



International Journal of Medicine

ISSN (P): 1468-3814; ISSN (e): 2667-7008

<https://www.theinternationalmedicine.com>

Volume: 7(12) 2025



Original Research

Health Seeking Behaviour among antenatal females of the catchment areas at Urban Health Training Centre: A cross-sectional study

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Received: 17 Nov 2025 / Accepted: 18 Dec 2025

Abstract

Background: Antenatal health care is a crucial phase for pregnant mothers to monitor foetus and their health seeking behaviour. This study was conducted to assess the health-seeking behaviour of antenatal mothers and determine the factors affecting the utilization of services provided to antenatal mothers under various schemes. The objectives of the study are to assess the health-seeking behaviour among antenatal females under study, to determine the multiple factors affecting this health-seeking behaviour, and to assess their awareness and utilization of the various national health schemes provided for antenatal females. **Material and Methods:** A cross-sectional study was conducted among 74 antenatal women in the period of September to November 2024, in the catchment area of the Urban Health Training Centre (UHTC), Karaiyakheda, Vidisha. Analysis was performed using Microsoft Excel and Jamovi software (version 2.6.25). **Results:** Total of 74 antenatal women data were analysed in which 54.05% (n=40) were aged of 25-34 years, majority had completed their high-school education, and were homemakers. The service utilization of registration for pregnancy was 100% (n=74), 81% (n=60) attending regular ANC visits, 93% (n=69) adhering to Iron and Folic Acid supplementation, and 95% (n=70) had received tetanus toxoid injection. The limited awareness was seen among 24% (n=18) in weight gain and 38% (n=28) in danger signs. **Conclusion:** The study reveals positive trends in maternal health-seeking behaviour, including early pregnancy registration, Iron and Folic Acid (IFA) tablet adherence, and tetanus toxoid injection immunization. Nevertheless, gaps remain in awareness of weight gain, danger signs, and decision-making autonomy, with sociocultural factors strongly influencing choices.

Keywords: Antenatal care, schemes, health services, India, health seeking behavior, Primary care

Introduction

Antenatal care (ANC) coverage serves as an essential indicator of both access to and utilization of health services during pregnancy. The antenatal period provides a crucial window of opportunity to deliver essential interventions that can significantly impact the health and well-being of mothers as well as their infants. Attending a minimum of four antenatal care visits has been shown to substantially increase the likelihood of receiving essential maternal health interventions during pregnancy. This measure was a key indicator within the Global Strategy for Women's, Children's, and Adolescents' Health (2016-2030) Monitoring Framework. It serves as one of the tracer indicators for health service coverage under universal health coverage (SDG indicator 3.8.1) [1]. Maternal mortality continues to be a significant public health challenge in India, with the Sample Registration System (SRS) reporting a maternal mortality ratio of 97 per 100,000 live births [2].

The majority of maternal deaths occur during labor, delivery, and within the first 24 hours postpartum. In addition to medical causes, multiple interrelated socio-cultural determinants contribute to delays in seeking and receiving appropriate care. These delays are categorized as: (a) delay in recognizing complications, (b) delay in the decision to seek care, (c) delay in identifying and reaching a health facility, and (d) delay in receiving adequate and appropriate treatment once at the facility [3].

To address these challenges, the Government of India has implemented several programs aimed at promoting institutional deliveries and thereby reducing maternal and neonatal mortality. One such initiative is the Janani Suraksha Yojana (JSY), which primarily targets pregnant women from low socio-economic backgrounds. Under this scheme, beneficiaries receive ₹1,400 in rural areas and ₹1,000 in urban areas. At the same time, Accredited Social Health Activists (ASHAs) are provided with incentives of ₹600 in rural areas and ₹400 in urban areas to facilitate and promote institutional deliveries [4].

