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Antenatal Exercises: Knowledge, Attitude and Practices among Pregnant Women Attending Tertiary Care Hospital, Guntur

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Abstract: ***Background**: Antenatal exercise, or exercise performed by women while they are pregnant, is a crucial component of prenatal care that supports the mother's and the unborn child's health. Engaging in regular physical activity during pregnancy has been associated with numerous benefits, including the prevention of excessive weight gain, reduction in the risk of gestational diabetes, hypertension, and preeclampsia, as well as improvements in psychological well - being and preparation for childbirth. **Objectives**: 1) To assess the knowledge, attitude, and practice (KAP) regarding antenatal exercises among pregnant women. 2) To determine the association between socio - demographic factors and the knowledge, attitude, and practice (KAP) of antenatal exercises among pregnant women. **Methods**: A cross - sectional study was done by convenience sampling technique among 100 antenatal women attending tertiary care hospital after taking their informed consent. A self - designed, semi - structured questionnaire was administered to collect sociodemographic details and details about their Knowledge, Attitude and Practice regarding physical exercise during pregnancy. Institutional Ethical Committee approval was taken. Data was collected and entered into Microsoft excel spread sheet and analyzed for descriptive statistics. **Results**: Among the 100 participants, 79% belong to the age group of 19 - 30 years.59% have knowledge about antenatal exercises, 43% felt doing exercise during pregnancy is essential, 32% were practicing antenatal exercises. Women from urban areas showed significantly higher knowledge ($p = 0.022$) and a more positive attitude ($p = 0.018$) compared to those from rural areas. However, the difference in practices was not statistically significant ($p = 0.208$). Employed women had significantly higher knowledge ($p = 0.015$) and a more positive attitude ($p = 0.033$) compared to unemployed women, no significant difference was observed in the practices ($p = 0.16$). **Conclusion**: The study reveals that while knowledge about antenatal exercises is moderately high, the actual practice is relatively low among pregnant women in Guntur. There is a significant association between demographic factors such as age, area of residence, and occupation with the knowledge and attitude towards antenatal exercises. Interventions to improve the practice of antenatal exercises are necessary, particularly targeting rural and unemployed women to enhance maternal health outcomes.*

Keywords: Antenatal women, antenatal exercise, knowledge, attitude, practice

1. Introduction

Antenatal exercise, or exercise performed by women while they are pregnant, is a crucial component of prenatal care that supports the mother's and the unborn child's health [(1).] Antenatal exercises are an essential component of prenatal care, significantly enhancing the health and well - being of pregnant women. Engaging in regular physical activity during pregnancy has been associated with numerous benefits, including the prevention of excessive weight gain, reduction in the risk of gestational diabetes, hypertension, and preeclampsia, as well as improvements in psychological well - being and preparation for childbirth [(2 - 4).] These exercises, which include walking, swimming, and specific prenatal fitness routines, also contribute to shorter labor durations and reduced need for medical interventions during delivery [(5, 6).] Despite the well - documented benefits, the level of knowledge, attitudes, and practices (KAP) regarding antenatal exercises among pregnant women can vary significantly. Factors such as age, education, marital status, employment status, and place of residence play crucial roles in shaping these variations. Understanding these factors is critical for designing effective interventions to encourage healthy exercise habits among pregnant women, thereby improving maternal and fetal outcomes [(7, 8).]

Aim and Objectives

1) To assess the knowledge, attitude, and practice (KAP) regarding antenatal exercises among pregnant women.
2) To determine the association between socio- demographic factors and the knowledge, attitude, and practice (KAP) of antenatal exercises among pregnant women.

2. Methodology

This study is a cross - sectional study aimed at assessing the knowledge, attitude, and practices (KAP) regarding antenatal exercises among pregnant women attending a tertiary care hospital in Guntur. The study population comprises pregnant women visiting the Tertiary care hospital in Guntur. A total of 100 antenatal women were selected for the study using a convenience sampling technique. This method involves choosing participants who are readily available and willing to participate during their visit to the tertiary care hospital. The inclusion criteria were pregnant women aged 19 to 45 years. The exclusion criteria were Women with medical conditions contraindicating exercise during pregnancy, women not willing to provide informed consent. The study was conducted after obtaining approval from the Institutional Ethical Committee. Written informed consent was obtained from all participants. Data were collected using a self - designed, semi - structured questionnaire including

