CHANGE IN UTILIZATION OF REPRODUCTIVE HEALTH CARE SERVICES IN TWO DECADES BY WOMEN OF RURAL JAIPUR

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HOW TO CITE THIS ARTICLE:
Munish Kumar Kakkar, Mukesh Kumar Gupta, Rimzim Gupta, Rajat Vohra, Shallu Kakkar. "Change in utilization of reproductive health care services in two decades by women of rural Jaipur". Journal of Evolution of Medical and Dental Sciences 2013; Vol2, Issue 34, August 26; Page: 6370-6376.

ABSTRACT: AIMS: The present study was conducted to find out the change in utilization patterns of the antenatal, intra natal and post natal services by the lactating mothers over 2 decades from year 1991 to 2009-10. **SETTINGS AND DESIGN:** A community based **Cross-sectional study** was done in two villages of Jaipur, which were selected for previous study conducted in 1991 from which the present study is compared. These villages are Beelwa and Ramchandrapura. **METHODS AND MATERIAL:** A pre designed and pre tested questionnaire was used to elicit information on utilization of antenatal, intranatal and postnatal services by interviewing the lactating mother. **Statistical analysis used:** Data was analysed using SPSS version 11.5. Chi square test was used to find out significant association. **RESULT:** A significant improvement was seen in the utilization of services by the lactating mothers from year 1991 to 2009-10. 81.96% mothers received antenatal services during the pregnancy and only 16.39% mothers received post natal care in the year 1991 in comparison to 97.34% mothers and 78.76% mothers in year 2009-10 respectively. In the year 2009-10, only 2.65% were home deliveries in comparison to 85.24% in the year 1991. **CONCLUSIONS:** Though different programmes has made significant improvement in delivery and utilization of services in antenatal and natal care, a lot has to be done for reducing the proportion of below 18 years pregnancy and child birth.

KEYWORDS: Lactating mothers, antenatal, intra natal and post natal services.

INTRODUCTION: Approximately 536,000 maternal deaths occur annually, of which over 95% occur in sub-Saharan Africa and Asia[1]. Scientific evidence has clearly established the inverse relationship between skilled attendants at birth and the occurrence of maternal deaths. Thus, the considerable variation in the maternal mortality estimates between different locations within the same region can be attributed, to a large degree, to the differences in the availability of and access to modern maternal health services[2,3]. The use of maternal health services also contributes to neonatal health outcomes as the health of the mother and the newborn is closely linked. Maternal complications in labor, for example, carry a high risk of neonatal death. [4, 5]

In health care delivery of the country, many health programmes were launched for women and child care starting from Family Planning programme to RCH –II. Though, voluminous literature is available on assessment of reproductive services to the mother, a very few prospective studies are available to assess the improvement in the quality and utilization of services in the same area over a period of 2 decades.

Utilization of antenatal, intra-natal and post natal care services in Beelwa and Ramchandrapura villages of Jaipur was studied in the year 1991.[6] In order to find out the change in utilization these services over a period of about 2 decades, the present study was conducted same villages in the year 2009-10.

SUBJECTS AND METHODS: It was community based cross-sectional study done to assess the utilization of antenatal, intranatal and postnatal services by interviewing the lactating mothers. A lactating mother was defined as one who had delivered a child (living or dead) within last 12 months and was not pregnant during the same period. These lactating mothers had experience antenatal, intranatal and postnatal services recently, so they can recall about utilization of these services.

Same type of study was conducted in the year 1991 in Beelwa and Ramchandrapura villages area near Jaipur, India.[6] So the present study was conducted in the same villages to assess the change in the utilization of services by the lactating mothers.

Due approval was taken from institutional ethical committee before undertaking the study. Help of Auxillary Nurse Midwife (ANM), Anganwadi Worker (AWW) and Accredited Social Health Activist (ASHA) was taken to build a rapport with local people. A pre designed and pre tested questionnaire was used to elicit information on basic characteristics, utilization of antenatal, intranatal and postnatal services by interviewing the mother.

RESULTS: Table 1 showed the distribution of lactating mothers according to their age. In the year 1991, 57 (93.44%) mothers belonged to 18-35 years age group while only 2 (3.27%) mothers each belonged to <18 years and > 35 years age group. In the year 2009-10, 109 (96.46%) lactating mothers belonged to 18-35 years age group while only 0.88% and 2.65% mothers belonged to <18 years and > 35 years age group respectively.

Table 1: Distribution of mothers according to their basic characteristics

Age distribution	Year 1991 n=61 (%)	Year 2009-10 n= 113 (%)
<18 years	2 (3.28)	1 (0.88)
18-35 years	57 (93.44)	109 (96.47)
>35 years	2 (3.28)	3 (2.65)

Figure 1 below shows the improvement in the antenatal and post natal care services among lactating mothers from year 1991 to 2009-10. Antenatal care services were received by 81.96% mothers in the year 1991 in comparison to 97.34% mothers in the year 2009-10. post natal care was received by only 16.39% mothers in the year 1991 in comparison to 83.60% mothers in year 2009-10.

