

Original Article

Intranatal care practices in a backward village of West Bengal

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Abstract

Objectives: To find out the intranatal care practices and its impact on the women who delivered in the last five years in Rasulpur village of West Bengal. **Methods:** Community based descriptive, epidemiological cross sectional study. **Results:** One hundred eight pregnancies had occurred among the 90 mothers. Among them, 88% were married in their teens, and 60% were illiterate. 57% of the deliveries occurred in the institution, 41% at home and 2% en route to hospital. Among the 8 stillbirths, 7 were delivered by untrained birth attendants at home. Comparison of perinatal outcome between >3 and < 3 ANC visits showed that the former was much better than the latter i.e. live birth rate was 94% vs. 84%; preterm rate 2% vs. 6% and stillbirth rate 4% vs. 10%. The saddest outcome was the four maternal deaths. Among the 44 home deliveries, in 50% cases the cord was cut by old blades while in 27% it was cut by sharpened bamboo stick. **Conclusion:** Immediate attention must be given to the unsatisfactory intranatal care practices still present at the village level.

Key words: intranatal care, antenatal care, live birth, preterm birth, still birth, maternal death.

Introduction

Child birth is an important event in a woman's life. To get the best outcome of every pregnancy adequate and timely hygienic intra natal care is mandatory. Ideally all women should deliver in the hospital attended by skilled health personnel¹. However, in rural India, a significant number of deliveries still occur at home². Care should be taken that these deliveries are performed

in proper hygienic environment that is, clean hands, clean surface for delivery, clean birth canal and clean cutting of the cord³. Extreme care should be taken to train and retrain the birth attendants who are involved in the management of domiciliary delivery in the villages⁴.

Rasulpur, the place of study is a village located in Singur Block in a district of Hooghly, West Bengal, India. The village is some 15 minutes away from Nashibpur station, which incidentally is the nearest railway station. The population of the village is 1270 and this is considered to be one of the most socio economically backward villages of the Singur block. The villagers usually go to be Nashibpur sub-center for common minor ailments but many of them visit Sreerampore Hospital for hospitalization and deliveries. Sreerampore Hospital, the earmarked First Referral Unit (FRU) of the study

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area, is some 30 minutes journey by train from the Nashibpur railway station. Most of the houses are of mixed type and the housing and sanitation facilities of the village are far from satisfactory. The study aims to find out the intranatal care practices and its impact on the women who delivered in the last five years in this backward village.

Table 1. Distribution of the study population according to their sociodemographic characteristics (n=90).

Age distribution of the study population

Age	Frequency	
15-19	24	(27%)
20-24	28	(31%)
25-29	24	(27%)
>30	14	(15%)
Total	90	(100%)

Literacy status of the study population

Literacy Frequency

Illiterate	54	(60%)
Primary	19	21%)
Secondary	14	(16%)
Higher secondary	3	(3%)
Total	90	(100%)

PCI distribution of the study population

PCI (in Rs.)	Frequency	
<=250	25	(28%)
251-500	29	(32%)
501-750	26	(29%)
751-1000	4	(4%)
>1000	6	(7%)
Total	90	(100%)

· Primary = studied up to class 5, secondary = from class 6 to class 10, higher secondary = class 11 and above.

Material and Methods

The objectives of the study were – 1) To find out the

intra natal care practices in the study population, 2) To find out the outcome of pregnancies during the last five years, 3) To find out the relationship between the socio demographic profile of the study population with the intranatal care received and the outcome of the pregnancies.

The study population included all the mothers who delivered in the last five years. Child birth, being an important event in a mother’s life especially in rural India, chances of recall bias was considered to be minimum. The study spanned over a period of six months (15th February 2006 to 15th August 2006). The tools used in the study were pre-designed, pre-tested semi structured questionnaire and past health records if available. A house to house visit was conducted and all the mothers who delivered in the last five years were questioned. Informed consent of all the mothers who were queried was also taken. Six mothers who refused to participate were excluded from the study. In case of the death of mothers during antenatal period or child birth in the last five years, their family members or neighbors was queried. The variables used in the study were age, age at marriage, per capita income, literacy status of the mothers, pregnancy outcome, mode of delivery, place of delivery, person conducting the delivery, instrument used in cord cutting and use of boiling water for cleaning instruments in home deliveries.

