

Research Article

DOI: <http://dx.doi.org/10.18203/2320-6012.ijrms20161780>

Factors influencing utilization of maternal and child health services among the postnatal mothers in hilly region

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Received: 04 April 2016

Accepted: 09 May 2016

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ABSTRACT

Background: Maternal mortality is a global issue and WHO recommends the use of maternal health services to help improve the health of women and babies during pregnancy and childbirth. Use of maternal health services is an effective means for reducing the risk of maternal morbidity and mortality, especially in places where the maternal and child health (MCH) services utilization was poor. The main objective of this study was to assess the factors affecting utilization of MCH services among postnatal mothers in selected hilly areas of Uttarakhand.

Methods: The study has adopted exploratory descriptive design. The data was collected from 196 postnatal mothers within 42 days of postnatal period by administrating self-structured questionnaire in selected community areas of Pauri District, Uttarakhand. Samples were selected by using convenient and consecutive sampling technique.

Results: The present study revealed that the main reasons given by the individual women for not attending antenatal and postnatal care services that they were apparently healthy in present pregnancy, distance from MCH centers, doctors are not available in MCH centers, better services in home and lack of time due to household work.

Conclusions: The findings of this study will help the nurse-midwife who are working in community and hospital setup to understand the factors that hinder women from utilization of MCH services and provides evidence to address women's problem for ensure effective utilization of available MCH services.

Keywords: Antenatal care, Factors, Maternal and child services, Postnatal care, Utilization

INTRODUCTION

Antenatal, perinatal and postnatal services are meant to monitor and ensure the safety of pregnant women and their babies in order to prevent and reduce the incidence of maternal morbidity and mortality.² Complications in pregnancy can result from conditions that are specifically linked to the pregnant state as well as conditions that commonly arise or occur incidentally in women who are pregnant.³ Some time it will create life threatening condition for mothers as well as baby and increase maternal and child mortality rate. The incidence has shows that India contributes around 20 percent of global birth each years.⁴ The finding of the study in India shows

that 2001-2010, the mean maternal mortality rate in the study period was 302.23/100000 live births. Maximum maternal deaths (49.16%) were reported in the age group of 20 to 24 years. More deaths were reported in multiparous women (56.66%) as compared to Primiparas (43.33%).⁵ Government of India is provided MCH services before, during and after pregnancy in safe motherhood package. The use of maternal healthcare services is important for the early detection of mothers who are at a high risk of morbidity and mortality during pregnancy. According to the finding of the study in uttarakhand 2011, women who delivered at govt. hospital (75.17%).

Least percentage 29.21% women went for three or more ANC visits. Only 48.31% women consumed hundred IFA tablets and the proportion was high (79.41%) in rural women.⁶ In uttarakhand research study shows that reason for inadequate utilization of MCH services in rural area was educational level of women and wealth index have been positively associated with antenatal care and also delivery care.⁷ According to the finding of the study in Uttar Pradesh, support of household members, previous health care experiences and social networks in the village and interaction with health workers affect women's decision to seek care are factors affecting utilization of MCH services.

Regardless of physical accessibility, acceptability of maternal health services in the community emerges as critical avenue for the utilization of both maternal and child health care services.⁸ On the basis of findings of the study and record, it is suggested for achieving the national target in terms of MCH indicators more efforts are needed to improve the utilization of MCH services. Objective of the study was to evaluate the utilization of maternal and Child Health services among postnatal mothers and to find out association between factors influencing utilization of MCH services and utilization of MCH services among postnatal mothers.

METHODS

An explorative descriptive design was selected to carry out the study. The study sample comprised of all postnatal mothers within 42 days of postnatal period who attained MCH services selected in hilly areas pauri district uttarakhand from 21 December 2014 to 7 January 2015. Non probability convenient and consecutive sampling technique was used for the selection of 196 postnatal mothers who fulfilled inclusion criteria of the study. Mother who can speak and understand hindi, mothers who are willing to participate in the study included in the study and mother with diagnosis of any mental and chronic medical illness were excluded from my study. Tool used for the study were self-structured questionnaire to assess the utilization and factors affecting utilization of MCH services divided into three sections. In Section A: socio demographical questionnaire, Section B: structured checklist for utilization of MCH services and Section C: structured checklist for factors affecting utilization of MCH services.

Before beginning with the study, formal administrative permission was obtained ethical permission was taken from ethical committee and permission obtained from chief medical officer, pauri district uttarakhand for main study.

RESULTS

Finding related to socio demographic variables

Table 1: Description of the sociodemographic characteristics of the postnatal mothers.

