

## A study on factors influencing selection of place of delivery among pregnant women in urban slums of Bijapur city, Karnataka

M.M. Angadi\*, B.R. Hiremath and V. Sorganvi

Department of Community Medicine, BLDE University's, Shri B.M. Patil Medical College, Sholapur Road, Bijapur-586103, Karnataka, India

**Abstract:** *Background:* Maternal mortality rate is high in our country. One of the factors that play a crucial role is place of delivery. National Rural Health Mission focuses on increasing institutional deliveries (100%). Hence this study has been undertaken. *Objectives:* To study socio-cultural and economic factors which influence selection of place of delivery among pregnant women in urban slums. *Materials and Methods:* A community based, cross-sectional study was carried out in urban slums of Bijapur. Of the 20 urban slums, 7 were chosen using Simple Random Sampling technique. A door to door survey was conducted. All pregnant women were interviewed using a pre-designed questionnaire, after explaining the purpose of study and obtaining oral consent. *Results:* 108 pregnant women participated in the study. 38.9% women were illiterate. 57.4% pregnant women had at least 3 antenatal care visits. 86.1% preferred institutional delivery. Safety was the reason given by majority of pregnant women 38 (40.9%) for preferring hospital delivery. Mother's education status and socio-economic status of the family did not play any role in selecting place of delivery. *Conclusion:* Though the study revealed a high proportion of preference for institutional deliveries (86%) among pregnant women of urban slums of Bijapur city, ANC check-ups were only 27%. This will certainly have an impact on morbidity and mortality of the mother and child. Hence, appropriate action should be planned to improve ANC service utilization rate and knowledge regarding JSY by enhancing IEC activities.

**Keywords:** Place of delivery, pregnant women, urban slums.

### Introduction

Maternal mortality is the outcome of a complex web of causal factors that include social, cultural, economic, educational factors and state of health system. Though India has made substantial improvement in maternal health, it still accounts for 25% of global maternal deaths [1]. Government of India has recognized MCH services as an important thrust area for rural population and urban slum dwellers under National Population Policy 2000 which aims to achieve 80% institutional deliveries and 100% deliveries to be assisted by skilled health personnel by 2015 [2]. The World Health Organization (WHO) has declared various World Health Day themes in order to pay due attention to reduce the morbidity and mortality of women in reproductive age group, namely, 2005: Make every mother and child count. 1998: Safe Motherhood. WHO currently recommends that all births are to be assisted by a skilled attendant to address unacceptably high levels of maternal mortality and morbidity [3]. Apart from

who conducts the delivery, the place of delivery plays an important role in reducing the maternal morbidity and mortality. Number of factors plays a role in deciding the place of delivery. As no studies have been done to identify the factors which play a role in deciding place of delivery in this educationally and economically backward area, this study has been taken up.

*Objectives:* To study socio-cultural and economic factors which influence selection of place of delivery among pregnant women in urban slums.

### Material and Methods

A community based, cross-sectional study was carried out in urban slums of Bijapur. Of the 20 urban slums, 7 were chosen using Simple Random Sampling technique. A door to door survey was conducted from August to October 2011. Of the total population of 5160, pregnant women were 126. All pregnant women present during our visit were

interviewed using a pre-designed questionnaire, after explaining the purpose of study and obtaining oral consent.

**Results**

Of 126 pregnant women, 108 participated in the study. The information collected was analysed using graphs, tables, percentages and chi-square test wherever necessary.

*Demographic profile:* 54 (50%) of the pregnant women were between 21 – 25 yrs age. 42 (38.9%) women were illiterate. Majority of pregnant women 93 (86.1%) were housewives (*Table 1*). 50 (46.3%) of their husbands were in age group of 21 – 25 yrs and 39 (36.1%) were illiterate (*Table 1*). 48 families (44.5%) belonged to Class III socioeconomic status (*Table 1*).

