

Research Article

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Knowledge and perceived benefits of exercise among pregnant mothers in Oshimili North Local government area, Delta state

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Abstract

Keywords

Pregnancy,
Exercise,
Knowledge,
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Oshimili North,
Maternal Health

Regular exercise during pregnancy has been shown to improve maternal health, ease labor, and enhance fetal development. However, the level of knowledge and perception regarding its benefits among pregnant mothers in many Nigerian communities remains unclear. This study assessed the knowledge and perceived benefits of exercise among pregnant mothers in Oshimili North Local Government Area, Delta State. A descriptive cross-sectional study was conducted among pregnant women attending antenatal clinics in selected health facilities within the study area. Data were collected using a structured, pre-tested questionnaire and analyzed using descriptive statistics. Most respondents demonstrated moderate to good knowledge of the importance of exercise during pregnancy, with many recognizing its role in improving physical fitness, reducing pregnancy-related discomforts, and promoting better labor outcomes. However, misconceptions

regarding safety and suitable types of exercise were observed. The majority expressed positive perceptions, acknowledging the physical and psychological benefits of engaging in safe prenatal exercises. Although pregnant mothers in Oshimili North LGA generally appreciate the value of exercise, gaps in specific knowledge about safe practices persist. Strengthening antenatal education and community awareness programs is vital to ensure informed and safe maternal exercise practices.

Introduction

Pregnancy is a unique physiological state characterized by profound anatomical, hormonal, and metabolic changes that can influence a woman's physical capacity and health status. Regular exercise during pregnancy has been identified as a safe and effective strategy for enhancing maternal well-being, improving cardiovascular fitness, and promoting favorable pregnancy outcomes when appropriately prescribed. Globally, guidelines such as those from the American College of Obstetricians and Gynecologists (ACOG) and the World Health Organization (WHO) recommend that healthy pregnant women engage in at least 150 minutes of moderate-intensity physical activity per week, incorporating aerobic and muscle-strengthening activities. Despite these recommendations, many pregnant women either reduce or completely discontinue physical activity during pregnancy, often due to lack of information or misconceptions about its safety [1-2]. A growing body of evidence has demonstrated that antenatal exercise confers numerous benefits to both mother and fetus. These include reduction in common pregnancy discomforts such as back pain, constipation, and edema; improved mood and psychological well-being; decreased risk of gestational diabetes and pre-eclampsia; and enhanced muscular endurance for labor. Furthermore, exercise may contribute to shorter labor duration, decreased rates of cesarean section, and faster postpartum recovery. For the fetus, benefits include improved placental function and optimal birth weight. However, the translation of these benefits into routine antenatal practice depends greatly on maternal awareness, positive perception, and confidence in the safety of exercise during pregnancy [3-4].

The level of knowledge among pregnant women regarding safe types, frequency, and intensity of antenatal exercise is influenced by factors such as educational attainment, parity, exposure to antenatal health talks, and access to credible health information. Women with higher education and those who have experienced previous pregnancies tend to have better understanding of exercise safety and benefits. In contrast, first-time mothers may rely heavily on anecdotal advice from family and peers, which may not always be evidence-based. This underscores the importance of structured antenatal education that includes practical demonstrations and tailored advice on exercise [5-6]. In Nigeria, studies conducted in various states have reported varying degrees of awareness and practice of antenatal exercise. Research in urban areas such as Lagos and Abuja often show relatively higher knowledge levels compared to rural areas, possibly due to greater access to healthcare resources and mass media. However, even in urban populations, significant gaps in understanding persist, particularly regarding specific exercise modalities and contraindications. Moreover, there is limited data from semi-urban and rural areas of Delta State, including Oshimili North Local Government Area, where socio-cultural norms may exert a stronger influence on maternal behavior [7]. Oshimili North Local Government Area is a culturally diverse region with both rural and peri-urban communities. While antenatal care services are available in public and private health facilities, there is no documented evidence on how well pregnant women in the area understand and perceive antenatal exercise. Without such data, health promotion programs may fail to address local barriers, misconceptions, and information gaps.

Materials and Methods

Research design

The descriptive surveys design was used for this study.

Area of the study

The study was conducted in Primary Health Centre in Oshimili North Local government Area of Delta State, Nigeria (Comprehensive Health Centre Illah, Primary Health Centre Ebu and Primary Health Centre Okpanam).