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DOI: 10.61336/im/25-12-54

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The Janani Shishu Suraksha Karyakram (JSSK), launched by the Government of India, aims to ensure that all pregnant women delivering in public health institutions receive cashless services. The program provides free entitlements, including antenatal and intrapartum care, diagnostics, medicines, diet, and transport, for pregnant women as well as free treatment for sick newborns up to 30 days after birth. The coverage is expanded to include sick infants, to reduce out-of-pocket expenditure, and to encourage institutional deliveries.[5]

The Pradhan Mantri Matru Vandana Yojana (PMMVY) is a maternity benefit program that seeks to provide cash incentives as partial compensation for wage loss, thereby enabling women to take adequate rest before and after childbirth. The scheme also aims to promote health-seeking behavior among pregnant women, lactating mothers and to encourage positive attitudes toward the girl child by offering an additional incentive for the birth of a second girl child. Benefits are provided for the first two living children: ₹5,000 in two instalments for the first child, and ₹6,000 in a single instalment for the second child, provided the second child is a girl.[6]

The Integrated Child Development Services (ICDS) provides a package of services including supplementary nutrition, immunization, health check-ups, referral services, preschool education, food and health education, with a focus on reducing malnutrition and improving antenatal and postnatal care [7]. The Anemia Mukh Bharat (AMB) strategy adopts a life-cycle approach to reduce anemia through interventions such as iron-folic acid supplementation, deworming, behavior change communication, anemia testing, food fortification, and addressing non-nutritional causes [8]. At the state level, schemes such as the Mukhya Mantri Shramik Seva Prasuti Sahayata Yojana provide conditional cash transfers to compensate wage loss, encourage institutional deliveries, promote early identification of high-risk pregnancies, timely initiation of breastfeeding, and immunization of newborns. Together, these programs strengthen maternal health services and influence care-seeking practices during pregnancy [9].

Despite multiple government initiatives, the utilization of obstetric care services remains suboptimal, with significant gaps in outcomes. These programs can achieve their intended impact only when services are accessible, affordable, and delivered at the right time and place [10]. According to NFHS-5, only 57.5% of antenatal women in Madhya Pradesh had adequate antenatal visits, highlighting the underutilization of maternal health services [11]. Against this background, the present cross-sectional study was conducted in the catchment area of the Urban Health Training Centre (UHTC), Karaiyakheda, Vidisha, to assess the health-seeking behavior of antenatal women, the factors influencing it, and the socio-demographic characteristics of the study population.

Materials and Methods

Study Design and Study Setting

This was a descriptive cross-sectional study conducted in the catchment area of the Urban Health Training Center (UHTC), Karaiyakheda, Vidisha district, Madhya Pradesh. The study was carried out over a period of three months, from September to November 2024.

Study Population

The study population included all antenatal women residing in the UHTC catchment area during the study period. 74 women data were finally analysis.

Sampling Technique

A combination of purposive sampling (to identify eligible participants within the catchment area) and snowball sampling (to trace other eligible antenatal women through participant referrals) was employed.

Inclusion Criteria: All antenatal women residing in the catchment area during the study period, Willingness to participate and provide informed consent.

Exclusion Criteria: Antenatal women with acute medical conditions at the time of data collection, those facing language barriers that hindered communication and those restricted by social barriers preventing participation.

Ethical Considerations

The study was conducted after obtaining approval from the Institutional Ethical Committee. Written informed consent was obtained from all participants prior to the interview. Participants were assured of confidentiality, and data were used solely for research purposes.

Data Collection

Data were collected through face-to-face interviews using a pre-designed, pre-tested, semi-structured questionnaire (Annexure 1). The questionnaire was prepared in the local language and also in Hindi to ensure clarity and accuracy.

Statistical Analysis

The collected data were compiled in Microsoft Excel, coded, and analysed using Jamovi software version 2.6.25. Results were expressed in terms of frequencies and percentages. Associations between socio-demographic characteristics and health service utilization were examined using the Chi-square test. A p-value <0.05 was considered statistically significant.