<b>Table-1: Socio-demographic profile of pregnant women and their husbands</b>			
<b>Socio-demographic characteristics</b>		<b>No. of pregnant women</b>	<b>Husbands n=108</b>
Age	16 – 20 yrs	45 (41.7)	-
	21 – 25 yrs	54 (50)	50 (46.3)
	26 – 30 yrs	09 (8.3)	42 (38.9)
	>30 yrs	-	16 (14.8)
Education	Illiterate	42 (38.9)	39 (36.1)
	Primary	11 (10.2)	9 (8.3)
	Secondary	53 (49.1)	48 (44.5)
	PUC	1 (0.9)	4 (3.7)
	Degree	1 (0.9)	8 (7.4)
Occupation	Housewife	93 (86.1)	-
	Daily wage labourer	12 (11.1)	87 (80.5)
	Employed	3 (2.8)	18 (16.7)
	Unemployed	-	3 (2.8)
Socio-economic status *	Class II	18 (17.6)	
	Class III	48 (44.5)	
	Class IV	20 (18.5)	
	Class V	22 (19.4)	
Duration of married life	< 1 yr	24 (22.2)	
	2 – 5 yrs	47 (43.5)	
	>5 yrs	37 (34.3)	
No. of pregnancies	1	43 (39.8)	
	2	28 (25.9)	
	3	23 (21.3)	
	≥4	14 (13)	
*None of the respondents belonged to Class I. All numbers in parenthesis indicate percentage.			

*Obstetric and delivery characteristics:* Of the 108 pregnant women, 43 (39.8%) were primigravida. Majority of the pregnant women, 94 (87%) had registered their pregnancy. 62 (57.4%) pregnant women had at least 3 antenatal care visits. Regarding preferred place of delivery, 93 (86.1%) preferred hospital delivery of which 58 (62%) preferred Government hospital and 35 (37.6%)

preferred Private hospital (*Table 2*). The decision maker regarding place of delivery in majority of the women were in-laws 68 (63%) followed by self 18 (16.7%). Of the 68 in-laws, 63 (92.6%) were illiterate and the remaining 5 (7.4%) had primary level education.

**Table-2: Table showing place of delivery and reason for the choice**

Reasons	Number	Percentage
<b>Hospital Delivery (n= 93)</b>		
1. Safe	38	40.9
2. Complication	10	10.7
3. Monetary benefits	19	20.4
4. Problems in conducting delivery (cleanliness)	21	22.6
5. advice of ANM	5	5.4
<b>Home Delivery (n= 15)</b>		
1. Expensive in hospital	8	53.3
2. Tradition	7	46.7

Safety was the reason given by majority of pregnant women 38 (40.9%) for preferring hospital delivery followed by “nobody to assist delivery at home” in 12 (12.9%) women. The reasons given by women for choosing home delivery were less expensive (53.3%) and tradition (46.7%) (Table 2).

The relation between mother’s education status and place of delivery was not found to be statistically significant (Table 3).

**Table-3: Table showing relation between Mother’s education and place of delivery**

Mother’s education	Place of delivery		Total
	Hospital delivery	Home delivery	
Illiterate	36	6	42
Primary	10	1	11
Secondary	45	8	53
College	2	0	2
<b>Total</b>	<b>93</b>	<b>15</b>	<b>108</b>
Pooled chi-square test = 0.604; df =3; p =0.895			

Of the 108 pregnant women, 93 preferred institutional delivery. 70% of the women belonging to Class IV and 90.9% of the women belonging to Class V preferred institutional delivery but the relation between Socio-economic status and place of delivery was not found to be statistically significant (Table 4).

**Table-4: Table showing distribution of Socio-economic status of pregnant women based on preferred place of delivery**

Preferred place of delivery	Class II	Class III	Class IV	Class V	Total
Institutional delivery	17 (94.4)	42 (87.5)	14 (70)	20 (90.9)	93 (86.1)
Home delivery	1 (5.6)	6 (12.5)	6 (30)	2 (9.1)	15 (13.9)
<b>Total</b>	<b>18</b>	<b>48</b>	<b>20</b>	<b>22</b>	<b>108</b>
Pooled chi-square = 5.89; df = 3; p = 0.117					

**Discussion**

*Demographic profile:* 42 (38.9%) pregnant women are illiterate in our study area compared to 16.5% illiterate mothers in a study in urban slums of Nainital [1].

*Obstetric and delivery characteristics:* As per reports on Reproductive health accounts, Karnataka, at the national level 43.8% pregnant women receive adequate Antenatal care check-ups while at Karnataka state level 60.1% [4]. In Bijapur District 72% pregnant women receive three or more antenatal check-ups [5]. Similar findings were seen in our study where 30 (27%) pregnant women received adequate ANC check-ups. In another study in urban slums of Delhi,

