Original Article

Quality Antenatal Care and Socio-demographic Factors Influencing its Utilization: An Experience from Rehabilitation Colonies of Chandigarh, India

Varsha Ranjan* , Navpreet Singh** , Manoj Kumar Sharma*** , Anupama Dhiman**** , Naveen K Goel*****, Asha Ranjan******

ABSTRACT

Introduction: Quality antenatal care (ANC) is important for the health of the mother and the development of the foetus. Despite its importance, utilization of antenatal care services remains inadequate in India. The aim of the study was to find out determinants of quality antenatal care received by the women residing in the rehabilitation colonies of Chandigarh. **Material and Methods:** A community based cross sectional study was done in randomly selected two rehabilitation colonies of Chandigarh between February 2016 and May 2016. The data was obtained from 200 women at their households using interview technique. Various factors affecting the utilization of quality ANC services were studied. Descriptive analysis was used to summarize data. Chi square test and multivariate regression was done to find out determinants of the utilization of quality ANC services. **Results:** Quality ANC services was received by only 36.0% participants. Majority (91.0%) of the participants had more than four ANC visits. Most (80.0%) of participants were registered early for ANC. Nearly half (46.5%) of participants consumed iron folic acid tablets for more than six months. Majority (93.5%)

* **Research Associate,Christian Medical Association of india,New Delhi**
** **Associate Professor, Department of Community Medicine, Shri Lal Bahadur Shastri Government Medical College & Hospital, Mandi , Ner Chowk, H.P**
*** **Assistant Professor,Centre For Public Health,Panjab University,Chandigarh**
**** **Assistant Professor, Department of Community Medicine, Shri Lal Bahadur Shastri Government Medical College & Hospital, Mandi , Ner Chowk, H.P**
***** **Professor & Head, Department of Community Medicine, Government Medical College & Hospital, Chandigarh**
****** **Physcian, Civil Hospital, Sunni, Shimla ,H.P**
Corresponding author : Dr. Varsha Ranjan, Email - varshaa.rnjn@gmail.com

participants received two doses of injection tetanus toxoid. The women from lower socioeconomic status were found to be significantly at higher risk of not utilizing quality ante natal care (OR = 2.03, 95% CI =1.02-4.02, p =0.04). **Conclusion:** The utilization of quality antenatal care services was found to be low among the women in the rehabilitation colonies of Chandigarh.

KEYWORDS

Quality antenatal care, Factors, Rehabilitation colony, Chandigarh, tetanus toxoid, National Health Mission

INTRODUCTION

Good care during pregnancy is important for the health of the mother and the development of the foetus. Antenatal care (ANC) includes care during pregnancy to ensure healthy mother and child and should begin with early stage of pregnancy. The goal of the ANC package is to prepare for birth and parenthood as well as to prevent, detect, alleviate, and manage the three types of health problems during pregnancy *viz.* complications of pregnancy itself, pre-existing conditions that worsen during pregnancy, and effects of unhealthy lifestyles.[1] Maternal deaths occur as a result of complications during and following pregnancy and childbirth. Most of these complications develop during pregnancy and most are preventable or treatable. The maternal mortality ratio in developing countries in 2015 is 239 per 1,00,000 live births versus 12 per 100 000 live births in developed countries i.e. almost all maternal deaths (99%) occur in developing countries.[2] More than half of these deaths occur in sub-Saharan Africa and almost one third occur in South Asia. The high number of maternal deaths in some areas of the world reflects inequities in access to health services. It is estimated that Maternal Mortality Ratio (MMR) of India is 167 per 100,000 live births.[3] Under National Rural Health Mission (NRHM), several initiatives were taken to achieve the goal for the reduction of maternal mortality, among which quality antenatal care was of paramount importance. As per National Health Mission, an operational definition for Quality ANC includes minimum of at least four ANCs including early registration, first ANC in first trimester along with physical and abdominal examinations, haemoglobin estimation and urine investigation, two doses of tetanus toxoid (TT) immunization and consumption of Iron Folic acid (IFA) tablets (six months during ANC & six

months during postnatal care).[4] While the antenatal care is essential for the health of both mother and child, it is important to analyse the possible sociodemographic factors contributing to the utilization of quality antenatal care services. Against this background, the present study was done to find out determinants of quality antenatal care received by the women residing in the rehabilitation colonies of Chandigarh with the objectives (i) to find out prevalence of quality antenatal care in rehabilitation colonies of Chandigarh, and (ii) to identify factors associated with utilization of quality antenatal care in rehabilitation colonies of Chandigarh.

