



Factors influencing the choice of place of delivery among recently delivered women in tribal areas of district Srinagar: A cross sectional study

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Abstract

Background: Government of India has been promoting institutional deliveries through a number of programmes running across the country, which provide incentives to mothers after the delivery as well as free transport and drugs to both mothers as well their babies. Personal health seeking practices, socioeconomic and cultural factors also tend to play an important role in utilization of health care services, in addition to other factors like distance, cost, availability and quality of services. As per NFHS 4, 78.8% of pregnant women had four antenatal care visits during their pregnancy in rural areas of Jammu & Kashmir. In Jammu & Kashmir, 85.7% of births were institutional as per NFHS-4 reports. The objective of this study was to determine the factors affecting institutional delivery uptake among women in tribal areas of District Srinagar.

Methodology: A community based cross-sectional study was conducted from March, 2016 to December, 2016. By systematic sampling method, 234 women who had given birth within last two years were selected and data was collected using structured interview method. Chi-square test was used for testing independence between categorical variables.

Results: In our study, 128 (54.7%) of the study participants were below 30 years of age. Out of 234 respondents, majority 223 (95.3%) had at least four antenatal visits during their pregnancy. Majority (72.6%) of the women gave birth at home. Age, educational status, occupation, parity and number of antenatal visits were significantly related to the place of delivery.

Introduction

The 3rd sustainable development goal (SDG 3.1) has proportion of births attended by skilled health personnas as an indicator for achieving the target of reduction of global maternal mortality ratio to less than 70 per 100,000 live births between 2016 and 2030⁽¹⁾. Overall effectiveness and performance of a health system is reflected strongly by maternal mortality ratio⁽²⁾. Globally,

in 2015, the maternal mortality ratio was estimated at 216 per 100,000 live births. Among the developing nations, India contributed about 45,000 (15%) maternal deaths to global mortality rate, 2015⁽³⁾. Around 1500 women die worldwide every day from preventable causes related either to pregnancy or childbirth⁽⁴⁾. In rural areas and among poorer and less educated communities, maternal mortality is very high⁽⁵⁾. Several

pragmatic evidence advocate that the maternal and child mortality burden can be trimmed down by improving and maintaining the coverage of the institutional deliveries⁽³⁾⁽⁶⁾. Even though India has acknowledged the significance and the dire need of institutional deliveries, it still has not marginalized at grass root level. According to the National Family Health Survey (2015–16), 78.9% of the births were institutional in India⁽⁷⁾. The scenario in Jammu & Kashmir is no different. 85.7% of births in Jammu and Kashmir were institutional as per NFHS-4 reports⁽⁸⁾. In tribal areas of India as well Kashmir, home deliveries by traditional birth attendants (TBAs/Dais) are a cultural norm, where skilled attendants are mostly absent. A general established idea is that the birth of a child is completely a natural phenomenon which does not necessitate any medical assistance and should preferably be carried out at home by a traditional birth attendant (TBA/Dai) who is easily accessible, affordable and most importantly a familiar and trusted figure for the family. This mindset/approach together with low socioeconomic status, illiteracy and lack of knowledge regarding complications of childbirth, is accountable for the majority of women favoring delivery at home in rural as well as tribal areas of India and Kashmir⁽⁹⁾. As per “three delays” model given by Thaddeus and Maine, opting for an institutional delivery is a very vital pillar of the model for reducing the maternal mortality⁽¹⁰⁾. In order to deal with these factors and situations, Government of India has been promoting institutional deliveries through a number of programmes running across the country. Under the umbrella of National Health Mission, Government of India in April 2005 introduced a centrally sponsored scheme called Janani Suraksha Yojana (JSY) which integrates the cash assistance with antenatal care during the pregnancy period, institutional care during delivery and immediate post-partum period at a health centre⁽¹¹⁾⁽¹²⁾. With articulation of National Health Policy 2017, which builds on the progress made since the last NHP 2002, Indian government has pledged to

strengthen every possible attempt to attain the goal of universal coverage of institutional delivery, with the aim of improving the maternal and child care quality⁽¹³⁾. Despite all the progress and implementation of promotional programs, India is still lagging behind. Under these circumstances, this study was carried out to determine the factors affecting institutional delivery uptake among women in tribal areas of District Srinagar.

Material and Methodology

A cross-sectional, community-based study was conducted, from March, 2016 to December, 2016, to assess factors influencing the choice of place of delivery among recently delivered women in tribal areas of Block Hazratbal district Srinagar. Block Hazratbal of District Srinagar is situated about 12 kilometers from the city Centre and is under the administrative control of Department of Social and Preventive Medicine, Government Medical College, Srinagar and serves as its field practice area. As per the Block survey report of 2014 - 2015, the population of the block is about 67,010. For administrative convenience, the block has been divided into 4 health zones: Hazratbal, Harwan, Nishat and Tailbal and 12 sub centres. For this study, 234 women who had given birth within last two years and belonged to the tribal areas of Block Hazratbal were selected by systematic sampling method. After locating the selected area, a random direction was chosen taking health centre as centre point and households were visited in that randomly specified direction. In instances where the eligible subject was not found, the immediate next house was considered till the required sample size was obtained. Each eligible woman was visited at her house hold. First of all, informed consent was obtained from the participants. Objectives of the study were explained to each eligible woman in the selected household. Relevant information about their demography, socio-economic status and knowledge, practice and factors influencing the choice of place of delivery was obtained using

structured study instrument. The collected data was entered in Microsoft Excel spreadsheet. Frequencies were obtained using descriptive statistics using appropriate statistical tool for analysis. Chi-square test and Fisher's exact test were used for testing independence between categorical variables.

