

# AWARENESS AND PRACTICES OF ANTENATAL CARE AMONG PREGNANT FEMALES IN A TERTIARY CARE HOSPITAL OF LAHORE

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## Abstract

**Background and Objective:** Worldwide maternal mortality ratio(MMR) is 216/100,000, in south Asian countries is 182/100,000 and in Pakistan MMR is 178/100,000. The risk of maternal mortality is 200 times more in developing or low income countries than developed or high income countries. The objectives of the study were to determine the awareness and practice levels regarding antenatal care(ANC) among pregnant females visiting Arif memorial teaching hospital, Lahore.

**Methods:** It was a cross sectional study done among 350 pregnant women from 1<sup>st</sup> March, 2022 to 31<sup>st</sup> August 2022, with singleton pregnancy presented at a tertiary care center using purposive sampling technique. The predesigned questionnaire was used to collect information regarding socio-demographic factors as well as knowledge and practice questions regarding ANC. Scoring was designed with >70% designated as adequate knowledge or practice levels. Information was entered and results were obtained using SPSS 24.0.

**Results:** Among total 350 respondents, mean age was 28.54±5.26 years. The mean knowledge and practice scores were 27.56±6.11 and 12.33±3.14 and there were 110 (31.4%) and 50 (14.3%) women having adequate knowledge and practice respectively. Respondent's literacy was significantly associated with knowledge (p=0.015) and working women had better practices than house wives (p<0.001).

**Conclusion:** Knowledge and practices regarding ANC were considerably low falling in inadequate area. To improve community awareness on ANC community campaign and mass media should be used. Family support and government support both should be provided in parallel to pregnant female in order to improve maternal health.

**Key words:** Antenatal Care, Knowledge, Practice, Reproductive age women, Tertiary Care Hospital.

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A child born to a healthy mother is also healthy. A child's growth, development, and health are influenced by the health of its mother. Regretfully, the

global rate of maternal mortality is extremely high. Some studies indicate that 1400 women perish per day from pregnancy-related complications, with 830 mothers dying from avoidable reasons.<sup>1</sup>

In sub-Saharan and Asian nations, maternal mortality rates are particularly high, accounting for 88% of all maternal deaths globally, according to a UNICEF report.<sup>2</sup> Maternal mortality ratios are 216/100,000 globally, 182/100,000 in south Asian nations, and 178/100,000 in Pakistan. Compared to industrialized or high income countries, the risk of maternal mortality is 200 times higher in developing or low income countries.<sup>3</sup>

Delays in seeking care, getting to a medical faci-

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lity, and receiving appropriate guidance and treatment from institutions are the three main causes of poor pregnancy outcomes.<sup>4</sup> A study found that maternal mortality and average life expectancy can be used to forecast a nation's health. In 1987, the World Health Organization launched a campaign on safe motherhood with the goal of lowering the number of pregnancy-related deaths. Antenatal care was the initiative's primary tenet.<sup>5</sup>

The routinely planned visits component of the primary health care system is called ANC. At the initial appointment, a thorough medical history is taken, along with any necessary tests (CBC, urine tests, dates USG, pregnancy confirmation, and infection screening for hepatitis B and C). HIV and Syphilis cases have been excluded.<sup>6</sup>

98% of women in wealthy nations attend one ANC session, compared to 88% in poor nations and up to 54% in Southeast Asia, according to the WHO. In Pakistan, just 73% of women receive one visit, and only about 37% receive four.<sup>7,8</sup>

Approximately 6 million women fall pregnant each year, with 5 million of those pregnancies ending in childbirth. Improved maternal and newborn health status is linked to appropriate use of prenatal healthcare services. Pregnancy care is anticipated to have an impact on the mother's and the baby's development.<sup>9</sup>

Pakistan has the highest maternal mortality rate (MMR) of 178 deaths per 100,000 live births and the highest child birth rate (21.9 births per 1000) in 2015. 20,000 mothers lose their lives each year as a result of prenatal treatment. Most women in the nation rely on family or inexperienced "Daaiies" for prenatal care.<sup>10,11</sup>

