

Original Research Article

Postnatal mothers and government health programs: a rural-urban cross-section study in India

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ABSTRACT

Background: Government schemes for maternal and child health aim to improve the well-being of postnatal mothers and their children through financial, nutritional, and healthcare support. However, awareness and utilization remain inadequate, especially in rural areas, due to factors such as low literacy, poor communication, and accessibility issues. This study was conducted to assess and compare the awareness and utilization of these schemes among postnatal mothers in rural and urban areas of India.

Methods: This descriptive cross-sectional study was conducted from May 2025 to September 2025 in Pune city among postnatal mothers aged 18 to 35 years. A total of 146 mothers were selected using a non-probability convenient sampling technique. A participant information sheet was provided, and written informed consent was obtained from all participants. Data were collected using a self-administered questionnaire.

Results: Among 146 postnatal women with a mean age of 24.6 years for rural areas and 25.1 years for urban areas. Results showed that there were significantly less awareness and utilization of government schemes in rural areas than urban areas.

Conclusions: Awareness and utilization remain poor in rural areas and suboptimal in urban areas. Mission Indradhanush stands out, showing good utilization even with low awareness due to effective programme delivery.

Keywords: Schemes for women, Janani Suraksha Yojana, Pradhan Mantri Matru Vandana Yojana, Surakshit Matritva Aashwasan Yojana, Integrated Child Development Services, Balika Samridhi Yojana

INTRODUCTION

India, the largest country in South Asia, has made significant progress in reducing maternal mortality through various government initiatives. These schemes have increased institutional deliveries and service access, challenges persist in awareness, utilization, and quality of care. Factors such as low literacy, inadequate communication, and limited infrastructure hinder effective implementation.¹ The postnatal period is defined as the first six weeks after birth which is critical to the health and survival of a mother and her newborn. It is the time to deliver intervention to improve the health and survival of both mother and newborn.²

Janani Suraksha Yojana - under the broad ambit of NRHM, the Government of India launched a broad conditional cash transfer scheme called Janani Suraksha Yojana (JSY) in April 2005, to encourage women of low socioeconomic status to give birth in health facilities. According to JSY's guidelines, after delivery in one of these facilities, the eligible woman would receive Rs 600 in urban areas and Rs. 700 in rural areas.¹¹

The Indira Gandhi Matritva Sahyog Yojana/Pradhan Mantri Matru Vandana Yojana (IGMSY/PMMVY), under this scheme financial assistance of Rs. 5000/- is given to the account of pregnant women and lactating mother. For first living child of the family relating to maternal and child health. The eligible recipients will receive the remaining cash incentives, of Rs. 6000, as per approved guidelines

for maternity benefits under the Janani Suraksha Yojana. This aims to encourage pregnant or lactating women to improve their healthcare-seeking behaviour.³

Surakshit Matritva Aashwasan Yojana (SUMAN), this program provides affordable and quality healthcare solutions to pregnant women and new-borns. Under this scheme, pregnant women, sick new-borns, and mothers receive zero expense access up to six months after delivery. Benefits provided are: Pregnant women will get free transport from home to the health facility and will get dropped back after discharge, counselling and IEC/BCC facilities for safe motherhood; pregnant women will receive hassle-free access to all medical facilities.³¹

Janani Shishu Suraksha Karyakram, a scheme by Ministry of MoHFW for pregnant women who access government health facilities for their delivery, to absolutely free and no expense delivery, including caesarean section. Benefits: For pregnant women: Free and cashless delivery, free C-Section, free drugs and consumables, free diagnostics, free diet during stay, free provision of blood, free exemption from user charges, free transport from home to health institutions, free transport between facilities, free drop back from Institutions to home after 48hrs stay. For sick new-borns till 30 days after birth: Free treatment, free drugs and consumables, free diagnostics, free provision of blood, free exemption from user charges, free transport from home to health institutions, free transport between facilities, free drop back.³²

