



Knowledge and Attitude of Antenatal Care Among Females in Majmaah, Saudi Arabia

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ABSTRACT

Background: Antenatal care (ANC) is the care provided to a pregnant woman from the time that conception is confirmed until the beginning of labor. Antenatal care aims to assist the woman in remaining healthy and thus aiding the health of the unborn baby.

Aim: To assess the knowledge, the attitude of females in Majmaah, Saudi Arabia, about Antenatal care.

Methods: This is an observational, cross-sectional study conducted at Majmaah University in Majmaah, Saudi Arabia. The study included women who were working or studying at Majmaah University and wives of employees at Majmaah University. A questionnaire was used to evaluate knowledge, attitude about antenatal care of women.

Results: The level of knowledge of antenatal care among participants was excellent among 61.5% of participants. The attitude of women regarding antenatal care was positive in 57.8% of the participants; age significantly affected the level of knowledge and attitude.

Conclusion: There was an adequate knowledge among women in Majmaah, Saudi Arabia regarding antenatal care is adequate. Women had a positive attitude towards antenatal care. Age was affecting the level of knowledge and attitude.

Key words: Antenatal care, Women, Knowledge, Attitude

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INTRODUCTION

Antenatal care (ANC) is the care provided to a pregnant woman and starts from the time of confirmed conception until the beginning of labor. The goal of antenatal care is to maintain the health of the woman and thus aid the health of the unborn baby. Antenatal care should also provide guidance and support to the pregnant woman and her partner or family to help them in their transition to parenthood. This implies that both care and education are required [1]. ANC is essential to reduce the infant and maternal mortality and morbidity during birth

and pregnancy by monitoring and treating complications [2]. It was shown that antenatal care improved the quality of the mother's life and reduced the risk of stillbirths and pregnancy complications [3]. Supplementation of calcium, folic acid, and important vitamins during the antenatal period with providing pregnant with care and information will assist the mother and the family to overcome the complications of pregnancy and promote breastfeeding [4,5]. Although antenatal care is important to improve maternal and infant health, some studies found that women often only start antenatal care after the first three months of pregnancy and do not achieve the recommended number of antenatal care visits, and some of them don't seek antenatal care at all [6].

During pregnancy, the women should visit the

ANC clinic four times which increase the chance for good skills, with additional appointments in the presence of having any complications, the first appointment should be within the first 4months of pregnancy [7,8]. However, several females around the world don't attend or aren't offered for ANC [9]. In Saudi Arabia, although the ANC is available with at least eight appointments offered for uncomplicated pregnant women, the low attendance of women is significantly noted [10]. In Majmaah, the planning and follow-up after pregnancy are not common because of traditional reasons or less awareness about antenatal care, so this study was conducted to assess the knowledge, attitude, and practice of females regarding antenatal care in Majmaah, Saudi Arabia.

MATERIAL AND METHODS

Study design and subjects

This is a cross-sectional institutional-based study that was conducted on females who were working or studying or wives of employees at Majmaah University, KSA. The study continued for six months. Participation consent was taken from women participated in the study; they were briefed about the aim and objective of the study and the advantage to them as well as to the community due to their participation. All information was kept purely confidential and was only used for research purposes.

Data collection

A close-ended questionnaire was used to collect data in a time-bound manner by a presented performed interviewee. The questionnaire included questions about demographics, knowledge, and attitude.

Data analysis

The data was entered and analyzed using IBM SPSS Statistics for Windows, Version 25.0. Armonk, NY: IBM Corp. Frequency and percentage are reported for categorical variables. Pearson-Chi-Square was applied to observe associations between qualitative variables. A p-value of less than 0.05 was considered as statistically significant.

RESULTS

This study included 244 females; the details

of female's demographics are shown in Table 1. Females with the age range of 20-25 were more dominant age group 101(41.4%). Almost all participants were Saudi females 239(98%), except for five participants only (2%). The majority of women had higher education 180(73.8%), whereas more than half of participated women (61.5%) reported that their husbands' education was university. There were 77(31.6%) reported family income of 5-10 thousand SR, whereas 80(32.8%) didn't report any answer, the remaining percent reported higher family income.

