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Research Article

Delivery practices in a rural area of North Karnataka – A cross sectional study

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Abstract

Background and aims: In India, various programs have been launched to provide primary health care to women and children, particularly in the rural areas. Most life threatening obstetric complications require hospital management to prevent maternal mortality. In India, most of the rural deliveries are conducted at home. Since Factors affecting non utilization of primary health centre for deliveries are not completely understood hence the present study was undertaken to study the delivery practices in the village and also to know the various reasons for non utilization of primary health centre for deliveries.

Methods and Material: This community based cross-sectional study was done during the period of October 1st 2004 to October 1st 2005 among all the women (n=63) who had delivered during this period residing in Vantamuri village which is a rural field practice area of Primary Health Centre (PHC) attached to a Medical College in South India of Belagavi District. Data was collected using predesigned and pretested questionnaire. Statistical analysis was done by using percentages and chi square test.

Results: In our study most of the study participants (53.96%) delivered at home followed by private hospitals (25.39%). In this study among the home deliveries only 23.53% were conducted by trained dais where as remaining 76.47% were conducted by others. When we enquired about reasons for not utilizing Primary Health Centre, Vantamuri for deliveries most (33.33%) of study participants told that they delivered at their mother place, some (22.80%) told that there was no proper facility at Primary Health Centre. A significant association ($p<0.001$) was found between place of delivery and early initiation of breast feeding.

Conclusion: Although most of pregnant women were registered at the Primary Health Centre, majority of the deliveries were conducted at home by untrained dais. There needs to have an end for home deliveries which can be achieved by Strengthening the information, education and communication (IEC) activities. The facilities in the Primary Health Centre should be improved both in terms of manpower and infrastructure.

1. Introduction

In India, various programs have been launched to provide primary health care to women and children, particularly in the rural areas. However, the impact of these programs has not been significant. Though there is a provision of a trained dai in every village in the national program, most of the deliveries in rural areas are still conducted at home by untrained dais.[1] In order to reduce maternal mortality, the Indian government has increased its commitment to institutional deliveries.[2] Most life threatening obstetric complications require hospital management to prevent maternal mortality. In India, most of the rural deliveries are conducted at home.[3] Also it has been reported that, among southern states, in Karnataka, the utilization of maternal services is very poor.[7]

The need to gather information about various delivery practices in villages is an important step for the development of appropriate intervention strategies. Since Factors affecting non utilization of primary health centre for

deliveries are not completely understood hence the present study was undertaken to study the delivery practices in the village and also to know the various reasons for non utilization of primary health centre for deliveries.

2. Materials and Methods

This community based cross sectional study was conducted in Vantamuri village which is a rural field practice area of Primary Health Centre (PHC) attached to a Medical College in South India of Belagavi District. All the women (n=63) who had delivered during the period of October 1st 2004 to October 1st 2005 were included as study participants .The study participants were interviewed in their households. Data was collected after taking informed consent using a standard questionnaire by house to house visit. The data was collected using predesigned and pretested proforma. A detailed history regarding place of delivery, literacy status and the place of delivery, Reasons for not utilizing Primary Health Centre at Vantamuri for deliveries were taken. The data was tabulated using MS Excel sheet and analysis was done using percentages, rates and ratios. Chi square test was used to find the association between attributes.

3. Results

In the present study among the study participants most (57.1%) were between the ages of 22-26 years followed by 27-32 years (25.6%). Majority (65.1%) were Hindus followed by muslims. Most (42.9%) of the study participants were illiterate and belonged to class V (42.9%) Socioeconomic status according to Modified B.G. Prasad's classification. Majority (60.3%) of study participants were living in joint family followed by nuclear family (36.5%).(Table No.1)

Table No 1: Distribution of the study subjects according to socio-demographic Variables (n= 63)

Study Variables	Study Participants	
Age (Years)	**No.**	**%**
15-21	11	17.5
22-26	36	57.1
27-32	16	25.6
Religion		
Hindu	41	65.1
Muslim	22	34.9
Educational status		
Illietrate	27	42.9
1-5	19	30.1
6-10	08	12.7
>10	09	14.3
Socioeconomic Status (Modified B.G. Prasad's)*		
III	23	36.5
IV	13	20.6
V	27	42.9
Type of Family		
Nuclear	23	36.5
Joint	38	60.3
Broken	02	3.2

*None of the Study participants belonged to SES Class I &II

In this study out of the 63 women who were interviewed, 62(98.41%) had registered for antenatal care. Among those who had registered, 56(90.32%) had registered in the Primary Health Centre in Vantamuri.

