

AWARENESS OF MATERNAL AND CHILD HEALTH BENEFIT SCHEMES AMONG WOMEN ATTENDING ANTENATAL CLINICS ACROSS HEALTH FACILITIES IN IMPHAL-EAST DISTRICT OF MANIPUR: A CROSS-SECTIONAL STUDY

Bishwalata Rajkumari¹, Mathangmanai Shyami Tarao², Dayananda Ingudam³, Daimai Nathanael⁴, Velu Sougaijam⁵, Thoudem Pooja⁶

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Corresponding Author:

Dr. Daimai Nathanael,
Email: nathandaimai@gmail.com

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¹Professor and Head, Department of Community Medicine, Jawaharlal Nehru Institute of Medical Sciences, Imphal, Manipur, India.

²Associate Professor, Department of Community Medicine, Jawaharlal Nehru Institute of Medical Sciences, Imphal, Manipur, India.

³Assistant Professor, Department of Community Medicine, Jawaharlal Nehru Institute of Medical Sciences, Imphal, Manipur, India.

^{4,5,6}Post Graduate Trainees, Department of Community Medicine, Jawaharlal Nehru Institute of Medical Sciences, Imphal, Manipur, India.

ABSTRACT

Background: Maternal and Child Health (MCH) benefit schemes introduced by the Government of India aim to improve maternal and child health outcomes by enhancing access to antenatal, delivery, and postnatal services. However, effective utilization of these schemes largely depends on beneficiaries' awareness. Therefore, this study assessed the awareness of MCH benefit schemes among antenatal women attending public health facilities in Imphal-East district, Manipur, and examined its association with selected socio-demographic characteristics. **Materials and Methods:** A facility-based cross-sectional study was conducted among 260 antenatal women attending a tertiary care hospital and selected primary health centres in Imphal-East district from September to December 2024. Participants were selected using purposive sampling. Data were collected using a pre-tested, semi-structured questionnaire. Descriptive statistics were presented as frequencies and percentages. Chi-square test was used to determine the association between socio-demographic variables and awareness level, with p-values <0.05 considered statistically significant. **Results:** The mean age of participants was 27.45 ± 5.65 years. Most participants belonged to urban areas (52%), had education above primary level (97.7%), and lived in joint families (72%). Overall, only 6 participants (2.3%) had good awareness regarding MCH benefit schemes, while 254 (97.7%) had poor awareness. About 69.2% of participants were not aware of any MCH scheme. No statistically significant association was observed between socio-demographic variables and awareness level. **Conclusions:** There was poor awareness among the majority of the participants (97.7%). Awareness at the community level should be enhanced through wider dissemination of information in the local language as well as by organising awareness campaigns in the community.

INTRODUCTION

Maternal health remains an important public health concern and a key indicator of health system performance. Globally, several initiatives have been introduced to reduce maternal morbidity and mortality and to improve access to essential maternal healthcare services. The Sustainable Development Goals aim to reduce the global maternal mortality

ratio to less than 70 per 100,000 live births by 2030.^[1] Despite progress, preventable maternal deaths continue to occur, especially in low- and lower-middle-income countries. In 2017, around 810 women died every day from preventable causes related to pregnancy and childbirth, with most deaths occurring in resource-limited settings.^[1] India has made considerable progress in reducing maternal mortality. As per UNICEF, deaths related to

pregnancy and childbirth have declined over the years, reflecting improvements in maternal healthcare services.^[2] The maternal mortality ratio in India declined to 97 per 100,000 live births during 2018–20, as reported by the Special Bulletin on Maternal Mortality in India.^[3] However, India has previously contributed substantially to the global burden of maternal deaths, indicating the need for sustained efforts to improve maternal health outcomes.^[4] Although effective maternal health interventions are available, their utilization is often limited by gaps in awareness, accessibility, affordability, and quality of services. Disparities persist between rural and urban areas, socioeconomic groups, and different states.^[4,5] Most maternal deaths are preventable through timely antenatal care, institutional delivery, skilled birth attendance, early identification of high-risk pregnancies, referral services, emergency obstetric care, and postnatal care. Barriers such as poverty, distance from health facilities, lack of information, inadequate services, and sociocultural practices continue to affect service utilization.^[5] To address these challenges, the Government of India has implemented several maternal and child health benefit schemes. Janani Suraksha Yojana (JSY) promotes institutional deliveries through financial assistance.^[5] Institutional deliveries in India increased from 78.9% in NFHS-4 to 88.6% in NFHS-5.^[6] Janani Shishu Suraksha Karyakram (JSSK) provides free and cashless services including delivery, transport, drugs, diagnostics, blood, diet, and care for sick newborns.^[7] Pradhan Mantri Surakshit Matritva Abhiyan (PMSMA) provides assured and quality antenatal care to pregnant women on the 9th of every month.^[8] In Manipur, institutional deliveries increased from 69.9% in NFHS-4 to 79.9% in NFHS-5; however, only 23% of women who delivered in health facilities received financial assistance under JSY.^[9] This highlights a gap between service availability and utilization of benefits. Therefore, this study aims to estimate the level of awareness regarding government maternal and child health benefit schemes among antenatal women and determine the socio-demographic factors associated with their awareness.

