

Research Article

The quality of antenatal care services in Shivrajpur block of district Kanpur: a community based survey

Harish Chandra Tiwari^{1*}, Richa Mishra²

¹Department of Community Medicine, Rama Medical College Hospital & Research Centre, Kanpur-209217, UP, India

²Department of Medical Sciences, Institute of Medical Sciences, BHU, Varanasi-221005, UP, India

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*Correspondence:

Dr. Harish Chandra Tiwari,

E-mail: dr.harishchandratiwari@gmail.com

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ABSTRACT

Background: India is amongst the top five countries in terms of absolute numbers of maternal deaths. In Uttar Pradesh MMR is even higher than national average. In spite of better utilisation of ante-natal services, pregnancy outcome is not significantly improving. Reason behind it is that worrying gaps in quality of antenatal care exist which lead to poor effectiveness of ANC in practice.

Methods: In the present study quality of antenatal care services utilised by 286 recently delivered women (RDWs) in last one year in Shivrajpur block of district Kanpur was conducted from August 2012 to July 2013. A predesigned questionnaire was used for data collection. Information regarding age, parity, and detailed history of antenatal care & place of antenatal care were collected after taking verbal consent.

Results: Majority (76.1%) of women were within 20 to 30 year of age who had delivered in last one year while 13.6% of women were within 20 year of age. In present study we find 91.9% coverage of antenatal care which was based on receiving at least one antenatal check-up. Majority (73.1%) of women received antenatal care from public facility (SC/PHC/CHC/Govt. Hospital). Out of 263 RDWs who received ANC, three-fourths had weight measurement (74.9%), their abdomen examined (76.4%) and hemoglobin estimation (69.6%) done. Less than two-thirds had height (60.8%) and blood pressure measured (66.2%). Nearly one of the two RDWs had urine examination (50.2%) and told about pregnancy complications & danger signs. Only 14.8% RDWs consumed 100 IFA tablet. TT injection was received by 79.5% of RDWs. Full ANC was taken by only 16.3% RDWs.

Conclusion: Poor qualities of antenatal care have a limited potential to affect maternal mortality. High-risk screening during antenatal care, as a means of identifying women for facility-based intra-partum care, is not effective for women who subsequently failed to obtain complete package of antenatal care.

Keywords: Antenatal care, Recently delivered women

INTRODUCTION

Childbirth is a universally celebrated event. Yet for many women child bearing is experienced not as the joyful event as it should be.¹ The WHO estimates that 300 million women in the developing world suffer from illness brought about by pregnancy and childbirth. Most of maternal deaths occur in the developing world.² India is amongst the top five countries in terms of absolute

numbers of maternal deaths. At the national level, maternal mortality ratio is 212 (SRS 2007-09). In Uttar Pradesh MMR is 359 (SRS 2007-09) which is even higher than national average.

To make pregnancy safe has been remained the key objective of reproductive and child health programme in India. The National Rural Health Mission (NRHM) reiterates the government's commitment to the safe

motherhood. The popularity of antenatal care services in the rural community is encouraging. A high overall level of antenatal care coverage is observed in various studies. Coverage evaluation report 2009 reported that 86.2 percent of women were registered during last pregnancy.³

In spite of better utilisation of ante-natal services, pregnancy outcome is not significantly improving. Reason behind it is that worrying gaps in quality of antenatal care exist. There are huge interstate as well as intrastate disparities coupled with stringent social-economic and cultural constraints which lead to poor quality and effectiveness of ANC in practice.

In this perspective, present study was planned to assess the quality of antenatal care services utilised by recently delivered women (delivered in last one year) in Shivrajpur block of district Kanpur.

METHODS

The present cross-sectional study was conducted among rural beneficiaries in Shivrajpur block of district Kanpur from August 2012 to July 2013, a district in Uttar Pradesh (UP), north India.

Optimal sample size was calculated on the basis of women registered during last pregnancy as 86%, based on the findings of coverage evaluation report 2009.³ Sample size calculation was done using the formula $4PQ/L^2$ with an acceptable error of 5%. Considering 10% of non-response rate, finally 286 recently delivered women (RDWs) in last one year were included in present study.

Study area

Block Shivrajpur has one CHC at Shivrajpur which supervises four PHCs & 32 sub centres, providing services to 147 villages catering a population of 149196.

Sampling technique

Four stages random sampling methodology was used for selecting of beneficiaries from block Shivrajpur. In the first stage, two Primary Health Canters (PHCs) was selected randomly from list of four PHCs under CHC Shivrajpur. In the second stage, from selected PHCs, two sub-centres were selected, one which is closest & another which is farthest from the selected PHC. In the third stage, two villages each from these four selected sub centres were randomly selected. Thus, the study covered 16 villages. In the last stage a list of RDWs was collected from ASHAs and AWWs and then systematic random sampling was followed to pick up the requisite number of beneficiaries. All the RDWs refusing for interview were excluded.

