

Usage of Maternal Health Services for Fertility Regulation in India: A Retrospective Study

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ABSTRACT

The use of maternal health services in India is influenced by various socioeconomic factors, with higher maternal morbidity during reproductive ages 15 to 49. The Indian government has launched programs like Maternity Safety Scheme (Janani Suraksha Yojana) and Maternity and Child Protection Programme (Janani Shishu Suraksha Karyakaram) to provide free health services to women. However, the burden of these services is disproportionately high among the poorest women, leading to high mother and newborn death rates.

In the study, secondary data from the National Family Health Survey (NFHS-3) found that place of residence, exposure to mass media, education, caste, religion, and wealth were all significant predictors of maternal health care utilization. The study also found that location of residence; age, birth order, education, caste, religion, and wealth were substantially and significantly associated with the use of antenatal care, skilled attendants at birth, and postnatal care in India. Women aged 25-34 were 54.8% more likely to receive antenatal care (ANC) services than those aged 15-24. Women aged 35-49 experienced a 52.7% increase in ANC services. Rural women were 23.8% less likely to use ANC than urban women. Muslims were 43.8% less likely to seek ANC assistance compared to Hindus. Women with the highest education levels were 5 times more likely to seek ANC than those who were not educated. Schedule Tribes were 1.5 times more likely to participate in ANC than Schedule Castes.

Women aged 35-49 had an 86.8% higher likelihood of seeking postnatal care than those aged 15-24 years. Media exposure had a 1.3 times higher chance of receiving this care than those who had none. Muslim women were 17.8% less likely to choose PNC services than Hindu women.

Keywords: Prenatal care, Postnatal care, Skilled birth attendant.

INTRODUCTION

There are numerous socioeconomic factors that influence the use of maternal health services, and it varies by region in India. There may be higher maternal morbidity throughout the reproductive ages of 15 to 49 years for women. It has a harmful effect on females' health. According to surveys, out-of-pocket expenditures on health care are extremely high. The Indian government gradually launched a number of health and social programs to provide free health care at public hospitals. Maternity Safety Scheme (Janani Suraksha Yojana) and Maternity and Child Protection Programme (Janani Shishu Suraksha Karyakaram) are programs through which the government provides free health services to women.

Maternal health care services are insufficient, and the burden of their use is disproportionately high among the community's poorest women. Maternal and child health care use is poor in various Indian states due to poverty and low income levels, which ultimately affect fertility rates. Lack of awareness,

poverty, a low level of education, and a lack of resources are some of the reasons why some Indian states have high mother and newborn death rates. In some states, there is a disparity between the poor and the wealthy in terms of maternal health care utilization. In some states, there is a disparity between the poor and the wealthy in terms of maternal health care utilization. Maternal health care is marked by significant economic and social disparities. Many socioeconomic factors influence the utilization of maternal health services, including place of residence, age, education, religion, and caste. Despite the government's efforts, women did not seek safe delivery or other health treatments due to a lack of understanding.

Objectives

To understand the socioeconomic and demographic features of women in several chosen Indian states that influence prenatal care, postnatal care, and skilled birth attendant services.

Sources of Data and methodology

Secondary data sources, such as the National Family Health Survey (NFHS-3), collected throughout the country between 2005 and 2006, were employed. In India, the NFHS-3 nationwide survey included 124,385 women between the ages of 15 and 49 who were reproductively active. The investigation was based on data received from women aged 15 to 49 who had given birth throughout their reproductive ages.

RESULTS

The study consider place of residence, birth order, age, women’s education exposure to mass media, sex of household head, wanted child, caste, religion, and wealth as main variables, with antenatal care, skilled attendants at birth, and postnatal care as outcome variables, as shown in Table 1.