Integrated Child Development Services (ICDS), the objectives of the Integrated Child Development Services (ICDS) Scheme were to improve the nutritional and health status of children less than six years, to lay the foundation for proper psychological, physical, and social development, to reduce the incidence of mortality, morbidity, malnutrition, and school dropouts, and to enhance the capability of the mother to look after the normal health and nutritional needs of the child.⁴

Balika Samridhi Yojana (BSY), it is being implemented in both urban and rural areas. Benefits: Each girl gets entitled to Rs.500/- post birth and also receives a scholarship for successfully completed years of schooling. The amount of scholarship can be deposited in an interest-bearing account, and the maximum possible rate of interest is ensured.⁵

Mission Indradhanush (MI), this initiative will eventually close immunity gaps and strengthen immunization coverage. The Government of India is committed to reduce child mortality and morbidity in the country by improving full immunization coverage through Universal Immunization Programme (UIP). The programme provides vaccination against seven life-threatening diseases in the entire country.⁶

Prime Minister's Overarching Scheme for Holistic Nourishment (POSHAN) Abhiyaan, the objectives of

Poshan Abhiyaan are to prevent and reduce stunting in children aged 0-6 years, prevent and reduce under-nutrition in children aged 0-6 years, reduce the prevalence of anaemia among children aged 6-59 months, reduce the prevalence of anaemia among women and adolescent girls in the age group of 15-49 years, and reduce low birth weight.⁷

METHODS

This descriptive type of cross-sectional study was conducted from May 2025 to September 2025 among aged 18 to 35 years residing in some selected areas of Shivajinagar, Kothrud, Katraj, Maangaon, New Kopre, Shivne areas. Women who were co-operative, mentally sound, willing to participate were selected from these areas by non-probability convenient sampling technique. After introduction with the respondents, informing about the study purpose and objective, data were collected with the help of self-administered questionnaire. Questionnaire was divided into 2 parts i.e. demographics, awareness and its utilization. The participants were then allowed to fill in hard copy. Participants were instructed to reply as honestly as possible to each question. Each questionnaire took an average of 10 min to complete. Data were edited and coded. Descriptive statistics including mean, median, standard deviation were analyzed using Microsoft Excel for age. Then per question analysis was done to find out percentage in rural and urban population.

Procedure

Ethical approval and participant selection

Prior to initiating the study, ethical clearance was obtained from the Institutional Ethical Committee to ensure that the study adhered to ethical standards involving human participants. This step guaranteed the protection of participants' rights, confidentiality, and well-being throughout the research process.

Participants for the study were selected using pre-defined inclusion criteria, ensuring that the sample was representative of the population of interest-postnatal mothers residing in both rural and urban areas of India. Only those mothers who met these criteria and were willing to participate were included in the study.

Participant information and consent

Each participant was provided with a participant information sheet (PIS), which explained the study's objectives, procedures, potential benefits, and any risks involved. This ensured transparency and allowed participants to make an informed decision about their participation. Subsequently, written informed consent (IC) was obtained from all participants, confirming their voluntary participation and understanding of the study. Anonymity and confidentiality were assured.

Data collection

A self-administered questionnaire was distributed to participants to gather information regarding their awareness and utilization of government schemes related to postnatal care for themselves and their children.

Data analysis and interpretation

After collection, the data were systematically organized, analyzed, and interpreted using appropriate statistical methods. This process involved identifying differences in awareness and utilization between rural and urban participants. The findings were then used to provide meaningful conclusions about the effectiveness and reach of government schemes for postnatal women in India.

RESULTS

The present study was conducted among 146 postnatal women. By descriptive data analysis, the mean age of postnatal women was 24.6 years for rural areas and 25.1 years for urban areas.

The study revealed that, in rural population, the majority of women had completed only primary school education (46.58%), followed by high school education (30.14%). A smaller proportion were graduates (9.59%), while masters and illiterate women each accounted for 5.48%. Only a very small percentage had completed a bachelor's degree (2.74%). In the rural population, the majority of participants were housewives (94.52%), while only a very small percentage of participants were doing job (5.48%) (Table 1).

