

Knowledge, Attitude, and Practice of Antepartum Exercises among Women Attending Antenatal Clinic in Delta State University, Teaching Hospital (Delsuth), Oghara

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Abstract

Building strength during pregnancy for child birth is an essential element in promoting maternal and foetal health; this can be attained through antenatal exercise. This study assessed the level of knowledge, attitude, and practice of antenatal exercise among women attending antenatal clinic in Delta State University Teaching Hospital, Oghara. A descriptive design and convenience sampling technique was utilized for this study. The sample size for the study was 150 women selected through a convenience sampling technique. The instrument used for data collection was a researcher's developed structured questionnaire made up of four sections. The results showed that 76.7% of the respondents were aware of antepartum exercise, and about 50% of them had average knowledge on the types of antepartum exercise. The attitude of the women towards antenatal exercise was generally positive from the results obtained. Their level of practice of exercise was poor as the majority (33.3%), perform exercise only twice a week, which was not in accordance with the recommended guidelines by the World Health Organization. Based on these findings, there is a need for Nurses and Midwives to design interventions that will create prenatal and antenatal exercises awareness among women.

Keywords: Knowledge, practice, attitude, antepartum, exercise.

BACKGROUND OF THE STUDY

Antenatal exercise is an approach of maintain maternal stermina during the period of pregnancy before child birth. It is essential that the woman plays her part in ensuring that she carries the fetus to term and delivers safely. The National Institute for Health and Care Excellence (NICE, 2019), require professional Nurses and midwives to discuss how physically active a woman is at her first antenatal visit, providing her with tailored information and advice that moderate exercise is vital and not associated with adverse outcomes. Usual aerobic or strength conditioning exercises are to be encouraged and where a woman is not currently active, her health provider should motivate her to start gradually and pay attention to how her body responds. Not only will this enhance general well-being, but also reduce stress and anxiety and prepare her body

for the challenge of labour(Marshall& Raynor, 2020). Any activity that could cause trauma or physical injury to the woman or fetus, such as contact sports and scuba diving should be avoided (NICE, 2019). Public Health England (PHE, 2017), recommends a minimum of one hundred and fifty minutes of moderate intensity physical activity every week, and muscle strengthening activity twice every week. Sexual intercourse during an uncomplicated pregnancy can continue to be enjoyed.

Studies have shown that aerobic exercise reduces the predisposition to gestational diabetes by 55% throughout the pregnancy and 25% during early pregnancy (BMC Psychology, 2022). Also, the practice of aerobic exercises during pregnancy reduces the length of first stage labor and reduces cesarean section by 15% (BMC Psychology, 2022). In Africa, there are still some conservative views

and myths that exercises are delicate and unsafe for pregnant women. Women are also afraid to participate in physical exercise owing to fear that it will negatively impact on their health. However, the enlightenment of women and organization of campaigns on the promotion of exercises during antepartum and postpartum periods are becoming vital aspects of antenatal and postnatal care in Nigeria. Although, short accounts of observation have shown increase of such enlightenment and campaigns in urban areas, as health professionals prefer practicing in developing or developed settings (Ojukwu et al., 2017).

The practice and knowledge of physical activity or exercise confers many benefits to the woman and her unborn child and is recommended by various health bodies and institutions. However, a reasonable number of evidences have pointed that most women practice low level exercises during pregnancy despite its beneficial effects (BMC Pregnancy & Childbirth, 2020). According to the American College Of Obstetricians and Gynaecologists (ACOG, 2020), it is recommended that healthy pregnant women should be physically active throughout pregnancy by achieving a minimum of 150 minutes of moderate aerobic physical exercise per week. Therefore, this study evaluated the attitude, knowledge, and practice of antepartum exercises among women that attend antenatal clinic in Delta State University Teaching Hospital, (DELSUTH), Oghara. The study objectives are; To assess the level of knowledge of women attending ante-natal clinic in Delsuth on antepartum exercises. To examine the attitudes of the women towards antepartum exercises. To evaluate the current practice of antepartum exercises among the women, including the frequency, duration, and types of exercises performed and finally, To identify the factors influencing the attitude, knowledge, and practice of antepartum exercises.

METHOD

Study Design

A descriptive study design was utilized. This is a kind of study design used to gain more information about the characteristics within a particular field of study to provide a picture of situations as they naturally happen (Agbedia, 2013). Data will be collected through the use of a structured questionnaire.

