

Assessment of Quality of Antenatal Counseling at a Tertiary Care Facility in Islamabad

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ABSTRACT

Background: Antenatal visit is a significant opportunity for health messages and preventive measures. Despite an active family planning program in Pakistan, the population control and contraception compliance is very poor. One key reason could be lack of health messages.

Objective: To assess the quality of antenatal counselling in a tertiary care health facility of Islamabad.

Methodology: A cross-sectional study was conducted in the MCH Center, Pakistan Institute of Medical Sciences, Islamabad in a period of 3 months from December 2023 to February 2024. Study was approved by hospital ethics committee and a written informed consent was administered before a walkout interview. The study outcome was measured in terms of compliance with antenatal counseling especially messages for family planning and breastfeeding. Furthermore, the socio-demographic background was associated with the quality of counseling.

Results: The mean age of respondents was 28.7 ± 5.5 years and majority of them (90.0%) were in their 1st and 2nd trimester. Close to 60.0% of the respondents were unaware of contraceptive methods and breastfeeding messages. As most of the females 163 (78%) reported no breastfeeding counseling, they were the ones significantly non-satisfied with ANC too (p-value, <0.001).

Conclusion: This study witnessed a high degree of non-satisfaction from ANC among women. Most of the ANC clinic visitors were not given basic messages of birth spacing and breastfeeding the newborns.

Keywords: Antenatal Counselling, Family Planning, Mortality, Maternal

Author's Contribution

^{1,4,3}Substantial contributions to the conception or design of the work; or the acquisition, ⁸analysis, or interpretation of data for the work,

^{5,6}Drafting the work or revising it critically for important intellectual content, ^{1,7}Final approval of the version to be published

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Introduction

Population bomb is a grave public health threat in some regions including Pakistan. Moderate population growth is the right of every individual and community. However, in some regions, high fertility rates are alarming due to which the world population is growing at an uncontrollable pace.^{1,2} In Pakistan, the crude fertility rate is amongst one of the highest in the world. The population of Pakistan is 240 million at current and is expected to reach 250 million by the year 2030.³

Though a national family planning (FP) program is functional in the country, the status of population control and contraception compliance is very poor. Lack of knowledge and understanding, religious background,

social class, and negative propaganda are some of the commonly seen hurdles of family planning.⁴

The Pakistan Demographic and Health Survey (PDHS) 2012–13 reported a contraception prevalence rate (CPR) of 35% for all contraceptive methods. While 26% of them were using modern family planning method with urban (44.8%) and rural (30.7%) rates. In Pakistan, the total fertility rate (TFR) is high recorded at 3.8 births per woman.⁵ This high TFR combined with traditionally low CPR levels has resulted in a high unmet need for contraception in the community.⁶

Some evidence suggests that currently there are 20-25% married women in Pakistan who desire to delay or limit their next birth.⁵ This unmet need for contraception is a big challenge for demographers and population planners. Pakistan is a lower-middle-income country with slow annual economic growth rates (GDP), which is mainly due to constant security and political instability. There is a constant race between demand and supply due to the scarcity of basic necessities like health and education. Food insecurity is also a grave threat when there are more stomachs to fill with lesser agriculture and food generation.⁷

The adoption of a strict policy of one child by China and two children policy in Bangladesh has brought success in reducing the fertility and birth rates down but these endeavors have not been applied by others due to hindrances in the community's liberty.⁸ The best way is behavior change and motivation for practicing contraception after childbirth. There is evidence that antenatal and postnatal counseling regarding the adoption of family planning and the birth gap has had a significant effect in terms of compliance and acceptance of modern contraceptive methods.

