

In Suburban Area of Karachi City - Assessment of Awareness and Attitudes Towards Antenatal Care (ANC)

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Abstract

Objective: Aim of this study was to assess awareness, existing knowledge and practices related to the utilization of ANC and service, among the women of suburban areas of the city of Karachi.

Methods: A cross-sectional study of all booked pregnant women, attending the antenatal booking clinic and came for follow-up, at Korangi Industrial Area of Karachi, Jinnah Medical college hospital, Karachi were included. This institutional based study was done from 1st October 2014 to 1st March 2015 by means of a questionnaire. Using SPSS-20 statistical analysis was done. Chi-square test was used where appropriate and $p < 0.05$ was considered significant. Institutional ethical approval was taken and informed consent from the patients included in the study.

Results: A total no of pregnant women ($n=662$) were interviewed, while only 78 (11.8%) were reported timely visited. Parameters like younger age ($p < 0.0001$), female education of women ($p < 0.0001$), education of husband ($p < 0.0001$), wealth index ($p < 0.000$), previous experience of care ($p < 0.0001$) and planned pregnancies ($p < 0.039$) were incorporated in the study. As these parameters, were considered basic and related with more positive attitude towards ANC.

Conclusion: Our study shows that the timely utilization of ANC services was very low. There is need for enhancing awareness about the importance of early initiation and utilization of maternal care services.

Keywords: Prenatal care, education, trends, utilization.

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Introduction

In developing countries many women are dying due to related factors of pregnancy and childbirth. Early utilization of antenatal care ANC services is potentially, one of the most effective health interventions for the prevention of maternal and neonatal morbidity and mortality.

Antenatal care (ANC) was described as series of pregnancy related health care provided by a doctor or a health worker in a health facility or home¹.

ANC is a branch of preventive medicine². Antenatal care is believed to have a positive impact on pregnancy outcomes, either through early diagnosis or by contributing to the elimination and reduction of modifiable maternal risk factor³. It is a key to modern obstetrics⁴. Good antenatal care has contributed significantly to the reduction of maternal and fetal morbidity and mortality⁵. Antenatal care is one of the pillars of safe Motherhood initiative aimed at preventing adverse pregnancy outcome⁶. Good antenatal care starts with booking which serves as entry to prenatal care for the index pregnant and af-

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fords the pregnant women opportunity for risk assessment and management⁷. It is recommended that first antenatal visit should be initiated at <12 weeks in focused antenatal care and <14 weeks in traditional antenatal care seen in most developing countries⁸. Various maternal factors such as maternal age, parity, spacing between children, her health and care during pregnancy all have effects on the growth and well being of the foetus.

Globally, World Health Organization (WHO) estimates that more than 529,000 women die every year from complications of pregnancy, childbirth and abortion with 99% of these deaths from developing countries⁹.

The state of women's health unfortunately in Pakistan is not satisfactory. Majority of them are suffering from preventable and treatable risks and diseases, associated with pregnancy. According to a demographic health survey, 70% of them did not receive antenatal care, 23% receive antenatal by doctors, 3% by nurses, lady health visitors or family welfare workers and 4% by trained or untrained traditional birth attendants (TBA)¹⁰.

Understanding maternal knowledge and practices of the community regarding care during pregnancy and delivery are required for program implementation¹¹. Data on this very important issue is scarce in our state so the aim of this study was to make an access of awareness, existing knowledge and practices related to the utilization of antenatal care and service, among the women of suburban areas of the city of Karachi. The rationale is to plan some effective health interventions for preventing maternal morbidity and mortality, particularly in places where the general health status of women is low.