Research Setting

Delta State University Teaching Hospital (DELSUTH), is

a well known and commissioned teaching hospital to the Delta State University (DELSU), Abraka. It is situated in Oghara community, Ethiope West local government area of Delta State. The hospital facility was established initially as a 180 - bed -ultra - modern specialist hospital. The hospital was officially commissioned on the 19th of June, 2010. The hospital consists of 20 departments which includes; Accident & Emergency, Anaesthesia, Central sterile services department, Community medicine, Obstetrics and gynaecology, Family medicine, etc. (Delsuth history, n.d.).

Target Population

The target population consisted of women attending antenatal clinic in Delta State University Teaching Hospital (DELSUTH).

Sample Size

The sample size for this study was calculated by utilizing the Taro Yamane (1973) method which is as follows;

$$n = \frac{N}{1 + N(e)^2}$$

where;

n is sample size

N is population size

e is level of precision which is usually 0.10, 0.05, or 0.01 (i.e. 10%, 5% or 1%).

Using a level of precision of 10% and the population size of approximately 240 women that were booked for antenatal from January to July in DELSUTH, Oghara.

$$n = \frac{240}{1 + 240(0.05)^2}$$

$$n = 150$$

Sample Technique

A convenience sampling technique was adopted, whereby 150 child-bearing women attending antenatal clinic in Delsuth, Oghara will be selected purposely for this study.

Research Instrument

For this study, a structured questionnaire which consists of 4 sections will be utilized;

Reliability of Result

Reliability of the research was measured using a test re-test method. Test re-test reliability is used to evaluate the

consistency of a measure from one time to another. The score obtained from time 1 was 0.8 and time 2 was 0.8 then and with a significance level of 0.5.

Method of Data Collection

Data was collected & retrieved from the respondents by utilizing a self administered structured questionnaire. It was distributed within two (2) week.

Data Analysis

Data was analyzed using the statistical package for social sciences (SPSS), version 24, and findings were presented using percentages, tables, and charts.

RESULTS

Table 1. Showing the socio-demographic data

AGE	FREQUENCY	PERCENTAGE (%)
15-20	15	10
21-30	70	46.6
31-40	55	36.7
41 & above	10	6.7
Total	150	100
Marital status		
Married	130	86.7
Single	20	13.3
Total	150	100
Educational Level		
Primary Education	35	23.3
Secondary Education	65	43.3
Tertiary Education	35	23.3
None	15	10
Total	150	100
OCCUPATION		
Student	25	16.7
Employed	20	13.3
Trader	50	33.3
House wife	25	16.7
Farmer	30	20
Total	150	100
RELIGION		
Christian	140	93.3
Muslim	5	3.3
Traditional	5	3.3
Total	150	100
Gravidity		
1	45	30
2	30	20
3	35	23.3
4	30	20
5	10	6.7
Total	150	100

KNOWLEDGE OF THE RESPONDENTS ON ANTE-PARTUM EXERCISES

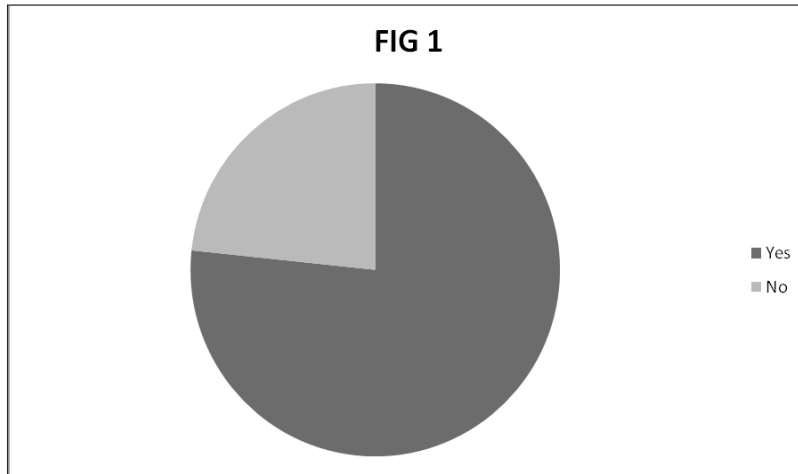


Figure 1. Pie chart showing the level of awareness of antepartum exercise.

Table 2. Showing the source of information of the respondents on antepartum exercises.

VARIABLES	FREQUENCY	PERCENTAGE (%)
Television	10	8.7
Antenatal Clinic	75	65.2
Internet	15	13
Friends	10	8.7
Book	5	4.3
Total	115	100

Table 3. Showing types of antepartum exercises known by the respondents.