Sociodemographic Details like Age, education level, occupation, and area of residence (urban/rural) etc. Regarding the Knowledge Questions assessing awareness of antenatal exercises, sources of information, and understanding of the benefits and risks associated with these exercises. Regarding Attitude Questions evaluating personal beliefs and feelings towards antenatal exercises, barriers to exercising during pregnancy, and motivational factors. Regarding Practices Questions regarding the types and frequency of antenatal exercises performed, adherence to recommended guidelines, and any advice received from healthcare providers. The collected data were entered into a Microsoft Excel spreadsheet. The data were then analyzed using SPSS software version 20.0. The analysis included Descriptive Statistics. Pearson's Correlation coefficient (r) and Chi - square tests was done to determine the relationship between age, area of residence and occupation with KAP variables.

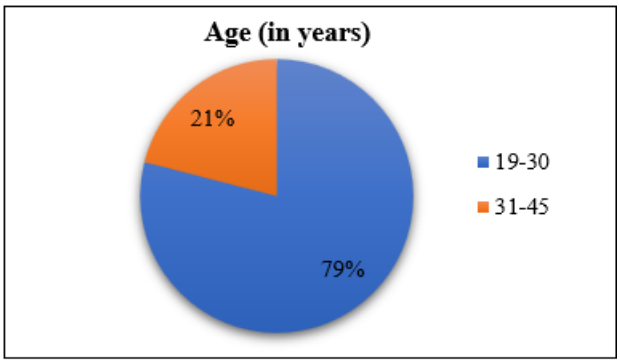

Figure 1: Age distribution of the participants (n=100)

In the study, out of 100 participants 79% of participants belonged to 19 to 30 years, 21% of participants belonged to 31 to 45 years.

3. Results

Sociodemographic details:
A total number of 100 antenatal women participated in the study.

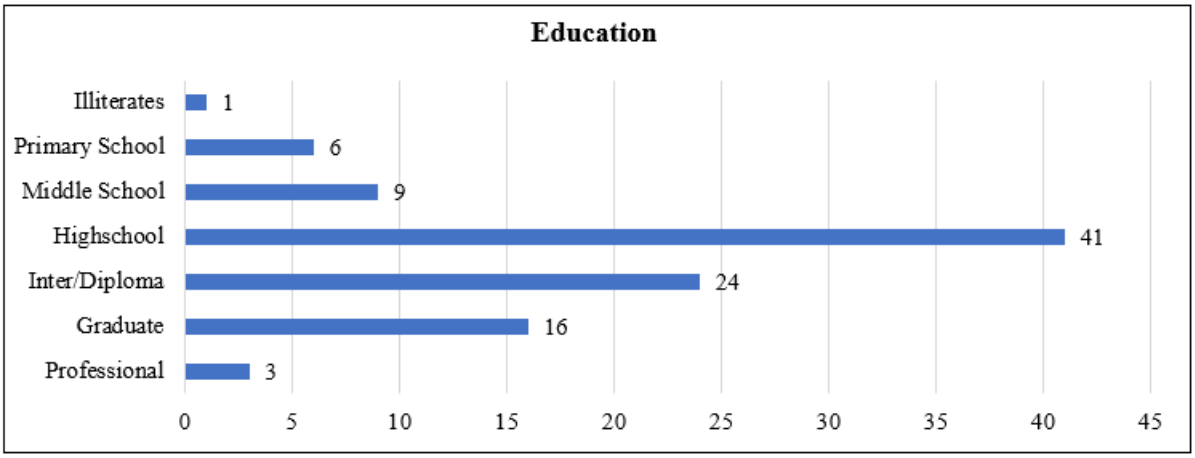

Figure 2: Educational status of the participants (n=100)

Out of 100 participants, highest participants (41%) were studied high school, least participants (1%) were belonging to illiterates.