Results

The majority of females were 54.05% (n=40) belonged to the age groups of 25-34 years old, followed by 43.24% (n=32) were of 15-24 years old, only 2.70% (n=2) were above 35 years (Fig. 1). In terms of educational status, 32.43% (n=24) had high school education, while the smallest group 1.35% (n=1) was illiterate; most females 90.54% (n=67) were house wives.

As per the modified Kuppuswamy socio-economic scale (2017), majority of 44.59% (n=33) women belong to the upper lower class, followed by 41.89% (n=32) from the lower middle class. About 10.81% (n=7) women belonged to the upper middle class, while the lowest proportion of women were from the low-class socio-economic scale of 2.70% (n=2).

The health-seeking behaviour was predominant; all women had registered their pregnancy. The 83.78% (n=62) of women had registered during 1-3 months and 16.21% (n=12) during 4-6 months of pregnancy. Among 81.08% (n=60) of women had regularly followed up antenatal visits. The consumption of iron and folic acid tablets was 93.24% (n=69) and 94.59% (n=70) of women received tetanus injections. However, the awareness of health information during pregnancy seemed low. Only 37.83% (n=28) of women aware of danger signs during pregnancy, the knowledge of weight gain during pregnancy was only 24.32% (n=18). The authority of choice of treatment seeking was primarily taken by pregnant women by 37.83% (n=28), decision making for hospital was 37.83% (n=28), followed by her husband 27.02% (n=20) and in-laws, 24.32% (n=18). However, the place of delivery decision is mainly influenced by in-laws 39.18% (n=29), then self-decision 31.08% (n=23), and husband 24.32% (n=18).

The primary reasons for not accessing preferred hospitals were monetary constraints, reported by 31.08% (n=23) of the respondents, making it the most significant barrier. Distance was the second most common reason, cited by 22.97% (n=17), highlighting issues with geographical accessibility to healthcare facilities. Additionally, 13.51% (n=10) mentioned other reasons, such as being influenced or insisted upon by family members, including husbands or in-laws. A mixed set of reasons, including personal and situational factors, was reported by 8% (n=7) of the respondents.

Table 1: Descriptive variable (N=74)

Component	N	%
Age Groups		
25-34 years old	32	43.24%
15-24 years old	40	54%
35 years	2	2.70%
Educational Status		
Profession or Honours	2	3%
Intermediate/Diploma	17	23%
Middle School Certificate	21	29%
Graduate	7	9%
High School Certificate	24	32.43%
Primary School Certificate	2	3%
Illiterate	1	1.35%
Kuppuswamy socio-economic scale (2017)		
Class I (Upper)	0	0%
Class II (Upper Middle)	7	10.81%
Class III (Lower Middle)	32	41.89%
Class IV (Upper Lower)	33	44.59%
Class V (Lower)	2	2.70%
Registered their pregnancy		
1-3 months	12	16.21%
4-6 months	60	81.08%
None	2	2.71%
ANC Follow up Visit		
Yes	60	81.08%
No	14	18.92%
Consumption of iron and folic acid tablets		
Yes	69	93.24%
No	5	6.76%
Vaccination (tetanus injections)		
Yes	70	94.59%
No	4	5.41%
Knowledge of danger signs during pregnancy		
Yes	18	24.32%
No	56	75.68%
Authority of choice of treatment		
Pregnant women	28	37.83%
Others	46	62.17%
Decision making for hospital		
Pregnant women	28	37.83%
Husband	20	27.02%
In laws	18	24.32%
Health workers	8	10.83%
Place of Delivery		
Pregnant women	23	31.08%
Husband	18	24.32%
In-laws	29	39.18%
Health workers	4	5.42%

Table 2 presents the association between socioeconomic class and the type of health facility utilized by the participants. Women belonging to Class III (lower middle) and Class IV (upper lower) predominantly utilized government health facilities, accounting for 65.6% (n=21) and 63.6% (n=21), respectively. In these groups, private facility utilization was lower, at 31.2% (n=10) in Class III and 30.3% (n=10) in Class IV socio economic class, while very few women reported using both facilities.