Table 1: Demographics of rural areas.

S. no.	Demographics	Percentage (%)
1	Education	
	Primary school	46.5
	High school	30.1
	Graduates	9.5
	Masters and illiterate	5.4
	Bachelors	2.7
2	Occupation	
	Housewives	94.5
	Job	5.4

Out of the total 73 participants, 38.36% were aware of the government schemes and 61.64% were not. Out of the total 73 participants, 21.92% were aware of the Janani Suraksha Yojana (JSY) while 78.08% were not. Out of the total 73 participants, 46.58% were aware of the PMMYJ, while 53.42% were not.

Out of the total 73 participants, 4.1% were aware of the Surakshit Matritva Aashwasan Yojana while 95.8% were not. Out of total 73 participants, 6.8% were aware of Janani Shishu Suraksha Karyakram while 93.1% were not. Out of

the total 73 participants, 4.1% were aware of ICDS while 95.8% were not. Out of the total 73 participants, 21.9% were aware of Balika Samridhi Yojana while 78% were not. Out of the total 73 participants, 6.8% were aware of Mission Indradhanush and 93.1% were not. Out of the total 73 participants, 24.6% were aware of POSHAN Abhiyaan and 75.3% were not (Table 2).

Out of the 16 participants who were aware of JSY, none had utilized the benefit. Out of 34 participants who were aware of PMMYJ 2.94% availed the benefit of 5000Rs and 97% did not utilized. Out of 4 participants who were aware of Surakshit Matritva Aashwasan Yojana none had utilized the benefit. Out of 5 participants who were aware of Janani Shishu Suraksha Karyakram none had utilized the benefit.

Out of 3 participants who were aware of ICDS none had utilized the benefit. Out of 16 participants who were aware of BSY none had utilized the benefit. Out of 5 participants who were aware of Mission Indradhanush 60% utilized the benefit and 40% did not. Out of 18 participants who were aware of POSHAN Abhiyaan 44.4% utilized the benefit while 55.5% did not (Table 3).

In the urban population the highest proportion of participants were graduates (35.6%), followed by those educated up to high school (32.87%). Around 21.9% had completed primary school, while a smaller proportion had completed masters (6.84%). Only a very small percentage had completed bachelor's degree (2.73%) In the urban population, the majority of participants were housewives (90.4%), while only a very small percentage of participants were doing job (9.58%) (Table 4).

Out of total 73 participants, 52% were about government schemes while 47.9% were not. Out of total 73 participants, 34.2% were aware of JSY while 65.7% were not. Out of total 73 participants, 53.4% were aware of Pradhan Mantri Matru Vandana Yojana while 46.5% were not. Out of total 73 participants, 23.2% were aware of Surakshit Matritva Aashwasan Yojana while 76.7% were not. Out of total 73 participants, 8.2% were aware of Janani Shishu Suraksha Karyakram while 91.7% were not.

Out of total 73 participants, 15% were aware of ICDS while 85% were not. Out of total 73 participants, 30.1% were aware of BSY, while 69.8% were not. Out of 73 participants, 8.2% were aware of Mission Indradhanush while 91.7% were not. Out of total 73 participants, 26% were aware of POSHAN Abhiyaan, while 73.9% were not (Table 5).

Out of 25 participants who were aware of JSY, 8% received antenatal care (treatment of diabetes, HIV, hypertension, influenza and pneumococcal vaccination) while 92% did not utilized the benefit. Out of 39 participants who were aware of Pradhan Mantri Matru Vandana Yojana, 7.6% received cash of 5000Rs while 92.3% did not utilized the benefit. Out of 17 participants who were aware of Surakshit Matritva Aashwasan Yojana,

5.8% received free transport from home to the hospital and drop back after discharge, 88.2% hassle-free access to all medical facilities, while 5.8% did not utilized the benefit. Out of 6 participants who were aware of Janani Shishu Suraksha Karyakram, 16.6% received free drugs and

consumables, free diagnostics, free treatment, free drugs and consumables for newborns, and 83.3% did not utilized the benefit. Out of 11 participants who were aware of ICDS, none had utilized the benefit.

