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Original Research Article

Intranatal and postnatal care practices among married women of reproductive age group: a community based cross- sectional study in the rural area of Surendranagar district

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ABSTRACT

Background: Intra natal care means care taken during delivery. This consists of taking care of not only the mother but also the newborn at the time of child-birth. Appropriate delivery care is crucial for both maternal and perinatal health. Increasing skilled attendance at birth is a central goal of the safe motherhood and child survival mission. Postpartum care aimed at complication-free puerperium and a healthy baby. There is a high risk of mortality for both the mother and her baby in the immediate period around birth. High quality intranatal and postnatal care is the important way to reduce the maternal morbidity and mortality. Utilization of intranatal and postnatal services is poor in the rural areas, which ultimately lead to increased maternal & child morbidity and mortality.
Methods: The study was carried out among married women of reproductive age group. Pre-designed and pretested Performa was used to obtain the information from participants. It was community based cross - sectional study. All the collected data were analysed by applying appropriate statistical tests. The data were analysed by statistical package for social sciences (SPSS).
Results: A total of 353 women were included in the study. Majority (86.97%) of women utilized health facility either government or private for their deliveries. Significant difference was observed between literacy status as well as socio economic class and utilization of institutional facility for the place of delivery. More than half women i.e. nearly 56% had not availed postnatal care services.
Conclusions: Percentage of institutional deliveries as well as deliveries attended by skilled birth attendant was quite better. The most common reason for not availing the intra natal and postnatal services was found to be lack of knowledge regarding importance of these services on the outcome of delivery.

Keywords: Intranatal, Postnatal, Health care services, Cross- sectional, Reproductive age group

INTRODUCTION

One of the important thrusts of the RCH programme is to encourage deliveries in proper hygienic conditions under the supervision of trained health professionals.[1] The provision of delivery care in the public health institutions is one of the components of the RCH programme. Supervision and care from skilled professionals during delivery is important to achieve Millennium Development Goal-5 which aims to reduce the maternal mortality ratio by three-quarters between 1990 and 2015.[2]

The place of delivery is a crucial factor which affects the health and well-being of mother and newborn. The

decision about place of delivery is mainly influenced by social and economic factors.[3] Important thrust of the RCH programme is to encourage deliveries in proper hygienic conditions under the supervision of trained health professionals. Major factor contributing to high maternal morbidity & mortality during delivery was found to be unclean or unhygienic delivery practices. Clean delivery (clean hands, clean ligature, clean surface, clean cord-stump, clean razor blade) means conducting delivery under aseptic precautions and safe delivery means causing minimal damage to the mother.[4] To observe five cleans at home deliveries, the mother during the last antenatal check-up, is given a 'disposable delivery kit' (DDK) by the Female Health Worker. Observing five cleans helps to conduct delivery under aseptic precautions, which will prevent infections like neonatal tetanus, ophthalmia neonatorum and puerperal sepsis, thereby reducing IMR and MMR.

However in India, about 60% of the deliveries in rural areas still occur at home. Births in health facilities are about equally divided between those that take place in a private health facility and those that take place in public institutions (such as government-operated district, tehsil/taluk, town, or municipal hospitals, and Primary Health Centers). Two-thirds of deliveries in urban areas and 29 percent of deliveries in rural areas take place in health facilities as per NFHS 3.[5] There are medical/obstetric conditions during a pregnancy when the chances of a complication are increased, and a home delivery may be risky and potentially life-threatening. Under such conditions, we need to explain the woman why the delivery needs to be at a facility level only and strongly advise her to deliver only in an institutional setting.[6]

One half to two third of all maternal deaths occur in the postpartum period, especially in the first 24 hours. The postpartum period, despite its heavy toll of deaths, is often neglected. Within this period, the first week is most prone to risk. About 45% of postpartum maternal deaths occur during the first four, and more than two thirds during the first week.[7] The post natal period offers a window of opportunity to ensure reduction in maternal and infant mortality so as to achieve the millennium development goals 4 and 5.[8] In developing countries, over 70% of all babies born outside the hospital do not receive any postnatal care.[9]

Understanding of the factors affecting the utilization of Intranatal and postnatal care services is very essential. Correct identification of responsible factors is necessary to increase the acceptance/utilization rates of services provided by the government. Therefore, the present study was carried out in the rural area of Surendranagar district with the following objectives: To find out the utilization pattern of intranatal & postnatal healthcare services, to identify social factors associated with utilization and to assess the reasons for non-utilization of services.