EXERCISES	YES (%)	NO (%)
Aerobics	100 (66.7%)	50(33.3%)
Pelvic floor exercise	75 (50%)	75 (50%)
Swimming	60 (40%)	90 (60%)
Fighting	5 (3.3%)	145 (96.7%)
Relaxation & Breathing	105 (70%)	45 (30%)
Jumping	70 (46.7%)	80 (53.3%)
Brisk walking	100 (66.7%)	50 (33.3%)
Stretching exercise	125 (83.3%)	25 (16.7%)

Table 4. Showing the responses of the women on the benefits of antepartum exercises.

BENEFITS	YES (%)	NO (%)
Reduction of back pain	120 (80%)	30 (20%)
Prevention of excessive weight	135 (90%)	15 (10%)
Improves posture	105 (70%)	45 (30%)
Increases body weight	50 (33.3%)	100 (66.7%)
Reduces fatigue	95 (63.3%)	55 (36.7%)
Leads to hypertension	30 (20%)	120 (80%)
Prepares a lady for labour pains	130 (86.7%)	20 (13.3%)

Table 5. Showing the knowledge of the women on the contraindications of antepartum exercise

MEDICAL CONDITIONS	YES (%)	NO (%)
Uncontrolled high blood pressure	85 (56.7%)	65 (43.3%)
Vaginal bleeding	95 (63.3%)	55 (36.7%)
Premature labour	95 (63.3%)	55 (36.7%)
Incompetent cervix	90 (60%)	60 (40%)
Excessive weight	40 (26.7%)	110 (73.3%)
Cardiovascular disease	70 (46.7%)	80 (53.3%)
Recurrent pregnancy loss	80 (53.3%)	70 (46.7%)

ATTITUDE TOWARDS ANTEPARTUM EXERCISES

Table 6. Showing the attitude of the women towards antepartum exercises.

VARIABLES	STRONGLY AGREE	AGREE	DISAGREE	STRONGLY DISAGREE
Antenatal exercises are important during pregnancy	90 (60%)	60 (40%)	0	0
Regular exercises can positively impact your pregnancy outcome	65 (43.3%)	70 (46.7)	15 (10%)	0
Pregnancy is a time to rest	20 (13.3%)	60 (40%)	65 (43.3%)	5 (4.3%)
Exercise improves a woman’s ability to cope with labour	55 (36.7%)	90 (60%)	5 (4.3%)	0
Antenatal exercises will harm your baby	0	5 (4.3%)	95 (63.3%)	50 (33.3%)
Exercise will help you keep fit	70 (46.7)	70 (46.7%)	10 (8.7%)	0