MATERIAL AND METHODS

The Union Territory of Chandigarh is a small, modern, well planned city of Northern India. Majority (97.25%) of population is urban which resides in 56 sectors and 12 rehabilitation colonies, and rest is the rural population which resides in 23 villages.[5]

A community based cross sectional study was carried out between 1st February 2016 and 31st May 2016. Two rehabilitation colonies *viz.* Dadumajra colony and Ramdarbar were selected using simple random sampling from the list of rehabilitation colonies in Chandigarh. A list was prepared with the help of health workers in respective study areas, to trace women who had delivered child in the last one year. Total 200 women were randomly selected (100 women from each rehabilitation colony) from the list. Sample size was calculated by using formula N = $4pq/l^2$ where p was the prevalence of quality antenatal care (50%) and l was the allowable error (10%). Sample size was thus calculated as at least 117 women considering 95% confidence level and 20% possible non-response. The prevalence of quality antenatal care was taken as 50% because even after thorough literature review, no study was found on prevalence of quality antenatal care as per definition by NHM.[4]

The data was collected by first author herself by using predesigned, semi-structured and pretested interview schedule at participants' households, after taking their written informed consent. Women who had delivered child in the last one year preceding the study were enrolled consecutively after taking their informed consent until required sample size was achieved. Women who did not give informed consent and who were not available even after the third visit were excluded from the study. The interview schedule consists socio demographic profile of participants, and variables for assessing the utilization of quality antenatal care. The primary outcome variable was the utilization of quality antenatal care. The explanatory variables include socio-demographic characteristics including age, educational status, occupation,

socioeconomic class, type of family, religion, caste, role of husband in ANC etc. Modified Kuppuswami scale was used for calculating socioeconomic status.[6] The information was supplemented by checking the patient's ante-natal card (if available) at the time of interview. A pilot study was initially conducted in another rehabilitation colony to ensure the validity of the interview schedule, and necessary modifications were done.

Data was entered and analysed using Microsoft Excel and SPSS. Data checking, entry and editing was done by the researchers to reduce data-entry errors. Descriptive analysis was done to summarize data using frequency, percentages, and Mean (± S.D.). The distribution of the explanatory variables between the participants who had received quality ANC versus who had not received quality ANC was examined using Chi-square test. Multivariate logistic regression was applied to find out the predictors for non-utilization of quality ANC. A 'p' value of <0.05 was considered statistically significant. The study got approval from experts committee at Centre for Public Health, Panjab University, Chandigarh, India. The privacy and confidentiality of information obtained was assured. The study objectives were explained to the participants before starting the interview. Participants were clearly explained about their right to withdraw from the study at any time.

RESULTS

Two hundred women were interviewed in the study. Socio-demographic profile of participants is given in Table I. Age of participants ranged from 18 years to 40 years with mean (S.D.) age of 26.6 (4.1) years.

The proportion of participants who received quality ANC was found to be only 36.0% (Table II). Almost all the participants (99.5%) had made antenatal visits and most of them (91.0%) had made four or more visits. Majority of them (80.0%) did early registration i.e. during first trimester. Only one woman was registered in the last trimester of pregnancy. Majority of the participants (91.0%) were registered in government health facilities including (65.5%) women registered in dispensaries. Almost all the participants received antenatal care during their visit to health facility i.e. monitoring of weight (99.0%) and blood pressure (99.5%), abdominal examination (98.0%), haemoglobin estimation (99.0%) and urine investigation (98.5%). More than three-fourth (78.0%) participants had consumed 50 to 100 IFA tablets. Only 46.5% participants had consumed IFA tablets for six months. Majority 187 (93.5%) of participants received two doses of TT or booster dose. Majority of the participants received counselling

regarding breastfeeding (88.0%), nutrition (83.5%), rest (67.0%) and family planning (62.5%). Nearly three-fourth of participants (71.0%) availed *Janani Suraksha Yojna/ Janani Shishu Suraksha Karyakram* (JSY/JSSK) scheme. Majority of participants (75.0%) stated that they were motivated for regular check-ups by their husbands as well as accompanied by them during ANC visits.