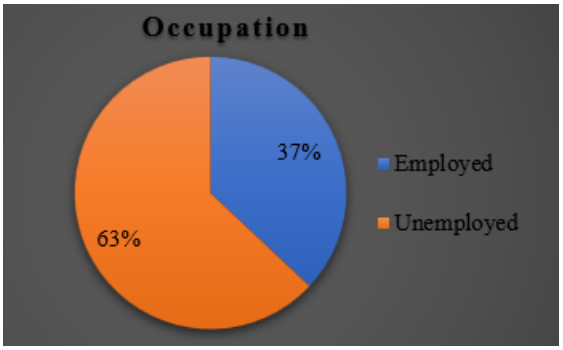

Figure 3: Occupation of the Participants (n=100)

Out of 100 participants 37% were employed and 63% were unemployed.

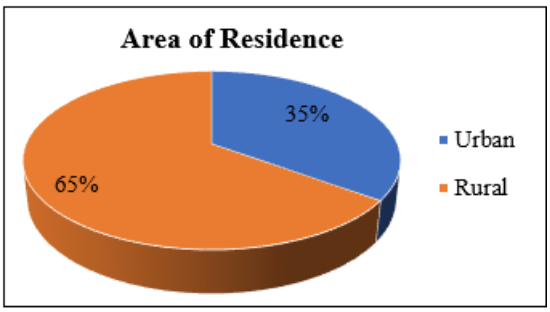

Figure 4: Area of residence of the Participants (n=100).

Out of 100 participants 35% were belongs to urban area and 65% were belongs to rural area of living.

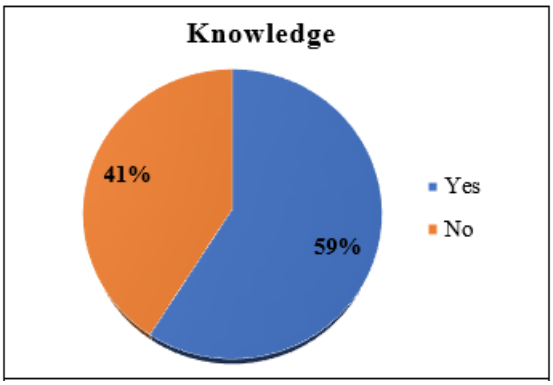

Figure 5: Knowledge of the participants regarding antenatal exercises (n=100)

Out of 100 participants 59% having the knowledge and 41% don't have knowledge on antenatal exercises.

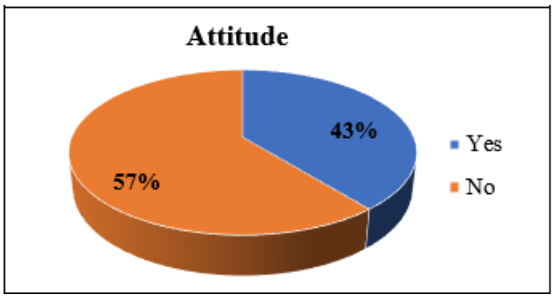

Figure 6: Attitude of the participants regarding antenatal exercises (n=100)

Out of 100 participants 43% were have the positive attitude and 57% don't have the positive attitude on antenatal exercises.

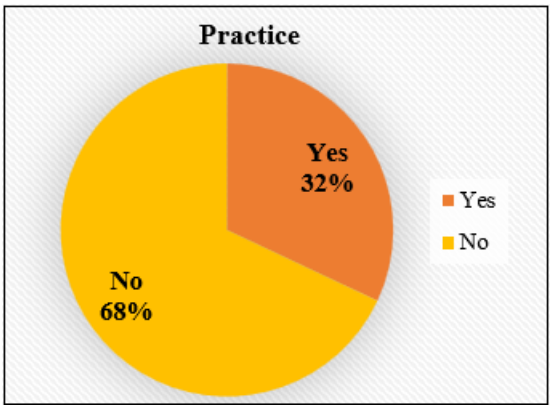

Figure 7: Practice of the participants regarding antenatal exercises (n=100)

Out of 100 participants 32% were practicing antenatal exercises, 68% were not practicing antenatal exercises.

