Original Article

Factors affecting utilization of Antenatal Care among women in urban slum areas of Islamabad.

Ali Yawar Alam, Akhtar Ali Qureshi, Malik Muhammad Adil, Hasan Ali

Department of Community Health Sciences, Shifa College of Medicine, Islamabad, Pakistan.

ABSTRACT

Objective: To identify the factors affecting the utilization of antenatal care among married women of reproductive age at two urban slum areas in Islamabad.

Methods: A Cross-sectional survey was carried out between October 2003 and April 2004 in two urban squatter settlements of Islamabad. Two hundred married women in the age range 15-49 years were interviewed. Socio-demographic characteristics of women who received and who did not receive antenatal care in their previous pregnancy were assessed by bivariate analysis and multivariate logistic regression.

Results: Antenatal care used in any of the previous pregnancy among women under study was 151(75.5%). Among the non-users, 37(75.5%) of women cited ignorance about the importance of antenatal care, 9(18.4%) said that antenatal care facility was far away, 3(6.1%) said that they could not get permission from home to go to the antenatal care facility. Education of wife (adjusted p=0.005) and education of husband (adjusted p=0.006) were significantly associated with utilization of antenatal care.

Conclusions: Utilization of antenatal care facilities is associated with educational status of women and their husbands. Benefits of antenatal care should be widely disseminated in the community. (Rawal Med J 2004;29:71-75)

Key words: Antenatal care, education, pregnancy, antenatal care facilities

INTRODUCTION

WHO defines antenatal care as a dichotomous variable, having one or more visits with a trained person during the pregnancy, or none.[1] Factors affecting utilization of antenatal care facilities is confounded by a number of factors including literacy levels, level of awareness regarding the importance of antenatal care, distance from the health care facility, socioeconomic conditions etc.

Urban squatter settlements areas in Islamabad are being provided antenatal care facilities by St. Thomas's Community Health Network in collaboration with Shifa College of Medicine and Shifa Foundation, Islamabad. The objectives of this study were to identify the factors affecting the utilization of antenatal care among married women of reproductive age (15-49 years) at two urban slum areas in Islamabad and to assess the utilization pattern of antenatal care.

MATERIALS AND METHODS

This Cross-Sectional survey (Community based house-hold survey) included two urban squatter settlements of Islamabad. One of the settlements was in G-7/1 sector and the other in G-8/1 sector of Islamabad. One hundred households from each of the two areas were studied to make a total sample size of 200 households for the study which was calculated using Epi-Info 6.0. The Survey was carried out between October 2003 and April 2004.

There are about 500 households in each of these settlements. This is a predominantly a Christian Community and St. Thomas Community Health Network is running a Primary

health care program in these areas and assistance is provided by Shifa College of Medicine and Shifa Foundation in providing preventive, curative and referral facilities to the residents.

Married women of reproductive age (15-49years) who were currently pregnant or had experienced pregnancy at least once were included. Pre-designed, structured questionnaire was used in the survey. This was carried out by medical students who were properly trained in the interviewing technique and trained to ask questions in the local language. If any data was found missing the concerned interviewers were required to go back to the household and get the information, if possible.

Statistical Methods and ethical considerations

Socio-demographic characteristics of women who did attend and who did not attend antenatal care facilities were compared by appropriate tests of significance. Cross tabulations were obtained in order to compare women receiving and not receiving antenatal care with respect to the various variables under study and chi-square statistics and odds ratios with 95% confidence intervals were obtained. Binary Logistic regression analysis was done to see the direct effects of various confounding factors on the utilization of antenatal care. Data analysis was performed using SPSS version 10.0. The study was carried out after the approval of St. Thomas Community Health Network and written informed consent from each participant of the study.

RESULTS

The mean age of women in our study was 29.57±7.1 years. Average number of children per household was 3.26±1.8. Number of rooms in each household was 1.86±0.89. Mean family income was Rs. 3438±1591. Illiteracy was present in 69.5% of the women and

majority (81.5%) of them were housewives. Illiteracy was 51% of the male counterparts.