Tools of data collection

The study was conducted after clearance from the Institutional Ethical Committee and Superintendent of the CHC Sivrajpur was informed about the study. Verbal consent was obtained from beneficiaries. A predesigned questionnaire was used for data collection. Information regarding age, parity, and detailed history of antenatal care & place of antenatal care were collected.

Statistical analysis

Data entry and analysis were done by using Microsoft office excel software. Frequency and percentage for categorical variables were calculated.

RESULTS

Majority (76.1%) of women were within 20 to 30 year of age who had delivered in last one year while 13.6% of women were within 20 year of age. This was first child among one quarter of women 25.5% while 44.7% of women were bearing third or higher child during this pregnancy.

Table 1: Age & parity of recently delivered women.

Characteristics of RDWs	Variables	N	%
Age of recently delivered women	≤20 year	39	13.6
	21-25 year	110	38.4
	26-30 year	108	37.7
	31-35 year	23	8.0
	Above 35 year	6	2.0
Parity	1	73	25.5
	2	85	29.7
	3 & more	128	44.7
Total		286	100

Table 2: Utilisation of ANC by recently delivered women during last pregnancy.

Antenatal care	Variables	N	%
Any antenatal care taken	Yes	263	91.9
	No	23	8.1
Place of ANC taken	No	23	8.1
	SC/PHC/CHC	209	73.1
	Pvt. Hospital	54	18.8

In present study we find 91.9% coverage of antenatal care which was based on receiving at least one antenatal check-up. Still there were 8.1% of women who had not received any antenatal care. Majority (73.1%) of women

received antenatal care from public facility (SC/PHC/CHC/Govt. Hospital) while 18.8% women had visited to private hospitals for antenatal care.

Out of 263 RDWs who received ANC, three-fourths had weight measurement (74.9%), their abdomen examined (76.4%) and hemoglobin estimation (69.6%) done. Less than two-thirds had height (60.8%) and blood pressure measured (66.2%). Nearly one of the two RDWs had urine examination (50.2%) and told about pregnancy complications & danger signs.

Table 3: Quality of ANC services received by RDWs (N=263).

Antenatal care	Variables	N	%
Weight measurement	Yes	197	74.9
Height measurement	Yes	160	60.8
Per abdomen examination	Yes	201	76.4
Blood pressure	Yes	174	66.2
Urine examination	Yes	132	50.2
Hb estimation	Yes	183	69.6
IFA	Not given	49	18.6
	Not consumed	27	10.2
	<30 tablet	79	30.0
IFA given but	30-99 tablet	69	26.2
	>100 tablet	39	14.8
Two TT injections	Yes	209	79.5
Told about pregnancy complications	Yes	132	50.2
Full ANC	Yes	43	16.3

Out of 263 RDWs who received ANC, 18.6 % had not given IFA tablets, 10.2% had not consumed it totally. 30.0% had consumed less than 30 tablets, 26.6% had consumed 30-99 tablets. Only 14.8% RDWs consumed 100 IFA tablet. TT injection was received by 79.5% of RDWs. Full ANC was taken by only 16.3% RDWs.

DISCUSSION

This study assessed quality of antenatal care services within the cultural context of Uttar Pradesh, India. There is considerable progress regarding the availability of and access to health care in rural areas with 91.9% of pregnant women having at least one antenatal care visit. Similar findings were reported from other studies of north India⁴, West Bengal⁵ but comparatively lower findings were reported in DLHS-3 & NFHS-3 of Uttar Pradesh.^{6,7}

The popularity of antenatal care is encouraging; however it has been observed from present study that the quality of antenatal care is poor. Weight measurement, abdomen examination and hemoglobin estimation was done for three fourth of RDWs. Other important components of ANC like height and blood pressure measurement, urine examination and explaining danger signs of pregnancy were unsatisfactory.

TT injection coverage was found to be better (79.5%) than DLHS-3 (61.5%) & NFHS-3 (76%) report⁷. Full ANC was taken by only 16.3% RDWs. Prophylaxis of anaemia during pregnancy was extremely poor with almost one third of RDWs had not taken any IFA tablets either because of unavailability (18.2%) or because of non-compliance (10.2%). Only 14.8% RDWs had consumed 100 IFA tablets which is even low to that of NFHS-3 (19%) report.³

Poor qualities of antenatal have a limited potential to affect maternal mortality. High-risk screening during antenatal care, as a means of identifying women for facility-based intra-partum care, is not effective for women who subsequently failed to obtain complete package of antenatal care. ASHAs are expected to improve the overall coverage of antenatal care services & they are successful in this regard but the responsibilities do not end here. They are also expected to encourage the pregnant ladies to seek complete package of care & other service providers like ANMs & medical officer/doctors are required to improve the quality of services for better maternal health care.

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Ethical approval: The study was approved by the Institutional Ethical Committee

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