Discussion

There were 90 mothers, and the total pregnancies during the last five years were 108. Each pregnancy was considered separately. The study population was relatively young since 85% of them belonged to the age group of below thirty years and 88% of them were married before they were eighteen years old. Illiteracy and poverty were rampant since 60% of the mothers were illiterate and 50% of them belonged to families having a per capita income of less than five hundred rupees per month. Out of the 108 pregnancies 44 (41%) were domiciliary while 62 (57%) were institutional and 2 (2%) births occurred in the train on route to the hospital. The above seems to be slightly better when compared to NFHS II data of rural Bengal (1998-99) with figures of 69% home deliveries and 31% institutional deliveries⁵. In this study it was observed that with the increase in literacy there was increase in institutional deliveries and decrease of home deliveries. Again, deliveries in the private set up were found to increase with the increase in literacy. In the illiterate group, it was found

Table 2. Distribution of pregnancies according to literacy and different intranatal care practices (n=108).**Literacy and place of delivery**

Literacy status	Home	Hospital	Private	On road	Total
Illiterate n=64	40 (63%)	22 (34%)	0	2 (3%)	64 (100%)
Primary n=23	4 (17%)	19 (83%)	0	0	23 (100%)
Secondary n=18	0	12 (67%)	6 (33%)	0	18 (100%)
Higher secondary n=3	0	0	3 (100%)	0	3 (100%)
Total	44 (41%)	53 (49%)	9 (8%)	2 (2%)	108 (100%)

Literacy and person conducting the delivery

Literacy status	Delivery by untrained dai n=30	Delivery by trained dai n=14	Delivery by doctor/nurse n=44	Failed attempt by dai at home-delivered by doctor n=20	Total
Illiterate	29 (45%)	11 (17%)	10 (15%)	14 (23%)	64 (100%)
Literate	1 (2%)	3 (7%)	34 (77%)	6 (14%)	44 (100%)
Total	30 (28%)	14 (13%)	44 (14%)	20 (18%)	108 (100%)

Table 3. ANC visit and pregnancy outcome.

ANC visits	Live births n=95	Preterm births n=5	Still births n=8	Total n=108
<3 ANC visits	51 (84%)	4 (6%)	6 (10%)	61 (100%)
>=3 ANC visits	44 (94%)	1 (2%)	2 (4%)	47 (100%)
Total	95 (88%)	5 (5%)	8 (7%)	108 (100%)

Table 4. Place of delivery and pregnancy outcome.

Place of delivery	Live births	Preterm births	Still births	Total
Home	39 (89%)	3 (7%)	2 (5%)	44 (100%)
Hospital	33 (94%)	1 (3%)	1 (3%)	35 (100%)
Home+Hospital	13 (72%)	1 (12%)	4 (22%)	18 (100%)
Private	9 (100%)	0	0	9 (100%)
On road	1 (50%)	0	1 (50%)	2 (100%)
Total	95 (88%)	5 (5%)	8 (7%)	108 (100%)

Table 5. Profile of maternal mortality in the study population (n=4).

Causes of maternal death	Number of maternal deaths	ANC visits	Literacy status	PCI in Rs.	AGE at marriage (years)	Full course of TT	Cord cutting
APH	1	1	Primary	<251	16	Yes	New blade
Obstructed labor	1	1	Illiterate	251-500	14	No	Bamboo stick
PPH	2	0 in both case	Illiterate in both cases	<251 in both cases	14 years & 16 years respectively	No in both cases	1 bamboo stick, 1 new blade

Table 6. Domiciliary intranatal care practices among persons conducting the delivery (n=44).

Person conducting delivery and instrument used in cord cutting

Person conducting delivery	Cord cutting by bamboo stick n=12	Cord cutting by old blade n=22	Cord cutting by new blade n=10	Total
Trained birth attendant	0	4 (29%)	10 (71%)	14 (100%)
Untrained birth attendant	12 (40%)	18 (60%)	0	30 (100%)
Total	12 (27%)	22 (50%)	10 (23%)	44 (100%)