Personal characteristics	Frequency (F)	Percentage %
Age (in years)		
16-20	30	15.30
21-25	96	49.0
26-30	64	32.7
31-35	2	1
36-40	4	2
Education		
No formal education	51	26
Primary education	33	16.9
Secondary education	52	26.50
High secondary education	40	20.40
Graduation	20	10.2
Marital Status		
Married	193	98.5
Divorced	1	0.5
Widow	2	1
Education of husband		
No formal education	39	19.9
Primary education	18	9.2
Secondary education	36	18.4
High secondary education	58	29.5
Graduation	45	23.0
Occupation		
House wife	180	91.8
Govt. employee	6	3.1
Private employee	8	4.1
Student	2	1
Number of live birth		
1	77	39.3
2	74	37.8
3	34	17.3
4	9	4.6
5 and above	2	1
Monthly family income		
>5000	99	50.5
3000-5000	77	39.3
2000-3000	16	8.2
1000-2000	4	2
<1000	0	0
Poverty		
APL	103	52.6
BPL	93	47.4
Types of family		
Nuclear family	83	42.4
Joint family	110	56.1
Extended family	3	1.5
Parity		
1	67	34.2
2	79	40.3
3	31	15.8
4	15	7.7
5 or above	4	2.0
Religion		
Hindu	190	96.9
Muslim	6	3.1
Sikh	0	0
Christian	0	0

Finding related to utilization of MCH services**Table 2: Utilization of MCH services.**

Selected MCH Services	Frequency (F)	Percentage (%)
Registration	151	77.0
ANC visits (add minimum 1 to 3 visits)	146	74.5
Urine test	135	68.9
Hemoglobin test	86	43.9
R.B.S test	63	32.1
HIV test	78	39.8
HBsAg test	45	23.0
Blood group test	80	40.8
Tab folic acid	126	64.3
Tab calcium(add minimum 1 to 100 tablets)	111	56.6
Tab iron (add minimum 1 to 100 tablets)	115	58.7
Inj t.t (add first and second both dose)	156	79.6
Institutional delivery	160	81.6
Post natal visit	121	61.7
Free transport facility	102	52.0
Immunization of baby	65	33.2
Family planning	36	18.36
Family planning counseling	60	30
Breastfeeding counseling	75	38.2
Baby care counseling	78	39.8
J.S.Y services	162	82.7

Table 1 demographic variable of sample revealed that 49% of mothers were in the age group between 21-25 years. Majority (98.5%) of mothers were married, equal proportional of percentage of mothers had completed secondary education (26.5) and no formal education (26%). Majority (91.8%) of mothers was house wives, 39.3% of mothers have one live child and 37.8% of mothers have two live child. 40.3% of the mothers were in second parity and 34.2% of the mothers were in first parity. Majority (96.9%) of the mothers were Hindu in religion.

Table 2 shows that out of 21 selected MCH services the average percentage (52.93%) was attended by 196 postnatal mothers. In that majority (82.7%) of mothers utilized the J.S.Y services, had delivered in hospital (81.6%). Most of the mothers were registered (77%), attended minimum three antenatal visits (74.5%), attended postnatal visits (61.7%), taken iron tablets (minimum 1 to 100 tablets) (58.7%), taken calcium tablets (minimum 1 to 100 tablets) (56.6%). The least percentage of the mothers had done hemoglobin test (43.9%), HIV test (39.8%), completed their babies immunization (33.2%). Whereas very less percentage (18.36%) of mothers were utilized family planning methods.

Finding related to factors influencing utilization of MCH services**Table 3: Factors influencing the utilization of MCH services among postnatal mothers.**

Factors influencing utilization of MCH services	Frequency (F)	Percentage (%)
Long distance	159	81.1
Unavailability of transport	152	77.6
Wait for long time in hospital	144	73.5
Not necessary	121	61.7
Better services in home	109	55.6
Staff are non-cooperative	112	52.1
Paper work not completed at time	113	57.7
Difficulty to understand the language	83	42.3
Doctors are not available	159	81.1
Previous history of complication	103	52.6
Lack of treatment facility	112	57.1
Difficulty in reaching the MCH centers during rainy season.	120	61.2
Health care personal not available	109	55.6
Not treat the client respectfully	112	57.1
Lack of privacy	122	62.2
Family did not allowed	77	39.3
Don't get time	92	46.9
Priority to household work	68	34.7
Custom not allowed	73	37.2
No one to accompany	103	52.6
Family pressure	88	44.9
Nobody take care of child in hospital	110	56.1
Know Knowledge about MCH services	82	41.8
More trust in TBA	46	23.5
Faith in MCH services	104	53.1
Know Source of information	117	59.7
Know Importance of MCH services	149	76.0

Table revealed that majority (81.1%) of mothers stated that long distance and unavailability of doctors were the factors which prevent the utilization of MCH services and least percentage (23.5%) of mothers stated that trust in TBA also prevent the utilization of MCH services. Most of the mothers stated that they know about importance of MCH services (76%), have faith in MCH (53.1%) and the least percentage of the mothers stated that they have knowledge about MCH services (41.8%).