76% respondents received antenatal care either from government hospitals (59%) or from the peripheral health post (17%), and 24% did not seek antenatal care [6]. Regarding preferred place of delivery, 93 (86.1%) preferred hospital delivery which is higher than the NFHS-3 report which states that only 38.7% deliveries occur in institutions (both Government and Private) [7]. A study conducted at Aurangabad city of Maharashtra reveals that 67.62% of deliveries were conducted in institutions [8]. In another study in the slums of Indore, only 27.9% institutional deliveries were conducted [9]. A study conducted in slums of West Bengal found that 65.3% deliveries were conducted in

institutions [10]. In majority of pregnant women (68), in-laws were the decision makers regarding preferred place of delivery. It is interesting to note that of the 68, 63 (92.64%) though illiterate preferred institution delivery which is an encouraging point observed in this study. "Hospitals are expensive" was the main reason given by 53.3% women for preferring home delivery in our study. This shows that government programme like Janani Suraksha Yojana has not yet created 100% awareness. NFHS-3 reports 21.5% women giving the same reason [7]. In a study conducted in the periurban areas of Nabinagar, tradition (41.9%) and economic reason (30.7%) were the common reason for preferring home delivery [11]. NFHS-3 report states that 39.2% women belonging to Class III deliver in institutions [7] which is less compared to our study (45.2%).

### Conclusion and Recommendations

The study revealed a high proportion of preference for Institutional deliveries (86.1%) among pregnant women of urban slums of Bijapur city. This positive attitude towards institutional deliveries has definitely helped us to achieve the goal (80% institutional deliveries) set by the Government under National Population Policy 2000. But unfortunately, ANC check-ups

were only 27%. This will certainly have an impact on morbidity and mortality of mother as well as child. The reason may be due to the fact that Anganwadi centres were established very recently in Bijapur city. Economic factors (53.1%) have played a role in preference for home delivery. This shows that knowledge about Janani Suraksha Yojana has not reached 100% of beneficiaries. Most maternal deaths can be prevented if women have access to basic medical care during pregnancy, childbirth and postpartum period [12]. Therefore, steps should be taken to enhance utilization of ANC services and Knowledge regarding JSY by enhancing IEC activities.

*Limitations of Study:* Though the study reveals the process of decision making among the urban slum dwellers of Bijapur city, it does not give us the true picture in the general population and further studies have to be taken up to give us an insight into the situation.

### Acknowledgement

We would like to acknowledge the mothers for their patience and willingness to take part in the study. We would also like to thank the health workers and anganwadi workers who helped us during the course of the study.

### References

- Pandey S, Shankar R, Rawat C, Gupta V. Socio-economic factors and delivery practices in an urban slum of district Nainital, Uttaranchal. *Indian J Community Med* 2007;32:210-1.
- Park K. "Demography and family planning." Chapter 9 in Park's textbook of Preventive and social medicine, 20<sup>th</sup> ed. Jabalpur: *M/s Banarsidas Bhanot Publishers*; 2009; 423.
- Cynthia Stanton. Steps towards achieving skilled attendance at birth. *Bulletin WHO* 2008; 86(4):241-320.
- International Institute for Population Sciences (IIPS) and Macro International. National Family Health Survey-2 (NFHS-2), 1998-1999: India: Volume I. *Mumbai: IIPS*. 2000.
- Population Research Centre. Multiple Indicator Survey, Bijapur District, Karnataka.2002;121:12-13
- Agarwal P, Singh MM, Garg S. Maternal health-care utilization among women in an urban slum in Delhi: *Indian J Community Med* 2007;32:203-205.
- International Institute for Population Sciences (IIPS) and Macro International. National Family Health Survey (NFHS-3), 2005-06: India: Volume I. *Mumbai: IIPS*; 2007; 208.
- Doke PP, Sathe PV. Social classification and maternity Practices in Aurangabad, India. *Indian J Public Health*.1991; 35:75-9.
- Agarwal S, Sethi V, Srivastava K, Prabhat K, Jha, Baqui AH. Birth Preparedness and Complication Readiness among Slum Women in Indore City, India. *J Health Popul Nutr* 2010; 28(4):383-391.
- Ray SK, Mukherjee B, Dobe M, Sengupta D, Ghosh M, Chaudhuri N. Utilization of maternal services in West Bengal. *Indian Pediatr* 1993;30:351-4.
- Khan Z, Mehnaz S, Khaliq N, Ansari MA, Siddiq AR: Poor Perinatal Care Practices in Urban Slums: Possible Role of Social Mobilization Networks: *Indian J Community Med* 2009; 34:2.
- Mother-baby package: Implementing safe motherhood in countries. *World Health Organization: Geneva*; 1994.

\*All correspondences to: Dr.M.M. Angadi, Professor and HOD, Department of Community Medicine, BLDE University's, Shri. B.M. Patil Medical College, Smt. Bangaramma Sajjan Campus, Sholapur Road, Bijapur-586103, Karnataka, India Email: angadi\_bldea@yahoo.com