Population of the study

The population consists of the entire populace of Pregnant mothers attending antenatal care in Oshimili North Local government of Delta State.

Sample size and sampling techniques

Out of the population, 150 pregnant women were selected using the systematic sampling technique. Systematic sampling is when researchers select items from an ordered population using a skip or sampling interval. This technique was used as a result of time and financial constraints since the project is on a tight budget and requires a short timeline.

Research instrument

The major instrument used for this study is the questionnaire. The questionnaire was structured in

a five-like scale measuring attitude of YES or NO. It has different sections of section A for Personal data, comprising the age educational qualification, Marital status, and section B comprising of the questions on Perception of exercise among pregnant women Section C comprising of questions on Knowledge of exercise among pregnant women, Section D comprising of questions on Benefits of exercise among pregnant women and Section E comprising of questions on Barriers to exercise.

Method of data collection

The researcher personally collected data from the pregnant women attending antenatal care in Primary Health Centre (Comprehensive Health Centre Illah, Primary Health Centre Ebu and Primary Health Centre Okpanam) in Oshimili North local government Area of Delta of State. After distribution of the questionnaire, respondents were given three days to fill out the questionnaire. Data was collected from Monday to Friday on ANC days from 9am to 2pm for four weeks until the required sample size was attained.

Method of data analysis

Descriptive data was analyzed using SPSS version 20.0. Data was collected and reported in frequencies, percentage and presented in tables for all the sections of the instruments for easy interpretation and understanding.

Results

Table 1 Age Range of Respondents as At Last Birthday

Valid	Frequency	Percent	Valid Percent	Cumulative Percent
18-20 years	60	40.0	40.0	40.0
21-30 years	45	30.0	30.0	70.0
31-40 years	30	20.0	20.0	90.0
41-50 years	12	8.0	8.0	98.0
51-60 years	3	2.0	2.0	100.0
above 60 years	-	-	-	-
Total	150	100.0	100.0	

Source: field survey, July, 2021

Table 1 above shows the age grade of the respondents used for this study.

60respondents which represent 40.0percent of the population are between 18-20years.45respondents which represent 30.0percent of the population are between 21-30years. 30 respondents which

represent 20.0percent of the population are between 31-40years.12.0respondents which represent 8.0percent of the population are between 41-50years.3respondents which represent 2.0percent of the population are between 51-60years while there were no respondents representing the population above 60 years.

Table 2: Educational Level of respondents

Valid	Frequency	Percent	Valid Percent	Cumulative Percent
Primary	30	20.0	20.0	20.0
Secondary	90	60.0	60.0	80.0
Tertiary	30	20.0	20.0	100.0
Total	150	100.0	100.0	

Source: field survey, July, 2021.

Table 2 above shows the educational level of the respondents used for this study.

30respondents which represent 20.0 percent of the population are stopped at Primary level.

90respondents which represent 60.0 percent of the population stopped at Secondary level. 30respondents which represent 20.0 percent of the population stopped at tertiary educational level.

Table 3: Marital Status of Respondents

Valid	Frequency	Percent	Valid Percent	Cumulative Percent
Single	10	6.7	6.7	6.7
married	136	90.7	90.7	97.4
divorced	3	2.0	2.0	99.4
widowed	1	0.6	0.6	100.0
Total	150	100.0	100.0	

Source: field survey, July, 2021

Table 3 above shows the marital status of the respondents used for this study.

10 respondents which represent 6.7 percent of the population are single.

136 respondents which represent 90.7 percent of the population are married.

3 respondents which represent 2.0 percent of the population are divorced.

1 respondent which represent 0.6 percent of the population is widowed.

Table 4: Religion of respondents

Valid	Frequency	Percent	Valid Percent	Cumulative Percent
Christianity	100	66.7	66.7	66.7
Islam	20	13.3	13.3	80.0
Traditional	30	20.0	20.	100.0
Total	150	100.0	100.0	

Source: field survey, July, 2021.

Table 4 above shows the Religion of the respondents used for this study.

100 respondents which represent 66.7 percent of the population are Christians

20 respondents which represent 13.3 percent of the population are Muslims.

30 respondents which represent 20.0 percent of the population practice traditional religion.