PRACTICE OF ANTEPARTUM EXERCISES

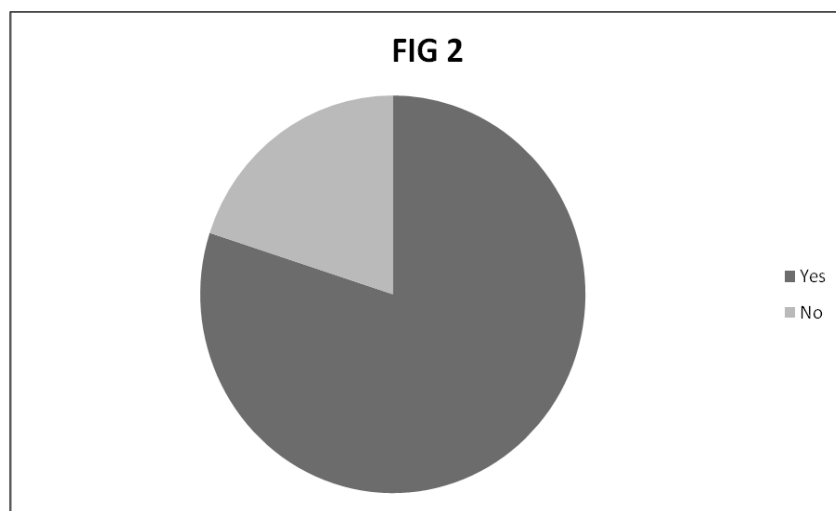


Figure 2. Showing mothers responds to the practice of antepartum exercise

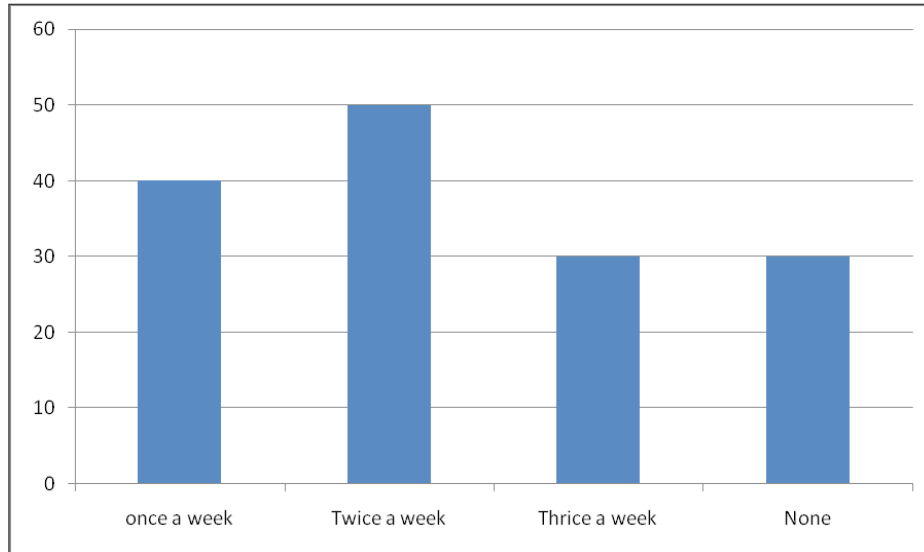


Figure 3. Bar chart showing the frequency of antepartum exercises by respondents.

Table 7. Showing the types of exercises practiced by the women.

EXERCISE	FREQUENCY	PERCENTAGE (%)
Brisk walking	80	66.7
Relaxation exercises	80	66.7
Breathing exercises	80	66.7
Aerobics	30	25
Yoga	20	16.7
Ankle & toe exercise	50	41.7%
Pelvic floor exercise	35	29.2

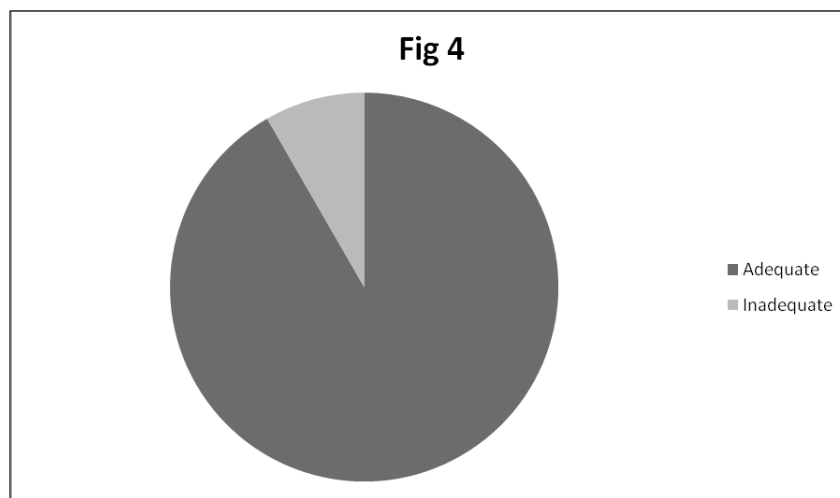


Figure 4. Pie chart showing the opinions of the women on the adequacy of the exercises that they practice.

Table 8. Showing the hindrances faced by the respondents.

HINDRANCE	YES (%)	NO (%)	TOTAL (%)
Lack of strength	70 (46.7%)	80 (53.3%)	100
Lack of interest	35 (23.3%)	115 (76.7%)	100
Busy schedule	100 (66.7%)	50 (33.3%)	100
Insufficient information	80 (53.3%)	70 (46.7%)	100
Against doctor’s advise	15 (10%)	135 (90%)	100
Fear of miscarriage	55 (36.7%)	95 (63.3%)	100
Refusal by husband & family	15 (10%)	135 (90%)	100

DISCUSSION OF FINDINGS

The socio-dermographic data gathered from 150 respondents presented in table 1 revealed that a majority 46.6% were within 21-30 years of age, while 36.7% were within 31-40 years. 86.7% of the population sample were married, while 13.3% were single. The majority (43.3%), attained up to secondary level of education, 23.3% attained both primary and tertiary level of education respectively, while 10% attained none. Also, 33.3% were traders, 20% were farmers, 16.7% were both students and housewives respectively, while the minority (13.3%), were employed. As regards their gravidity, 30% had one gravidity, 23.3% had three gravidity, while 6.7% were gravida five.

