ORIGINAL ARTICLE:

Utilization of antenatal care services in a rural area of Bareilly

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ABSTRACT:

Background: Maternal mortality remains a great concern for nearly all developing countries. The high levels of maternal mortality and morbidity in developing countries emphasized the need for antenatal care and availability of trained health personnel to all women during pregnancy, labor and delivery.

Methodology: A hospital based cross-sectional study was carried out at a rural health training centre (RHTC) Dhaura, Bareilly to find out the utilization of antenatal care services among pregnant females registered in the May to October 2013. Data was collected on pre-designed and pre-tested questionnaire at RHTC, Dhaura, department of community medicine, SRMS Institute of medical sciences, Bareilly. For the purpose of this study, full utilization of antenatal services was defined as comprising of at least three or more antenatal check-ups, two doses/ a booster of T.T and full IFA intake from the RHTC.

Results: Out of a total of 566 antenatal females registered in this study, it was observed that 37.1% antenatal females had received at least three or more antenatal check-ups; 54.2% were found to be fully-immunized with two doses/ a booster of T.T whereas full IFA intake was high recorded for 98.7% of the females. Overall, 24.7% of the total pregnant females received full antenatal care.

Conclusion: The utilization of full ANC services at health center was low. Main reasons for inadequate utilization of ANC services were financial, unawareness about ANC services, etc.

Keywords: full antenatal care, rural health training centre

INTRODUCTION

World Health Organization (WHO) estimated that more than 500,000 mother’s die each year because of pregnancy and related complications. It was found that about 88 percent to 98 percent of all maternal deaths could be avoided by proper handling during pregnancy and labor1. World Health Organization now recommends a 4-visit ANC schedule for low risk pregnancies2. Antenatal care (ANC) services are considered to be the key element in the primary health care delivery system of a country, which aims for a healthy society. Over the past 60 years, the maternal health situation in the country has been staggering despite several changes in a rapidly evolving socioeconomic environment. The roles and responsibilities of primary care physicians have also been revised continuously in this context. Under their leadership, different cadres of health workers have been appointed to address the problem. As deadline for Millennium Development Goals is approaching, the need for improving the standard of maternal care is more than ever. In the last decade, as per the National data, health indicators including utilization of antenatal care services were as poor as 60% in rural India3.
Every minute a woman dies as a result of pregnancy or childbirth. Loss per annum of 500,000 women is mind boggling. Thus, maternal mortality continues to be a major public health problem. The focus on maternal mortality was sharpened when reduction in maternal mortality became one of the eight goals for development in the Millennium Declaration (Millennium Development Goal 5 or MDG 5). The target for MDG 5 is to reduce the maternal mortality ratio (MMR) by three quarters from 1990 to 2015.

India has the dubious distinction of having the highest estimated number of maternal deaths in any country (136,000). Current maternal mortality in India is 254 per 100,000 live births. In addition to the number of deaths each year, over 50 million women suffer from maternal morbidity due to acute complications from pregnancy. They, under the Mission, seek to provide universal access to equitable, affordable and quality maternal health care, as well as to bring about an improvement in the health status of the pregnant women belonging to underprivileged sections of the society. In this perspective, the present study aimed to find out the determinants of utilization of antenatal care services by the beneficiaries in rural Bareilly. With this background in mind the present study was planned to assess the utilization of antenatal services at rural health centre level in a rural area of Bareilly in India.

METHODOLOGY
A hospital based cross-sectional study depicting the utilization of antenatal services at rural health training centre (RHTC) was carried out in a village Dhaura Tanda, which is the rural field practice area of Department of Community Medicine, SRMS Institute of Medical College, Bareilly in India. This is located in north-west direction, on Nainital road, at a distance of 14 kilometers from the institution. There is 1 new additional primary health centre, 12 sub centre, 22 Anganwadi centre and 24 villages with an estimated population of 52495 (2012-13). The present study was conducted for a period of six month (May 2013 to October 2013). All pregnant women who were attending antenatal outpatient department at RHTC, Dhaura Bareilly, during the study period were enrolled. Case identification was carried out with the help of gynecologists and female health workers. A total of 566 pregnant women were enrolled in the study. During the visit, using a pre-designed and pre-tested questionnaire, information was collected by interviewing the pregnant women on antenatal service utilization. Adequate utilization of services was considered, if the pregnant women had fulfilled the following criteria.