Patients and Methods

We designed a cross-sectional, prospective study. In that study, a Non-Probability Convenience Sampling Technique was done. The study was conducted among 662 women of reproductive age (15-49 years). We included women of all gestational

age between 4 weeks to 40 weeks and all gravida and parities, who came first time for antenatal checkup and booking. We excluded all pregnant patients who were already booked and came for follow-up visit. The study was conducted in outpatient Department of Obstetrics and Gynaecology unit of Jinnah Medical College hospital, Korangi industrial area of Karachi, from 1/10/2014 to 1/3/2015. The hospital is a 500 bed teaching hospital situated in Korangi industrial area of Karachi city. In addition to secondary and tertiary care, this hospital is the nexus for primary health care needs of the entire population of the industrial area. Out-Patient, Executive Clinics and In-Patient services are available in all Medical, Surgical and Allied Departments.

After taking the verbal informed consent, the questionnaire was filled which consisted of seven parts: 1) socio-demographic characteristics, 2) experience: of previous antenatal care, 3) planned/unplanned status of current pregnancy, 4) reason of seeking health care, 5) source of encouragement and social support, 6) knowledge: about ideal gestational age at booking, 7) practice: that is gestational age at booking in current pregnancy. Participants were communicated individually and the purpose of data collection explained in order to maximize the response rate to generate reliable data. Doctors and medical students who had been trained for this purpose, prior to data collection, collected data. Statistical analysis was done using SPSS 20. Chi-square test was used where appropriate and p-value <0.05 was considered significant, were used to check the statistical significance.

The ethical review and research committee of Jinnah Medical and Dental College gave ethical approval prior to starting the research study.

Results

Factors associated with antenatal care perception are shown in (Table 1). Regarding socio-demographic characteristics of respondents, the mean age of the respondents was 30.23 ± 1.0849 , with a majority of 318 (48%) belonging to the 20-24 year-old age group, 4 (0.6%) were >40 and 36 (5.44%)

were less than 19 years. While 198 (29.9%) aged 25-29, 92 (13%) aged between 30-34 and 14 (2.1%) aged 35-39 years. It was of interest to note that respondents from younger age group perceived more positive attitude than older women that is at <19 age group 29 (80%), 20-24 age 233 (73%), 25-29 age 143 (72%), 30-34 age 54 (58%), 35-39 age 8(57%)and at age >40 only 1 (25%) perceived that ANC was necessary ($p<0.001$). Regarding educational status of patient, 245 of whom (37%) had no schooling and out of them only 89 (36%) felt ANC is necessary. Only 79 (11%) were tertiary level educated, out of them 77 (97.47%) knows the importance of ANC ($p<0.001$). No education leading to decreased knowledge of medical problems affecting pregnancy may be a significant reason for poorer use of health care services in pregnancy but also probably the influence, beliefs and socio-physical dependency may also be the reason. It also showed that the level of education and knowledge of husband were also the important predictor. Among 189 (28.55%) uneducated husband only 53 (28%) felt the importance of utilization of care, while tertiary educated husband although only, 89 (13.4%) felt 89 (100%) the necessity of women care in pregnancy ($p<0.0001$). It confirmed that the level of education of patient and husband were the most important predictors of ANC utilization in the Korangi industrial area of Karachi. Regarding socioeconomic status, 389 (60%) of the respondents were from low socioeconomic out of them only 224 (56.28%) felt the importance of women care ($p<0.0001$). Regarding financial constraint 437 (66.0%) was replied "yes" and from them only 249 (56.9%) had positive attitude ($p<0.0001$).

More over regarding experience of previous antenatal care 275 (41%) were having good experience while 49 (7%) having bad experience. Out of good experience 206 (74%) felt ANC is necessary while only 26 (53%) of bad experience felt the necessity of ANC which indicated that previous pleasant experience leads to favourable impact on next pregnancy and outcome($p<0.0001$).

Only 373 (56.3%) pregnancies were planned, out of them 276 (74%) felt the importance of ANC, unplanned pregnancies had more negative attitude than planned and wanted pregnancies ($p<0.039$).

Reason to seek health care, Fig. 1. showed, 566 (85.5%) the majority were interested in care of their babies while 479 (72%) were showed an interest of own health care. Comparatively, the majority of women showed much less importance on advice, reassurance and excluding the risks in index pregnancy, which were the vital function of antenatal health care.