From the study, majority (76.7%) of the women were aware of antepartum exercise, this is similar to the findings of Asante et al (2022) and unlike Mbada et al (2014) and Moses et al (2015); The similarity between this finding and that of Asante et al (2022) could be related that a just conducted within a year while the contrast between this and the later studies could be related to the a whole decade interval between these studies. Interestingly, the main source of information on antepartum exercise was from antenatal clinic (65.2%), internet (13%), and television (8.7%) which is contrary to a study carried out by Okafor and Ter Goon (2021), that reported that (70.2%) of the women involved in their study had heard of antepartum exercise from the media, while (27.0%) heard from their friends

The knowledge of the women on the types of antepartum exercise was adequate as only 66.7% of them were aware of aerobic exercises, while the 33.3%), were unaware. 50% of the participants were aware of pelvic floor exercises, while the other 50% were unaware. Also, 46.7% of the women classified jumping as an antenatal exercise, while the other 53.3% disagreed. This findings contradicts the

by Balamurugan J. et al., (2021), which revealed that only 39.5% of pregnant women in Ethiopia had adequate knowledge on the types of antenatal exercises. However, a study carried out by Da’am, Emmanuel, & Jetau, (2022), among pregnant women corresponds with the findings of this study. Their findings established that the women’s knowledge concerning maternal exercise was high. Their obtained result showed that brisk walking (96.7%), indoor cycling (98.6%), and jogging were well known to the mothers. Also, preparation of a woman for labor pains (86.7%), reduction of back pain (80%), and prevention of excessive weight (90%), were regarded as major benefits of exercise to the participants. Subsequently, the knowledge of the women on the contraindications of antenatal exercise was fair: 56.7% stated that exercise was harmful in a condition of uncontrolled high blood pressure, while 43.3% disagreed. 60% stated that exercise was harmful in a condition of incompetent cervix, but 40% disagreed. This is thus a pointer that the knowledge of the women on antenatal exercise is average and fairly adequate.

Furthermore, from the results obtained it can be deduced that the women have a positive disposition towards antepartum exercises. 90% of the women strongly agreed that antenatal exercises were important during pregnancy. 46.7% agreed that regular exercise can positively impact their pregnancy outcome. 60% agreed that exercise improves a woman’s ability to cope with the process of labor, while 46.7% strongly agreed that exercise will help keep a woman fit. These findings were similar with a study carried out by Mbade et al., (2014), which revealed that 84.2% of the women attending six chosen antenatal clinics in Ile-Ife, Nigeria, had positive attitudes towards antenatal exercise.

In addition, the results highlighted that 80% of the women practice antepartum exercise, but 20% do not practice

any exercise. The majority (33.3%), perform exercises twice a week, 26.7% perform once a week, while 20% practice exercises thrice a week. These findings show that none of the women perform exercises according to the recommended guidelines by the American college of obstetricians & gynaecologists (ACOG). Also, as regards the types of antenatal exercises practiced, it was deduced that the majority (66.7%) of the participants practice brisk walking, relaxation, and breathing exercises, while 16.7% practice yoga. These findings are consistent with a result on the study carried out by Balamurugan J. et al., (2021). In line with the finds of Muzigaba (2014), this study revealed that 30.9% of the women practiced antenatal exercises, while only 37.9% had a standard practice. Brisk walk (90.7%), breathing exercise (36.1%), and relaxation (38.9%), were most practiced among the women. This study revealed that lack of strength (46.7%), busy schedule (66.7%), insufficient information (53.3%), and fear of miscarriage (36.7%), were reported as major hindrances to practicing antepartum exercises which corresponds with the findings of Muzigaba (2014). This therefore implies that the inadequate level of practice of antepartum exercise among the women is directly related to their average amount of knowledge on exercise. Hence, emphasis on proper education should be encouraged.

CONCLUSION

The findings from this study demonstrate that knowledge of the respondents on exercise during pregnancy was average, while their attitude towards exercise was positive. Also, their level of practice was poor and inadequate as majority of the women did not meet the one hundred & fifty minutes per week recommendations. Brisk walking, relaxation, and breathing exercises were the predominant form of physical activity among the women. The factors affecting physical activity of women in this study included, level of education, insufficient information, and busy schedule. There exists a need to provide basic education to mothers, and a general campaign on the benefits of antepartum exercises.

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