Long distance            | 28        | 17.2 |
| others                   | 1         | 6.0 |

One out of five child was not vaccinated and children were suffering mainly from diarrhea (32%) and pneumonia (26%) among whom almost 1/3 rd seeking care from traditional healers. Almost 3/4 th 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 1/4 th 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 Dudhauli 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.

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