Table 5: Parity (Number of children) of respondents

Valid	Frequency	Percent	Valid Percent	Cumulative Percent
18-20 years	2	7.4	7.4	7.4
21-30 years	5	18.5	18.5	25.9
31-40 years	6	22.2	22.2	48.1
41-50 years	6	22.2	22.2	70.3
51-60 years	8	29.6	29.6	100.0
		-		
Total	27	100.0	100.0	

Source: Field Survey, July, 2021

Table 5 above shows the Parity (number of children) of the respondents used for this study.

Some respondents between the age of 18- 21years have 2 children which represent 7.4 percent of the population. Some respondents between the age of 21 -30 years have 5 Children which represent 18.5 percent of the population.

Some respondents between the age of 31- 40years have 6children which represent 22.2percent of the population. Some respondents between the age of 41- 50years have 6children which represent 22.2 percent of the population. Some respondents between the age of 51-60years have 8children which represent 29.6percent of the population

Table 6: Perception of Excises among Pregnant Women in Oshimili North LGA

Question	Frequency		Total	Percent		Cumulative percent	
	Yes	No		Yes	No	Yes	No
Exercise can make baby in the womb	70	80	150	46.7	53.3	46.7	53.3
Exercise promotes blood circulation for both me and my unborn baby.	20	130	150	13.3	86.7	60	140
Raising of hands is part of aerobic exercise.	45	105	150	30	70	90	210
I can fall sick if I exercise during pregnancy.	55	95	150	36.7	63.3	126.7	273.3
I can fall and secure injury when I exercise	120	30	150	80	20	206.7	293.3
Exercise can make pregnant women have premature birth.	110	40	150	73.3	26.7	280	320
It is risky to exercise with pregnancy.	90	60	150	60	40	340	360
Exercise will increase the risk of cesarean birth.	120	30	150	80	20	420	380
Exercise can kill the baby in the womb.	50	100	150	33.3	66.7	435.3	446.7
Exercise can cause miscarriage and muscle pull	65	85	150	43.3	56.7	496.6	503.4

Source: field survey, July, 2021

Table 6 above shows the responses of respondents about the perception of exercise among pregnant women in Oshimili North local government Area. 70 respondents representing 46.7percent answered Yes that exercise can make baby in the womb weak while 80 respondents representing 53.3 of the population answered No that exercise cannot make baby in the womb weak. 20 respondents representing 13.3percent of the population answered that Yes that exercise promotes blood flow for the baby and mother while 130 respondents representing 86.7percent of the population answered No that exercise does not promote blood flow for the baby and mother. 45 respondents representing 30.0percent answered Yes that raising of hands is part of aerobic exercise while 105 respondents representing 70.0 percent of the population answered No that raising of hands is not part of aerobic exercise. 55 respondents representing 36.7percent answered Yes that they can fall sick after exercise during pregnancy while 95respondents representing 63.3percent answered No that they cannot fall sick after exercise during pregnancy. 120 respondents representing 80.0percent answered Yes that they can fall and secure injury during exercise while 30 respondents representing 20.0percent of the population answered No that they cannot fall and secure injury during exercise. 110 respondents representing 73.3percent of the population answered Yes that Exercise can make

pregnant women have premature birth while 40 respondents representing 26.7percent of the population answered No that Exercise cannot make pregnant women have premature birth.90 respondents representing 60.0percent of the population answered Yes that it is risky to exercise with pregnancy while 60respondents representing 40.0 percent of the population answered No that it is not risky to exercise with pregnancy.120 respondents representing 80.0 percent of the population answered Yes that Exercise will increase the risk of cesarean birth while 30 respondents representing 20.0 percent of the population answered No that exercise will not increase the risk of caesarean birth.50 respondents representing 33.3 percent of the population answered Yes that Exercise will can kill the baby in the womb while 100 respondents representing 66.7 percent of the population answered No that Exercise cannot kill the baby in the womb. 65 respondents representing 43.3percent of the population answered Yes that Exercise cause miscarriage and muscle pull while 85respondents representing 56.7percent answered No that exercise cannot cause miscarriage and muscle pull.

Cumulatively, the number of women attending antenatal clinic with perception of exercise is 496.6(33.1%) while 503.4(33.6%) do not have perception of exercise.