The objectives of study were to determine the awareness levels regarding antenatal care among pregnant females visiting Arif memorial teaching hospital, Lahore and also to determine the practices of antenatal care among pregnant females visiting Arif memorial teaching hospital, Lahore. Because of Pakistan's high rates of maternal and neonatal death, which are frequently associated with insufficient access to and usage of prenatal care (ANC), it is imperative to do research

on pregnant women's knowledge about and practices around ANC. In order to boost ANC uptake, customized interventions that take into account the unique cultural, social, and structural challenges that Pakistani women experience can be designed. Public health policies and initiatives can benefit from this research by being more culturally sensitive and more able to meet the specific requirements of Pakistani women. It can also support international health initiatives to meet the Sustainable Development Goals for maternal and child health, which will enhance general health outcomes and lessen health inequalities in Pakistan.

## METHODS

It was a cross-sectional descriptive study, done at Arif Memorial teaching hospital, Lahore after taking ethical approval. IRB approval was taken with Ref no: REC-UOL-/94-04/2022 on 10th April 2022. The sample size for this study was calculated by using the appropriate sample size calculation formula, using sample size calculator.<sup>12</sup> Keeping confidence interval of 95% and proportion of interest at 65% with margin of error 5%, the sample size came out to be 350. Sample was selected by non-probability, purposive sampling. The duration of study was from 1<sup>st</sup> March, 2022 to 31<sup>st</sup> August 2022.

Pregnant women of reproductive age (15-49 years) presenting in the outpatient department, pregnant women having singleton pregnancy, and those who signed written informed consent were recruited in the study. While, women with pregnancy complications in need of emergency treatment were excluded from the study.

350 pregnant women who met the inclusion criteria and presented in the Gyne/Obs outpatient department of Arif Teaching Hospital in Lahore were counseled and given an explanation of the study's specifics following permission from the hospital's ethical review committee. Every woman provided written informed consent and provided their sociodemographic and obstetric history. Questions about prenatal care practices and knowledge were posed. Everything was noticed and entered into the proforma that is provided. To get data, purposive sampling was employed. An organized survey was also employed. The pregnant ladies who

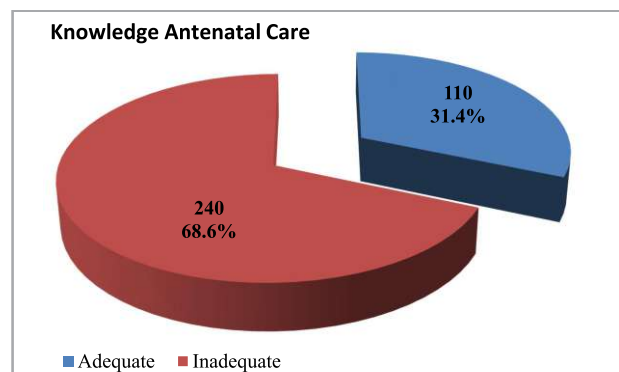
are singleton, regardless of the number of weeks of gestation, were included and awareness was determined what each person knew about ANC visits, tetanus shots, investigations, nutritional aspects, pregnancy risk signals, contraception, and personal behaviors. For each parameter, the right solution receives one mark, and the incorrect answer receives zero. Therefore, there are 44 total points for knowledge-related questions. People with scores of 70 percent or more were deemed to have acceptable knowledge, while those with scores less than 70 percent were deemed to have inadequate knowledge.<sup>1</sup>

For practice assessment questions, one mark was given for good practice and zero for improper practice. As a result, there were 21 total points for practice-related questions. 2 marks were awarded for practicing attending the most number of visits (less than 3, 0, 3-5, 1, and more than 5 visits). Folic acid tablet consumption practice received a score of 5 points (0-49 = 1, 51-99 = 2, 100-149 = 3, 150-200 = 4, >200 = 5). Individuals scoring 70% or higher were deemed to have practiced sufficiently, while those who scored less than 70% were deemed to be practicing inadequately.<sup>11</sup>

Data was entered and analyzed through SPSS version 24.0. Numerical variables- age, parity, were presented by mean±SD. Categorical variables i.e. gender, occupation, obstetric history were presented as frequency and percentage. Chi-square test was applied taking p value of ≤0.05 as statistically significant.