1. ANC registration, at any time
2. Received required TT injections
3. Consumption of minimum 100 iron folic acid tablets
4. Minimum three or more than three ANC visits
RESULTS:

Table 1: Distribution of registered pregnant females on the basis of number of antenatal visits

<table>
<thead>
<tr>
<th>Age of the pregnant females</th>
<th>Number of visit at centre</th>
<th>Total (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Only 1 visit (%)</td>
<td>Only 2 visit (%)</td>
</tr>
<tr>
<td>18-25 years</td>
<td>72(22.8)</td>
<td>192(60.8)</td>
</tr>
<tr>
<td>26-35 years</td>
<td>17(7.2)</td>
<td>69(29.1)</td>
</tr>
<tr>
<td>36-45 years</td>
<td>3(23.1)</td>
<td>3(23.1)</td>
</tr>
<tr>
<td>Total (%)</td>
<td>92(16.2)</td>
<td>264(46.6)</td>
</tr>
</tbody>
</table>

[Table 1 above shows that although each registered female had at least one antenatal contact with the RHTC staff at the time of registration, 16.2% females did not return for the second contact. 46.6% females had 2 contacts only; while only 37.1% antenatal females reported for three or more than three contact.]

Table 2: Tetanus Toxoid Immunization among registered antenatal females

<table>
<thead>
<tr>
<th>Age of the pregnant females</th>
<th>Immunization status (Inj. TT)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fully immunized (%)</td>
</tr>
<tr>
<td></td>
<td>167(52.8)</td>
</tr>
<tr>
<td>18-25 years</td>
<td>131(55.3)</td>
</tr>
<tr>
<td>26-35 years</td>
<td>9(69.2)</td>
</tr>
<tr>
<td>Total (%)</td>
<td>307(54.2)</td>
</tr>
</tbody>
</table>

[Table 2 above depicts that 54.2% of pregnant females received 2 doses of Tetanus Toxoid or a Booster. Full Tetanus Toxoid coverage was maximum (69.2%) in the 36-45 years age group followed by 55.3% in 26-35 years age group and 52.8% in 15-25 years age group. 14.7% received partial-immunization while 31.1% were unimmunized.]

Table 3: Intake of IFA among registered antenatal females

<table>
<thead>
<tr>
<th>Age of the pregnant females</th>
<th>Intake of Iron folic acid tablet</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>≥100 Tablets (%)</td>
</tr>
<tr>
<td>18-25 years</td>
<td>310(98.1)</td>
</tr>
<tr>
<td>26-35 years</td>
<td>236(99.6)</td>
</tr>
<tr>
<td>36-45 years</td>
<td>13(100.0)</td>
</tr>
<tr>
<td>Total (%)</td>
<td>559(98.7)</td>
</tr>
</tbody>
</table>

[As is seen in Table 3 above, complete course of IFA intake was recorded for 98.7%, while nearly one percent had partial and only nearly half percent had IFA intake of the antenatal females. Main reason for high utilization of IFA tab was availability of full stock of IFA tab at RHTC.]
Figure 1: Utilization of antenatal care among registered pregnant women

[ From Figure 1 above it is evident that 24.7% of the total pregnant females received full antenatal care consisting of at least 3 antenatal check-ups, 2 doses of Tetanus Toxoid / booster dose and Iron Folic Acid tablets and 75.3% received partial antenatal care. Main reasons for inadequate utilization of ANC services were financial, unawareness about ANC services, unavailability of suitable accompanying person, unavailability of transport facilities, etc.]

DISCUSSION

Maternal health includes the physical, mental and social well being of women during pregnancy. Among the various stages of women’s lives, the childbearing period represents a period of elevated risk and the care provided is critical for both the woman’s and her child’s health and survival. The concept of special care during the antenatal period has been traditionally recognized in India and it is widely believed that utilization of antenatal, intranatal and postnatal services contributes to improved maternal health. Promotion of maternal and child health has, therefore, been one of the most important components of the Family Welfare Programme of the Government of India and the National Population Policy- 2000 reiterates the government’s commitment to the safe motherhood program\textsuperscript{10}. In India, these services are provided through a network of health centers as well as through home visits by health workers\textsuperscript{11}. However, uptake of these services is far from universal even in settings where they are widely available and while antenatal care is considered essential for the health of both the mother and the child, it is important to analyze the possible factors contributing to its utilization\textsuperscript{12}. It was felt that a study of this kind will give us an opportunity to assess the utilization of antenatal services at rural health centre level which is one of the first contact points between the community and health set-up.