A study by Puri MC et al concluded that there is an urgent need to re-visit the format of counseling on PPFP during ANC visits, corresponding IEC materials, counseling setting, and to strengthen availability and interaction with providers in order to improve quality, experience, and satisfaction with FP counseling during ANC visits.⁹ Another study by Tafere TE et al witnessed that among pregnant women who were counseled at least once, 38.5% of them opted post-partum modern family planning compared to 13.4% of post-partum women who were not counseled. This has shown that Antenatal counseling has bettered contraception usage in communities.¹⁰

Since Pakistan is way behind in education as close to one-half of population is illiterate and women have fewer opportunities of getting educated and are more likely to be left behind in decision making and autonomy. Due to these gender inequalities and significant social taboos, the counseling and awareness regarding birth spacing and contraceptives is crucial for our community. This study aimed at assessing the quality of counseling practices of healthcare workers regarding population control and birth spacing during routine patient visits to antenatal and postnatal clinics. The information was taken from respondents as walk out interviews from ANC clinics, the pregnant women were asked about status of the basic antenatal counselling questions by healthcare providers as well as their overall satisfaction with the visit.

Methodology

This cross-sectional study was conducted in the Maternal and Child Health Center, Pakistan Institute of Medical Sciences, Islamabad in a period of 3 months from December 2023 to February 2024. The sample size was calculated using the WHO calculator using a confidence level of 95%, alpha error of 5%, study power of 80.0% and anticipated proportion using contraceptive after counselling of 38.5%⁹. The sample size was 364 and these women were enrolled using convenient sampling technique.

Pregnant women of reproductive age (15-49 years) who came for at least one antenatal visit were included. The mentally retarded, blind, or dependent women and those with chronic illnesses like renal diseases, stroke, and CVD were excluded. Cases who did not agree to consent or respond to survey questions were also excluded.

The study was conducted after getting approval from the institutional review board. The women visiting the MCH center's antenatal clinic were screened for inclusion in the study. The women visiting the antenatal clinics were selected for enrollment after administration of a written informed consent. This was an exit interview.

The quality of antenatal counselling was defined in this study as any *advice and/or health message given to women during pregnancy at the antenatal clinics, which may include family planning, breast feeding promotion and personal and family care*. Family planning or birth spacing is usage of any contraceptive method for birth spacing after delivery of baby for at least 3 years. Contraceptive techniques include condom, oral contraceptive pills, intrauterine device (IUD), contraceptive implant, contraceptive injection, emergency contraception pill (The 'Morning After' Pill), contraceptive ring, and diaphragm.

A structured closed-ended questionnaire pertaining to socio-demographic details of respondents and *questions* regarding status of contraceptive, knowledge of contraceptive methods and whether the doctor, LHV or Nurse has given counselling and health messages regarding family planning/birth spacing and modern contraceptive methods were given during the visit. Questions also included any counseling given regarding breastfeeding and immunization promotion.

The study outcome was measured in terms of compliance with antenatal counseling messages for family planning and *breastfeeding*. Furthermore, the socio-demographic background was associated with the prevalence and quality of counseling.

Data was entered and analyzed in SPSS version 22.0. The categorical variables like education, residence, profession, socioeconomic status, family planning counseling, FP knowledge, breastfeeding/immunization counseling, ANC *quality*, and ANC visit satisfaction were analyzed as frequency and percentages. The continuous numerical variables like age and no of ANC visits were measured as mean and standard deviation.

Furthermore, targeted analysis was done to compare the socio-demographic parameters with rate of counselling and its satisfaction using chi-square test. A p-value of <0.05 was considered significant.