## RESULTS

The background characteristics of participants are shown in Table 1.



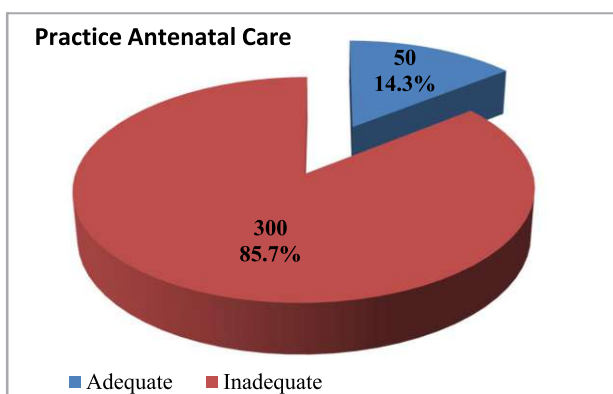
**Figure 1:** Graphical Presentation of Adequate Knowledge among Women (n=350)

The mean knowledge score was 27.56±6.11. The figure 1 showed that there were 110 (31.4%) women

**Table 1:** Socio-demographic characteristics of respondents (n = 350)

Socio-Demographic Variables	Frequency	Percentage
Age (Years) 28.54±5.26	≤30	244 69.7
	>30	106 30.3
Education Level	Illiterate	47 13.4
	Literate	303 86.6
Occupation	House Wife	301 86.0
	Working	49 14.0
Husband Education	Illiterate	28 8.0
	Literate	322 92.0
Husband Occupation	Jobless/Laborer	100 28.6
	Working/Self-Employed	250 71.4
Location	Lahore	66 18.9
	Outside Lahore	284 81.1
<b>Total</b>	<b>350</b>	<b>100</b>

has adequate knowledge about antenatal care and remaining 240 (68.6%) had inadequate knowledge level.



**Figure 2:** Graphical Presentation of Adequate Practice among Women (n=350)

The mean practice score was 12.33±3.14. The figure 2 showed that there were 50 (14.3%) women have adequate practices regarding antenatal care and remaining 300 (85.7%) had inadequate practices.

Several important findings are revealed by the sociodemographic analysis of prenatal care practices. The knowledge adequacy of women is not substantially affected by age; 66.4% of women under 30 and 73.6% of women over 30 reported having inadequate knowledge ( $\chi^2=1.77$ ,  $p=0.183$ ). Likewise, there is no statistically significant association found between the age of marriage and knowledge adequacy; 65.9% of women married at age ≤ 25 and 76.4% of those

married at age >25 report having insufficient knowledge ( $\chi^2 = 3.40, p = 0.065$ ). Knowledge adequacy is influenced by education level; women who are illiterate (46.8%) are less likely than literate

**Table 2:** Cross tabulation of various variables with knowledge of participants. (n = 350)

Sociodemographic Variables		Knowledge				P value
		Inadequate		Adequate		
		N	%	N	%	
Age (Years)	≤30	162	66.4	82	33.6	0.183
	>30	78	73.6	28	26.4	
Age at Marriage (Years)	≤25	172	65.9	89	34.1	0.065
	>25	68	76.4	21	23.6	
Education Level	Illiterate	25	53.2	22	46.8	0.015*
	Literate	215	71.0	88	29.0	
Occupation	House Wife	209	69.4	92	30.6	0.388
	Working	31	63.3	18	36.7	
Husband Education	Illiterate	21	75	07	25	0.445
	Literate	219	68	103	32	
Husband Occupation	Jobless/ Laborer	65	65	35	35	0.363
	Working/ Self-Employed	175	70	75	30	
<b>Total</b>		<b>240</b>	<b>68.6</b>	<b>110</b>	<b>31.4</b>	