This study revealed that among the registered pregnant females, only 37.1% had at least $\geq 3$ antenatal contacts. This is more similar to the figures of 34.9% of antenatal females having 3 or more contacts with the health centre were reported by Singh and Arora (2007)\textsuperscript{13}. NFHS-3 conducted by International Institute for Population Sciences (2005- 06) reported that 50.7% of mothers had at least 3 antenatal care visits at all-India level.
Another study by Singh and Yadav (2000)\textsuperscript{14} which covered 19,000 pregnant females from 90 districts of the country revealed that 62\% of the pregnant women had 3 or more antenatal contacts where as Lal et al (2001)\textsuperscript{15} in their study of coverage and quality of maternal and child health services at sub centre level found that only 28\% of the antenatal women had 3 checkups at sub centre.

Regarding Tetanus Toxoid immunization, the present study revealed that 54.2\% antenatal females were fully-immunized i.e., they had received 2 doses of TT booster dose, 14.7\% were partially immunized and 31.1\% were not immunized at rural health centre level. This finding of full TT coverage is in accordance with the findings of Rafiq et al (2004)\textsuperscript{16}. In other studies by Yadav et al (1998)\textsuperscript{17} and Saxena et al (2008)\textsuperscript{18} full TT coverage among pregnant women was reported to be 42\% and 72.8\% respectively.

The current study showed that, during 2013, full intake of IFA was recorded at the RHTC for 98.7\% of the pregnant females. Talwar et al (2005)\textsuperscript{19} reported intake of IFA by 52.6 \% of pregnant females attending a public sector hospital in Delhi and Banerjee et al (2006)\textsuperscript{20} reported that 84 \% of pregnant females had received IFA at an Urban Health Centre in Kolkota. All these figures are lower than the findings of the present study which was attributed to the better availability of IFA at RHTC level at all the time in the year 2013. However, our study shows higher percentage of IFA tab intake than other studies, as reported by Maitra et al (1994)\textsuperscript{21} 52.6\% intake while Agarwal OP et al (1997)\textsuperscript{22} found out that 27.2\% per cent antenatal females did not receive any iron foliac acid tablets in peri-urban areas of East Delhi. Singh and Yadav (2000)\textsuperscript{14} surveyed 90 districts of India & reported that 73\% of the pregnant women received IFA tablets during their pregnancy. Yadav and Singh (2004)\textsuperscript{23} in state of Madhya Pradesh concluded that 42\% of pregnant women received IFA tablets. Metgud et al (2009)\textsuperscript{24} conducted a longitudinal study in a rural area of north Karnataka and reported that Iron and Folic Acid supplementation was taken by 59.68\% of the pregnant women.

In the present study, full antenatal care consisting of three or more antenatal checkups, two doses of T.T/1 Booster dose and 100 or more IFA intake was reported for 24.7\% of the registered pregnant females. This finding is in more similar with the observation made by Singh & Yadav (2001)\textsuperscript{25} who reported that only 35\% pregnant women had received full antenatal package while studying the antenatal coverage in BIMARU states. However, higher figures of 39.5\%, 42%, 53\% and 72\% were reported in the respective studies by Metgud et al (2009)\textsuperscript{24}, Yadav and Singh (2004)\textsuperscript{23}, Singh & Yadav (2000)\textsuperscript{14} and Banerjee B (2006)\textsuperscript{20}.

CONCLUSIONS & RECOMMENDATIONS

The approach of hospital based assessment of the utilization of ante-natal services used in the present study may help in the use of locally generated data for bringing about an improvement in the delivery of MCH services at grass root level. Main reasons for inadequate utilization of ANC services were financial, unawareness about ANC services, etc.

Awareness of women is the key to improve antenatal care of pregnant women. Hence efforts should be made to have Information, Education & Communication (IEC) activities targeted to educate the mothers especially in rural areas. Moreover, further studies to evaluate the factors influencing the utilization of antenatal care services need to be taken up at the community level.

The findings of this study may be utilized by the health managers and health care providers to address the problem of low ANC coverage and home deliveries by traditional birth attendants.
REFERENCES