Table 1: The effect of prenatal care, postnatal care, and trained birth attendants during birth by background factors among women in several Indian states based on NFHS-3 results

| Background Characteristics | Full ANC OR [CI] | Skilled Birth Attendant OR [CI] | Postnatal Care OR [CI] |
|----------------------------|--------------------|---------------------------------|------------------------|
| Age | | | |
| 15-24® | 1 | 1 | 1 |
| 25-34 | 1.49*** [1.3, 1.9] | 1.47*** [1.3, 1.7] | 1.69*** [1.4, 1.9] |
| 35-49 | 1.48** [1.0, 2.2] | 1.49*** [1.3, 1.8] | 1.89*** [1.4, 2.3] |
| Birth Order | | | |
| 1® | 1 | 1 | 1 |
| 2 | 0.59*** [0.5, 0.7] | 0.49*** [0.4, 0.5] | 0.59*** [0.5, 0.7] |
| 3 and more | 0.38*** [0.3, 0.5] | 0.29*** [0.3, 0.4] | 0.37*** [0.3, 0.4] |
| Wanted Child | | | |
| Wanted then and later® | 1 | 1 | 1 |
| Wanted no more | 0.7* [0.5, 1.0] | 0.8*** [0.7, 0.9] | 0.7*** [0.6, 0.8] |
| Sex of HH head | | | |
| Male® | 1 | 1 | 1 |
| Female | 0.89 [0.7, 1.2] | 0.89 [0.8, 1.1] | 0.78* [0.7, 1.1] |

| | | | |
|-----------------------------|---------------------|--------------------|--------------------|
| Mass media exposure | | | |
| No [®] | 1 | 1 | 1 |
| Yes | 1.38** [1.4, 1.8] | 1.19*** [1.1, 1.3] | 1.29*** [1.2, 1.5] |
| Place of Residence | | | |
| Urban [®] | 1 | 1 | 1 |
| Rural | 0.78*** [0.7, 0.91] | 0.58*** [0.6, 0.7] | 0.49*** [0.5, 0.6] |
| Educational | | | |
| No Education [®] | 1 | 1 | 1 |
| Primary | 1.69*** [1.3, 2.3] | 1.56*** [1.4, 1.8] | 1.58*** [1.4, 1.9] |
| Secondary | 3.0*** [2.4, 3.9] | 2.0*** [1.8, 2.3] | 2.0*** [1.8, 2.4] |
| Higher secondary | 6.5*** [4.7, 8.6] | 8.4*** [6.0, 11.6] | 4.55*** [3.6, 5.6] |
| Religion | | | |
| Hindu [®] | 1 | 1 | 1 |
| Muslim | 0.56*** [0.5, 0.9] | 0.59*** [0.6, 0.7] | 0.79*** [0.7, 0.9] |
| Others | 0.89 [0.6, 1.3] | 1.0 [0.7, 1.4] | 1.09 [0.811, 1.5] |
| Caste | | | |
| Schedule Caste [®] | 1 | 1 | 1 |
| Schedule Tribe | 1.49** [1.1, 2.2] | 0.79** [0.8, 1.0] | 1.08 [1.0, 1.4] |
| OBC | 1.09 [0.9, 1.4] | 1.29*** [1.2, 1.4] | 1.18** [1.0, 1.1] |
| Others | 1.19 [1.1, 1.6] | 1.39*** [1.2, 1.6] | 1.37*** [1.2, 1.6] |
| Wealth Index | | | |
| Poorest [®] | 1 | 1 | 1 |
| Poorer | 1.19 [0.8, 1.6] | 1.29*** [1.2, 1.5] | 1.28** [1.1, 1.5] |
| Middle | 1.49** [1.1, 2.1] | 1.69*** [1.6, 2.0] | 1.68*** [1.4, 2.0] |
| Richer | 2.09*** [1.5, 3.1] | 2.56*** [2.3, 3.0] | 2.39*** [2.0, 2.9] |
| Richest | 4.28*** [3.0, 6.1] | 6.09*** [5.0, 7.3] | 4.79*** [3.9, 5.9] |

Antenatal care

Women aged 25-34 years were 55 percent more likely than women aged 15-24 years to receive ANC services. Women aged 35-49 years experienced a 53 percent increase. Women with parity of two were 36 percent less likely to receive ANC care than those with parity of one. People with mass media exposure were 1.3 times more likely to vote for the ANC than those without. Rural women were 24% less likely to use ANC than urban women. In comparison to Hindus, Muslims were 44 percent less likely to seek ANC assistance. Women with the highest education levels were 5 times more likely to seek ANC than those who were not educated. Schedule Tribes were 1.5 times more likely to participate in ANC than Schedule Castes. Similarly, the richest women were 3.2 times more likely to choose the same option than the poorest women.

