

Preference and Practices Regarding Place of Childbirth in the Slums of a City in Northern India

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ABSTRACT

BACKGROUND: Globally, pregnancy and childbirth claim the lives of an estimated 514,000 women each year. Most deaths (98%) occur in the developing world. Although India has made substantial progress in maternal health, it still accounts for 25% of global maternal deaths and the maternal death rate is even worse in the exploding slums of India. The study aimed to assess the preference and practices regarding the place of childbirth and to identify the factors affecting the choice among married women in the slums of Aligarh.

METHODS: A cross-sectional survey was conducted from July 2012 to June 2013 in two urban slums of Aligarh with sample of 405 women's selected using systematic random sampling. Information about the childbirth practices such as place of childbirth and reason for choosing a particular facility for childbirth was recorded along with the socio-demographic data; women's age, education, occupation,

religion, type of family, socioeconomic status and birth order. Chi square test was used to examine the differences between the groups.

RESULTS: Of 405 childbirths, 58.3% were born in a hospital. Most common reason for in-hospital or at-home childbirths were safety (47.5%) and tradition (37.3%) respectively. Among 405 women, 301 women (74.4%) received antenatal care (ANC) services while 208 women (51.4%) received adequate ANC visits (≥ 3 ANC visits). Better antenatal care utilization, higher levels of education of women and standard of living, lower birth order of the child led to increased utilization of hospitals for childbirth in a significant manner.

CONCLUSION: Home based child birth was observed to be a common practice in slum areas. Socio-demographic variables of reproductive age group women played an important role in selection of place of childbirth.

Keywords: Delivery; Pregnancy; Slum

INTRODUCTION

The 5th Millennium Development Goal focuses on improving the maternal health with targets to reduce maternal mortality by 75% between 1990 and 2015 and to achieve universal access to reproductive health by 2015 [1].

An estimated 514,000 women die each year during pregnancy or childbirth or due to complications related to them. Developing nations account for 98% of these deaths [2]. Despite making significant improvements, India still accounts for 25% of global maternal deaths [3], the condition being the worst in slums of

India.

The census 2011 identified 13.8 million households – about 64 million people – who live in city slums throughout India [4].

Based on data from eight large Indian cities analyzed in National Family Health Survey (NFHS)-3, all indicators of childbirth, be it antenatal visits to a health facility, intake of iron and folic acid tablets, tetanus immunization, childbirth in health care facility or post-natal care, were consistently better in non-slum areas than in slum areas. The differences were particularly striking in slums of Meerut, Uttar Pradesh, where less than 2 out of every 10 poor

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women delivered in a health facility [5]. Apart from who conducts the delivery, the place of delivery plays an important role in reducing maternal morbidity and mortality [6]. Consequently, current strategies to reduce maternal and peri-natal mortality in developing countries strongly recommend that deliveries take place at healthcare facilities [7]. The study aimed to assess the preferences and practices of married women of reproductive age (15-49 years) about their choice of childbirth and to identify factors associated with their choice.

METHODS

The present study is a community based cross-sectional study which was conducted at two slums, Jeevangarh and Firdaus Nagar, Aligarh, Uttar Pradesh, India from July 2012 to June 2013. These two slums were selected randomly from the list of 128 registered slum areas of Aligarh. Jeevangarh has 948 households with a population of 7326 while Firdaus Nagar has 657 households with a population of 3866. A sample size of 405 was calculated to be studied based on the following factors: an expected 32.6% prevalence of institutional child-births [8]; relative precision for the calculated result of 15%; desired confidence level (α) of 0.05; power of the study ($1 - \beta$) = 0.80; and a non-response rate of 10%.

Households were taken as sampling units and systematic sampling technique was used to select the households. In every slum, the 1st house was selected randomly using the lottery method. Subsequent houses were determined by adding sampling interval to it (4th in Jeevangarh and 5th in Firdaus Nagar). Assistance of medico-social worker (MSW), block mobilization coordinator (BMC) and community mobilization coordinator (CMC) was taken to identify the households. Married women of reproductive age (15-49 years) who had a child less than 2 years of age were included. If the house had a child less than 2 years of age but the mother was not present at the time of visit, the next house was taken. In case there were more than one married women who had a child less than 2 years of age in the household, then women with the most recent childbirth was selected. After obtaining informed verbal consent, women were interviewed using a semi-structured questionnaire. Relevant information about the childbirth practices such as place of childbirth and reason for choosing a particular facility for childbirth was recorded along with the socio-demographic data (women's

age, education, occupation, religion, type of family, socioeconomic status, birth order). Socio-economic status was assessed by using Standard of Living Index.

Data entry and statistical analysis was performed using the Statistical Package for the Social Sciences (SPSS) software, version 17.0 (SPSS, Chicago, IL). Differences in the selection of place of delivery by socio-demographic characteristics were assessed using χ^2 -test. A p-value of <0.05 was considered to be statistically significant.

RESULTS

Socio-demographic profile of study population: Majority (98.3%) of women were Muslim by religion. A large majority of the women were between 25-29 years (42.7%) and more than half (56.0%) were illiterate. Most women were housewives (98.5%). Women with 3 or more children prior to the most recent childbirth made up 39.5% of the sample. Standard of living was medium in 40.7% families, low in 35.8% and high in 23.5% families (Table 1).