Results

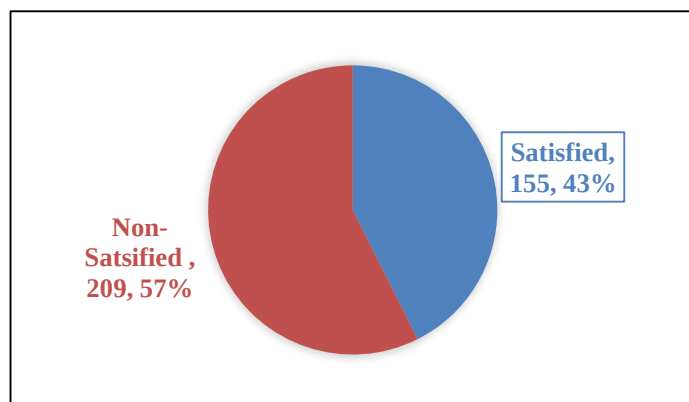
A total of 364 women were recruited in the study. Most of them 327 (89.8%) were in 1st or 2nd trimester of their pregnancy while 37 (10.2%) participants were in their 3rd trimester. There were 99 (27.2%) primipara participants while 265 (72.7%) were multipara. Similarly, 94 (25.8%) were primigravida and 270 (74.2%) were multigravida women. Almost two-third of respondents 239 (65.6%) were from rural area and 212 (58.2%) were found illiterate. Almost three-fourth of respondents were housewives and close to this proportion's SES varied from very poor to poor. The baseline characteristics of participants are shown in table I.

Overall, in this study, most of the respondents 209 (57.4%) were found non-satisfied with the quality of ANC while the remaining 155 (42.6%) were satisfied with the current status and quality of ANC. (Figure 1)

Further analysis was done on the basis of distribution of demographic and gestational parameters according to satisfied and non-satisfied respondents. The average age of respondents was found similar between both satisfied and non-satisfied categories (p-value, 0.61). The mean gestational age was found significantly greater (11.7 vs 12.9 weeks) in those cases who were not satisfied with the quality of ANC (p-value, 0.01). Primiparity and primigravida status were found associated with non-satisfaction while multigravida was associated with satisfaction (p-value, 0.001). The respondents from urban residence (p-value, <0.001), those having an educated husband (p-value, 0.02), and middle to high socio-economic status (p-value, 0.003) were found associated with non-satisfaction of ANC quality. Proportionately, educated and working women were found satisfied with ANC quality, however, this difference was not statistically significant (p-value, 0.13). Further details can be seen in table II.

	No of cases	%
Age (years)		
Mean $\pm$ SD	28.7 $\pm$ 5.5	
Gestational categories		
1 st or 2 nd trimester	327	89.8%
3 rd trimester	37	10.2%
Parity		
Primipara	99	27.2%
Multipara	265	72.8%
Gravidity		
Primigravida	94	25.8%
Multigravida	270	74.2%
Residence		
Urban	239	65.6%
Rural	125	34.3%
Education		
Illiterate	212	58.2%
Primary to middle	93	25.5%
Secondary/Higher Secondary	38	10.4%
Graduation/Postgraduation	21	5.7%
Husband education		
Illiterate	134	36.8%
Primary to middle	106	29.1%
Secondary/Higher Secondary	73	20.0%
Graduation/Postgraduation	51	14.0%
Profession		
House wife	274	75.2%
Working woman	90	24.7%
SES		
<25000/month (very poor)	108	29.6%
25000 to 50000 (poor)	138	37.9%
50000 to 100000 (lower middle)	114	31.3%
100000 to 150000 (middle)	3	0.8%
Above 150000 (upper)	1	0.3%

When status of ANC quality was compared between satisfied and non-satisfied categories, it was found out that most of those visiting for the first time for ANC were non-satisfied (75.8% vs 48.4%). Similarly, of those opting that there's proper waiting area and examination area, majority were non-satisfied about the overall quality of ANC (75.6% vs 52.3%). The females who mentioned that the attitude of healthcare workers/doctors was good, were significantly more likely (45.8% vs 26.3%) to be satisfied with ANC quality (p-value, <0.001). Availability of medicine in health facility had no effect on satisfaction level while non-awareness regarding contraception was found significantly associated with non-satisfaction (p-value, <0.001). Of the non-satisfied mothers, most of them were not counseled for breastfeeding (78.0% vs 41.3%, p-value, <0.001). Similarly, most of the respondents were counselled for child immunization (79.9% vs 63.2%), however, they were still non-satisfied with the ANC quality at the health facility (p-value, <0.001). (Table III)



Discussion

Antenatal care is considered as a preventive health care management approach that enable women to attain and maintain good health during pregnancy.¹¹ Global trend analyses revealed that current maternal mortality ratio is 216 deaths per 100,000 deliveries.¹² which must be brought down to 70 deaths per 100,000 deliveries by

2030 as per Sustainable Development Goals (SDGs).¹³ Effective antenatal care management program with good quality counselling may help in achieving this goal. The determinants of effective antenatal care also lie in patient satisfaction.