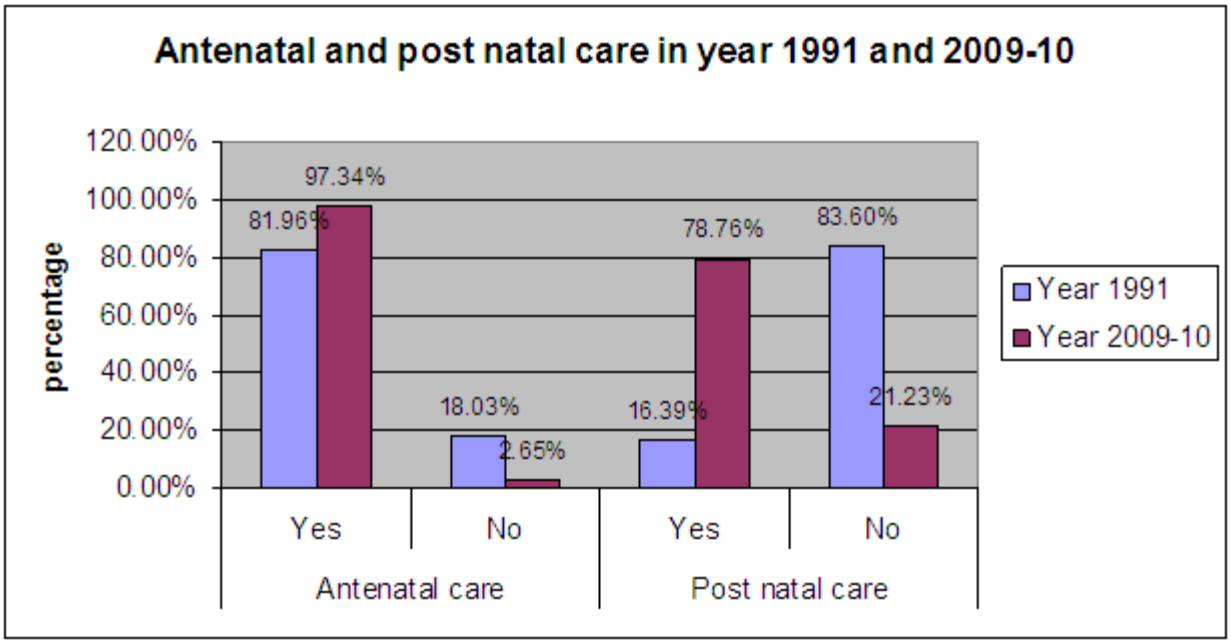


Fig 1: Antenatal and post natal care in the year 1991 and 2009-10

When antenatal services were evaluated, there was a statistically significant improvement in the antenatal services received by mothers from the year 1991 to 2009-10. 81.96% mothers received antenatal services during the pregnancy in the year 1991 in comparison to 97.34% mothers in year 2009-10. Mothers who received antenatal services from the doctor were as high as 86.36% in year 2009-10 in comparison to only 38% in the year 1991. Only 4% mother had 1st antenatal checkup in the 1st trimester in the year 1991 in comparison to 71.81% mothers in year 2009-10. Mothers who had complete tetanus toxoid vaccination during their pregnancy were 96.46% in 2009-10 in comparison to only 59.01% in 1991. 87.61% mothers had taken regular iron and folic acid tablets in year 2009-10 in comparison to only 21.31% mothers in year 1991. (Table 2)

Table 2: Antenatal services of the mother

Services	Year 1991 n (%)	Year 2009-10 n (%)	Chi square (df)	p value
Ante natal care received				
Yes	50 (81.97)	110 (97.35)	12.7 (1)	0.000
No	11 (18.03)	3 (2.65)		
Source of antenatal care				
Untrained birth attendant	0 (0.00)	1 (0.91)	41.4 (2)	0.000
Trained birth attendant	31 (62.00)	14 (12.73)		
Doctor	19 (38.00)	95 (86.36)		
1st antenatal check up				
1st trimester	2 (4.00)	79 (71.82)	90.5 (2)	0.000
2nd trimester	18 (36.00)	29 (26.36)		
3rd trimester	30 (60.00)	2 (1.82)		
Number of antenatal checkups				
1-3 times	43 (86.00)	33 (30.00)	44.7 (2)	0.000
4-5 times	6 (12.00)	35 (31.82)		
≥ 6 times	1 (2.00)	42 (38.18)		
Tetanus toxoid received				
Complete	36 (59.02)	109 (96.46)	40.7 (2)	0.000
Partial	14 (22.95)	1 (0.89)		
Not received	11 (18.03)	3 (2.65)		
Iron folic acid supplementation				
Regular	13 (21.32)	99 (87.62)	81.6 (2)	0.000
Irregular	18 (29.50)	11 (9.73)		
Nil	30 (49.18)	3 (2.65)		