Results

In our study, 128 (54.7%) of the study participants were below 30 years of age, 81 (34.6%) had para one, majority (73.9%) were illiterate and majority (98.7%) were homemakers.

Table 1: Distribution of study participants as per socio demographic and Obstetric characteristics

Socio-demographic and Obstetric characteristics		N = 234	Percentage
Age group (years)	< 30	128	54.7
	30 & above	106	45.3
Parity	1	81	34.6
	2	65	27.8
	3	42	18.0
	4	19	8.1
	5+	27	11.5
Educational Status	Illiterate	173	73.9
	Primary	21	9.0
	Middle	26	11.1
	High & above	14	6.0
ANC follow up visits	4 & above	223	95.3
	< 4	11	4.7
Occupation of the subject	Not Working	231	98.7
	Working	3	1.3

Table 2: Distribution of study population as per place of delivery and reason for home delivery

Characteristics		N = 234	Percentage
Place of delivery	Home	170	72.6
	Healthcare Unit	64	27.4
Reason for opting Home delivery	Reason	n = 170	Percentage
	Attitude	72	42.3
	Trained Dai available	60	35.3
	Health facility far away	27	15.9
	Economy	11	6.5

Obstetric characteristics

Out of 234 respondents, majority 223 (95.3%) had at least four antenatal visits during their pregnancy.

Choice of place of delivery

Out of 234 study participants, majority (72.6%) of the women gave birth at home.

Table 3: Distribution and association between different variables and place of delivery

Socio-demographic and Obstetric characteristics		Place of Delivery				χ^2	p value
		Home (n = 170)		Healthcare Unit (n = 64)			
		Number	%	Number	%		
Age group (years)	< 30	77	60.2	51	39.8	22.196	<0.001
	30 & above	93	87.7	13	12.3		
Parity	1	48	59.3	33	40.7	15.453	0.004
	2	47	72.3	18	27.7		
	3	34	81.0	8	19.0		
	4	16	84.2	3	15.8		
	5+	25	92.6	2	7.4		
Educational Status	Illiterate	135	78.0	38	22.0	12.084	0.007
	Primary	14	66.7	7	33.3		
	Middle	15	57.7	11	42.3		
	High & above	6	42.9	8	57.1		
ANC follow up visits	4 & above	159	71.3	64	28.7	-	0.037*
	< 4	11	100.0	0	0.0		
Occupation of the subject	Not Working	170	73.6	61	26.4	-	0.004*
	Working	0	0.0	3	100.0		

*Fisher's exact test

Reason for choosing home as a place of delivery: For almost half of the respondents (42.3%), attitude was the reason behind home delivery. Among rest of the participants, availability of trained dai (35.3%), health care facility being far away (15.9%) and economy (6.5%) were among other reasons cited for preferring home delivery.

Association between categorical variables: Age, educational status, occupation, parity and number of antenatal visits were significantly related to the place of delivery (Table 3).

Discussion

This study investigated the factors influencing the choice of place of delivery among the recently delivered women in tribal areas of District Srinagar. Majority (72.6%) of the study participants opted for home delivery. The main reason behind the home delivery was attitude (42.3%) of the study subjects and their spouses towards the institutional delivery and availability of the local trained dai (35.5%). These findings are consistent with the results of a study conducted by Rejoice et al⁽¹⁴⁾ in Tamil Nadu, India where 69% of the study participants delivered at home. Similar findings were also observed by Tsinuel G. et al⁽¹⁵⁾ in a study conducted in Jimma Zone, Ethiopia where 71% of the women had delivered at home. Studies conducted by Rajanai et al⁽¹⁶⁾ in Nepal and Monica et al⁽¹⁷⁾ in a rural area of Punjab, India showed a little less percentage of the home deliveries among their study participants, 45% and 41 % respectively. Factors such as age, educational status, occupation, parity and number of antenatal visits had influence on the choice of place of delivery among the study participants. The choice of place of delivery was influenced by educational status of study participants. Women with no educational background are most likely to deliver at home and respondents with higher level of education are more likely to utilize the healthcare delivery services. These findings are consistent with the results of studies conducted by

Alemayehu Sayih et al⁽¹⁸⁾ in a rural area of Ethiopia and Rejoice et al⁽¹⁴⁾ in Tamil Nadu, India which reported that the educational status of study participants influences the choice of place of delivery. Higher level of education among females can explain the better awareness of the need for healthcare during birth of the child and utilization of healthcare delivery services. Consistent with finding of other studies⁽¹⁹⁾⁽²⁰⁾, this study also found that another important determinant for utilization of the institutional delivery is uptake of antenatal care services. Women who had the recommended four or above antenatal visits during their last pregnancy chose health care facility for the childbirth. This can be attributed to the advice provided by the health care workers during antenatal care resulting in the increase use of institutional delivery. Our study also showed significant association between parity and use of health care facility for the childbirth. High parity was a predisposing factor for home delivery among the study participants. These findings were consistent with the results of a study conducted in rural areas of Tamil Nadu, India by Rejoice Puthuchira et al⁽¹⁴⁾. Another study conducted in rural India⁽²¹⁾ also showed that institutional delivery is much more common for first childbirths than for subsequent childbirths.

Conclusion

Majority of the births are taking place at home despite the government support and the service component provided by the healthcare providers. Utilization of institutional delivery care service is very low in the study area. The healthcare authorities should emphasize on increasing the awareness about the importance of institutional delivery both for safety of the mother as well as the baby through health education and health promotion.

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