Table 1 shows the socio-demographic characteristics of women in our study

Table-1: Socio-demographic characteristics of households(n=200)

	Mean±S.D	***Range***
Age of women **(Years)**	29.57± 7.1	18-45
Number of children	3.26±1.8	1-11
Total Family size	6.3±2.6	3-15
Number of rooms in the house	1.86±0.89	1-5
Total family income **(Pak Rupees)**	3438±1591	1000-10,000
Education of women	**Frequency(#)**	**Percentage(%)**
-Illiterate	139	69.5
-Literate	61	30.5
Occupation of women		
-House wives	163	81.5
-Working women (Cleaners, workers)	37	18.5
Education of husbands		
-Illiterate	102	51
-Literate	88	49
Occupation of husbands		
- Cleaners	144	72
-Laborers	28	14
-Drivers, shopkeepers and others	28	14
Quality of House		
-Kaccha (mud house)	23	11.5
-Pakka (stone house)	176	88
Electricity		
-Yes	170	85
-No	30	15
Fuel used for cooking		
-Wood	156	78
- Gas cylinder	35	17.5
-Kerosene oil	9	4.5

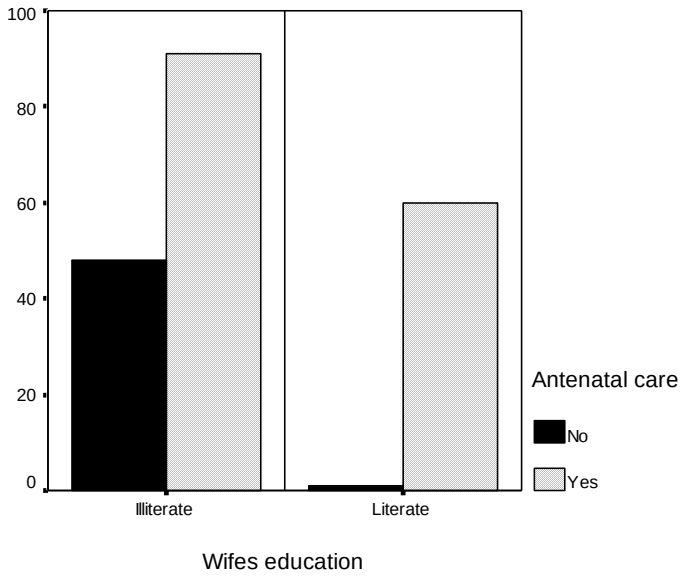
Regarding the current status, 55 (27.5%) of the women were pregnant, 32 (16%) of the women were nursing the babies, 113 (56.5%) were not pregnant. Antenatal care used in any of the previous pregnancy among women under study was 151 (75.5%). Table-2 shows the pattern of antenatal care utilization by women under study.

Table-2: Pattern of antenatal care utilization (n=200)

	Frequency(#)	***Percentage(%)***
Current status of women		
-Pregnant	55	27.5
-Not pregnant	113	56.5
-Nursing the baby	32	16
Antenatal care for previous pregnancy		
-Yes	151	75.5
Antenatal care from where?		
-Government	75	37.5
-Local dispensary (Church system)	74	37
-Private	51	25.5
Antenatal care from whom?		
-Doctor	75	37.5
-Nurse	50	25
-Dai(untrained)	32	16
-Lady health visitor	31	15.5
-Midwife (trained)	12	6
Antenatal care when?		
-1st trimester	71	35.5
-2nd trimester	68	34
-3rd trimester	12	6
-Never	49	24.5
Where was last baby born?		
-Home	118	59

-Govt.hospital	55	27.5
-Private clinic/hospital	22	11
-Govt. dispensary	5	2.5
Who delivered last baby?		
-Dai (untrained)	72	36
-Doctor	58	29
-Midwife	33	16.5
-Nurse	28	14
-Lady health visitor	9	4.5

Fig-1: Utilization of antenatal care by women's educational status.



Education of wife (adjusted p=0.005) and education of husband (adjusted p=0.006) were significantly associated with utilization of antenatal care (table-3). This is also depicted in Figures 1 and 2.