The current study found out that 57.4% of the participants interviewed were dissatisfied with the quality of antenatal care provided in a tertiary care hospital of Islamabad, Pakistan. A similar study in Ebonyi State of Nigeria witnessed that 89.4% of the participants were satisfied with the quality of antenatal services provided in a tertiary care institute.¹⁴ In a similar kind of study, the overall satisfaction level from ANC services provided in various hospitals and clinics was found satisfactory; highlighting that 80% of the participants were satisfied with the attitude of health care providers at ANC facilities.¹⁵ In contrast to that, this study

Table II: Association of socio-demographic characteristics with non-satisfaction of ANC quality.

	Satisfied (n=155)	Non-satisfied (n=209)	p-value
Age (years)			
Mean $\pm$ SD	28.6 $\pm$ 5.9	29.0 $\pm$ 5.4	0.61
Gestational age (weeks)			
Mean $\pm$ SD	11.7 $\pm$ 3.1	12.9 $\pm$ 5.2	0.01
Gestational categories			
1 st or 2 nd trimester	151 (97.4%)	176 (84.2%)	0.002
3 rd trimester	4 (2.6%)	33 (15.8%)	
Parity			
Primipara	22 (14.2%)	77 (36.8%)	<0.001
Multipara	133 (85.8%)	132 (63.2%)	
Gravidity			
Primigravida	48 (30.9%)	46 (22.0%)	<0.001
Multigravida	107 (69.1%)	163 (78.0%)	
Residence			
Urban	75 (48.4%)	164 (78.5%)	<0.001
Rural	80 (51.6%)	45 (21.5%)	
Education			
Illiterate	80(51.6%)	132(63.2%)	0.09
Primary to middle	43(27.7%)	50(23.9%)	
Secondary/Higher Secondary	22(14.2%)	16(7.7%)	
Graduation/Postgraduation	10(6.5%)	11(5.3%)	
Husband education			
Illiterate	60 (38.7%)	74 (35.4%)	0.02
Primary to middle	37 (23.9%)	69 (33.0%)	
Secondary/Higher Secondary	32 (20.6%)	41 (19.6%)	
Graduation/Postgraduation	26 (16.8%)	25 (11.9%)	
Profession			
House wife	109(70.3%)	165(78.9%)	0.13
Working woman	46(29.6%)	44(21.1%)	
SES			
<25000/month (very poor)	71 (45.8%)	37 (17.7%)	0.003
25000 to 50000 (poor)	70 (45.1%)	68 (32.5%)	
50000 to 100000 (lower middle)	13 (8.4%)	101 (48.3%)	
100000 to 150000 (middle)	1 (0.7%)	2 (1.0%)	
Above 150000 (upper)	0 (0.0%)	1 (0.5%)	