women (29.0%) to have adequate knowledge ( $\chi^2 = 5.96, p = 0.015$ ). Given that 63.3% of working women and 69.4% of housewives, respectively, had insufficient knowledge, occupation has no discernible impact ( $\chi^2 = 0.744, p = 0.388$ ). The degree of education and occupation of the husband also had no discernible effect on the adequacy of knowledge. Compared to 68% of women whose husbands are literate, 75% of women whose husbands are illiterate lack sufficient information ( $\chi^2 = 0.584, p = 0.445$ ). In a similar vein, 70% of women whose spouses work for themselves and 65% of women whose husbands are unemployed have insufficient knowledge ( $\chi^2 = 0.829, p = 0.363$ ) (Table 2). The fact that 68.6% of the women lack sufficient knowledge overall suggests that focused educational efforts are required.

**DISCUSSION**

The knowledge and behaviors of 350 participants regarding prenatal care were the basis for this study's

conclusions. A total of 24 questions about knowledge of prenatal care were asked, and the results were based on the demographic data—age, education, and occupation—that was gathered. To check the age-related component in the assessment of maternity care knowledge, two age groups were compared.

The percentage of women with adequate knowledge about antenatal care was 110 (31.4%) women and remaining 240 (68.6%) had inadequate knowledge level. Whereas, practices showed that 50(14.3%) women have adequate practices regarding antenatal care and remaining 300 (85.7%) had inadequate practices.

A study conducted at Ethiopia found that the mean score of the knowledge on antenatal care was  $20.9 \pm 4.3$  out of a total score of 36, which was 55.56%.<sup>13</sup> It was little bit higher than our study. In a study by Sameen Sabir at Nishtar hospital, Multan showed that higher percentages with 65% women having adequate knowledge and 47% women were properly practicing the antenatal care scheduled visits.<sup>1</sup>

Another similar study showed that knowledge about ANC need was known to 75.9% women and concluded that participants had good knowledge for antenatal care.<sup>14</sup> According to a survey, 61% of participants had positive prenatal care habits, and 64.7% of pregnant women had awareness about antenatal care.<sup>15</sup> Based on certain findings, it was shown that 20% of primigravida moms had strong understanding about prenatal care, while 50% of them had average knowledge and 30% had low knowledge.<sup>16</sup>

This study found that pregnant women generally had enough information about prenatal care. The majority of people supported prenatal care, however many women were unaware of the risks associated with pregnancy, the importance of folic acid, injectable tetanus toxoid, and infectious disease screening. The World Health Organization advised supplementing with iron and folic acid to lower the chance of pregnancy in expectant mothers.<sup>17</sup>

The findings from this study will enable to design awareness programs for reproductive age women about the importance of antenatal care like proper visits, screening and diet counselling.

Educational programs at community level should be approved from the physicians to the country level regarding practicing and promoting precautions for the control of various complications that could arise in absence of antenatal visits.

But, since this study was limited to only one hospital, therefore, it was not possible to generalize the results to whole area. The information obtained from the women was solely based on their own response so recall bias might have caused disturbances to the overall results.

## CONCLUSION

Pregnant women have inadequate overall awareness (68.6%), also there is a deficiency in ANC practices (85.7%). Family support and government support both should be provided in parallel to pregnant female in order to improve maternal health. The grass root level workers should be encouraged to educate and make women more aware regarding antenatal care. Complete antenatal care should be utilized by each and every pregnant woman. Appropriate counseling should be done during the antenatal visits.

### Ethical Approval:

The ethical Approval was obtained vide Ref no: REC-UOL-/94-04/2022

### Conflict of Interest:

*None*

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