Regarding the source of encouragement and status of social support (data not shown in table), 132 (19.9%) visited by their own personal wish, 112 (16.92%) women felt they were encouraged by their husbandt encouraged them and 138 (20.85%) by parents and among them only 12 (1.81%) were encouraging by doctors.

Regarding level of knowledge about perception of ideal gestational age at booking most of the respondents 528 (79%) lacked sufficient knowledge of booking at first trimester and harbored a negative attitude to book in second and third trimester while only 134 (20%) perceived the intention to book at first trimester, (Table 2). Regarding practice the majority of the respondent, 373 (56.3%), started visiting ANC during their third trimester, followed by those in their second trimester 211 (31%) while minimum number of patient 78 (11.8%) paid to visit before 13th week (Table 2). The perception and knowledge of respondents concerning ANC did not match their practices of ANC, while Mean period of gestation on the first visit was 26 ± 8.275 . Mostly population 563 (85.05%) belonged to periphery of Karachi only 99 (14.95%) were from distant areas (data not shown in table).

Discussion

When considering age, our study found that women in the age group of less than thirty were likely to use ANC services than older women. Several studies found out the same result stating that

women's age plays a significant role in the utilization of maternal health care^{12,13}. This might be due to fact that younger women are more educated and cautious about their pregnancies and sought ANC early but older women might have believed that health care is not necessary due to their previous experiences and accumulate knowledge from previous pregnancies and births.

In our study parental education was having the positive impact towards ANC. The results were same as with other studies that education has a positive relationship with maternal health care utilization^{14,15}. Moreover in our suburban area of Karachi city, many women are uneducated and mostly were unemployed. Influence of the husband and family as the main decision maker for a woman's utilization of maternal health services were found. Traditions heavily influenced the decision-making process; women played a secondary role to men in this area. These findings were also found in previous studies from Bangladesh, Burkina Faso, Tanzania and Nepal¹⁶⁻¹⁸. However, a study in Thailand found that the women themselves influenced their own decision on utilization of delivery care more than other family members¹⁹. Therefore efforts to improve husband's and family education and attitude would probably increase utilization of health services. Moreover educational interventions intended to increase health knowledge of women may also help to improve use of maternal and child health services.

According to this study only 78 (11.8%) of the respondent started their ANC within the recommended time and the most of 373 (56.3%) booked late and visited the hospital in the third trimester for in the first time. This indicates that, a considerable number of women had started ANC at a relatively late stage of pregnancy. This result is low compared to the recommendation of the WHO, which states that each and every pregnant woman should start the first ANC within first trimester of her pregnancy⁸. Antenatal care is more effective in preventing adverse pregnancy outcomes, when it is sought early in pregnancy²⁰. Delaying its initiation threat-

ens maternal and newborn health for it deprives woman's full benefits of it²¹. It forfeits the opportunity for timely diagnosis and identification of possible pregnancy related problems thus delaying care means enhancing the problem of women and newborn health²². Many women stated that late utilization of ANC services were because they felt well during pregnancy and women who reported not having any pregnancy complications had an increased odd of its underutilization. Moreover, lack of awareness, overload of household work, long waiting time at the hospitals, financial constraint and social deprivation might add into the underutilization of ANC. Deliberate efforts are therefore needed to uplift early ANC initiation, for enhanced health outcomes of mothers and newborn.

Our study revealed almost half 286 (43%) pregnancies were unplanned. Women's attitude towards their current pregnancy, i.e. whether or not the pregnancy was planned, was found to affect ANC utilization. Some studies have found that women with unintended pregnancies did not seek care as early as do those with a planned pregnancy²³ and the uses of it were significantly more among women with planned pregnancies²⁰. It is important to counsel adequately women concerning positive attitudes about ANC for both wanted and unwanted pregnancies. Moreover proper utilization of family planning services should be encouraged. Preventing unintended pregnancies is very crucial for well-being of women and their newborns on one hand and may beneficially affect population size on the other hand²⁴.

Regarding recommendation at National level the adequate knowledge about women health should be implemented at school level so that the awareness about women health can be created.