Table 1: Association between the area of residence, knowledge, attitude and practice

Area	Knowledge			Attitude		
	Yes	No	Total	Yes	No	Total
Rural	33 (50.7%)	32 (49.3%)	65 (65%)	22 (33.8%)	43 (66.2%)	65 (65%)
Urban	26 (74.2%)	9 (25.8%)	35 (35%)	21 (60%)	14 (40%)	35 (35%)
Total	59 (59%)	41 (41%)	100 (100%)	43 (43%)	57 (57%)	100 (100%)
Chi - square value	5.201			5.594		
P - value	0.022			0.018		

Area	Practices		
	Yes	No	Total
Rural	18 (27.6%)	47 (72.4%)	65 (65%)
Urban	14 (40%)	21 (60%)	35 (35%)
Total	32 (32%)	68 (68%)	100 (100%)
Chi - square value	1.584		
P – value	0.208		

Women from urban areas showed significantly higher knowledge ($p = 0.022$) and a more positive attitude ($p = 0.018$) compared to those from rural areas. However, the difference in practices was not statistically significant ($p = 0.208$).

Table 2: Association between occupation and knowledge, attitude and practice.

Occupation	Knowledge			Attitude		
	Yes	No	Total	Yes	No	Total
Employed	24 (64.8%)	13 (35.2%)	37 (37%)	21 (56.7%)	17 (73.3%)	37 (37%)
Unemployed	25 (39.6%)	38 (60.4%)	63 (63%)	22 (34.9%)	41 (65.1%)	63 (63%)
Total	59 (59%)	41 (41%)	100 (100%)	43 (43%)	57 (57%)	100 (100%)
Chi - square value	5.915			4.535		
P - value	0.015			0.033		

Occupation	Practices		
	Yes	No	Total
Employed	15 (40.5%)	22 (59.5%)	37 (37%)
Unemployed	17 (26.9%)	46 (73.1%)	63 (63%)
Total	32 (32%)	68 (68%)	100 (100%)
Chi - square value	1.969		
P - value	0.16		

Employed women had significantly higher knowledge (p = 0.015) and a more positive attitude (p = 0.033) compared to unemployed women. No significant difference was observed in the practices (p = 0.16).

4. Discussion

The study aims to estimate the knowledge, attitudes, and practices (KAP) among a sample of 100 participants of antenatal women attending a tertiary care hospital, Guntur. The findings revealed significant associations between demographic factors (age, area of residence, and occupation) and the KAP variables.

Knowledge:
In the present study, 59% of participants have the knowledge about antenatal exercises. Participants from urban areas had higher knowledge (74.2%) than rural area participants (50.7%), which was statistically significant (p=0.022). Employed individuals exhibited more knowledge (64.8%). Similar results were observed in studies by Smith et al. where in 62% of participants had knowledge, with urban participants at 70% and rural at 55% ([9]. and also in Brown et al. found 66% of employed individuals had higher knowledge levels compared to unemployed individuals (44%) ([10].

Attitude:
In terms of attitude, 43% of participants had a positive attitude. Urban participants had a significantly higher positive attitude (60%) compared to rural participants (p = 0.018). Employment status also influenced attitude significantly, with 56.7% of employed individuals having a positive attitude compared to 34.9% of unemployed individuals (p = 0.033). Similar results were found in the studies of Jones et al. where 55% of employed individuals had a positive attitude [(11),] and Garcia and Martinez (2020) reported that 65% of urban residents had positive attitudes [(12).]

Practices: In this study, only 32% of participants reported practicing antenatal exercises. There was no significant difference in practice levels between rural (27.6%) and urban participants (40%), or between employed (40.5%) and unemployed women (26.9%). In comparison, a slightly higher level of practice (45%) among urban participants was reported in the study by Patel et al. [(13).] Similarly, Lee et al. [(14)] observed that 50% of employed women and 35% of unemployed women practiced antenatal exercises.

5. Conclusion

This study highlights that although many pregnant women have moderate knowledge and a generally positive attitude towards antenatal exercises, the actual practice of these exercises remains low. Women from urban areas and those who are employed demonstrated better awareness and more favorable attitudes compared to women from rural areas and those who are unemployed. However, these differences did not translate into higher practice levels, indicating that knowledge and attitude alone may not be sufficient to promote regular exercise during pregnancy. These findings emphasize the need for targeted interventions, particularly for rural and unemployed women, to encourage the practical adoption of antenatal exercises. Strengthening health education, promoting community - based programs, and offering supportive counseling during antenatal care could help improve participation in antenatal exercises and enhance maternal and child health outcomes.

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