None of participant below 20 years of age had received quality ANC. Maximum participants (58/148, 39.2 %) were in the age group of 20 to 29 years who received quality ANC. Women who had attained higher education received quality ANC i.e. graduate or postgraduate (15/27, 55.5%) followed by intermediate or diploma (16/39, 41.0%) whereas only 30% (06/20) illiterate participants received quality ANC. Out of seven working participant, three received quality ANC while among homemakers, 35.7% (69/193) received quality ANC. It was found that participants from middle class received more quality ANC than from lower class (27/60, 45.0% vs. 42/140, 30.0%), and this difference was found to be statistically significant (p=0.04). The proportion of participants who were residing in joint and nuclear families received quality ANC were 37.7% (55/146) and 31.5% (17/54), respectively. Quality ANC was received by 36.5% (66/181) participants who were Hindu and six out of remaining 13 participants. However, no significant association was found between quality ANC and socio-demographic variables except for socioeconomic status (Table III).

Table IV shows risk factors for non-utilization of quality ante natal care as analysed by logistic regression analysis. It was found that women form lower socioeconomic status (OR = 2.03, 95% CI =1.02-4.02, p =0.04) were significantly at higher risk of not utilizing quality ante natal care.

DISCUSSION

ANC is the pivotal factor for safe motherhood, but its utilization varies widely across the vast swathes of our country where the population by and large resides in urban slums and rural areas. Women rarely perceive childbearing as problematic and therefore do not seek care. This hampers the utilization of quality ANC services in many regions of our country where illiteracy and poverty are rampant. This study was done to find out determinants of quality antenatal care in rehabilitation colonies.

The mean age of participants in our study was 26.6 years. Similar observations were found by studies done by Patel et al[7] in Gandhinagar, Gujarat and Edward et al[8] in Chennai, Tamil Nadu on utilization of antenatal care services where with mean age of participants were 23.7 years

24.0 years, respectively. Majority of the participants were homemakers (96.5%) and were literate (90.0%), lived in joint family (73.0%) and belonged to upper lower SES (67.5%). Similar findings were seen in a study done by Shukla et al on utilization of maternal health care services in slums of Lucknow, Uttar Pradesh[9], where majority of the women were non-working (68.2%), literate (78.7%) and belonged to upper lower SES (66.5%).

Reproductive and Child Health programme stresses on early registration as early intervention leads to safer pregnancy and childbirth. Early registration for ANC check-ups in the first trimester was done by 80.0% participants in our study and 91.0% participants had visited at least four times for ANC. According to fourth round of District Level Household Survey (DLHS-4) findings for Chandigarh, early registration and more than 03 ANC visits was done by 71.2.0% (69.4% in rural and 72.0% in urban) and 72.4% (60.0% in rural and 77.8% in urban) women respectively.[10] These findings were slightly decreased in fourth round of National Family Health Survey (NFHS-4) for Chandigarh conducted three years later i.e. 67.4% mothers had antenatal check-up in the first trimester and 64.5% mothers had at least four antenatal care visits.[11] However, in none of these surveys, findings of rehabilitation colony or slums separately are mentioned. Srigouri et al in their study on utilization of antenatal services in urban slums of Kurnool City observed that 84.8% mothers had early registration and 93.3% mothers had more than three ANC visits.[12] The proportions of early registered women and with at least four ANC visits were quite high in our study as compared to studies done by previous authors. Dhiman et al in a study of antenatal care services utilization in Chandigarh Tricity (Chandigarh, Panchkula and Mohali) found that early registration was done by 71.3% participants and 27.0% participants visited more than three times for ANC.[13] Dabade et al in a study of utilization of maternal health care services in urban slums of Aurangabad city, Maharashtra[14] found that 67.6% women did early registration and only 13.0% women visited at least four times for ANC visits. Shukla et al[9] observed that 63.5% women registered early and only 28.4 % visited at least four times for ANC. However, poor findings were seen by Dasgupta et al[15] in West Bengal where only one-third (36.5%) of women had been registered during first trimester and Khan et al[16] in Aligarh found that one in five (19.6%) of the women did not receive any antenatal care. Das et al[17] in Kerala reported higher number of mothers (62.0%) had visited centre more than three times. Another study in Kerala[18] revealed 99.4% of participants attended health facilities more than three times. Deo et al in Nepal found that 69.0% women received at least ANC visits.[19] Reason for better results in our study could be