Moreover, media should play its role in making the mass awareness about the importance of antenatal checkups and delivery by trained birth attendants and the number of trained birth attendant and maternity centers should be increased in order to meet needs of the over growing population needs.

It is a cross-sectional, institutional based study

Table 1. Factors associated with antenatal care perception:

Factors	% of N=662	Antenatal care perception			X ²	p-value
		Unnecessary n (%)	Necessary n (%)	Don't know n (%)		
Age						
<19	5.44	2 (5.56)	29 (80.56)	5 (13.89)	31.54	<0.001
20-24	48.04	62 (19.50)	233 (73.27)	23 (7.23)		
25-29	29.91	45 (22.73)	143 (72.22)	10 (5.05)		
30-34	13.90	34 (36.96)	54 (58.70)	4 (4.35)		
35-39	2.11	6 (42.86)	8 (57.14)	0 (0)		
>40	0.60	3 (75)	1(25)	0 (0)		
Patient's Education					235.54	<0.001
None	37.01	124 (50.61)	89 (36.33)	32 (13.06)		
Primary	27.04	25 (13.97)	146 (81.56)	8 (4.47)		
Secondary	24.02	1 (0.63)	156 (98.11)	2 (1.26)		
Tertiary	11.93	2 (2.53)	77 (97.47)	0 (0)		
Husband's education					291.77	<0.001
None	28.55	117 (61.90)	53 (28.04)	19 (10.05)		
Primary	25.23	31 (18.56)	117 (70.06)	19 (11.38)		
Secondary	32.78	4 (1.84)	209 (96.31)	4 (1.84)		
Tertiary	13.44	0 (0)	89 (100)	0 (0)		
Previous experience of ANC					37.28	<0.001
None	29.46	28 (14.36)	153 (78.46)	14 (7.18)		
Bad	7.40	21 (42.86)	26 (53.06)	2 (4.08)		
Fair	19.49	47 (36.43)	73 (56.59)	9 (6.98)		
Good	41.54	54 (19.64)	206 (74.91)	15 (5.45)		
Excellent	2.11	2 (14.29)	10 (71.43)	2 (14.29)		
Socioeconomic					102.91	<0.001
lower class	60.12	141 (35.43)	224 (56.28)	33 (8.29)		
middle class	39.58	11 (4.20)	242 (92.37)	9 (3.44)		
Higher	0.30	0 (0)	2 (100)	0 (0)		
Financial Constraints					117.14	<0.001
No	33.99	3 (1.33)	219 (97.33)	3 (1.33)		
Yes	66.01	149 (34.10)	249 (56.98)	39 (8.92)		
Planned					6.467	0.039
No	43.66	80 (27.68)	192 (66.44)	17 (5.88)		
Yes	56.34	72 (19.3)	276 (74)	25 (6.7)		

Table 2. Knowledge and practice of gestational age at booking:

Knowledge: Perception of Ideal Gestational age at booking			
		Frequency	Percentage
1st trimester	1-3 months (0-13 weeks)	134	20.2
2nd trimester	4-6 months (14-26 weeks)	283	42.7
3rd trimester	7-9 months (27-40 weeks)	245	37.0
	Total	662	100
Practice: Gestational age at booking			
		Frequency	Percentage
1st trimester	1-3 months (0-13 weeks)	78	11.8
2nd trimester	4-6 months (14-26 weeks)	211	31.9
3rd trimester	7-9 months (27-40 weeks)	373	56.3
	Total	662	100