Table 7: Knowledge Of Exercise Among Pregnant women in Oshimili North LGA

Question	Frequency		Total	Percent		Cumulative percent	
	Yes	No		Ye	No	Yes	No
I know about exercise for pregnant women	120	30	150	80	20	80	20
I know that pregnant women should exercise moderately for 30 minutes a day.	100	50	150	66.7	33.3	146.7	53.3
Exercise during pregnancy gives the baby a good start	140	10	150	93.3	6.7	240	60
Do you know a pregnant woman can swim	20	130	150	13.3	86.7	25.3	146.7
Running, swimming, riding of bike is a type of exercise	80	70	150	96.7	3.3	350	150

Exercise should be lengthy for pregnant women	20	130	150	13.3	86.7	363.3	236.7
Exercise prepares pregnant woman for labor.	145	5	150	96.7	3.3	460	240
Some exercise should not be done by pregnant women	145	5	150	96.7	3.3	556.7	243.3
A pregnant woman is supposed to exercise at least 3-4days per week.	50	100	150	33.3	66.7	590	310
I know that 3-10 minutes' walk sprinkled throughout a day are just as beneficial as 30 minutes on a treadmill or a bike at a gym.	50	100	150	33.3	66.7	590	310

Source: Field Survey, July, 2021.

Table 7 above shows the responses of respondents on the Knowledge of exercise among pregnant Women in Oshimili North LGA. 120 respondents representing 80.0 percent of the population answered Yes that they know about Exercise for a pregnant woman while 30 respondents representing 20.0 percent of the population answered No that they do not know about Exercise for a pregnant woman. 100 respondents representing 66.7 percent of the population answered Yes that they know that pregnant women should exercise moderately for 30 minutes a day while 50 respondents representing 33.3 percent of the population answered No that they do not know that pregnant women should exercise moderately for 30 minutes a day. 140 respondents representing 93.3 percent of the population answered Yes that Exercise is a good start for the baby while 10 respondents representing 6.7 percent of the population answered No that Exercise during pregnancy does not give the baby a good start. 20 respondents representing 13.3 percent of the population answered Yes that they know that a pregnant woman can swim while 120 respondents representing 86.7 percent of the population answered No that they do not know that a pregnant woman can swim. 80 respondents representing 96.7 percent of the population answered Yes that running, swimming, riding of bike is a type of exercise while 70 representing 3.3 percent of the

population answered No that running, swimming, riding of bike is not a type of exercise. 20 respondents representing 13.3 percent of the population answered Yes that exercise should be lengthy for pregnant women while 130 respondents representing 86.7 percent of the population answered No that exercise should not be lengthy for pregnant women. 145 respondents representing 96.7 percent of the population answered Yes Exercise prepares a pregnant woman for labor while 5 respondents representing 3.3 percent of the population answered No that exercise does not prepare women for labor. 145 respondents representing 96.7 percent of the population answered Yes that some exercise should not be done by a pregnant woman while 5 respondents representing 3.3 percent of the population answered No that all exercise should be done by a pregnant woman. 50 respondents representing 33.3 percent of the population answered Yes that a pregnant woman is supposed to exercise at least 3-4 days per week while 100 respondents representing 66.7 percent of the population answered No that a pregnant woman is not supposed to exercise at least 3-4 days per week. 50 respondents representing 33.3 percent of the population answered Yes that they know that 3-10 minutes walk sprinkled throughout a day are just as beneficial as 30 minutes on a treadmill or a bike at a gym while 100 respondents representing 66.7 percent of the population answered No that

they do not know that 3-10 minutes walk sprinkled through out a day are just as beneficial as 30 minutes on a treadmill or a bike at a gym. Cumulatively, the number of women

attending antenatal clinic with the Knowledge of exercise is 590(39.3%) that is Majority, while 310(20.7%) that is Minority, do not have perception of exercise.

Table 8: Benefits of Exercise among Pregnant Women in Oshimili North LGA.