Table 2: Awareness of government schemes in rural areas.

S. no.	Questions	Yes (%)	No (%)
1	Are you aware about government schemes for mothers and their children?	38.3	61.6
2	Are you aware of Janani Suraksha Yojana?	21.9	78.0
3	Are you aware of Pradhan Mantri Matru Vandana Yojana?	46.5	53.4
4	Are you aware of Pradhan Mantri Matru Vandana Yojana?	4.1	95.8
5	Are you aware of Janani Shishu Suraksha Karyakram?	6.8	93.1
6	Are you aware of Integrated Child Development Services?	4.1	95.8
7	Are you aware of Balika Samridhi Yojana?	21.9	78.0
8	Are you aware of Mission Indradhanush?	6.8	93.1
9	Are you aware of Prime Minister's Overarching Scheme for Holistic Nourishment Abhiyaan?	24.6	95.3

Table 3: Utilisation of government schemes in rural areas.

S. no.	Name of scheme	Benefit	Percentage (%)
1	Janani Suraksha Yojana	No	100
2	Pradhan Mantri Matru Vandana Yojana	Cash of 5000	2.9
		No	97.0
3	Surakshit Matritva Aashwasan Yojana	No	100
4	Janani Shishu Suraksha Karyakram	No	100
5	Integrated Child Development Services	No	100
6	Balika Samridhi Yojana	No	100
7	Mission Indradhanush	Yes	60
		No	40
8	Prime Minister's Overarching Scheme for Holistic Nourishment Abhiyaan	Yes	44.4
		No	55.5

Table 4: Demographics of urban areas.

S. no.	Demographics	Percentage (%)
1	Education	
	Graduates	35.6
	High school	32.8
	Primary school	21.9
	Masters	6.8
	Bachelors	2.7
2	Occupation	
	Housewives	94.5
	Job	9.5

Out of 22 participants, who were aware of Balika Samridhi Yojana, 5% received 500Rs post birth, 5% received scholarship after completing years of schooling while 90% did not utilised the benefit. Out of 6 participants, who were aware of Mission Indradhanush, 66.6% utilised the benefit while 33.3% did not.

Out of 9 participants who were aware of POSHAN Abhiyaan, 26.3% received counselling or demonstrations related to nutrition and feeding practices while 73.6% did not (Table 6).

Table 5: Awareness of government schemes in urban areas.

S. no.	Questions	Yes (%)	No (%)
1	Are you aware about government schemes for mothers and their children?	52	47.9
2	Are you aware of Janani Suraksha Yojana?	34.2	65.7
3	Are you aware of Pradhan Mantri Matru Vandana Yojana?	53.4	46.5
4	Are you aware of Pradhan Mantri Matru Vandana Yojana?	23.2	76.7
5	Are you aware of Janani Shishu Suraksha Karyakram?	8.2	91.7
6	Are you aware of Integrated Child Development Services?	15	85
7	Are you aware of Balika Samridhi Yojana?	30.1	69.8

Continued.

S. no.	Questions	Yes (%)	No (%)
8	Are you aware of Mission Indradhanush?	8.2	91.7
9	Are you aware of Prime Minister's Overarching Scheme for Holistic Nourishment Abhiyaan?	26	74

Table 6: Utilisation of government schemes in urban areas.

S. no.	Name of scheme	Benefit	Percentage (%)
1	Janani Suraksha Yojana	Antenatal care	8
		No	92
2	Pradhan Mantri Matru Vandana Yojana	Cash of 5000	7.6
		No	92.3
3	Surakshit Matritva Aashwasan Yojana	Free transport from home to the hospital and drop back after discharge	5.8
		Hassle-free access to all medical facilities	88.2
		No	5.8
4	Janani Shishu Suraksha Karyakram	Free drugs and consumables, free diagnostics, free treatment, free drugs and consumables for newborns	16.6
		No	83.3
5	Integrated child development services	No	100
6	Balika Samridhi Yojana	500Rs post birth	5
		Scholarship after completing years of schooling	5
		No	90
7	Mission Indradhanush	Yes	66.6
		No	33.3
8	Prime Minister's Overarching Scheme for Holistic Nourishment Abhiyaan	Yes	26.3
		No	73.6