Table 3 showed that there was a statistically significant improvement in intranatal services received by mothers when compared in the year 1991 and 2009-10. In the year 2009-10, only 2.65% were home deliveries in comparison to 85.24% in the year 1991. The numbers of hospital deliveries were 72.56% and 14.74% in year 2009-10 and 1991 respectively. In the year 1991, 29.51% deliveries were conducted by untrained birth attendant and only 14.75% deliveries were conducted by doctor while in the year 2009-10, there were 96.46% deliveries conducted by doctors and only 0.88% deliveries conducted by trained birth attendants.

Table 3: Intra natal services of the mother

Services	Year 1991 n=61 (%)	Year 2009-10 n= 113 (%)	Chi square (df)	p value
Place of delivery				
Home	52 (85.24)	3 (2.65)	127 (3)	0.000
PHC	0 (0.00)	28 (24.77)		
Private hospital	7 (11.47)	43 (38.05)		
Government hospital	2 (3.27)	39 (34.51)		
Delivery conducted by				
Untrained birth attendant	18 (29.51)	1 (0.88)	124 (2)	0.000
Trained birth attendant	34 (55.74)	2 (1.76)		
Doctor	9 (14.75)	109 (96.46)		

There was a statistically significant improvement in the post natal care received by mother when compared from the year 1991 to year 2009-10. In the year 1991, only 16.39% mothers received post natal care in comparison to 78.76% mothers in year 2009-10. Only 8.19% mothers initiated breast feeding within 6 hours in the year 1991 in comparison to 89.38% mothers in the year 2009-10. (Table 4)

Table 4: post natal care of the mother

Services	Year 1991 n=61 (%)	Year 2009-10 n= 113 (%)	Chi square (df)	p value
Post natal care received				
Yes	10 (16.39)	89 (78.76)	62.8 (1)	0.000
No	51 (83.61)	24 (21.24)		
Timing of initiation of breast feeding				
Within 6 hours	5 (8.20)	101 (89.39)	110 (2)	0.000
6-48 hours	35 (57.38)	9 (7.96)		
≥ 48 hours	21 (34.42)	3 (2.65)		

DISCUSSION: Overall significant improvement in the coverage of services were observed over the last 19 years from the year 1991 to year 2009-10 in the studied population in terms of coverage of antenatal care (ANC) services (81.96% Vs 97.34%), Tetanus Toxoid (TT) administration (59.01% Vs 96.46%), Iron Folic acid (IFA) supplementation (21.31% Vs 87.61%) during pregnancy, institutional deliveries (Hospital deliveries 14.74% Vs 72.56%), post natal care services (16.39% Vs 78.76%) and breastfeeding practices (initiation of breastfeeding within 6 hours of child birth 8.19% Vs 89.38%).

Though early marriage and child birth are reduce form 3.27% mothers in year 1991 to 0.88% mothers were younger than 18 years in 2009-10 but still is a problem in India. There are many areas where improvement was suboptimal like: only 71.81% mothers received first ANC visit in first trimester, 2.65 % expecting mothers did not receive ANC as well as TT at all and 12.38% did not receive regular IFA supplementation. However, these data are better when compared with national figures reported by Government of India where 11.5% pregnant mother did not receive

ANC and 26.5% did not receive TT. [6] In the report of district wise RCH indicators in Rajasthan state, only 55% pregnant women received at least one TT. [7]

Postnatal care was seen as a relatively weak area in the present study as only 78.76% mothers received postnatal care as compared to national data where 87% received post natal care services. [7, 8] It is very important for a recently delivered mother to have post natal care as it has been shown that postnatal home visits in initial 2 days after delivery has markedly reduce the neonatal mortality rate. [8, 9]

There was increasing trend to have antenatal, natal and postnatal services from doctors rather than from trained or untrained birth attendants. Home deliveries were significantly reduced from 85.24% in 1992 to 2.65% in 2009-10. However this progress may be due to additional efforts made as part of Janani Suraksha Yojna (JSY) under National Rural Health Mission (NRHM) as this programme has its primary focus on institutional deliveries.

Though different programmes has made significant improvement in delivery and utilization of services in antenatal and natal care, IFA supplementation, TT administration and delivery by trained personnel however lot has to be done for reduction in early marriage and child birth which is still is a problem in India. Thus, it is recommended that people should be made aware of existing government health facility through IEC activities and their utilization should be advocated. It is also recommended that regular concurrent assessment by client based perception of the programme to be done so as to improve the quality services.

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Date of Submission: 13/08/2013.
Date of Peer Review: 14/08/2013.
Date of Acceptance: 17/08/2013.
Date of Publishing: 20/08/2013