METHODS

Field practice area of Rural Health Training Centre (RHTC) of C. U. Shah Medical College, Surendranagar was selected for recruitment of study participants. A cross-sectional survey including 353 married women of reproductive age group was carried out using Pre designed & pre-tested questionnaire. Married women of reproductive age group were interviewed on literacy status, socio-demographic profile, educational status of their partners, details regarding place of delivery, birth attendant, reasons for non-utilization of services, history regarding Intranatal & Postnatal complication, Postnatal care givers, etc. Questionnaire was read out to the mothers and relevant information also collected from their antenatal card. To reach the adequate size two or three visits were made to those who could not be contacted in the first visit. Eligible women who had not given consent, showed non co-operation as well as post-menopausal women were excluded from the study. Ethical clearance for conducting the study was taken from Institutional Ethics Committee and Scientific Review Committee. Informed consent was obtained from all the mothers interviewed. Data was collected by trained investigators. Data collected as such was compiled, coded and analyzed using SPSS and expressed in percentage. Chi-square test was used to find out association between variables. 'P' value less than 0.05 was considered statistically significant.

RESULTS

A total of 353 women were surveyed during the study period. Majority of them i.e. 146 (41.36%) were between 20-24 years followed by 112 (31.73%) between 25-29 years, 47 (13.31%) between 30-34 years, 29 (8.22%) were in the age group of 35 years or more. Only 19 (5.38%) women were in the age group of 15-19 years as shown in Table 1.

Table 1: Age group of study participants (n=353).

Age group (years)	Numbers	Percentage (%)
15-19	19	5.38 %
20-24	146	41.36 %
25-29	112	31.73 %
30-34	47	13.31 %
≥ 35	29	8.22 %
Total	353	100.0 %

On analyzing the educational status, it was seen that most of the women i.e. 156 (44.19%) were illiterate, 27 (7.65%) were just literate (who can read & write but not completed primary education), 86 (24.36%) had education up to primary, 39 (11.05%) had education up to secondary (SC), 26 (7.37%) had education up to higher secondary (HSC) and only 19 (5.38%) were graduated & had education above that. Data regarding their husband's education revealed that 22.10% (78) were educated up to

primary, 20.96% (74) were illiterate, 26.63% (94) were educated up to secondary (SC), 5.95% (21) had education up to higher secondary and 7.93% (28) were graduated or had education above that as shown in Table 2.

Table 2: Educational level of women and their husband (n=353).

Educational Status	Women	Husband
	Number (%)	Number (%)
Illiterate	156 (44.19%)	74 (20.96%)
Just literate	27 (7.65%)	58 (16.43%)
Primary	86 (24.36%)	78 (22.10%)
Secondary	39 (11.05%)	94 (26.63%)
Higher secondary	26 (7.37%)	21 (5.95%)
Graduate & above	19 (5.38%)	28 (7.93%)
Total	353 (100.0%)	353 (100.0%)

Uday Pareek classification was used to categorize study participants according to their socio-economic class. It was seen that 4.82% (17) women were in the upper (I) socioeconomic class, 17.28% (61) women were in the upper middle (II) socioeconomic class, 10.48% (37) were in the lower middle (III) socioeconomic class, 36.54% (129) were in the upper lower (IV) socioeconomic class and 30.88% (109) were in the lower (V) socioeconomic class as shown in Table 3.

Table 3: Socio- economic class of study participants (n=353).

Socio-economic class	Numbers	Percentage(%)
Upper i	17	4.82%
Upper middle ii	61	17.28%
Lower middle iii	37	10.48%
Upper lower iv	129	36.54%
Lower v	109	30.88%
Total	353	100.0%

Out of 353 women, 51.84% & 35.13% women utilized government & private health facility respectively for their deliveries, whereas it was unfortunate to note that 13.03% deliveries were conducted at home. Study showed that 68.56% deliveries were attended by doctors, 18.41% were attended by ANM/Nurse/Trained Birth Attendant (TBA), whereas 13.03% deliveries were attended by Untrained Birth Attendant (UTBA) or relatives as shown in Figure 1 and 2.

Significant difference was found so far as the literacy status of both the partners & socio-economic class of family were concerned. There is a positive association between education of both the partners & the place of delivery. Out of 46 women who delivered at home, around 73% were illiterate. Similarly husband's education also had a significant impact on the place of delivery. Out of total women who utilized intra natal services, only about 13% had an intra natal complication as compared to nearly 26% of women who had not utilized the services as shown in Table 4 and 5.