Postnatal care

It was discovered that women aged 35 to 49 years had an 87 percent higher likelihood of seeking post-natal care than those aged 15 to 24 years. Keeping women with parity 1 as the reference category, the likelihood of a woman having parity 3 or more and seeking post-natal care was 37% lower. Women who had any media exposure had a 1.3 times higher chance of receiving this care than those who had none. Muslim women were 18 percent less likely to choose PNC than Hindu women. It was discovered that when women's educational attainment increased, so did their likelihood of seeking PNC. There was a significant difference in the probabilities of poorest and richest women using PNC services, with the latter having 4.7 times the odds.

DISCUSSION

The study's findings revealed that place of residence, exposure to mass media, education, caste, and wealth were all significant predictors of maternal health care utilization. The findings are significant across all EAG states and India. However, the use of maternal health care was mostly determined by education, affluence, and area of residence, although other predictors were also substantially influenced. The study's findings show that women were more likely to seek maternal health care for their first birth. Although maternal health consumption increased in 2015-16, the number of skilled attendants at birth climbed significantly more.

South Indian states such as Kerala and Tamil Nadu have reached reasonable levels of use. However, in EAG states, maternal health usage remains significantly lower than in India. The key reasons for the low utilization of maternal health care in these eight economically backward states include low income, low educational status, poverty, and a large disparity between the poor and the rich.

The study's findings also found that women in metropolitan areas used more maternal health services than women with higher education levels. Women in the upper levels of society used more maternal health services, but the poorest remained far from satisfactory. The study found that utilization of antenatal care, competent attendants at birth, and postnatal care had grown across all states.

The study discovered that education and affluence were major predictors of prenatal care, trained attendants at birth, and postnatal care in India. The study also revealed that as wealth increased, so did the use of maternal health care services, and that there was a direct and positive relationship between wealth and maternal health. Maternal health care has also improved as more people obtain higher education. Overall, the study discovered that location of residence, age, birth order, education, caste, religion, and wealth were substantially and significantly associated with the use of antenatal care, skilled attendants at birth, and postnatal care in India.

Women aged 35-49 were 1.4 times more likely than those aged 15-24 to apply for SBA. Women with parity three or more were 63% less likely to seek the same assistance than women with parity one. In comparison to a wanted kid, an unwanted child's mother had 29 percent fewer chances of being delivered by SBA. Women from other backward castes were 15% more likely than women from scheduled castes to receive birth assistance from the SBA. Women in the greatest wealth quintile were 72 percent more likely than poorest women to apply for SBA.

CONCLUSION

The place of residence, exposure to mass media, education, caste, and wealth were all significant predictors of maternal health care utilization.

Women were more likely to seek maternal health care for their first birth. Utilization of antenatal care,

competent attendants at birth, and postnatal care had grown across all states. As wealth increased, it ensured the use of maternal health care services. Maternal health care has improved as more people obtain higher education.

REFERENCES

1. Ahmed, S., Creanga, A. A., Gillespie, D. G., & Tsui, A. O. (2010). Economic status, education and empowerment: implications for maternal health service utilization in developing countries. *PloS one*, 5(6), e11190.
2. Balarajan, Y., Selvaraj, S., & Subramanian, S. V. (2011). Health care and equity in India. *The Lancet*, 377(9764), 505-515.
3. Bhatia, J.C. and J. Cleland. n. d. Obstetric morbidity in South India. *Social Science and Medicine* (forthcoming).
4. International Institute for Population Sciences (IIPS) and Macro International. 2007. National Family Health Survey (NFHS-3), 2005–06: India: Volume I. Mumbai: IIPS.
5. Kanitkar, T. and R.K. Sinha. 1989. Antenatal care service in five states of India. In *Population Transition in India*, Volume 2, ed. S.N.Singh et al. Delhi: B.R.Publishing.
6. Navaneetham, K., & Dharmalingam, A. (2002). Utilization of maternal health care services in Southern India. *Social science & medicine*, 55 (10), 1849-1869.
7. Rahman, K. M. (2009). Determinants of maternal health care utilization in Bangladesh. *Research Journal of Applied Sciences*, 4(3), 113-119.
8. Ramachandran, L.1989. The effect of antenatal and natal services on pregnancy outcome, and health of the mother and the child. *Journal of Family Welfare* 35, 5:34-46.
9. Singh, L., Rai, R. K., & Singh, P. K. (2012). Assessing the utilization of maternal and child health care among married adolescent women: evidence from India. *Journal of biosocial science*, 44(1), 1-26.