Question	Frequency		Total	Percent		Cumulative percent	
	Yes	No		Ye	No	Yes	No
Do you think exercise is beneficial to pregnant women	125	25	150	83.3	16.7	83.3	16.7
Exercise reduces back pain	135	15	150	90.0	10.0	173.3	26.7
Exercise can reduce constipation	50	100	150	33.3	66.7	206.6	93.4
Exercise help blood flow	50	100	150`	33.3	66.7	239.9	160.1
Exercise can cause indigestion	105	45	150	70.0	30.0	309.9	190.1
Exercise can increase anxiety and depression	96	44	`150	64	36	273.9	226.1
Exercise increases stress for the pregnant woman and unborn baby	84	76	150	56	44	429.9	270.1
Exercise increase the risk of cesarean birth	109	51	150	72.7	27.3	502.6	297.4
Exercise can make delivery easy	130	20	150	86.7	13.3	589.3	310.7
Exercise reduces swelling	88	62	150`	58.7	41.3	648	352

Source: Field Survey, July, 2021

Table 8 above shows the responses of respondents on the benefits of exercise among pregnant women in Oshimili North LGA. 125 respondents representing 83.3 percent of the population answered Yes that they think exercise is beneficial to pregnant women while 25 respondents representing 16.7 percent of the population answered No that they do not think that exercise is beneficial to pregnant women? 135 respondents representing 90.0 percent of the population answered Yes that Exercise reduces back pain while 15 respondents representing 10.0 percent of the population answered No that

Exercise do not reduces back pain. 50 respondents representing 33.3 percent of the population answered Yes that Exercise can reduce constipation while 100 respondents representing 66.7 percent of the population answered No that Exercise cannot reduce constipation. 50 respondents representing 33.3 percent of the population answered Yes that Exercise help blood flow while 100 respondents representing 66.7 percent of the population answered No that Exercise does not help blood flow.

105 respondents representing 70.0percent of the population answered Yes that Exercise can cause indigestion while 45 respondents representing 30.0percent of the population answered No that Exercise cannot cause indigestion.96respondents representing 64.0 percent of the population answered Yes that Exercise can increase anxiety and depression while 64respondents representing 36.0percent of the population answered No that Exercise cannot increase anxiety and depression84respondents representing 56.0percent of the population answered Yes that Exercise increases stress for the pregnant woman and unborn baby while 76 respondents representing 44.0 percent of the population answered No that Exercise does not increase stress for the pregnant woman and unborn baby109respondents representing 72.7percent of the population answered Yes that Exercise increase the risk of

cesarean birth while 51respondents representing 27.3percent of the population answered No that Exercise does not increase the risk of cesarean birth130respondents representing 86.7 percent of the population answered Yes that Exercise can make delivery easy while 20 respondents representing 13.3percent of the population answered No that Exercise cannot make delivery easy88respondents representing58.7 percent of the population answered Yes that Exercise reduces swelling while 62 respondents representing 41.3percent of the population answered No that Exercise does not reduces swelling. Cumulatively, the number of women attending antenatal clinic that accepts the fact that exercise is beneficial to pregnant women is 648(43.2%) that is the Majority while 352(23.5%) that is the Minority, do not accept the fact that exercise is beneficial to pregnant women.

Table 9: Barriers of Exercise Among Pregnant women in Oshimili North LGA.

Question	Frequency		Total	Percent		Cumulative percent	
	Yes	No		Ye	No	Yes	No
Do you experience barriers to exercise?	125	25	150	83.3	16.7	83.3	16.7
Fatigue prevent one from exercising	140	10	150	93.3	6.7	176.6	23.4
Lack of time prevent me from providing exercise	135	15	150	90.0	10.0	266.6	33.4
Lack of social support	50	100	150	33.3	66.7	299.1	100.1
No exercise facility	50	100	150	33.3	66.7	333.2	166.8
I don't like exercise	105	45	150	70.0	30.0	403.2	196.8
No body to exercise with me	30	120	150	20.0	80.0	423.2	276.8
I am afraid of injury for my and baby	66	84	150	44.0	66.0	467.2	342.8
I am not happy with this pregnant.	30	120	150	20.0	80.0	487.2	422.8
The doctor advise against exercise.	3	147	150	2.0	98.0	507.2	520.8

Source: Field Survey, July, 2021

Table 9 above shows the responses of respondents on the Barriers of exercise among pregnant women in Oshimili North LGA. 125 respondents representing 83.3 percent of the population answered Yes that they experience barriers to exercise while 25 respondents representing 16.7 percent of the population answered No that they do not experience barriers to exercise.