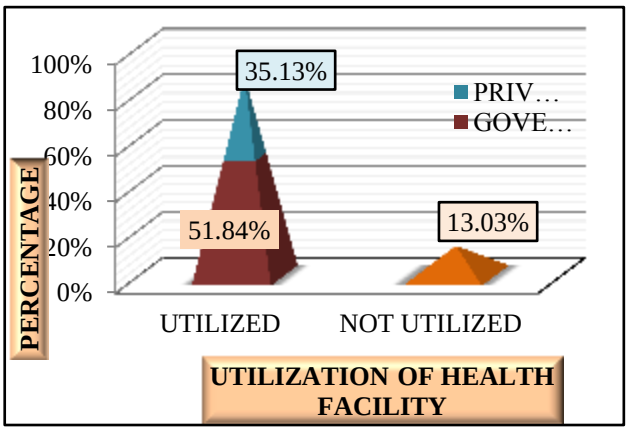

Figure 1: Utilization of health facility for delivery (N=353).

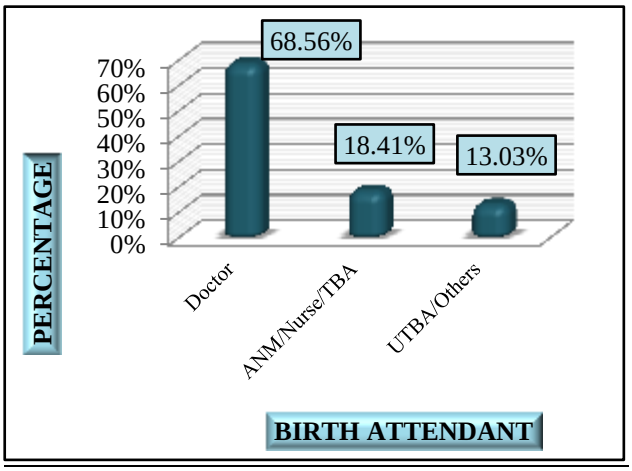

Figure 2: Distribution of women according to birth attendant (n=353).

The most common reason (35.85%) for not availing the intra natal services was found to be lack of knowledge regarding importance of these services on the outcome of delivery or financial problems followed by tradition (26.42%), refusal by the family members (16.98%), poor quality of services at the health facility (11.32%) and transport problem in case of around 6% of women as shown in Table 6.

Among 353 total women, more than half i.e. nearly 56% had not availed postnatal care services. About 46.47% literate women had utilized PNC services as compared to 42.08% of illiterate women but the difference was not significant statistically. The present study showed that 24.93% women availed PNC from doctors, 11.61% from ANM/Nurse/TBA, whereas 7.65% women availed postnatal care from UTBA/others as shown in Table 7 and 8.

Table 4: Place of delivery and its association with literacy status of both partners & socio-economic class of family (n=353).

Socio-demographic variable	Place of delivery		Statistical Values
	Home	Institution	
	Number (%)	Number (%)	
Literacy status of women			
Illiterate	34 (18.58%)	149 (81.42%)	x^2 = 10.321
Literate	12 (7.06%)	158 (92.94%)	P < 0.05
Literacy status of husband			
Illiterate	27 (20.45%)	105 (79.54%)	x^2 = 10.252
Literate	19 (8.60%)	202 (91.40%)	P < 0.05
Socio-economic class			
Upper (i&ii)	04 (5.41%)	74 (94.59%)	x^2 = 5.518
Lower (iii,iv&v)	42 (18.03%)	233 (81.97%)	P < 0.05
Total	46 (13.03)	307 (86.97%)	353 (100%)

Table 5: Utilization of intranatal services and intranatal complication (n=353).

Intranatal srvices	Intranatal complication		Statistical Values
	Absent	Present	
	Number (%)	Number (%)	
Utilized	265 (86.31%)	42 (13.68%)	X^2 = 4.752 P < 0.05 Or = 2.23 (1.07 – 4.64)#
Not utilized	34 (73.91%)	12 (26.09%)	
Total	299 (84.70%)	54 (15.30%)	

Table 6: Reasons for non-utilization of intranatal services (n=46).

Reasons*	Numbers	Percentage
Cost too much/lack of knowledge	19	35.85%
Health facility far/transport problem	03	5.66%
Poor quality of services	06	11.32%
Family did not allow	09	16.98%
Tradition	14	26.42%
Any other	02	3.77%

*Multiple reasons

Table 7: Literacy status of women and utilization of postnatal care services (n=353).

Literacy status of women	Postnatal care services		Statistical Values
	Availed	Not availed	
	Number (%)	Number (%)	
Literate	79 (46.47%)	91 (53.53%)	X^2 = 0.69 P > 0.05
Illiterate	77 (42.08%)	106 (57.92%)	
Total	156 (44.19%)	197 (55.81%)	

Table 8: Distribution of women according to postnatal care givers (n=353).