MATERIALS AND METHODS

Facility based cross-sectional study was conducted among women attending antenatal clinic of a tertiary care hospital and some selected public health facility located in Imphal-East district of Manipur. The study was carried out in four health facilities: Jawaharlal Nehru Institute of Medical Sciences (JNIMS) Hospital, PHC Akampat, PHC Basikhong, and PHC Kshetrigao. The study was conducted from 20th September 2024 to 8th October 2024. The study population included women of reproductive age group (15–45 years), attending antenatal clinics in the selected health facilities during the study period.

Those women willing to participate are included the study. Those who refused to participate and women with serious mental health condition were excluded. The sample size was calculated by taking the awareness level as 18.6%, based on a previous study by Johnson et al.,^[5] with 95% confidence interval and 5% absolute error. After considering a 10% non-response rate, the final sample size was rounded to 260. A non-probability purposive sampling technique was used. The sample was distributed among the selected health facilities in the ratio of 7:1:1:1, based on antenatal outpatient attendance/client load. A pre-tested, semi-structured questionnaire adapted from the review of literature is used which consist of 6 domains: Socio-demographic characteristics, awareness regarding government MCH benefit schemes, perception regarding the schemes, uptake of various schemes, and satisfaction with antenatal care services. Awareness was assessed using 51 items, with each correct response given a score of 1 and each incorrect response given a score of 0. The total attainable score ranged from 0 to 51. Participants scoring 26 and above were considered to have good awareness, while those scoring below 26 were considered to have poor awareness. Perception and satisfaction were assessed using a five-point Likert scale.

Statistical analysis

Data were entered in MS Excel and analyzed in SPSS v 22 (IBM). Descriptive statistics like mean, median, proportion, and standard deviation were used to summarize the findings and associations were assessed using the chi-square test. A p-value of less than 0.05 was taken as statistically significant.

Ethical approval

Ethical approval was obtained from the Institutional Ethics Committee vide protocol No.582/101/2024 dated 12/11/2024. Verbal consent was taken from the study participants, and the purpose of the study was clearly explained prior to data collection. Strict confidentiality of the information was maintained. The investigators kept all collected data on password-protected computers.

RESULTS

A total of 260 antenatal women participated in the study. The mean age was 27.45 ± 5.65 years (range: 18–43 years). Nearly half of the participants belonged to the age group of 26–35 years (45.4%), followed by 15–25 years (42.3%). More than half of the participants were from urban areas (51.5%). The majority belonged to joint families (71.9%) and had education above primary level (78.5%). Most participants had one or no live births (93.1%), and among those with previous deliveries, the majority had delivered in government health facilities (96.7%). ASHA home visits during the present pregnancy were reported by 41.5% of the participants (Table 1). Among the participants, only 6 (2.3%) had good awareness regarding maternal and child health

benefit schemes, while 254 (97.7%) had poor awareness. Awareness was not found to be significantly associated with selected socio-demographic and obstetric variables such as religion, type of family, community, education, distance from residence to health facility, APL/BPL card status, number of live births, place of last delivery, type of delivery, and number of ANC visits (Table 2). Regarding uptake of maternal and child health schemes, most participants were eligible for JSY, JSSK, PMMVY, and PMSMA. However, registration varied widely across schemes. Registration was highest for JSY (87.3%), followed by JSSK (7.3%), PMMVY (3.8%), and PMSMA (0.7%). Regarding satisfaction with antenatal care services, 30.0% were satisfied and 4.2% were very satisfied, while the majority reported a neutral