Fig-2: Utilization of Antenatal care by husband's educational status.

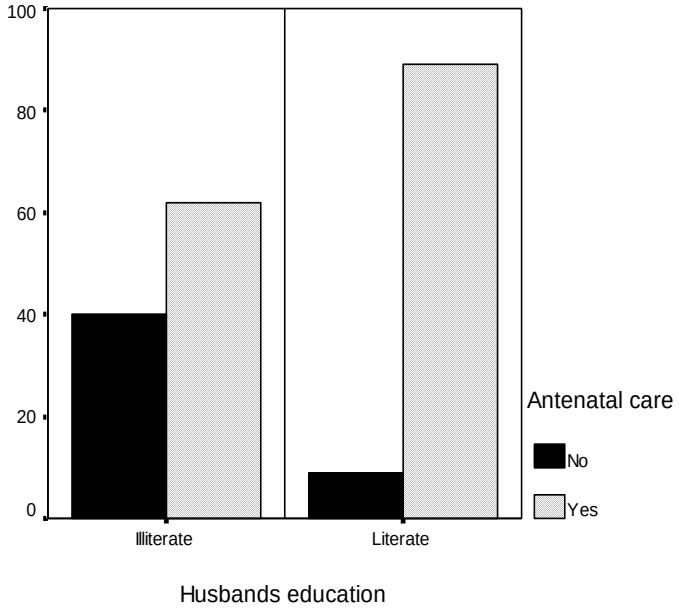


Table-3: Utilization of antenatal care services by family income, wife's & husband's education

	Received ANC (n=151)	**Did not receive ANC (n=49)**	**P-value* (unadjusted)**	**P-value• (adjusted)**
Family Income				
<3000	49(32.5%)	17(35.4%)	0.84	0.52
>3000	102(67.5%)	31(64.6%)		
Wife's education				
Illiterate	91(60.3%)	48(98%)	0.000	0.005
Literate	60(39.7%)	1(2%)		
Husband's education				
Illiterate	62(41.1%)	40(81.6%)	0.000	0.006
Literate	89(58.9%)	9(18.4%)		

*P-value obtained by Chi-Square test
•P-value adjusted for family income, wife's education & education of husband.
ANC=Antenatal care

Family income was not significantly associated with antenatal care utilization in this study (adjusted p=0.52). The local church dispensary was providing antenatal care

facilities free of charge, thus family economics might not be directly related to utilization of antenatal care facilities in this study. Moreover, there was not much difference in the socioeconomic status of the end-users. Other studies have found an association of family income with utilization of antenatal care. [2,3]

Out of those who did not avail antenatal care, 37 (75.5%) cited ignorance about the importance of antenatal care, 9 (18.4%) said that antenatal care facility was far away, 3 (6.1%) said that they could not get permission from home to go to the antenatal care facility.

DISCUSSION

W.H.O has recommended four strategic interventions or "four pillars" for safe motherhood.[4] These include family planning, antenatal care, clean/safe delivery and emergency obstetric care. Some of the interventions that have been shown to be effective in detecting, treating or preventing conditions in pregnant women that might otherwise give rise to serious morbidity and mortality are detection and investigation of anemia, detection and investigation of pregnancy induced hypertension, treatment of severe pre-eclampsia, screening and prevention of infections and diagnosis of obstructed labor.

The Pakistan Integrated Household survey (PIHS) 96-97 shows that only 30% (Urban 54%, Rural 22%) of the mothers who had given births in the last three years had antenatal consultations.[5] In this study, 75.5% of the sampled women had used antenatal care in any of the previous pregnancy, which is on the higher side. Statistically, no significant difference in the utilization of antenatal care was seen in the two areas (G-7/1 & G-8/1) that were studied. Level of awareness regarding the importance of antenatal care in the

two areas was also comparable. In this study, only 37% of women availed antenatal care from government facilities while the majority availed it either from church dispensary or private practitioners.