due to the better availability and accessibility of health facilities as compared to other parts of country.

The reasons given by participants for the late registration were unaware of pregnancy, they did not find early registration useful or there is no need for ANC. This might be attributed to the fact that people who reside in these rehabilitation colonies lagged behind the basic sources of information and knowledge. In a study done in Kerala[18] in slum areas, the reason given for delay in registration was that if pregnant women decided to go every month for ANC after early registration, they could not be able to purchase lot of medicines and tonics prescribed by the doctor. Bajpai et al in Varanasi revealed poor utilization of services where 88.5% participants had not taken antenatal care due to several reasons i.e. no knowledge about ANC (43.4%), it was not necessary (28.8%), side effects of medicines prescribed (14.2%), physical problems (07.3%) and (06.3%) due to religious restrictions (06.3%).[21]

In our study, physical examination including weight & blood pressure monitoring, abdominal examination, haemoglobin estimation and urine investigation were done in almost all the participants. similar to study conducted by Javali et al[22] in Belgaum where weight, blood pressure, abdominal examination and haemoglobin measurement were performed in more than 95% of mothers. Dhiman et al observed that blood pressure and weight of 87% and 81.2% participants, respectively were monitored whereas routine investigations were done in almost all of the participants.[13] Chhabra et al in Delhi revealed that good ANC services were being provided as weight and BP measurement was done for 88.0% of the women, and urine examination done for 86.0% of women.[23] However, the results were not consistent with the study done by Agarwal et al in rural area of Chandigarh in year 2005, in which it was found that weight measurement, BP measurement and abdominal examination were done in 64.1%, 44.3% and 64.1% women, respectively.[24] The higher results in present study could be due to improvement in ante-natal care delivery services over a decade in Chandigarh.

In our study, two doses of tetanus toxoid (TT) or booster immunization, were received by 93.5% participants. Only 46.5 % participants had consumed Iron Folic acid (IFA) tablets for six months or more. Our findings were more than as seen in DLHS-4 Chandigarh, where percentage of antenatal women who received TT immunization and consumed more than 100 IFA tablets were 84.5% (78.8% in rural and 87.0% in urban) and 37.4% (34.1% in rural and 38.9% in urban), respectively.[10] NFHS-4 for Chandigarh found slightly better findings i.e. 95.1% mothers received TT immunization and 44.9% mothers consumed iron folic acid for 100 days or more during pregnancy.[11] In study by Dhiman et al, injection TT was received by

96.0% participants and only 73.4% participants consumed IFA tablets.[13] Shukla et al[9] found that only 70.9 % of women received two doses of TT or booster dose, and 100 IFA tablets were consumed by only 9.8% individuals. Dabade et al[14] found that most of the respondent women (88.9%) had received two doses of TT and only 41.7% respondent women consumed equal to or more than 100 IFA tablets. Study by Sharma et al[25] in Dehradun found that all the women received complete TT immunization whereas only 48.3% women had consumed 100 IFA tablets.