response (60.4%) (Table 3). Perception was assessed among participants who were aware of at least one scheme. Only 10.0% of the participants agreed or strongly agreed that these programmes improve the health of mothers and children, while 70.0% disagreed or strongly disagreed. Similarly, 11.3% agreed or strongly agreed that maternal and infant mortality is reduced due to these schemes, whereas 66.3% disagreed or strongly disagreed. Nearly one-fourth of participants agreed or strongly agreed that the schemes provide financial help and reduce out-of-pocket expenditure. Most participants gave neutral responses regarding provision of additional supplements, encouragement for regular antenatal check-ups, postnatal care, and motivation for safe hospital delivery. [Table 4]

Table 1: Distribution of demographic, obstetric, analgesic, and clinical characteristics between the groups

Characteristics	Frequency (n)	Percentage (%)
Age group (years)		
15–25	110	42.3
26–35	118	45.4
36–45	32	12.3
Residence		
Rural	126	48.5
Urban	134	51.5
Religion		
Hinduism	118	45.4
Christianity	80	30.8
Others	62	23.8
Type of family		
Nuclear	73	28.1
Joint	187	71.9
Educational status		
Below primary level	56	21.5
Above primary level	204	78.5
APL/BPL card holder		
Yes	103	39.6
No	157	60.4
Number of live births		
≤1	242	93.1
>1	18	6.9
ASHA home visit during present pregnancy		
Yes	108	41.5
No	152	58.5

Table 2: Awareness regarding maternal and child health benefit schemes and association with selected variables. (N=260)

Variable	Good awareness n (%)	Poor awareness n (%)	p-value
Overall awareness (N = 260)	6 (2.3)	254 (97.7)	
Religion			
Hinduism	4 (3.4)	114 (96.6)	0.560
Christianity	1 (1.3)	79 (98.7)	
Others	1 (1.6)	61 (98.4)	
Type of family			
Nuclear	2 (2.7)	71 (97.3)	0.674
Joint	4 (2.1)	183 (97.9)	
Educational status			
Below primary level	0 (0.0)	56 (100.0)	0.868
Above primary level	6 (2.9)	198 (97.1)	
APL/BPL card holder			
Yes	4 (3.9)	99 (96.1)	0.128
No	2 (1.3)	155 (98.7)	
Number of live births			
≤1	6 (2.5)	236 (97.5)	0.647
>1	0 (0.0)	18 (100.0)	
Number of ANC visits			
1–3 visits	5 (2.2)	222 (97.8)	0.561

4–7 visits	1 (3.0)	32 (97.0)	
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Table 3: Uptake of maternal and child health benefit schemes and satisfaction with antenatal care. (N=260)

Scheme / Variable	Yes n (%)	No n (%)
Eligibility for schemes		
JSY	257 (98.8)	3 (1.2)
JSSK	259 (99.6)	1 (0.4)
PMMVY	259 (99.6)	1 (0.4)
PMSMA	240 (92.3)	20 (7.7)
Registration under schemes		
JSY	227 (87.3)	33 (12.7)
JSSK	19 (7.3)	241 (92.7)
PMMVY	10 (3.8)	250 (96.2)
PMSMA	2 (0.7)	258 (99.3)

Satisfaction with antenatal care services (N = 260)

Satisfaction level	Frequency (n)	Percentage (%)
Very satisfied	11	4.2
Satisfied	78	30.0
Neutral	157	60.4
Unsatisfied	9	3.5
Very unsatisfied	5	1.9

Table 4: Perception, uptake of maternal and child health benefit schemes, and satisfaction with antenatal care. (N=260)

Variable	Frequency (n)	Percentage (%)
Perception regarding MCH benefit schemes		
Agreed/strongly agreed that schemes improve health of mother and child	8	10.0
Agreed/strongly agreed that maternal and infant mortality is reduced	9	11.3
Agreed/strongly agreed that schemes provide additional supplements	22	27.5
Agreed/strongly agreed that schemes encourage regular ANC	14	17.5
Agreed/strongly agreed that schemes provide PNC for mother and child	14	17.5
Agreed/strongly agreed that schemes motivate family for safe hospital delivery	18	22.5
Agreed/strongly agreed that schemes provide financial help	20	25.0
Agreed/strongly agreed that schemes reduce out-of-pocket expenditure	20	25.0
Registration under schemes (N = 260)		
JSY	227	87.3
JSSK	19	7.3
PMMVY	10	3.8
PMSMA	2	0.7
Satisfaction with antenatal care services (N = 260)		
Very satisfied	11	4.2
Satisfied	78	30.0
Neutral	157	60.4
Unsatisfied	9	3.5
Very unsatisfied	5	1.9