By investigating the level of knowledge of participants, there was 61.5% showed excellent knowledge, 31.1% showed good knowledge, whereas 3.5% showed poor knowledge, Figure 1.

By investigating the factors affecting the level of knowledge, it was found that nationality had no significant impact on the level of knowledge among females. Also, the level of knowledge wasn't affected by the education level of participants or the education level of

Table 1: Demographics of participants.

Variables	N	%
Age	Less than 20	32 13
	20-25	101 41.4
	25-30	36 14.8
	More than 30	75 30.7
Nationality	Non-Saudi	5 2
	Saudi	239 98
Education level	Higher education	180 73.8
	High school	57 23.4
	Uneducated	7 2.9
Husband education	University	150 61.5
	High school	71 29.1
	Uneducated	23 9.4
Family income	5-10 thousand	77 31.6
	10-20 thousand	64 26.2
	More than 20 thousand	23 9.4
	No comment	80 32.8

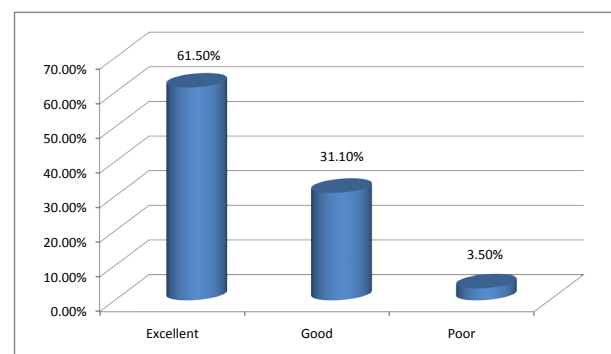


Figure 1: The level of knowledge among females.

their husbands. Family income didn't affect the level of knowledge, and there was no significant difference between the level of knowledge regarding family income. The level of knowledge significantly was affected by age groups, where participants with age more than 30 years reported excellent knowledge compared to other age groups. The attitude of participants was investigated through 13 questions; the questions and answers of participants are shown in Table 2.

The overall attitude toward antenatal care was found to be positive among more than half of participants 57.8%, whereas 42.2% showed a negative attitude toward antenatal care, Figure 2. The level of attitude significantly differed between different age groups ($P < 0.001$), where a positive attitude was significantly high among the age group of 20-25 years old.

DISCUSSION

This is the first study from Majmaah to report the knowledge and attitude of females toward antenatal care. The present study revealed that the level of knowledge regarding antenatal care was excellent among more than half of the participants, followed by good knowledge, whereas the fewest percent showed poor

knowledge. Only the age of women affected their level of knowledge; no other factor had any impact on the level of knowledge; females age older than 30 years tended to have an excellent level of knowledge compared to other age groups. A study from Abha reported good knowledge of women regarding ANC visits [7]. A study from rural areas of Aligarh demonstrated that most women responded that pregnant women need ANC checkup [11]. A study from Ethiopia conducted on married women showed that most women knew about ANC [12]. Regarding the factors affecting the level of knowledge, one study revealed that knowledge about ANC was higher among younger educated women whose husbands were educated, primigravidas, and better socioeconomic status [13].

Regarding the level of attitude, the present study found that more than half of female participated in the study had a positive attitude toward antenatal care. Also, age significantly affected the attitude of participants, where young participants in the age range of 20-25 years old tended to have significantly positive attitude compared to other age groups. A good attitude toward ANC visits of expectant mothers was reported in a study from Abha [7]. A study from Malaysia reported similar results to ours, where 53.8% of participants showed a positive attitude regarding antenatal care [14].