	Satisfied (n=155)	Non-satisfied (n=209)	Overall (n=364)	p-value
Is this your first ANC visit?				
Yes	75 (48.4%)	164 (78.5%)	239 (65.6%)	<0.001
No	80 (51.6%)	45 (21.5%)	125 (34.3%)	
Is there Proper waiting and examination area?				
Yes	81(52.3%)	158(75.6%)	239 (65.6%)	<0.001
No	74(47.7%)	51(24.4%)	125 (34.3%)	
Attitude of healthcare worker/doctor?				
Good	73(47.1%)	55(26.3%)	128 (35.1%)	<0.001
Not good	82(52.9%)	154(73.7%)	236 (64.9%)	
Measured temperature/BP/weight/ height?				
Yes	95(61.3%)	120(57.4%)	215 (59.1%)	0.45
No	60(38.7%)	89(42.6%)	159 (41.9%)	
Antenatal medicines?				
Prescribed outside	108(69.7%)	138(66.3%)	246 (67.5%)	0.29
Available in health facility	47(30.3%)	71(33.7%)	118 (32.5%)	
Are you aware of contraceptive methods?				
Yes	85(54.8%)	63(30.2%)	148 (40.6%)	<0.001
No	70(45.2%)	146(69.8%)	216 (59.3%)	
Where did you get information for FP? (n=148)				
Friend/Family	12 (7.7%)	9 (4.3%)	21 (5.7%)	0.56
Lady Health worker	35 (22.5%)	28 (13.3%)	63 (17.3%)	
During the ANC visit (s)	18(11.6%)	14(6.7%)	32 (8.7%)	
TV/Radio/Newspaper	20 (12.9%)	12 (5.7%)	32 (8.7%)	
Counseled for breastfeeding?				
Yes	91(58.7%)	46(22.0%)	137 (37.6%)	<0.001
No	64(41.3%)	163(78.0%)	227 (62.4%)	
Counseled for child immunization?				
Yes	98(63.2%)	167(79.9%)	265 (72.8%)	<0.001
No	57(36.7%)	42(20.1%)	99 (27.2%)	

observed large number of non-satisfied participants from the attitude of healthcare workers and doctors of ANC services. The fact that already overburdened health care system of Pakistan coupled with lack of diagnostic laboratories and ultrasound facilities¹⁶ struggle to provide quality antenatal health care services thereby causing a widespread dissatisfaction among the respondents. In addition to that a poor maternal education particularly among the low socio-economic class and the availability of primary health care facilities at remote sites are associated with the poor uptake of ANC services.¹⁷⁻¹⁸ Another factor that was highlighted in number of studies was a non-availability of ANC coverage particularly in the South Asian regions that creates an economic burden among low and middle-income families hence, creating a sense of non-satisfaction among the respondents.¹⁹ Besides this, many studies have witnessed that nulliparous women are more likely to get ANC services as compared to multiparous as first pregnancy is a new experience and they usually are more careful compared to second or later pregnancies.²⁰

In one study on family planning (FP) counselling as a part of antenatal care was a primary measure and findings revealed a poor quality of counselling²¹ which aligns well with the findings of current study in which majority of the women were found non-satisfied with the awareness provided in ANC regarding contraceptive methods. The reason of non-satisfaction as per the literature could be due to the requirements that health care providers need to practice the new technique first to achieve proficiency or could be the reason that it required closed monitoring of the new technique before recommending to the patients.²¹ Breastfeeding awareness is another important concept on which women must be educated during the ANC visits and here too the findings revealed that large number of women were given no awareness regarding breast feeding. A study conducted in India on breast feeding knowledge and awareness among women revealed that large number of women (33%) had started bottle-feeding before six months because of lack of awareness as they considered breast feeding insufficient.²² Similarly, two separate studies conducted in Sindh, Pakistan showed bottle-feeding rate at 12% and 76% revealing high rate of

The lack of awareness of women regarding the importance of breast milk for neonates indicate ineffectiveness of ANC programs. The advantages of this study are multiple as it highlights various important findings regarding the level of satisfaction and non-satisfaction among women towards antenatal care services provided at tertiary care hospitals in Pakistan.

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Conclusion

In this study an overall high level of non-satisfaction of respondents from ANC services provided at tertiary level in Pakistan is alarming. The messages for family planning and breastfeeding were not given in most of the cases. The high degree of non-satisfaction from ANC among women needs to be addressed in order to ensure improved maternal and child health outcomes. This could be achieved by staff capacity building especially, counselling skills and providing separate and dedicated clinics for breastfeeding, nutrition and family planning.

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