In our study most of the study participants (53.96%) delivered at home followed by private hospitals (25.39%), other health facilities (11.11%) and only 9.52% had their delivery at Primary health centre. (Table no.2)

Table No 2: Distribution of the study subjects according to the place of delivery (n= 63)

Place of delivery	Number	Percentage
Home	34	53.96
Private hospital	16	25.39
PHC	6	9.52
Others health facility	7	11.11
Total	**63**	**100**

In this study among the home delivaries only 23.53% were conducted by traines dias where as remaining 76.47% were conducted by others. (Table no.3)

Table No 3: Distribution of home deliveries (n= 34)

Conducted by	Number	Percentage
Trained dais'	8	23.53
Others	26	76.47
Total	**34**	**100**

In our study when we enquired about reasons for not utilizing Primary Health Centre, Vantamuri for deliveries most (33.33%) of study participants told that they delivered at their mother place, some (22.80%) told that there was no proper facility at Primary Health Centre, 14.03% of participants told that they did not knew the exact reason and there were no hospital personnel at night, 8.77% of told that they were referred to higher centers for safe delivery. (Table no. 4)

Table No.4: Distribution of the study subjects according to reasons for not utilizing Primary Health Centre, Vantamuri for deliveries (n= 57)

Reasons	Number	Percentage
Delivered at mother place	19	33.33
No proper facility	13	22.80
Did not know	8	14.03
No hospital personnel at night	8	14.03
Were referred	5	8.77
Earlier delivery at home	2	3.51
Dai was near home	1	1.75
Delivered before coming to PHC (distance)	1	1.75

In our study majority (96.15%) of the study subjects told that untrained dais delivered them by unhygienic practices that is they did not practice 5 cleans where as remaining 3.35% told that dais practiced 5 clean practices. (Table no. 5)

Table 5: Distribution of the study subjects delivered by untrained Dais'. (n=26)

Procedure (5 cleans)	Number	Percentage
Yes	1	3.85
No	25	96.15
Total	**26**	**100**

A significant association ($p<0.001$) was found between place of delivery and early initiation of breast feeding. Among the study participants those who had hospital delivery 96.5% initiated breast feeding where as those subjects who had home delivery majority (82.4%) did not iniate early breast feeding. (Table no 6)

Table 6: Distribution of the study subjects according to Association between place of delivery and early initiation of breast feeding. (n=63)

Early Initiation of breast feeding	Hospital delivery	Home delivery
Yes	28(96.5%)	6(17.6%)
No	1(3.5%)	28(82.4%)

$\chi 2$ with Yate's correction = 39.223, DF= 1, $p<0.001$

No significant association was ($p=0.045$) found between literacy status and place of delivery. (Table no.7)

Table no 7: Distribution of study participants according to Association between literacy status and the place of delivery (n=63)

Literacy status	At Home	At hospital
Illiterate	32 (60.4%)	21(39.6%)
Literate	2(20%)	8(80%)

χ^2 with Yate's correction = 4.0152, DF=1, $p=0.045$ Fisher's exact test

4. Discussion

In our study, out of 63 women, 34 (53.96%) had delivered at home and the rest of them had institutional deliveries. In a study in a rural area of Maharashtra, 85% of 2861 deliveries were conducted at home.[3] Another study conducted in West Bengal showed that only 26% of mothers delivered in institutions.[4]

Among those who had delivered at home, around 76% were conducted by untrained dais' and family members who were unaware of hygienic practices. A study conducted in rural India, out of 212 deliveries, 190 (89.6%) were conducted by untrained dais[1]. Another study showed that 55% of 278 births were conducted by untrained dais.[5]

There is a statistically significant association between literacy status of women and place of delivery in our study. A study conducted in Nigeria showed that there was a significant positive correlation between educational level of pregnant women and the level of care where they delivered.[6]

5. Conclusion

Although most of pregnant women were registered at the Primary Health Centre, majority of the deliveries were conducted at home by untrained dais. The facilities in the Primary Health Centre should be improved both in terms of manpower and infrastructure. There is also a need to educate and motivate pregnant women to undergo institutional deliveries.

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