Although, there are studies on full antenatal care, complete antenatal care and focussed antenatal care, our findings might not be exactly comparable to other studies due to differences in definition, still we tried to compare our findings of quality antenatal care taking into consideration all possible closely related parameters e.g. number of ANC visits, early registration, TT immunization and tablet IFA consumption. In present study, only 36.0% participants received quality ANC. Our findings are slightly better than as seen in NFHS-4 and DLHS-4 for Chandigarh i.e. 34.7% and 30.6% women received full ANC, respectively.[11,10] However, at national level, only 21.0% (31.1% in urban and 16.7% in rural) mothers had full antenatal care as per NFHS-4 for India.[26] In study conducted by Bajpai et al, only 11.5% women had utilized complete ANC services.[21] Metgud et al in a study conducted in the rural area of north Karnataka found that 39.5% of pregnant women received full antenatal care.[27] On the other hand, Javali et al[22] found that 62.6% women utilized full ANC.

Except for socioeconomic status, no significant association was found between quality ANC and socio-demographic variables in our study which was contrary to the findings of many studies.[28-29] This could be due to characteristics of participants, sampling methods, and other factors. However proportionately more number of participants who were more educated, working, belong to higher socioeconomic class, and residing in joint families received quality ANC. The factors like more educated, working and belong to higher socioeconomic class helps in improvement of women autonomy and decision-making power, which could have contributed to higher quality ANC in these groups as observed by Malhotra et al. in India.[30] These factors are also more likely to have been exposed these women to better information and awareness about ANC services and schemes available for its utilization. On logistic regression analysis, women from lower socioeconomic status were found to be significantly at higher risk of not utilizing quality ante natal care. Various studies have showed that higher economic status is linked with higher maternal health service utilization.[29]

Few limitations of the present study should be acknowledged. Sample size for present study was calculated after considering prevalence of quality antenatal care as 50% because no study was found on prevalence of quality antenatal care as per definition even after thorough literature review. However, the calculated sample size has adequate power i.e. >80%. The study focused on factors related to consumers, but it did not investigate service-providers factors in detail.

CONCLUSION

Although pregnant women in rehabilitation colonies of Chandigarh utilize various services for ANC, the complete package under quality antenatal care was found to be inadequate i.e. 36% only. The participants who were less educated, homemaker, belong to lower socioeconomic class, and residing in nuclear families utilized less quality ANC services. Lower socioeconomic status showed a significant association with not utilization of quality ANC services. Hence, by improving these sociodemographic factors and by providing more intense information, education and communication activities on quality ANC services in community with special focus on underprivileged population residing in rehabilitation colonies, it may help in better ANC services utilization. We recommend that further studies on utilization of quality antenatal care must be undertaken covering perspectives of service-providers factors in detail.

AKNOWLEDGEMENT

REFERENCES

1. World Health Organization. Opportunities for Africa are new-borns. Available from: http://www.who.int/pmnch/media/publications/oanfullreport.pdf (Cited on 07 Jan 2016).
2. World Health Organization. Maternal mortality. Available from: http://www.who.int/mediacentre/factsheets/fs348/en/ (Cited on 07 Jan 2016)
3. Govt. of India (Sample Registration System), Special bulletin on maternal mortality in India 2011-13, Office of Registrar General, India. Available from:

http://www.censusindia.gov.in/vital_statistics/mmr_bulletin_2011-13.pdf (cited on 21 May 2016)

4. National Health Mission. Ministry of Health & Family Welfare, Government of India. Achievements of key Maternal Health Performance Indicators. Available from: http://nhm.gov.in/nrhm-components/rmnch-a/maternal-health/background.html (Cited on 05 Feb 2016)

5. Chandigarh Master Plan 2031.Demographic profile of the city. Available from:http://chandigarh.gov .in/cmp2031/demography.pdf. (Cited on 21 Jan 2016).

6. Kohli C, Kishore J, Kumar N. Kuppuswamy's Socioeconomic Scale-Update for July 2015. Int. J. Preven. Curat. Comm. Med. 2015; 1(2): 26-8.

7. Patel VD, Puwar BT, Sheth JK. Utilization of antenatal care services in the Gandhinagar(Rural) District, Gujarat. Nat J Community Med 2013;4(1):104-8.

8. Edward S, Iyer RH. Utilization of Intranatal healthcare facilities by a rural population near Chennai. Indian J Scientific Res 2014;3(12):1-2.

