ORIGINAL RESEARCH PAPER

Volume-9 | Issue-3 | March-2020 | PRINT ISSN No. 2277 - 8179 | DOI : 10.36106/ijsr

INTERNATIONAL JOURNAL OF SCIENTIFIC RESEARCH

UTILIZATION OF MATERNAL HEALTH CARE SERVICES IN A BLOCK OF BANKURA DISTRICT IN WEST BENGAL: A CROSS- SECTIONAL STUDY

Community Medicine

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ABSTRACT

Introduction: Pregnancy is a physiological process but it may become a life threatening condition in absence of proper medical care. Current maternal mortality rate in India is 132 per 100,000 live births. Mothers and children constitute an important and priority group especially India. The deprivation of women's health can be recognized in the field of reproductive health. Maternal health care service is a potentially most effective health intervention for preventing maternal morbidity and mortality in particular places where the general health status of women was low. With this aspect objective of this study were as follow: To study the socio-demographic characteristics of recently delivered mothers of Gangajalghati block. To find out the utilization of antenatal, intranatal and postnatal care services among the study subjects.

Material &Methods: Community based cross-sectional study conducted among 420 women who had delivered and completed puerperium period in last one year over a period of 12 months. From 30 sub- centres in this block, 14 mothers were selected from each one.

Results: Mean age of study women 22.5 ± 3.6years, range 17- 41years. Mean age at marriage and Mean age at first pregnancy of study women were 18.1± 1.5 years (range 15-29years) and 19.4 ± 2.0 years (range 16-35years) respectively. Antenatal registration was done 78.3% of study women within 12 weeks of gestation. Among the Multipara spacing of birth (>3yrs) was adequate in majority of the study women i.e. (57.4%). Four antenatal visits were done by of most of the study women (79.4%). However 16.7 % of study women delivered at home. Four postnatal visits were done only 42.4 % of study women while 5.6% of study women had not received any postnatal visits.

Conclusion: This study revealed that antenatal services had taken most of the study subjects but still 16% of women did not availed the institutional delivery. Less than half of women were received adequate post natal services. Recommended for improvement of institutional delivery as well as all mothers received the adequate post natal services at the block.

KEYWORDS

Antenatal, Intranatal, Postnatal, Puerperium, Multipara

INTRODUCTION

Pregnancy is a physiological process but the course of pregnancy may be life threatening, so that requires adequate medical care. India accounts for a single country about one-fourth of all pregnancy and has the highest burden of maternal mortality worldwide. [1] Trend in maternal mortality 1990—2010 India ranked 126 out of 180 countries when countries are arranged in ascending order on MMR.[2] Current maternal mortality rate in India is 132 per 100,000 live birth.[3] Addressing the importance of the issue, the United Nations focused on improving maternal health in the Millennium Development Goals to reduce Maternal Mortality Ratio (MMR) by 75% percent during 1990–2015.[4] More over adolescent pregnancies have been consistently associated with increased risk of adverse health outcomes both mother and baby.[5] Health is a fundamental human right but unfortunately it is not met yet as many countries, and especially in developing world.[6] Every minute a woman dies as a result of pregnancy or childbirth. Thus, maternal mortality continues to be a major public health problem. Mothers and children constitute an important and priority group especially in developing countries like India where, their numbers , vulnerability to morbidity and mortality (constituting as special risk group) and amenability to prevention of ill health and mortality makes them candidate for special attention.

The deprivation of women's health can especially be recognized in the field of reproductive health. Protection of women's reproductive health has often not been a priority for governments and women face many barriers when wanting to utilize reproductive health. The low uptake of maternal health care, which falls under reproductive care, demonstrates the need for services that are more accessible for women, especially those that are part of low socioeconomic groups.

Maternal health care service is potentially one of the most effective health interventions for preventing maternal morbidity and mortality in particular places where the general health status of women was low. This study was conducted to assess the utilization of maternal health care services at Gangajalghati block in Bankura district, West Bengal. With this aspect

Objectives of this study were as follow:

1) To study the socio-demographic characteristics of recently delivered mothers of Gangajalghati block
2) To find out the utilization of antenatal, intranatal and postnatal care services at Gangajalghati Block

MATERIALS & METHODS

It was a community based descriptive study with cross-sectional design. The study was conducted at Gangajalghati block of Bankura district, West Bengal from July 2014 to January 2015. Women who had delivered and completed puerperium period in last one year (From 1st July 2013 to 30th June 2014) and who resided in the study area for more than one year were the study population. Total sample size was 420.

Ethical Issue: After obtaining ethical clearance from the institutional ethics committee, Chief medical officer of health and Block medical officer of health were informed regarding the study as well as informed consent was taken from all participants. **Study tools:** Pre-tested, Pre-designed interviewer administered questioners contain both open & close ended question (In Bengali Language). Questioner was validated in local language and pretesting was done.

Data Collection Method: The data were collected by two ways:
(a) Interview technique: Interview of the identified mother was done through house to house visit. The questioner was applied to collect the data about socio-demographic characteristics, background characteristics, utilization of antenatal, intranatal and postnatal care.