Person conducting delivery and use of boiled water

Person conducting delivery	Instruments not washed n=23	Washed with water not boiled n=8	Washed in boiling water n=13	Total
Trained dai n=14	0	5 (36%)	9 (64%)	14 (100%)
Untrained dai n=30	23 (77%)	3 (10%)	4 (13%)	30 (100%)
Total	23 (52%)	8 (18%)	13 (30%)	44 (100%)

that 63% of the deliveries were domiciliary, 34% were institutional and 3% were road deliveries. The figures are slightly better when compared to NFHS II data which depicts around 73% of home deliveries and 27% institutional deliveries in the illiterate group⁵. All the mothers who delivered in the private set up were educated up to secondary level or above. In the illiterate group, more deliveries were conducted by untrained birth attendants than trained birth attendants (45% vs 17%). In the literate group, majority of the deliveries (77%) were conducted by doctors/nurses at an institution. Since a large proportion of the deliveries in the illiterate group were conducted by untrained birth attendants, the number of failed attempts to deliver at home were also more in the illiterate group (23%) as compared to the literate group (14%). Overall, it

was found that 59% of the deliveries were performed / attempted by TBA while 41% were performed by doctors/nurses. These figures are slightly better when compared to NFHS II figures of 35% deliveries being conducted by doctor /nurse / ANM /VHG / midwife⁵. However, the room for improvement still remains vast. Outcome of the 108 pregnancies in the last five years shows that there was wastage of pregnancy, eight stillbirths, while five babies were born preterm (Figure I). Pregnancies associated with more than three ANC visits were associated with better pregnancy outcome than those with less than three ANC visits i.e. live births were 94% vs. 84%, still births were 4% vs. 10%, while preterm births were 2% vs. 6%. Institutional deliveries were definitely associated with better pregnancy outcomes. In case of the deliveries

on the way, 50% had resulted in still birth while 22% of the deliveries unsuccessfully attempted at home had resulted in still births. Majority of the institutional deliveries both government (94%) and private (100%) resulted in live births.

The saddest outcome was the reported deaths of four mothers who died during childbirth in the last five years. Though maternal mortality is technically defined as the total number of female deaths due to complications of pregnancy, childbirth or within forty two days of delivery from puerperal causes, this data, in spite of a lot of effort could not be collected by the researcher. From this study population of such poor socioeconomic state especially with such bottom low level of female literacy it was difficult to elicit relevant answers to questions pertaining to maternal mortality ratio like whether a woman died when she was pregnant, whether the death occurred within the stipulated forty two days of birth, whether the death was due to a complication of pregnancy or child birth. So to avoid bias, only satisfactorily collected information from the relatives and friends regarding those deaths that happened only during child birth were documented. Among the four mothers who had died while delivering their babies, clearly the ANC and child birth practices were far from satisfactory. Moreover, three of the four dead mothers were illiterate and all of them were very poor and were married in their teens. All the four cases of maternal mortality during child birth were preceded by less than three ANC visits and only one of them had received the full dose of tetanus toxoid. Out of the four maternal deaths, two deaths occurred due to PPH following domiciliary delivery while one delivery was tried at home by an untrained birth attendant and then sent to the hospital where she died following obstructed labor. Only one mother died following an institutional delivery due to APH. Sharpened bamboo sticks were used to cut the umbilical cord in both the domiciliary deliveries. Only one baby had survived while the babies of the other dead mothers were either stillborn or died just after birth.

As regards cord cutting in home deliveries, the trained traditional birth attendant used new blade in 71% of the cases while none of the untrained birth attendants had ever used a new blade to cut the cord. They had either used old blades (60%) or sharpened bamboo sticks in an alarming 40% cases. Overall only 23% of the cord cutting was done with new blade. Clearly safer practices were performed during cutting of the cord by the trained birth attendants, though a considerable proportion of them (29%) still practiced unsafe intranatal

care i.e. use of old blades for cord cutting. As regards washing with boiled water while conducting the delivery, the trained attendants used boiled water in more cases than the untrained birth attendants (64% versus 13%).

Conclusions

Obviously the intranatal care of the women in the villages is pathetic and a holistic approach for its improvement is the need of the hour. Transport facilities to the nearest institution need to be improved with immediate repair and building of roads, otherwise the timely transfer of emergency patients will always be impeded. Training and retraining of untrained and trained attendants is urgently needed to do away with the present poor intranatal care practices. The most alarming event as observed in the study was cutting of the cord with bamboo stick in many cases. This is totally unacceptable and immediate steps should be taken to ban such practices in the village. IEC for high quality child bearing practices must be imparted to the health providers, mothers and the public.

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