9. Shukla M, Agarwal M, Imchen T, Rehman H.M, Yadav K, Singh S. Utilization of Maternal health care services in Slums of Lucknow, Capital of Uttar Pradesh. Int J Interdisciplinary Multidisciplinary Studies 2015; 2(11):23-7.

10. International Institute for Population Sciences (IIPS). District Level Household and Facility Survey (DLHS-4), 2012-13: India. State Fact Sheet Chandigarh. Mumbai: IIPS.

11. International Institute for Population Sciences (IIPS). National Family Health Survey (NFHS-4), 2015-16: India. Union Territory Fact Sheet Chandigarh. Mumbai: IIPS. Mumbai, India.

12. Srigouri T, Nagaraju T, Vjaya Vishnu G. Utilization of Antenatal Services among Mothers in Urban Slums of Kurnool City. IOSR J Dental Med Sci 2016;15(1):78-84.

13. Dhiman A, Goel NK, Walia D, Galhotra A, Navpreet. Correlates of antenatal care services utilization at health centres in Chandigarh Tricity, India. Int J of Allied Med Sci and Clin Research 2016;4(2):324-31.

14. Dabade KJ, Dabade SK, Madhekar NS, Khadilkar HA. A study of utilization of maternal health care services in Urban slums of Aurangabad city, Maharashtra. J Evolution of Med Dental Sci 2013;2(51):9907-15.

15. Dasgupta U, Naskar S, Haldar A, Mallik S. Antenatal care service utilization and social correlates of beneficiaries: an experience from a teaching hospital of a metropolitan city. Indian J Matern Child Health. 14(2), 2012, 1-9.

16. Khan Z, Mehnaz S, Khalique N, Ansari MA, Siddiqui AR. Poor Perinatal Care Practices in Urban Slums: Possible Role of Social Mobilization Networks. Indian J Community Med. 34(2), 2009, 102-7.

17. Das NP, Misra K V, Saha PK. Does Community Access Affect the Use of Health and Family Welfare Services in Rural India? NFHS Subject Reports, International Institute of Population Sciences, Mumbai: 2001, 18.

18. Utilization of Maternal and Child Health Services.Available from: http://www.shodhganga.inflibnet.ac.in/bitstream/10603/1390/15/15_chapter%208.pdf (cited on 22 April 2016)

19. Deo KK, Paudel YR, Khatri RB, Bhaskar RK, Paudel R, Mehata S, Wagle RR. Barriers to utilization of antenatal care services in eastern Nepal. Front. Public Health 2015; 3:197.

20. Patel A, Kumar P, Godara N, Desai VK. Infant Deaths- Data disparity and use of ante, intra and post- natal services utilization: An experience from Tribal areas of Gujarat. Indian J Community Med. 2013; 38(3):152-6.

21. Bajpai RC, Shweta, Arora P, Singh GP. Assessment of Utilization of Antenatal Care Services and Their Associated Factors in Slums of Varanasi. Indian J Matern Child Health. 2012; 14(1): 2-8.

22. Javali R, Wanatamutte A, Mallapur MD. Socio demographic factors influencing utilization of Antenatal Health Care Services in a rural area: A cross sectional study. Int J Med Sci Public Health 2014; 3(3):308-2.

23. Chhabra P, Sharma G, Kannan AT. Pattern of Maternal Health Care among Working Women in Delhi. Indian J Matern Child Health 2011; 13(4): 1-9

24. Agarwal N, GalhotraA, Swami HM. A study on Coverage Utilization and Quality of Maternal Care services. National J Community Med. 2011; 2(1):32-6.

25. Sharma P, Kishore S, Gupta SK, Semwal J. Effects of Janani Suraksha Yojna Up-on the Utilization of Antenatal Care Services in Rural & Urban-slum Communities of Dehradun. National J Commun Med. 2012; 3(1):129-37.

26. International Institute for Population Sciences (IIPS). National Family Health Survey (NFHS-4), 2015-16: India. India Fact Sheet. Mumbai: IIPS. Mumbai, India.