(b) Record review Record review was done by checking of the mother and child protection card of recently delivered mother, Mother and Child Tracking register maintained by ANM.

Data were entered in MS Excel spread sheet. Calculation was done with the help of software SPSS 20.0 free version. Descriptive statistics were expressed by mean, SD and proportion for different parameters on utilization of antenatal, intranatal and post natal care.

RESULTS

In this study 420 women were selected and all of them participated

voluntarily. After analysis of the data the results were as follows:

- Mean age of study women 22.5 ± 3.6 years (range 17 - 41years).
- Mean age at marriage of study women was 18.1± 1.5 years (range 15-29years)
- Mean age at first pregnancy of study women was 19.4 ± 2.0 years (range 16-35years)

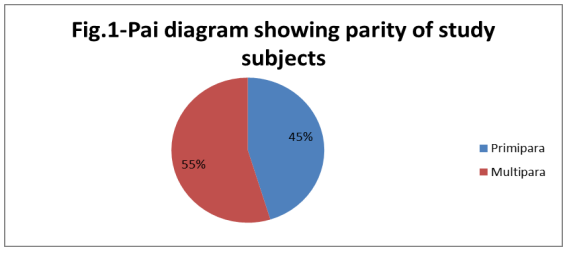
Table.1. Distribution of study population as per socio-demographic characteristics (n=420)

Demographic characters	Number (n)	Percentage (%)
Religion		
Hindu	388	92.4
Muslim	32	7.6
Caste		
General	230	54.8
Schedule caste	103	24.5
Schedule tribe	44	10.5
OBC	43	10.2
SES class*		
I (upper)	7	1.7
II (upper-middle)	29	6.9
III (middle)	53	12.6
IV (lower-middle)	145	34.5
V (lower)	186	44.3
Total	420	100.0

*Modified BG Prasad scale – 2014

Majority of the study women (92.4%) were Hinduism by religion and rest 7.6% were Muslim. Majority of the study women (54.8%) belonged to general caste followed by scheduled caste (24.5%), scheduled tribe (10.5%) and other backward classes (10.2%). Majority of the study women (44.3%) were in class V (lower) followed by (34.5%) class IV (lower middle) and upper class only 1.7%.

- Majority of the study women (79.0%) belonged to joint family.



More than half of the study women were multipara. Among the multipara spacing of birth (>3yrs) was adequate in majority of the study women i.e. (57.4%)

- Mean gestational age (wks) of study women for antenatal registration 11.7 ± 3.4 (range 6-24weeks).
- Antenatal registration was done 78.3% of study women within 12 weeks of gestation however registration was not done in 21.7% of cases within 12 weeks.

Table.2. Distribution of study women according to number of antenatal visits (n=420)

Number of antenatal visits	Number (n)	Percentage (%)
2	22	5.2
3	69	15.4
≥4	329	79.4
Total	420	100.0

Four antenatal visits were done by of most of the study women (79.4%) followed by three visits in 15.4%. None of the women had one antenatal visit.

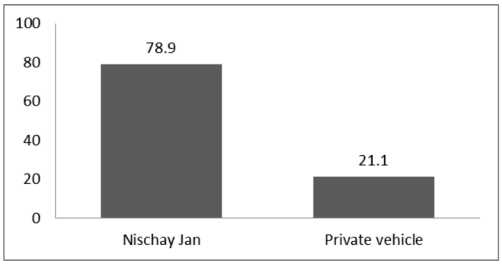
Table.3. Distribution of study women according to number of IFA tablets consumed during antenatal period (n=406) and post natal period (n=209)

Number of IFA tablets consumed	Antenatal (n=420)		Postnatal (n=209)	
	Number (n)	Percentage (%)	Number (n)	Percentage (%)
Nil	31	7.7	30	14.4
30	20	4.9	71	33.9
30-59	7	1.7	10	4.8
60-99	8	1.9	7	3.3
≥ 100	340	83.8	91	43.6
Total	406	100.0	209	100.0

During antenatal period Majority of the study women (83.8%) consumed ≥ 100 IFA tablets while 7.7% did not consume it at all. During post natal period only 43.6% consumed ≥ 100 tablets while 14.4% did not consume any such.

- Two doses of tetanus toxoid injection or booster dose was received by 100% of study women.
- Antenatal advice was received by 100% of study women

Fig.2. Bar diagram showing distribution of study women according to mode of transport for intranatal care



78.9% study women availed Nischay yan while 21.1% study women availed private vehicles.

Table.4. Distribution of study women according to place of delivery (n=420)

Place of delivery	Number (n)	Percentage (%)
Medical College	180	42.9
Rural Hospital	146	34.7
Private Nursing Home	24	5.7
Home	70	16.7
Total	420	100.0

Majority of the deliveries (42.9%) occurred at Medical College followed by 34.7% at Rural Hospital and 5.7% in Private Nursing Home. 16.7% of study women did not receive institutional care during delivery

- Non-availability of Nischay Jan was the major (55.7%) cause for home delivery followed by others.