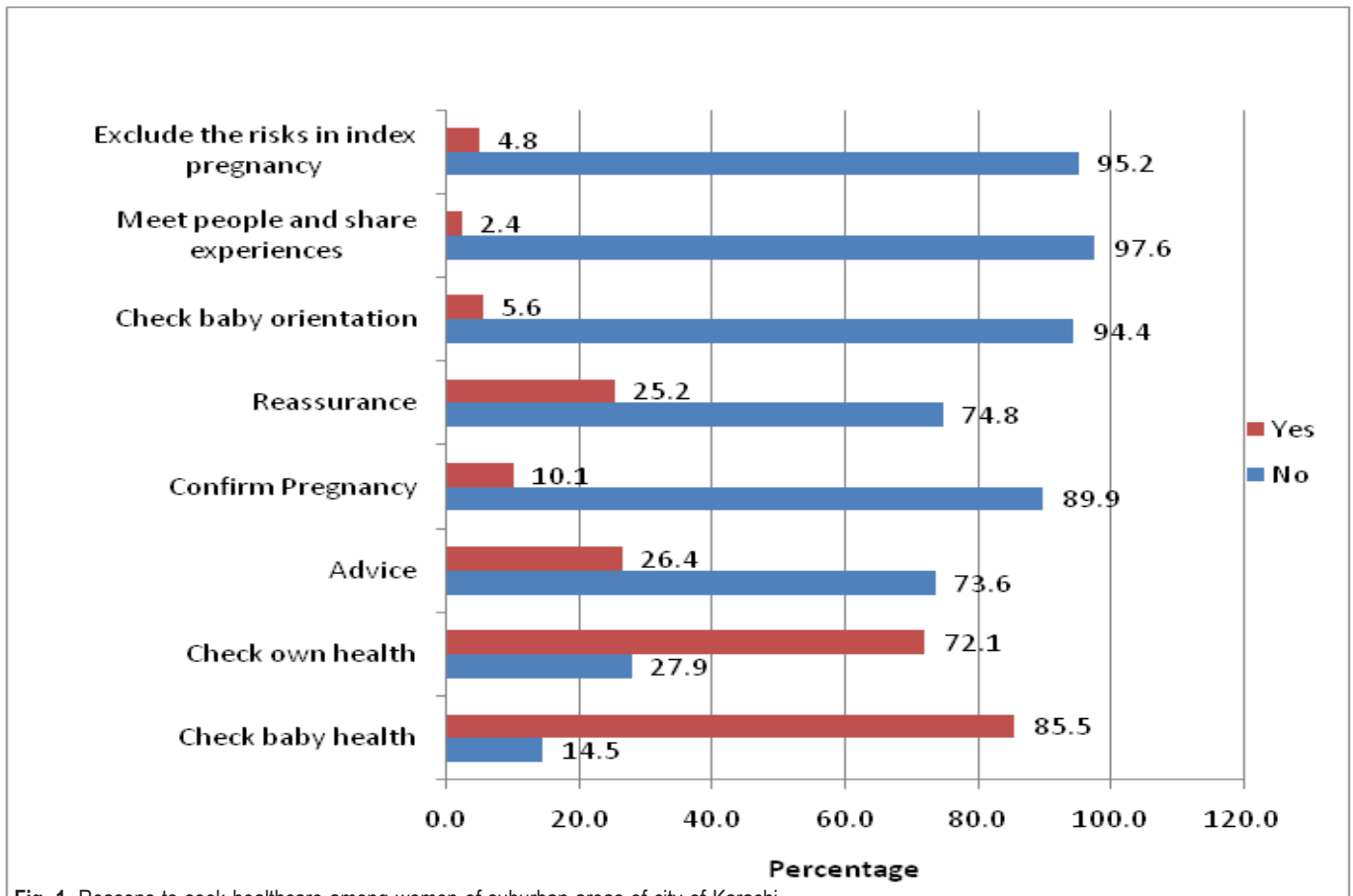


Fig- 1. Reasons to seek healthcare among women of suburban areas of city of Karachi.

and limited to Korangi industrial area, therefore cannot be applied in general.

Conclusion

Delaying in initiation of ANC leads to adverse maternal and child outcome. By counselling and emphasizing on the importance of early ANC visit at the time of service provision, improving the education of women, gender equity and the empowering the women to avoid unwanted pregnancies by using of family planning services is important for health promotion of mother and child.

Conflict of interest

The authors report no conflict of interest & have not received any grant for the present study.

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