Among women from Class II (upper middle), the majority preferred private health facilities (71.4%, n=5), with only 28.6% (n=2) utilizing government services. All women belonging to Class V (lower) exclusively used government facilities (100%, n=2).

Overall, although variations in facility utilization were observed across socioeconomic classes, the association was not statistically significant (p = 0.33), indicating that socioeconomic status did not significantly influence the choice of health facility in the study population.

Table 2: Association Between Socioeconomic Class and Type of Facility Used (N=74)

Socio-Economic Class	Govt. Facility	Private Facility	Both n (%)	p-value
	n (%)	n (%)		
Class II (Upper Middle)	2 (28.6)	5 (71.4)	0 (0.0)	0.33
Class III (Lower Middle)	21 (65.6)	10 (31.2)	1 (3.1)	
Class IV (Upper Lower)	21 (63.6)	10 (30.3)	2 (6.1)	
Class V (Lower)	2 (100)	0 (0.0)	0 (0.0)	

*Not Significant If p value is <0.05

Association of Knowledge on awareness of excessive weight gain during pregnancy and education studied; it was low irrespective of their educational background. Awareness was highest among high school certificate holders, with 29.17% (n=7), followed closely by graduates with 28.6% (n=6) and middle school certificate holders with 28.57% (n=6). Women with intermediate or diploma-level education showed comparatively lower awareness at 17.6% (n=3). Notably, no awareness was observed among illiterate women or those with only primary school education. Similarly, women with professional or honors-level education also demonstrated no awareness. However, this finding should be interpreted cautiously due to the very small sample size in this group (n=2). (Table. 3)

Table 3: Association between Knowledge of weight gain and Education

Education	Knowledge of Weight Gain		p value
	Yes n (%)	No n (%)	
Profession or Honours (any PG/ Ph.D Courses)	0 (0.0)	2 (100.0)	0.85
Graduate (Any Batchelor Degree)	2 (28.6)	5 (71.4)	
Intermediate Or Diploma (Up to 12 th / Diploma Courses)	3 (17.6)	14 (82.4)	
High School Certificate (Up to 10 th Class)	7 (29.2)	17 (70.8)	
Middle School Certificate (Up to 8 th Class)	6 (28.6)	15 (71.4)	
Primary School Certificate (1-5 Class)	0 (0.0)	2 (100.0)	
Illiterate	0 (0.0)	1 (100.0)	

*Not Significant If p value is <0.05

Awareness of danger signs during pregnancy varied across educational levels; however, the association was not statistically significant. Higher awareness was observed among women with professional or honours-level education 100% (n=2) and middle school education 47.6%, (n=10), while moderate awareness was seen among intermediate/diploma holders 35.3% (n=6). Lower awareness was noted among graduates (28.6%, n=2) and high school certificate holders 25.0% (n=6). Illiterate women showed no awareness, and primary school certificate holders showed 50% awareness, though both were based on very small samples. Overall, education level was not significantly associated with awareness of pregnancy danger signs. (Table. 4)

Table 4: Association between awareness of danger signs of pregnancy and Education (N = 74)

Education	Awareness Of Danger Signs		p value
	Yes n (%)	No n (%)	
Profession or Honours (any PG/ Ph.D Courses)	2 (100.0)	0 (0.0)	0.337
Graduate (Any Batchelor Degree)	2 (28.6)	5 (71.4)	
Intermediate Or Diploma (Up to 12 th / Diploma Courses)	6 (35.3)	11 (64.7)	
High School Certificate (Up to 10 th Class)	6 (25.0)	18 (75.0)	
Middle School Certificate (Up to 8 th Class)	10 (47.6)	11 (52.4)	
Primary School Certificate (1-5 Class)	1 (50.0)	1 (50.0)	
Illiterate	0 (0.0)	1 (100.0)	

* Not Significant If p value is <0.05

Overall, 33.8% (n=25) of the women reported using family planning methods. Utilization varied by educational status, with the highest use among high school certificate holders at 54.2% (n=13), followed by graduates at 42.9% (n=3). Lower utilization was observed among women with intermediate or diploma education at 29.4% (n=5) and those with primary or middle school education at 19.0% (n=4). No family planning use was reported among women with no formal education or those with professional or honors-level education (Table 5).