Table 5. Distribution of study women according to number of postnatal visits (n=420)

Number of postnatal visits	Number(n)	Percentage (%)
Nil	23	5.6
1	49	11.8
2	158	37.8
3	10	2.4
4	178	42.4
Total	420	100.0

Four postnatal visits were done only 42.4 % of study women followed by two visits in 37.8% cases while 5.6% of study women had not receive any postnatal visit.

- Non-availability of health worker was the major (86.9%) cause of not availing postnatal visit followed by thought to be not necessary (8.7%) and poor quality of service (4.4%).

DISCUSSION:

Utilization of maternal health care services can have significant consequences for both the safe transition of mother through pregnancy and child birth. A community base cross sectional study was conducted in Bankura district to find out the utilization of antenatal, postnatal and intranatal services among the women were selected who had delivered in last one year. Out of 420 study women, Hindu were 92.4%. Similar finding (91.2%) was found by Roy M P et al at rural Lucknow.[7] Mean age of the study women were 22.5±3.6 years (range17yrs-41yrs). Mean age of study mothers was higher in the study of Bhattachryya.S et al at Darjeeling[8] (26.14±4.9 years) and Roy. MP et al[7] (25.9 years). Among the study women general caste was about more than halves and Scheduled caste, Schedule tribe and OBC were 24.5%, 10.5% and

10.2% respectively. Almost 80.0% of study women belonged to joint family. Singh.PK et al also found that about 69% of women reported that they were living in the joint family.[9] According to modified B.G.Prasad scale and updated May 2014 almost 80% of study women belonged to lower socio-economic group i.e. class IV and V. A study at wardha[10] showed that half of the study subjects were belonged to lower class. In this study 45.2% of mothers were Primipara and others 54.8% were Multipara. According to the study Agarwal. N[11] et al and Bhattachryya.S[8] et al Primipara were 35.2% and 43.4% respectively. Mean age at marriage of mothers was 18.1±1.5 years (range 15-29years). Qadri S[12]et al described that mean age at marriage of mothers was 23.0±5.5 years which was quite higher than our study. Mean age at first pregnancy of mothers was 19.4±2.0 years (range 16-35years). Singh.PK et al also found that mean age of first birth was 19.4 years.[9] Mean gestational age of mothers for antenatal registration was 11.7±3.4 weeks (range 6-24weeks). Antenatal registration was done within 12 weeks of gestation in 78.3% of study women however 21.7% of study women were done registration after 12 weeks. This finding was much higher than the study conducted at Bankura on 2009 by Pal S et al 47.2%.[13] As per National Family Health Survey-3 (NFHS-3) the corresponding figures of West Bengal[14] and India[15] were 38.6% and 43.9% respectively for timing of registration. All study women received at least one antenatal check up in this study, followed by second, third and forth check-up was 5.2%, 15.4% and 79.4% respectively. Najnin K[10] et al was observed similar finding at Wardha that four visits was 86.3%. Pal. S[13] et al reported that the proportion of study women who had received first, second and third check-up (excluding registration) was 48.6%, 51.5%and 40.9% in a study at Bankura respectively. 83.3% of study women consumed ≥ 100 IFA tablet and 7.7% did not consume at all. IFA coverage in the Pal. S et al[13] study at Bankura was found to be 64.4%. IFA consumption was observed 67.5% in urban slam of Mumbay,[12] Two doses of tetanus toxoid injection or booster dose was received by 100% of women in this study. Similar finding was observed at Bangalore (100%) by B. Joseph et al in a factories based study.[16] As per NFHS-3 mothers received antenatal advice was 36.0% in India[15] and in West Bengal 40.8%[14]. In this study cent percent women were received antenatal advices. Study women availed institutional care during delivery in 83.3% of cases. Similar finding of institutional delivery was observed by Ram S[17] et al at Mumbai 79.3%, 87.31% at Wardha[18] and 73.5% at tea garden of Darjeeling.[8] In case of institutional delivery 78.9% of mothers availed Nischay jan. . In this study it was found that only 42.4% of study women had received at-least four postnatal check-ups within the 42 days of the birth and 5.5% had not receive any check-up at all. Similar finding of no. postnatal visit was observed by Iyengar.K at rural women of Rajasthan.[19]In our study only 43.6% were consumed all IFA tablets. Malik.JS. et al was observed that majority of the mothers (97.4%) received 100 tablets of IFA, however less than half (45.3%) of them consumed all the tablets.[20]

CONCLUSIONS

This study revealed that antenatal services had taken most of the study subjects but still 16% of women did not availed the institutional delivery. Non-availability of Nischay Jan was the major cause for home delivery followed by non-availability of accompanying person etc. Adequate postnatal visits were done less than half of study women while 5.6% of study women had not receive any postnatal visit. Less than half of study subjects were consumed all IFA tablets in post natal period.

RECOMMENDATIONS

Awareness generation among the common people, and strengthening of health care facility& transport facility would be achieved cent percent institutional delivery as well as postnatal care. Further an analytical study would be done to identify the responsible factors to improve the maternal and child health care.

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