

Utilization of Antenatal Care Services in Rajasthan: Observations from the NFHS

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Introduction

The International Conference on Population and Development (ICPD) held in Cairo in 1994 reiterated the need for appropriate health care services that will enable women to go safely through pregnancy and childbirth and produce a healthy infant. Maternal care includes care during pregnancy and should begin from the early stages of pregnancy. Women can get antenatal care services either by visiting a health center where such services are available or from health workers during their domiciliary visits. The former gives an idea about the voluntary utilization of the services by women while the latter is related to the quality aspect of the services. One of the most important components of antenatal care is to offer information and advice to women about pregnancy-related complications and possible curative measures for the early detection and management of complications.

According to the National Family Health Survey (NFHS) A., 1992-93 only 13 per cent of pregnant women in India receive antenatal care (ANC) services at home from a health worker. An earlier study B. of five Indian states has reported that antenatal services were least utilized in Rajasthan in North India. This paper therefore makes an attempt to find out the possible reasons for the low utilization of antenatal care services in Rajasthan.

Data and Framework

The data for the study were drawn from the National Family Health Survey (NFHS), 1992-93 for Rajasthan C. The antenatal care services availed of by the women during the last pregnancy was considered for studying service utilization. The Safe Motherhood Initiative D. urges that all pregnant women be given basic but professional antenatal care. This paper looks at three of the basic antenatal service components namely, whether the women received antenatal care services at home from a health worker, the utilization of the antenatal services from other sources (from a health professional or traditional birth attendant), and the use of iron/folic acid tablets and tetanus toxoid injections.

The conceptual framework of health seeking behavior developed by Kroeger E. was used for analyzing the data. The framework proposes that service utilization on (1) the age of the mother, her ethnic group affiliation, education and place of residence; (2) the expected benefits from the treatment and beliefs; and (3) the quality of care and availability of a health facility including the cost of treatment. This paper, however, is limited to the first and third aspects of health-seeking behavior.

Quality of care included the utilization of both iron/folic acid tablets and tetanus toxoid injections as suggested in the WHO mother-baby package F. because the health worker's home visit or a voluntary visit by the woman does not necessarily mean the complete utilization of antenatal services. The availability of a health facility was measured by the distance from the health outlet (sub-center, primary health center or hospital) to the village where the woman resides. The background variables associated with the health workers' home visit that were examined were the woman's age, education, usual place of residence, standard of living, caste and distance from the health facility. In addition to these variables, her working status, exposure to mass media, and husband's education were also considered for studying antenatal service utilization with respect to source of service as also the utilization of anti-tetanus immunization and iron/folic acid supplementation. The background variables were regressed with the utilization of antenatal care services using logistic techniques.

Findings and Discussion

According to the NFHS Report of Rajasthan C, during the four years preceding the survey, mothers in Rajasthan received antenatal care through home visits by health workers for a mere 7.7 per cent of the births while less than a fourth (23 per cent) of the births were to mothers who had received such services from an antenatal care provider outside the home (such as a doctor, other health professional or a traditional birth attendant). Though the neonate and mother can be protected from tetanus by vaccination and iron/folic acid is beneficial to the healthy growth of the foetus, well over three-fifths (66.5 per cent) of births were to mothers who did not receive a single dose of the vaccine, and only 29.2 per cent were to mothers who had received iron/folic acid tablets.

Antenatal services provided a home

Table 1 presents the results of the logistic regression analysis of the coverage of antenatal services by the background characteristics of the women (mothers).

Table 1: Coverage of domiciliary antenatal services by selected background characteristics

Characteristics	b	S.E	R	Exp (b)
Current age in years	.1884	.1453	.0000	1.2073
Caste				
Scheduled caste	.2643	.1843	.0056	1.3025
Scheduled tribe	-.4736*	.1568	-.0638	.6228
Residence	-1.9573*	.3806	-.1182	.1412
Education of wife				
Illiterate	.1971	.3832	.0000	1.2179
Primary	-.0924	.4063	.0000	.9118
Middle	-.0750	.5032	.0000	.9278
Standard of living index				
Low	.5688*	.2648	.0387	1.7661
Medium	.3448	.2540	.0000	1.4117
Distance from health facility				
5-9 km.	-.1034	.2107	.0000	.9017
10 km and more	.1920	.2060	.0000	1.2116

Note; * = Significant at .05 level

Reference category: Current age = continuous; caste = forward class; residence = rural; education of mother = high school and above; standard of living index = high; distance from health facility = less than 5 k.m.

Table 1 indicates that health workers were more likely to visit less educated women; for instance, they visited illiterate women about 1.2 times more than they did those who had attained high school or higher education. Further, by and large, their visits were confined to forward caste households as compared to scheduled caste or tribal households, and among the latter, tribal women were less likely to get antenatal care services at home than scheduled caste women. Ravindran G. observed, in a South Asian study, that local prenatal care was

inconsistent and often unavailable to lower caste women due to the prejudiced attitudes of higher caste providers.

In rural areas as opposed to urban areas, antenatal services were mainly provided by health workers with greater care being given to low-income households as compared to affluent ones. It is rather surprising that distance from the health center did not have a strong impact on the home visits of health workers, though studies have shown this to be an important factor affecting the delivery of health services. Kothari H. has reported that an ANM (auxiliary nurse midwife) in Jaisalmer had to cover a far greater area than her counterpart in Bharatpur because of the physio-geographic location of Jaisalmer which, consequently, hindered service delivery.

Antenatal services received either at home or outside home

The positive effect of maternal education on the utilization of general health services I. M. and on maternal health services N. P. has been well established. The results of logistic regression analysis carried out to study how far this relationship holds true for antenatal services have been presented in Table 2. The results indicate that maternal education does play a very significant part in the utilization of antenatal services.