27. Metgud CS, Katti SM, Mallapur MD, Wantamutte AS. Utilization patterns of Antenatal Services among pregnant women: A Longitudinal study in rural area of north Karnataka. Al Ameen J Med Sci 2009;2(1):58-62.

28. Joshi C, Torvaldsen S, Hodgson R, Hayen A. Factors associated with the use and quality of antenatal care in Nepal: a population-based study using the demographic and health survey data. *BMC Pregnancy Childbirth* 2014; 14(1):94.

29. Letamo G, Rakgoasi SD. Factors associated with non-use of maternal health services in Botswana. *J Health Popul Nutr* 2003; 21:40–7.

30. Malhotra C, Malhotra R, Østbye T, Subramanian SV. Maternal autonomy and child health care utilization in India: results from the national family health survey. *Asia Pac J Public Health* 2014; 26(4):401–1

Table I: Distribution of participants according to socio demographic variables

Variables	Number N=200	Percent
Age group (in years)		
20 & below	08	04.0
20-24	58	29.0
25-29	90	45.0
30-34	31	15.5
35 & above	13	06.5
Educational status		
Illiterate	20	10.0
Primary, Middle & High school	114	57.0
Intermediate & above	66	33.0
Occupational status		
Homemaker	193	96.5
Working	07	03.5
Socio-economic status		
Lower class	140	70.0
Middle class	60	30.0
Type of family		
Joint	146	73.0
Nuclear	54	27.0

Table II: Distribution of participants with respect to quality antenatal care

Variables	Number N=200	Percent
Quality antenatal care received	72	36.0
Early registration of pregnancy (0-3 months)	160	80.0
Four & above antenatal visits were made	182	91.0
Weight was monitored during pregnancy	198	99.0
Blood Pressure was monitored during pregnancy	199	99.5
Abdominal examination was done during pregnancy	196	98.0
Blood tests were done during pregnancy	198	99.0

Urine tests were done during pregnancy	197	98.5
USG was done during pregnancy	194	97.0
Two/booster doses of Tetanus toxoid received during pregnancy	187	93.5
Consumptions of iron folic tablets for 6 months during pregnancy	93	46.5

Table III: Relationship between quality ANC and socio demographic variables of participants

Variable	Quality ANC received N=72 (%)	Quality ANC not received N=128 (%)	Chi-square; p
Age group (years)			
<20	00 (00.0)	08 (100.0)	6.4: 0.17
20-24	20 (34.5)	38 (65.5)	
25-29	38 (42.2)	52 (57.8)	
30-34	10 (32.3)	21 (67.7)	
35 & above	04 (30.8)	09 (69.2)	
Educational status			
Illiterate	06(30.0)	14(70.0)	7.4: 0.19
Primary	09(29.0)	22(71.0)	
Middle	10(26.3)	28(73.7)	
High school	16(35.6)	29(64.4)	
Intermediate or post high school diploma	16(41.0)	23(59.0)	
Graduate or postgraduate	15(55.5)	12(44.5)	
Occupational status			
Homemaker	69(35.7)	124(64.3)	0.1; 0.70
Working	03(42.9)	04 (57.1)	
Socioeconomic status			
Lower class	42(30.0)	98(70.0)	4.2; 0.04*
Middle class	27(45.0)	33(55.0)	
Type of family			
Nuclear	17(31.5)	37(68.5)	0.6; 0.42
Joint	55(37.7)	91(62.3)	
Religion			
Hindu	66(36.5)	115(63.5)	0.2; 0.67
Other	06(31.6)	13 (68.4)	
Caste			
General	25(32.5)	52(67.5)	0.7; 0.41
Other	47(38.2)	76 (61.8)	

*Significant

Table IV: Logistic regression to predict the relationship between the non-utilization of Quality ANC and socio demographic variables of participants

Variables	Odds Ratio	95.0% C.I.		P value
		Lower	Upper	
Education	1.08	0.38	3.06	0.89
Occupation	0.92	0.18	4.58	0.92
Type of family	0.61	0.29	1.27	0.19
Socioeconomic Status	2.03	1.02	4.02	0.04*
Religion	0.87	0.29	2.52	0.79
Caste	0.70	0.37	1.33	0.28

*Significant