DISCUSSION

JSY, in rural areas, awareness and utilization of JSY were found to be limited, primarily because most women had education only up to the primary level and were housewives. Illiteracy and lack of understanding regarding the application process prevented them from availing the scheme benefits. Some respondents mentioned that although they had applied for JSY, they never received the financial incentives. In contrast, in urban areas, women said that they did not perceive any significant benefits from government schemes, which reduced their motivation to access antenatal and institutional delivery services. Previous study by Reddy et al says that, out of 120 mothers only 94 (78.3%) mothers were aware of JSY scheme and around 82 (68.3%) mothers were aware of institutional delivery benefits. Out of 120 postnatal mothers only around 48 (40%) of the mothers had registered early in the first trimester whereas around 72 (60%) mothers were registered only after 12 weeks of pregnancy at the health facility with majority of respondents 92 (76.7%) had attended four or more ANC visits. However, only 70 (58.3%) mothers had consumed 100 iron folic acid tablet properly and the most remarkable part being all the 120 mothers had received both the doses of tetanus toxoid vaccination. Found 78.3% of mothers were aware of JSY in the urban health centre context; 82.9% had received the cash assistance under JSY.²⁷ The previous study in north India by Kumar et al says that nearly half (53.2%) of the

mothers studied had an institutional delivery and were eligible for the JSY benefits. Nearly half (48.09%) of the beneficiaries were benefited by free transport facility. Although all of the health care providers perceived JSY as beneficial for improving maternal health, 44% of them had the notion that cash incentives under JSY can have a negative effect on family planning practices.¹²

PMMVY, among rural mothers, although healthcare workers informed them about PMMVY, inadequate guidance regarding eligibility criteria and the application process hindered utilization. In urban areas, women said that time constraints and assumptions of a lengthy and complicated application process as reasons for non-participation. Coverage of PMMVY was less in urban areas (53.1% as compared to overall coverage of 95.9%). Knowledge of the scheme was high among both beneficiary and non-beneficiary women (97.8% beneficiary women and 94.2% non-beneficiary women). Utilization of maternal and child health (MCH) services were significantly poorer among non-beneficiary women for four antenatal check-ups, childbirth registration and child immunization. However, certain operational challenges were found related to beneficiary enrolment and use of PMMVY software, and a gap in intended and actual use of PMMVY incentive was observed (26.2% beneficiary women had spent the cash incentive on needs not related to nutrition or health).²⁸ The previous study by Behera et al says that despite notable progress in India's

socioeconomic sphere, the country's maternal health care remains a significant concern. The PMMVY is a commendable program supporting mothers throughout pregnancy and breastfeeding to improve their health, particularly beneficial for women from low socioeconomic backgrounds who need to return to work after childbirth. However, the scheme's implementation faced numerous challenges and shortcomings.³

SUMAN, in rural areas, most women were unaware of the existence of the SUMAN scheme, largely due to limited mobile access and communication barriers. In contrast, urban women demonstrated higher utilization of SUMAN benefits such as free medicines and transport. They also expressed a preference for institutional deliveries, considering them safer for both mother and child. Previous study by Verma et al says that, most of women had preferred and practiced institutional delivery with majority preferring government hospital over private hospital and less than one-tenth had preference for delivery at home.²⁹ The previous study shows that such entitlement-based schemes only work if hospitals are ready and staff are supportive. Low awareness and weak supply chains (like few ambulances, outsourced labs, or lack of grievance redressal) often reduce the effectiveness of these initiatives.^{1,10,12,21,22}