140 respondents representing 93.3 percent of the population answered Yes that Fatigue prevent them from exercising while 10 respondents representing 6.7 percent of the population answered No that Fatigue do not prevent them from exercising. 135 respondents representing 90.0 percent of the population answered Yes that lack of time prevent them from doing exercise while 15 respondents representing 10.0 percent of the population answered No that lack of time do not prevent them from doing exercise. 50 respondents representing 33.3 percent of the population answered Yes that they Lack of social support while 100 respondents representing 66.7 percent of the population answered No that they do not lack of social support. 50 respondents representing 33.3 percent of the population answered Yes that there is exercise facility available while 100 respondents representing 66.7 percent of the population answered No that there is no exercise facility available. 105 respondents representing 70.0 percent of the population answered Yes that they like exercise while 45 respondents representing 30.0 percent of the population answered No that do not like exercise. 30 respondents representing 20.0 percent of the population answered Yes that there is somebody to exercise with while 120 respondents representing 80.0 percent of the population answered No that there is nobody to exercise with. 66 respondents representing 44.0 percent of the population answered Yes that they are afraid of injury for themselves and baby while 84 respondents representing 66.0 percent of the population answered No that they are not afraid of injury for themselves and their baby. 30 respondents representing 20.0 percent of the population answered Yes that they are not happy with their pregnancy while 120 respondents representing 80.0 percent of the

population answered No that they are happy with their pregnancy. 3 respondents representing 2.0 percent of the population answered Yes that the Doctor advised against exercise while 127 respondents representing 98.0 percent of the population answered No the Doctor did not advice the women against exercise.

Cumulatively, the number of women attending antenatal clinic with Barriers to Exercise is 507(33.8%) that is Majority, while 520.8(34.7%) that is Minority, do not have any barrier of exercise

Discussion

The findings from this study provide important insights into the knowledge, perceived benefits, and barriers to exercise among pregnant mothers in Oshimili North Local Government Area, Delta State. The socio-demographic profile of respondents revealed that the largest proportion of pregnant women were between 18–20 years (40.0%), followed by those aged 21–30 years (30.0%). This shows that a significant proportion of the pregnant population in this area is in their early reproductive years, aligning with national demographic trends that indicate early childbearing is common in Nigeria. Educational attainment varied, with most respondents (60.0%) having attained secondary education, which may influence their ability to access, interpret, and apply health information regarding antenatal exercise. The majority of respondents (90.7%) were married, consistent with cultural expectations of marriage before childbirth in most Nigerian communities [8]. Religious affiliation indicated that Christianity was predominant (66.7%), followed by traditional religion (20.0%) and Islam (13.3%). Religion and cultural beliefs can significantly influence perceptions and practices related to antenatal exercise. Parity patterns revealed that even younger women (18–21 years) already had two children, while older women (51–60 years) had up to eight children. This high parity may affect willingness to engage in exercise due to fatigue, childcare demands, or

misconceptions about exercise safety during pregnancy [9-10].

The perception data revealed widespread misconceptions about antenatal exercise. Notably, 46.7% of respondents believed that exercise can make the baby weak, 73.3% thought it could cause premature birth, and 80.0% believed it increased the risk of caesarean section. These misconceptions are contrary to established medical evidence, which indicates that safe, moderate-intensity exercise supports maternal health and can facilitate vaginal delivery. Such negative perceptions are likely to discourage participation and highlight the need for targeted antenatal education. However, it is encouraging that 53.3% disagreed with the notion that exercise weakens the baby, suggesting there is a foundation of correct understanding upon which health promotion programs can build. In terms of knowledge, most respondents (80.0%) were aware of exercise for pregnant women, and 93.3% recognized it as beneficial for giving the baby a good start. Similarly, 96.7% understood that exercise can prepare women for labor, reflecting partial alignment with WHO recommendations. Nevertheless, gaps persist; only 13.3% knew that swimming is safe for pregnant women, and 33.3% recognized the recommended frequency of 3–4 days per week. This incomplete knowledge suggests that while general awareness is high, specific details on safe exercise types, duration, and intensity are poorly understood [11-12].