Finding related to association between factors influencing utilization of MCH services and utilization of MCH services

Table 4 Depicts that there was statistically significant association found between utilization of MCH services and factors influencing utilization of MCH services in the

term of, Time (Wait for long time in hospital, p=0.02), Beliefs (Better services in home, p=0.02), Distance (unavailability of transport , p=0.02) and Availability (doctors are not available, p=0.04).

Table 4: Association between factors influencing utilization of MCH services and utilization of MCH services among postnatal mothers.

Factors influencing utilization of MCH services	Non Utilization	Utilization	χ^2	Df	P value ≤ 0.05
	F and %	F and %			
Distance					
Long distance					
No=37	12 (32.43)	25 (67.56)	3.416	194	0.06 ^y
Yes= 159	81 (50.94)	78 (49.05)			
Unavailability of transport					
No=44	14 (31.81)	30 (68.18)	4.780	194	0.02* ^y
Yes=152	79 (40.3)	73 (37.2)			
Difficulty in reaching the MCH centers during rainy season					
No=76	34 (44.73)	42 (55.26)	0.327	194	0.5 ^y
Yes= 120	60 (50)	60 (50)			
Knowledge					
Knowledge about MCH services					
No=114	54 (47.36)	60 (52.63)	0.112	194	0.7 ^y
Yes=82	36 (43.90)	46 (56.09)			
Importance of MCH services					
No=47	26 (55.31)	21 (44.68)	1.149	194	0.2 ^y
Yes=149	67 (44.96)	82 (55.03)			
Believe					
Faith in MCH services					
No=92	50 (54.34)	42 (45.65)	2.373	194	0.1 ^y
Yes=104	44 (42.30)	60 (57.69)			
More trust in TBA					
No=150	73 (48.66)	77 (51.33)	0.200	194	0.6 ^y
Yes= 46	20 (43.47)	26 (56.52)			
Better services in home					
No=87	33 (37.93)	54 (62.06)	5.018	194	0.2* ^y
Yes=109	60 (55.04)	49 (44.95)			
Not necessary					
No=75	30 (40)	45 (60)	2.241	194	0.1 ^y
Yes= 121	63 (52.06)	58 (47.93)			
Previous history of complication					
No=93	39 (41.93)	54 (58.06)	1.757	194	0.1 ^y
Yes= 103	54 (52.42)	49 (47.57)			
Time					
Paper work not completed					
No=83	35 (42.16)	48 (57.83)	1.263	194	0.2 ^y
Yes=113	58 (51.32)	53 (46.90)			
Wait for long time in MCH center					
No=52	17 (32.69)	35 (67.30)	5.402	194	0.02* ^y
Yes=144	76 (52.77)	68 (47.22)			
Don't get time					
No=104	48 (46.15)	56 (28.5)	0.289	194	0.5
Yes=92	46 (50)	46 (50)			
Privacy to house hold work					

No=128 Yes=68	60 (46.87) 34 (50)	68 (53.12) 34 (50)	0.071	194	0.7 ^y
FAMILY SUPPORT					
Family pressure					
No=108 Yes=88	49 (45.37) 44 (50)	59 (54.62) 44 (50)	0.417	194	0.5
Family did not allowed					
No=119 Yes=77	57 (47.89) 37 (48.05)	62 (52.10) 40 (51.94)	0.00	194	0.9 ^y
Costume not allowed					
No=123 Yes=73	61 (49.59) 34 (46.57)	62 (50.40) 39 (53.42)	0.068	194	0.7 ^y
No one to accompany					
No=93 Yes=103	43 (46.23) 51 (49.51)	50 (53.76) 52 (50.48)	0.216	194	0.6
Nobody tack care child in hospital					
No=86 Yes=110	36 (41.86) 52 (47.27)	50 (58.13) 58 (52.72)	0.374	194	0.5 ^y
Availability					
Lack of privacy					
No=74 Yes=122	31 (41.89) 63 (51.63)	43 (58.10) 59 (48.36)	1.38	194	0.2 ^y
Lack of treatment					
No=84 Yes=112	37 (44.04) 57 (50.89)	47 (55.95) 55 (49.10)	0.648	194	0.4 ^y
Doctor are not available					
No=91 Yes=105	37 (40.65) 58 (55.23)	54 (59.34) 47 (44.76)	4.148	194	0.2*
Health care person not available					
No=87 Yes=109	35 (40.22) 52 (47.70)	52 (59.77) 57 (52.29)	0.814	194	0.3 ^y
Source of information					
No=79 Yes= 11	43 (54.43) 51 (43.58)	36 (47.36) 66 (56.41)	1.807	194	0.1 ^y
Attitude					
Staff not cooperative					
No=84 Yes=112	37 (44.04) 57 (50.89)	47 (55.95) 55 (49.10)	0.901	194	0.4 ^y
Not treat the client respectfully					
No=84 Yes=11	35 (41.66) 59 (52.67)	49 (58.33) 53 (47.32)	1.912	194	0.1 ^y
Language barrier					
Difficulty to understand the language					
No=113 Yes=83	51 (45.13) 42 (50.60)	62 (54.86) 41 (49.39)	0.376	194	0.5 ^y