Janani Shishu Suraksha Karyakram (JSSK), awareness of JSSK was particularly low among rural participants, many of whom heard about the scheme for the first time during the survey. A few knew about free medicines or transport services but were unaware that these were components of JSSK. Similarly, in urban areas, most participants were unaware that such services were government-provided. This indicates that while the services may be available, the lack of clear identification and communication of the scheme reduces visibility and utilization among beneficiaries. Previous study by Chandrakar et al says that awareness is moderate, not extremely low; certain services are well known (transport), but others are invisible.³⁰

ICDS, in rural areas, many women expressed disinterest in government schemes and said language barriers as a reason for their lack of awareness. In urban areas, they were preoccupied with household and job responsibilities and therefore ignored information related to the schemes. The previous study by Gupta et al says that, although there had been vast increase in ICDS blocks since 1975 but many of them are not functioning optimally. Infrastructure and basic amenities need to be strengthened. Coverage of supplementary nutrition needs to be increased with maintenance of continuous supply.⁴

BSY, in rural areas, due to limited interest in girls' education, most of them reported not prioritizing schooling for their daughters. In urban areas, some women said, they faced difficulties in completing the application process, while others said they did not receive any updates after applying. The previous study by Suratwala et al says that in India condition of women in urban areas is better than

the women of rural areas. It is lack of awareness for empowerment, value of self-respect or own potentiality that makes difference between a rural woman and an urban woman. Rural women also not much aware about the governmental programmes for their welfare and empowerment. There is need of scheduled awareness programmes in Anganwadi Kendra, and Atal Seva Kendra, where rural women could know about the governmental programmes for them.²⁴

MI, in rural areas, healthcare workers had emphasized the importance of child immunization and explained the potential health consequences of missing vaccines. In urban areas, they were informed about the importance of child vaccination during their hospital stay, which encouraged them to participate in the immunization program. The previous study by Dhawan et al, says that the MI and intensified Mission Indradhanush (IMI) have made substantial contributions toward improving full immunization coverage in India by targeting underserved areas, strengthening planning, monitoring, and community engagement. It emphasizes that sustained efforts—especially further advocacy, communication, and use of platforms like Mann Ki Baat—are essential to bridge remaining immunization gaps, reach left-out populations, and sustain gains under India's Universal Immunization Programme. Even when people don't know the scheme by name, health workers ensure their participation.²⁵

POSHAN, in rural areas, some women recognized the scheme's purpose but did not know its official name. Nearly half of those who were aware had benefited from it, mainly through the school mid-day meal program, as they could not afford. In urban areas, some said that their children usually carried home-prepared tiffin to school, so they did not rely on the scheme for meal.

The previous study by Bisht et al says that, although the POSHAN Abhiyan schemes have shown improvement in system readiness and service delivery coverage in states and UTs according to the 4th progress report, the prevalence of malnutrition, stunted growth, and underweight among children remains high, as per the NFHS 15-16 and 19-21.²⁶

Limitations

Since the study was hospital based among urban areas it only depicts awareness and utilisation of government schemes among women already coming to hospital and not in the other community setup. The sample size was modest (146) with a small rural urban split which reduces precision.

Further scope

Conducting campaigns at Anganwadi centres and during village health days can directly reach postnatal mothers, providing education about government schemes through interactive sessions, demonstrations, and visual aids. This

approach ensures clear communication and encourages active participation. Providing assistance with form filling can make scheme applications more accessible. Simplified procedures empower mothers to access benefits without confusion or delay.

CONCLUSION

The present study concludes that while the Government of India has introduced several well-designed government schemes, their utilisation remains inadequate due to low awareness, administrative hurdles, and socio-economic barriers. Awareness and its utilisation of government schemes for postnatal women are generally poor in rural areas and suboptimal in urban areas. MI is the exception where optimal intensity appears to carry uptake even among the minimally aware.

Recommendations

Health workers should not only inform postnatal women about schemes but also help them with registration and follow up. This ensures women actually get the benefits. Regular village level meetings among women in community can improve awareness and utilisation among them. Sharing information about schemes on social media groups which are easily accessible. Incorporating scheme awareness into routine community outreach like immunization camps can enhance its utilisation.

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