DISCUSSION

The present study assessed the awareness, uptake, perception, and satisfaction regarding MCH benefit schemes among women attending antenatal clinics in selected health facilities of Imphal-East district, Manipur. The overall awareness regarding the selected MCH benefit schemes was found to be very low. Only 2.3% of the participants had good awareness, while 97.7% had poor awareness. This indicates a substantial gap between the availability of government schemes and awareness among the intended beneficiaries.

The finding of low awareness in the present study is comparable to the study conducted by Unnikrishnan B et al,^[10] where awareness of MCH benefit schemes among women attending a district hospital in coastal South India was also reported to be low. However, this finding differs from the study conducted by Chandrakar A et al,^[11] in rural Raipur, Chhattisgarh, where 59% of mothers had good awareness regarding

JSSK entitlements. Similarly, Kaur H et al,^[12] reported high awareness regarding free and cashless delivery services under JSSK, with 97.6% of women being aware of this benefit. The differences in awareness levels may be due to variations in study setting, scheme-specific implementation, exposure to health education activities, and the role of frontline health workers in communicating information to beneficiaries. In the present study, only a small proportion of participants were aware of all four schemes, while the majority were either aware of only one scheme or were not aware of any scheme. This suggests that awareness was not uniform across different maternal and child health schemes. A similar concern was noted by Priya N et al,^[13] where awareness of JSY was high, but knowledge regarding specific benefits was mainly limited to cash incentives for institutional deliveries. This highlights that knowing the name of a scheme alone may not translate into adequate knowledge of its entitlements, eligibility criteria, or procedures for availing benefits.

No statistically significant association was found between awareness and selected socio-demographic or obstetric variables such as religion, type of family, community, educational status, APL/BPL card status, number of live births, place of delivery, type of delivery, and number of antenatal visits. This may be due to the very low number of participants with good awareness in the present study. In contrast, Chandrakar A et al,^[11] reported that increasing parity was significantly associated with higher awareness regarding JSSK. Dutta B and Barman MP^[14] also found that community and distance from the health facility were significantly associated with awareness of maternal and child health schemes. Although most participants were eligible for the major schemes, registration varied considerably. Registration was highest for JSY, while it was much lower for JSSK, PMMVY, and PMSMA. This suggests that JSY may be better known or more actively implemented compared to other schemes. Similar findings have been reported by Lakshmi S et al,^[15] and Manjula K et al,^[16] where better awareness and utilization were observed for certain schemes. This indicates the need for balanced dissemination of information regarding all available maternal and child health benefit schemes. The perception of participants regarding these schemes was also not very encouraging. Many participants gave neutral or negative responses regarding the role of these schemes in improving maternal and child health, reducing maternal and infant mortality, encouraging regular antenatal care, and reducing out-of-pocket expenditure. This may reflect inadequate understanding of the objectives and benefits of the schemes. Since awareness is an important determinant of utilization, poor knowledge may directly affect uptake of services.

Strengths and limitations

The strength of this study is that it assessed awareness, uptake, perception, and satisfaction regarding multiple MCH benefit schemes among antenatal women attending different public health facilities in Imphal-East district. The use of a pre-tested semi-structured questionnaire and face-to-face interviews helped in obtaining information directly from the beneficiaries. However, the study has some limitations. Being a facility-based cross-sectional study, the findings may not be generalizable to all pregnant women in the community, especially those not attending antenatal clinics. The use of purposive sampling may limit representativeness.

CONCLUSION

The study found poor awareness of maternal and child health benefit schemes among antenatal women in Imphal-East district, despite high eligibility for these schemes. Registration and uptake were uneven, with JSY showing better registration compared to JSSK, PMMVY, and PMSMA. No significant association was found between awareness and selected socio-demographic variables. Strengthening

health education during antenatal visits, community-level IEC activities, and active involvement of ASHA, ANM, and Anganwadi workers is essential to improve awareness and utilization of maternal and child health benefit schemes.

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Declarations

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