Gestational diabetes mellitus is a risk factor during pregnancy that affects the health of women; it is rising among pregnant females and associated with hypertensive disorders [15]. Caffeine which is present in coffee has a strong pharmacological effect especially on pregnancy, and it is associated with abortion, preterm birth and fetal growth restriction but still the effect

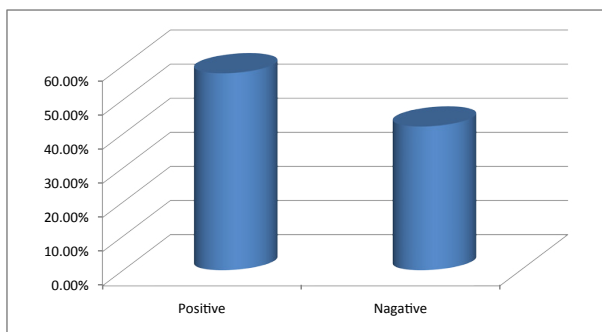


Figure 2: The level of attitude toward antenatal care among participants.

Table 2: Response to attitude questions.

Question	Strongly disagree	Disagree	Unsure	Agree	Strongly agree
An antenatal checkup is necessary for women after becoming pregnant?	0.80%	0.40%	2.50%	16.80%	79.50%
Antenatal follow up is good to monitor mother's and fetus' health	0%	0%	2.50%	13.10%	84.40%
I believe that vitamin supplement is good for the fetus	0.80%	2.50%	12.30%	32.40%	52.00%
I feel that smoking is harmful to the fetus	1.60%	1.20%	1.20%	7.80%	88.10%
I should go for an antenatal checkup in the Clinic if I am pregnant	0%	0.40%	2.90%	20.10%	76.60%
I will allow the doctor to take my blood for screening if I am pregnant	0%	0.40%	5.70%	21.70%	72.10%
I will allow the doctor to check my blood pressure during pregnancy	1.20%	2.90%	29.50%	22.10%	44.30%
I will check my blood sugar level if I am pregnant	0%	0%	5.30%	20.90%	73.80%
I am willing to do an ultrasound scan during my pregnancy	1.20%	2.90%	29.50%	22.10%	44.30%
I plan to deliver in the hospital if I am pregnant	0.40%	2.50%	4.50%	16.00%	76.60%
I will do early preparation for the delivery if I am pregnant	0.40%	2.90%	5.30%	28.30%	63.10%
I am prepared to face pregnancy exacerbations when I am pregnant	0.80%	5.70%	22.10%	28.30%	43.00%
Not taking iron and folic acid during pregnancy may harm the fetus	2.90%	7.00%	20.10%	23.40%	46.70%

on the unborn fetus remains unclear, and the studies found that daily intake of more than 300mg of caffeine is possibly associated with an increase in gestational age at birth [16]. Neural tube defects are amongst the most common birth defects worldwide. Although the role of folic acid in preventing neural tube defects (NTDs) is well documented. Many pregnant women were not aware of the importance of folic acid supplementation in the prevention of NTD and the studies found that low awareness about the importance of folic acid in pregnancy [17].

In the present study, almost half of females believed that vitamin supplement is good for the fetus; the majority strongly agreed that smoking is harmful to the fetus. Less than half of females were strongly agreeing to check their blood pressure during pregnancy, whereas a higher percentage reported that they strongly agreed to check their blood sugar level during pregnancy. Less than half of participants strongly agreed that they not taking folic acid during pregnancy may harm the fetus. In a study from Jeddah, most participants reported that smoking had a harmful effect during pregnancy [18].

A study from Riyadh reported that the level of awareness of Saudi pregnant women is required to be increased; only half of the participants knew the correct reason for taking folic acid [17]. Another study from Riyadh reported that Saudi pregnant women had high knowledge about folic acid, and the main source of information was doctors [19]. Another study from Madina revealed that most women 89% believed that the use of supplements during pregnancy could prevent some problems [20]. A study from Abha showed that during ANC visits, females were informed about the importance of vitamins and folic acid supplementations and provided them information about the importance of breastfeeding [7]. This shows the importance of ANC to improve women's attitude and health. A study from rural areas of Aligarh reported that all participated women knew that blood pressure should be recorded [11].

CONCLUSION

The study concluded that the level of women's knowledge in Majmaah, Saudi Arabia, regarding antenatal care was adequate. The level of knowledge is a significant association with

women's age, and it increases when the age is above 30 years of age. The attitude of women towards antenatal care was positive. Also, age affected the level of attitude. The study recommends raising women awareness of antenatal care in Majmaah, Saudi Arabia.

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