DISCUSSION

In this study, it was found that majority of mothers utilized the J.S.Y case benefits services in hilly area. It was contradictory to the finding by Vikram K, A.K. Sharma and A.T. Kannan stated that 14.5% had received cash benefits of JSY.¹³ Most of the mothers attended (add minimum three visits) antenatal visits. It was supported by Parika Pahwa, Aditya Sood that 77% of the respondents received antenatal care.^{1,14} Regarding postnatal visits most two third of mothers had attended postnatal visit when they are come for child

immunization. It was contradictory by Manish K Singh, JV Singh, that 21.14% mothers had attained postnatal visit (postnatal check-up within 6 weeks of delivery).¹⁵

Present study finding shows that two third of mothers stated that they do not feel that MCH services are necessary followed by approximately half of the mothers said that non cooperation of the staff was the reason behind not preferring institutional delivery in MCH centers. It was supported by Parika Pahwa, Aditya Sood that 53% said that, they do not feel it's necessary, followed by 42% revealed that, non-cooperative hospital

staff in MCH center respectively.^{1,16} Three fourth of mothers stated that they were waiting for long time in hospital for utilizing the MCH services. It was contradictory to the finding by Kiplagat Micah Kipronoh stated that 40% of respondent stated long waiting time in hospital.¹⁷

In present study finding shows that long distance from MCH center was the major causes of inadequate utilization of MCH services in hilly area. It was supported by Fenta melkamu stated that women were not utilized the MCH services due to long distance from health services.¹¹ Unavailability of doctors in MCH services, it was supported by Begum zenium, nurul ishlam that doctors were not presenting in MCH centers.¹⁸ Mothers and family members believe better services in home, it was supported by Onasoga A. Olayinka that husband don't believe and not acceptance the MCH services.¹⁹ Unavailability of transport from MCH centers, it was supported by Fenta melkamu that due to distance and unavailability of transport from MCH enter women were not utilized MCH services.¹¹

This finding helpful in nursing practice imperative for the nurse - midwife who are working in community and hospital setup understand the factors that hinder women from utilization maternal health care services and provides evidence to address women's problem. The main focus of nursing administration to organized seminars, workshops and others educational programmers of the staff nurses who are the health educators for improve their knowledge toward ANC and PNC services available. The finding of the study also can be used as a basic for organized educational programs for student nurse based on advance MCH services, component of MCH services. The tool and methodology used in this study would provide guidelines for further researches.

Nursing recommendations: Similar study can be undertaken with a large sample to generalize the finding. A study on knowledge, attitude and practice regarding MCH services can be undertaken. A comparative study on the knowledge of Primigravida and Multigravida mothers regarding MCH services can be conducted. A comparative study on the knowledge and practice of urban and rural mothers regarding MCH services can be done. There are some limitations of the study. As the study included retrospective, the possibility of recall bias misreporting of events was likely. There was no random selection. Self-develop structured question. Study was conducted only in selected community are of pauri district uttarakhand.

CONCLUSION

This study demonstrated that utilization of maternal health service is inadequate in hilly area in general, as clearly depicted by the major maternal health indicators

(antenatal, delivery services and postnatal) during the period of 19 days preceding the survey. The main reasons give by the individual women for not attending ANC and PNC were apparently healthy in present pregnancy, distance from MCH centers, doctors are not available in MCH centers, better services in home and lack of time due to household work. Parities were found to be positive associated with attended antenatal services, choice of delivery site and postnatal services. Utilizing antenatal care services is particularly important to the pregnant women who are most likely to be prone to developing obstetric complication. The maternal health services' need to continuously sensitize the community so that the number of mother attained the all MCH services for increased to attain the national target.

Funding: No funding sources

Conflict of interest: None declared

Ethical approval: Himalayan Institute Hospital Trust ethical committee permission was taken before commencement of the study

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Cite this article as: Joshi P, Mahalingam G, Sorte DY. Factors influencing utilization of maternal and child health services among the postnatal mothers in hilly region. Int J Res Med Sci 2016;4:2170-6.