Table 2: Utilization of antenatal services at and outside home by background characteristics

Characteristics	b	S.E	R	Exp (b)
Current age in years	-.1602	.1484	.0000	.8520
Caste				
Scheduled caste	-.2626	.1599	.0000	.7691
Scheduled tribe	.0936	.1970	.0000	1.0981
Residence	-.3876	.2452	-.0164	.6787
Education of wife				
Illiterate	-1.6404*	.3137	-.1169	-.1939
Primary	-.8936*	.3269	-.0543	.4092
Middle	-.9691*	.3901	-.0474	.3794

Standard of living index				
Low	-.9181*	.2262	-.0883	.3393
Medium	-.686*	.1931	-.0694	.5280
Distance from health facility				
5-9 km.	.2140	.2219	.0000	1.2387
10 km and more	.0134	.2147	.0000	1.0135
Education of husband	.1179	.1034	.0000	1.1252
Working status of woman	-.1873	.1494	.0000	.8292

Note; * = Significant at .05 level

Reference category: Current age = continuous; caste = forward class; residence = rural; education of mother = high school and above; standard of living index = high; distance from health facility = less than 5 k.m.; education of husband = continuous; Working status of woman = not working, exposure to mass media = not exposed.

Under-utilization of clinics by the pregnant mother is often due to lack of knowledge and has been found to be true in a survey-based reported by Saksena Q. This has been corroborated by Kumar R. who observed in his study conducted in Lucknow that 33 per cent of the women did not use antenatal services due to ignorance. Khan P reported exposure to mass media as an important factor for the utilization of antenatal services. In Rajasthan, only 15.2 per cent of women exposed to any mass media (radio, TV or cinema) used antenatal services as compared to 50.7 per cent of those who had had such exposure; logistic regression analysis indicated that women exposed to mass media tended to utilize antenatal services either at home or from outside. Singhal S. observed the place of residence to affect the rise of antenatal services; women living in urban areas were more likely to opt for antenatal services and institutional deliveries. Similar observations have been reported from Peru O.

Table 1 indicates that in Rajasthan only a fifth of the rural births were to women who had used antenatal services whereas more than half (52 per cent) of the urban births were to women who had availed of such services. However,

controlling for other variables, type of residence did not emerge as a significant factor in explaining the difference in service utilization (see Table 2).

Utilization of available services has also been known to be affected by the socioeconomic status of the household P T. In this study, the standard of living index (SLI) was used as a proxy for economic status (the NFHS does not give information on household income). Our results indicated that the utilization of antenatal services differed significant with respect to the woman's standard living and was more than five times higher among economically well off women as compared to women belonging to the lower economic strata.

Use of tetanus toxoid vaccination and iron/folic acid tablets

The WHO has proclaimed that safe motherhood is attainable and does not require high technology investments and equipment. The mother-baby package suggested by WHO states that during pregnancy; tetanus toxoid injections and iron/folic supplements will reduce the risk of maternal and neonatal mortality. While an important objective of the Universal Immunization Program started by the Government of India in 1985-86 is to protect all pregnant women from tetanus, the distribution of iron/folic tablets to pregnant women to prevent anemia is an integral part of the MCH and family welfare program. The relationship between the utilization of these two important services by women in Rajasthan and selected background variables is presented in Table 3.

Table 3: Utilization of anti-tetanus vaccination and iron/folic acid tablets by background characteristics

Characteristics	b	S.E	R	Exp (b)
Current age in years	.1345	.1534	.0000	.8741
Caste				
Scheduled caste	-.2541	.1684	-.0124	.7756
Scheduled tribe	-.0171	.2097	.0000	.9830
Residence	-.3204	.2550	.0000	.7259
Education of wife				
Illiterate	-1.2535*	.2710	-.1045	.2855
Primary	-.3728	.2832	.0000	.6888

Middle	-.9297*	.3433	-.0548	.3947
Standard of living index				
Low	-.7300*	.2300	-.0674	.4819
Medium	.4786*	.1898	-.0495	.6197
Exposure to mass media	.8976*	.1512	.1367	2.4538
Distance from health facility				
5-9 km.	.3645	.2345	.0153	1.4398
10 km and more	.0038	.2287	.0000	1.0038
Education of husband	-.0291	.1080	.0000	.9713
Working status of woman	-.1156	.1554	.0000	.8908

Note; * = Significant at .05 level

Reference category: Current age = continuous; caste = forward class; residence = rural; education of mother = high school and above; standard of living index = high; distance from health facility = less than 5 k.m.; education of husband = continuous; Working status of woman = not working, exposure to mass media = not exposed.

According to the findings, exposure to mass media emerges as a significant factor in the utilization of anti-tetanus injections and iron/folic acid tablets. Maternal education and standard of living were also found to affect the utilization of both these services while the other variables such as the type of residence, caste, age, maternal occupational status, husband's education and distance from the health facility did not influence it.

Conclusion

The above discussion indicates that the coverage of health services is not skewed; though some physical obstacles do exist in terms of accessibility. The main problem of under-utilization is embodied in the socio-economic and cultural background of the care-seekers. Not only are they are basically unaware of the services available but there is no motivating force to help or guide them to use maternal care services. In the light of the above discussion, literacy, and more particularly female literacy, should be enhanced so that it can act in a

multidimensional way to boost the utilization of health care services. On the other hand, there is a need to target certain populations such as scheduled castes and tribes and economically backward groups and find a way through which the utilization of maternal health including antenatal services can be accelerated.

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