According to Annual report of the Director General Health[6] 2000-2001, 35% of the deliveries are attended by trained personnel. National Health Survey of Pakistan[7] in 1998 found that over 60% of the mothers were attended by traditional birth attendants. In our study, it was found 64% of the deliveries were attended by trained personnel and the rest by untrained dais. Since the church dispensary does not have facilities for delivery, most of the women (59%) in this study gave history of home delivery. This is still lower than the National figures of 76% home deliveries.[7] The target should be that majority of these home deliveries should be carried out by trained (skilled) personnel.

The family income was not associated with utilization of antenatal care, in our study. This may be explained by the fact that antenatal care facilities were being provided free of cost in these localities by St. Thomas's Community Health network. Education did play a significant role in the utilization of antenatal care facilities in this study. Wife's education and husband's education were significantly associated with utilization of antenatal care facilities in this study. This is in line with other such studies.[2,8,-11] Women and their husbands who were labeled literate in this study were those with formal years of schooling, mostly primary or middle and few with higher levels of education. In addition to obstacles in utilization of antenatal care such as costs, distance and sociocultural factors, the proper content of care is crucial. Professional behavior almost always stands out as one of the most important factors regarding quality of care.[12]

CONCLUSIONS

Antenatal care used in any of the previous pregnancy among women under study was 75.5%. The literacy level was associated with low level of antenatal care. In areas where accessibility to antenatal care facilities is a problem, community health workers and lady health workers should provide antenatal counseling at the door-step of women. Disseminating the benefits of antenatal care should be stressed so that the communities take active part in the utilization of the antenatal care facilities.

ACKNOWLEDGEMENTS

We gratefully acknowledge the contribution of class of 2004 and 2005, Shifa College of Medicine, in collecting this data. Special thanks to Mrs.S.Robins, Incharge St. Thomas Community Health Network and her team of Community Health workers who extended full support in making this survey a success.

From Department of Community Health Sciences,
Shifa College of Medicine,
Islamabad, Pakistan.
Correspondence: Dr Ali Yawar Alam
Email: ayawar21@hotmail.com

Received: August 10,2004 Accepted: September 12, 2004

REFERENCES

1. World Health Organization. Essential elements of obstetric care at first referral level. Geneva: WHO 1991.

2. Nisar N, White F. Factors affecting utilization of antenatal care among reproductive age group women (15-49 years) in an urban squatter settlement of Karachi. J Pak Med Assoc. 2003;53:47-53.

3. Fatmi Z, Avan BI. Demographic, socio-economic and environmental determinants of utilization of antenatal care in a rural setting of Sindh, Pakistan. J Pak Med Assoc. 2002; 52:138-42.

4. WHO. Mother Baby Package. Division of Family Health. WHO. Geneva, 1996.

5. Federal Bureau of Statistics. "Pakistan Integrated Household Survey-Round 2. 1996-97." Government of Pakistan, Islamabad.1998.

6. Annual Report of the Director General Health, 2000-2001, Bio-Statistics Section, Primary Health Care Cell, Ministry of Health, Government of Pakistan, 2001: p231.

7. Pakistan Medical Research Council, National Health Survey of Pakistan, Health profile of the people of Pakistan, 1998, p90.

8. Hussain MT. Factors affecting the use of antenatal care in Urban Bangladesh. Urban Health Dev. Bull 1998;1:1-4.

9. Jimoh AA. Utilisation of antenatal services at the Provincial Hospital, Mongomo, Guinea Equatoria. Afr J Reprod Health 2003;7:49-54.

10. Nielsen BB, Liljestrand J, Thilsted SH, Joseph A, Hedegaard M. Characteristics of antenatal care attenders in a rural population in Tamil Nadu, South India: a community-based cross-sectional study. Health Soc Care Community 2001;9:327-33.

11. Erbaydar T. Utilization of prenatal care in poorer and wealthier urban neighbourhoods in Turkey. Eur J Public Health 2003;13:320-6.

12. WHO. The safe motherhood initiative, a decade after Nairobi, achievements in the WHO Eastern Mediterranean Region,1998.