Postnatal care	Numbers	Percentage(%)
Not received	197	55.81%
Doctor	88	24.93%
Anm/nurse/tba	41	11.61%
Utba/others*	27	7.65%
Total	353	100.0%

*Others include relatives, neighbours etc.

Out of 37 women who had complication during postnatal period, nearly 27% women had availed health services from government health facility and 16.21% from private set up. Majority i.e. 56.76% women did not seek any medical health services for their postnatal problems as shown in Figure 3.

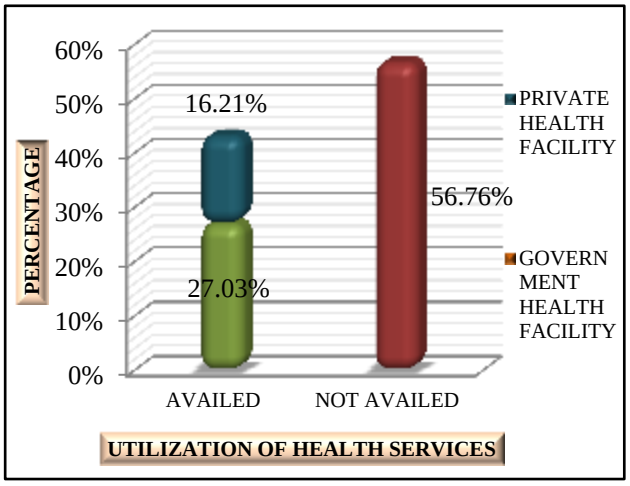

Figure 3: Postnatal complication and availing the health services (n=37).

DISCUSSION

The present study informs major findings based on analysis of data relating to utilization pattern of intranatal and postnatal health care services and other aspects germane to the objectives of the study.

Present study indicated positive association of literacy status of women, literacy status of husband & socio-economic class with the place of delivery. Chauhan et al also observed positive association between women's education & place of delivery.[10] Pandey et al also found significant association between place of delivery & socio-demographic factors like education of women, socio-economic class. Similar to present study, Gupta et al in their study also found that husband's education had also an impact on the place of delivery.[3,11]

Skilled attendance during childbirth is among the most crucial factor for maternal and neonatal survival. The present study showed that 68.56% deliveries were attended by doctors, 18.41% of the deliveries were attended by ANM/nurse/trained birth attendant whereas nearly 13% deliveries were attended by untrained birth attendant or relatives. As per NFHS 3, 48.8% births were assisted by doctor / nurse / LHV / ANM / other health personnel.[12] According to DLHS 3, 47% deliveries were institutional.[13] Around 74% of the deliveries were attended by TBA as per study of Pandey S et al.[3] A high level of institutional deliveries in present study may be due to availability of health facility nearby within 2 kms.

In a study conducted by Punia et al**,** 35.58% mothers believed that institutional delivery was not necessary, the other reasons were, cost too much (12.5%), transport problem (9.61%) and poor services in govt. hospitals (5.76%) which were nearly similar to present study.[14]

The days and weeks following childbirth – the postnatal period – is a critical phase in the lives of mothers and newborn babies. Yet, this is the most neglected time for the provision of quality services.

PNC components like abdominal examination, breastfeeding advice, family planning advice, baby care advice etc. were considered in the present study. The study showed that nearly 56% of mothers did not avail postnatal care. 24.93% women availed PNC from doctors, 11.61% from ANM/Nurse/TBA whereas 7.65% from UTBA. As per DLHS 3 & NFHS 3**,** 49.7% & 36.8% women had availed postnatal care within 2 days to 2 weeks.[12] A study conducted in Gandhinagar district of Gujarat by Puwar et al revealed that nearly 67% of women had not availed PNC and among women who availed PNC, majority availed from ANM/AWW.[15]

Percentage of institutional deliveries was better when compared with DLHS 3. Deliveries attended by skilled birth attendant were quite better as more than three forth of deliveries were attendant by trained birth attendant. Literacy status of women & husband and socio-economic class were found to be positively related to utilization of services.

CONCLUSION

The main reason for non-utilization of services was found to be unawareness. Utilization of intranatal services had also an impact on the development of complication. Women who did not avail institutional intranatal services had faced more complications as compared to women who had utilized full package of services. The grass root level link workers like ASHA/ANM and others were responsible for imparting knowledge in majority of the participants and they were responsible for the selection of place of delivery also. Hence it clearly emphasizes the need to mobilize and motivate these link workers for better delivery of services and information. IEC activities with emphasis on government health services focusing on maternal and child health should be strengthened.

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