Place of delivery and factors affecting it: Of the 405 childbirths, 58.3% were in a hospital setting (Table 2). Most common reasons for in-hospital or at-home childbirth were safety and security (47.5%) and tradition (37.3%) respectively (Table 2). Majority of women received at least one antenatal visit (N=301, 74.4%), although only 208 (51.4%) women received adequate number of at least 3 visits. Antenatal care utilization was found to be significantly associated with place of childbirth (Table 1) with women who had more than or equal to 3 antenatal care visits had childbirth in a hospital (Table 1). Higher levels of education of women, high standard of living, and decreasing birth order was associated with higher chance of hospital childbirth (all p-values<0.05) (Table 1).

DISCUSSION

The study was aimed to assess the preferences related to childbirth practices among women of reproductive age group along with factors associated with their choice of childbirth. The results exhibited that more than half of the deliveries were in hospital and hospital being the preferred location of delivery owing to safety reasons. Better antenatal care utilization, higher literacy rate, better standard of living and lower birth order of the child were identified as

Table 1: Factors associated with place of childbirth

Variables		Total	Place of childbirth		p value
			Home	Hospital	
		N (%)	N (%)	N (%)	
Antenatal care (n=405)					
Antenatal care not received		104 (25.7)	82 (78.8)	22 (21.2)	<0.001
Antenatal care received		301 (74.3)	87 (28.9)	214 (71.1%)	
Antenatal care visits (n=301)					
Antenatal visits less than 3		93 (30.9)	36 (38.7)	57 (61.3)	0.01
Antenatal visits more than or equal to 3		208 (69.1)	51 (24.5)	157 (75.5)	
Age of women	≤ 19 years	13 (3.2)	7 (53.8)	6 (46.2)	0.44
	20 – 24 years	111 (27.4)	51 (45.9)	60 (54.1)	
	25 – 29 years	173 (42.7)	64 (37.0)	109 (63.0)	
	30 – 34 years	79 (19.5)	33 (41.8)	46 (58.2)	
	≥ 35 years	29 (7.2)	14 (48.3)	15 (51.7)	
Education of women	Illiterate	227 (56.0)	117 (51.5)	110 (48.5)	<0.001
	Up to primary	51 (12.6)	25 (49.0)	26 (51.0)	
	Up to high school	85 (21.0)	20 (23.5)	65 (76.5)	
	Intermediate/diploma	24 (5.9)	6 (25.0)	18 (75.0)	
	Graduate and above	18 (4.4)	1 (5.6)	17 (94.4)	
Occupation of women	Working	6 (1.5)	2 (33.3)	4 (66.7)	0.67
	Homemaker	399 (98.5)	167 (41.9)	232 (58.1)	
Birth order	1	111 (27.4)	32 (28.8)	79 (71.2)	<0.001
	2	134 (33.1)	46 (34.3)	88 (65.7)	
	≥ 3	160 (39.5)	91 (56.9)	69 (43.1)	
Type of family	Nuclear	273 (67.4)	111 (40.7)	162 (59.3)	0.53
	Joint	132 (32.6)	58 (43.9)	74 (56.1)	
Standard of Living Index	Low	145 (35.8)	87 (60.0)	58 (40.0)	<0.001
	Medium	165 (40.7)	52 (31.5)	113 (68.5)	
	High	95 (23.5)	30 (31.6)	65 (68.4)	

Table 2: Reasons for home and hospital delivery

Reason	N (%)
Home delivery (N=169)	
Tradition	63 (37.3%)
Availability of trained person	48 (28.4%)
Hospital services not acceptable	18 (10.7%)
Financial	13 (7.7%)
No transport facility	4 (2.4%)
No time to go to hospital	8 (4.7%)
No body to accompany	15 (8.9%)
Hospital delivery (N=236)	
Safe and secure	112 (47.5%)
On medical advice	26 (11.0%)
Better service	43 (18.2%)
Complication in earlier pregnancy	32 (13.6%)
Close to my home	23 (9.7%)

significant factors associated with hospital delivery. We found that only slightly more than half childbirths were in hospitals. Other investigators have found similar results with reported hospital childbirths ranging from 40% to 60% [9-11]. There are regional differences in the proportion of hospital childbirths across India. A much lower preference for hospital childbirth was noted in the urban slums of northern and central India while a higher prevalence was reported in the urban slums of southern India [6, 12-20]. The difference in prevalence between different regions is likely due to the differences in socio-demographic factors; a hypothesis not tested in our study.

In the National Population Policy 2000, laid down by Indian government, the objective was to achieve 80% institutional delivery by the year 2010. In order to fulfill this, government launched various initiatives such as Janani Suraksha Yojana (JSY) and Janani Shishu Suraksha Karyakram (JSSK). These schemes provide pregnant women free of cost transport, food, drugs, investigations, blood transfusion, etc. and even provide them some cash incentive to promote institutional delivery.

But despite all this we are still lagging behind our

set objective [21]. India is a traditional country with cultural traditions deeply rooted in the society. This was reflected in our finding that the main factor given for choosing home childbirth was tradition. Similar to ours, other researchers have also found tradition as the major reason for choosing home childbirths [6, 8, 19]. While antenatal care was associated with increased chances of hospital childbirth, a significant number of women who did receive antenatal care still chose to have childbirth at home. Strategies should be aimed at encouraging women to opt for hospital childbirth during antenatal care. Although it is possible that greater utilization of antenatal care will lead to higher in-hospital childbirths, it is also possible that other non-measured characteristics of women may be responsible for choosing both greater antenatal care and in-hospital childbirth. Analysis that adjusts for potential confounders may answer this question although we did not perform such analyses.

CONCLUSION

We found a high prevalence of home childbirth in the slums of a large Indian city. We identified tradition as the largest reason for continued home childbirth. Studies aimed at identifying interventions that are effective in providing safe childbirth to all women are needed.

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