Table 5: Association between usage of family planning method and Maternal Education (N = 74)

Education	Family Planning Method Used		p value
	Yes n (%)	No n (%)	
Profession or Honours (any PG/ Ph.D Courses)	0 (0.0)	2 (100.0)	0.147
Graduate (Any Batchelor Degree)	3 (42.9)	4 (57.1)	
Intermediate Or Diploma (Up to 12 th / Diploma Courses)	5 (29.4)	12 (70.6)	
High School Certificate (Up to 10 th Class)	13 (54.2)	11 (45.8)	
Middle School Certificate (Up to 8 th Class)	4 (19.0)	17 (81.0)	
Primary School Certificate (1-5 Class)	0 (0.0)	2 (100.0)	
Illiterate	0 (0.0)	1 (100.0)	

* Not Significant If p value is <0.05

Discussion

The results of this study illustrate the major socio-demographic and behavioural factors that contribute to the utilization of antenatal care among women from an urban area. Participants ranged in age, with 25-34 years accounting for the highest proportion of conceiving 40 (54.05%), which is consistent with national fertility trends. Educational attainment and occupation were significantly associated with Antenatal care awareness and practices; most participants had a high school education 32.43% (n=24) and were housewives 90.54% (n=67), also similar to rural Gujarat [12] and Kerala [13].

Interestingly, despite having low educational attainment and economic status 44.59% (n=33) upper lower class according to the modified Kuppuswamy scale, the study observed high maternal health-seeking behaviours: there was 100% pregnancy registration, 81.08% (n=60) with regular ANC visits, 93.24% (n=69) IFA supplementation, and 94.59% (n=70) Tetanus vaccination coverage; all of which are higher than the national averages reported in National Family Health Survey-5 (NFHS-5) (59% , ≥ 4 ANC visits; only 20% adequate-quality ANC) [14]. Although registration and medication adherence levels were excellent, knowledge gaps could be improved as only 24.32% (n=18) knew about adequate weight gain during pregnancy, and 36.5% (n=27) identified danger signs. These findings are consistent with Rustagi et al., who showed that although service provision was adequate, educational and counselling components of ANC remained weak [15]. Similarly, John et al. also reported that although awareness of some danger signs was high, others, like convulsions and blurred vision, were less recognized [13].

Family members, especially in-laws 39.18% (n=29), also played a significant role in decision-making regarding healthcare access, which shows the patriarchal structure that can restrict women's autonomy; this is consistent with Thakkar et al., who highlighted lack of autonomy and patriarchal norms as barriers to adequate ANC utilization [16].

Conclusion

The present study highlights encouraging trends in maternal health-seeking behaviour among antenatal women residing in an urban area, particularly in terms of early pregnancy registration, adherence to IFA supplementation, and uptake of Tetanus vaccination. These findings reflect the impact of accessible government health services and the efforts of frontline health workers.

However, significant gaps remain in awareness and knowledge, particularly regarding appropriate weight gain during pregnancy, danger signs, and decision-making autonomy. Socio-cultural influences, especially from in-laws and husbands, continue to play a major role in healthcare decisions, often overriding women's individual preferences.

Barriers such as financial constraints and geographical accessibility still hinder the utilization of preferred healthcare facilities. Moreover, the low awareness of specific maternal health schemes and the underutilization of family planning methods among less educated women highlight the need for targeted health education interventions.

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