Regarding perceived benefits, the majority (83.3%) agreed that exercise is beneficial, with 90.0% recognizing its role in reducing back pain and 86.7% acknowledging that it can make delivery easier. However, some beliefs were contradictory; for instance, 70.0% believed exercise could cause indigestion, 64.0% thought it could increase anxiety and depression, and 72.7% associated it with a higher risk of caesarean delivery. These mixed perceptions may stem from misinformation, cultural myths, or previous negative experiences, underscoring the importance of correcting false beliefs through culturally sensitive education [13-14]. Barriers to exercise were significant, with 83.3% reporting at

least one challenge. Fatigue (93.3%) and lack of time (90.0%) were the most commonly cited obstacles, consistent with findings from other Nigerian studies. The lack of exercise facilities (66.7%) and social support (33.3%) also emerged as limiting factors, while fear of injury (44.0%) further discouraged participation. Notably, medical advice against exercise was rare (2.0%), indicating that healthcare workers in this area generally support antenatal physical activity, although they may not be addressing misconceptions effectively [14]. The findings suggest that while knowledge about exercise during pregnancy exists among the majority of pregnant women in Oshimili North LGA, this knowledge is often incomplete and overshadowed by deep-rooted misconceptions and practical barriers. Addressing these issues will require multifaceted interventions, including consistent antenatal counseling, community-based awareness campaigns, involvement of religious and community leaders, and the provision of accessible exercise opportunities for pregnant women.

Conclusion

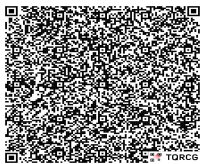
This study highlights that while many pregnant mothers in Oshimili North Local Government Area, Delta State, possess a fair understanding of the importance of exercise during pregnancy, gaps in knowledge and misconceptions remain. The findings underscore the positive perception of exercise as a beneficial practice for improving maternal well-being, facilitating labor, and promoting fetal health. However, inconsistent awareness of safe exercise types, appropriate frequency, and potential risks may limit optimal participation. Addressing these knowledge gaps through targeted antenatal education, community sensitization, and culturally tailored health promotion programs is essential. Strengthening the role of healthcare providers in delivering evidence-based exercise guidelines during routine antenatal visits can further bridge the knowledge–practice divide. Ultimately, fostering a well-informed maternal population will not only improve pregnancy outcomes but also contribute

to the long-term health of mothers and their children in the community.

References

1. Soma-Pillay P, Nelson-Piercy C, Tolppanen H, Mebazaa A. Physiological changes in pregnancy. *Cardiovasc J Afr.* 2016;27(2):89-94. doi: 10.5830/CVJA-2016-021.
2. Guinhouya BC, Duclos M, Enea C, Storme L. Beneficial Effects of Maternal Physical Activity during Pregnancy on Fetal, Newborn, and Child Health: Guidelines for Interventions during the Perinatal Period from the French National College of Midwives. *J Midwifery Womens Health.* 2022;67 Suppl 1(Suppl 1): S149-S157. doi: 10.1111/jmwh.13424.
3. Moyer C, Reoyo OR, May L. The Influence of Prenatal Exercise on Offspring Health: A Review. *Clin Med Insights Womens Health.* 2016; 9:37-42. doi: 10.4137/CMWH.S34670.
4. Hinman SK, Smith KB, Quillen DM, Smith MS. Exercise in Pregnancy: A Clinical Review. *Sports Health.* 2015 Nov-Dec;7(6):527-31. doi: 10.1177/1941738115599358. Epub 2015 Aug 4. PMID: 26502446; PMCID: PMC4622376.
5. Bayisa D, Waltengus F, Lake S, Wakuma B, Bayisa L, Chala M, Regasa MT, Besho M, Mosisa G. Pregnant women's knowledge, attitudes, and associated factors toward physical exercise during pregnancy among those attending antenatal care at Bahir Dar city, Northwest Ethiopia. *SAGE Open Med.* 2022; 10:20503121221115252. doi: 10.1177/20503121221115252.
6. Jahan AM, Anaiba SM. Exploring Antenatal Exercise: Knowledge, Attitudes, Practices, and Influencing Factors among Pregnant Women in Libya. *Adv Rehabil Sci Pract.* 2023; 12:27536351231212132. doi: 10.1177/27536351231212132.
7. Mbada CE, Adebayo OE, Adeyemi AB, Arije OO, Dada OO, Akinwande OA, Awotidebe TO, Alonge IA. Knowledge and Attitude of Nigerian Pregnant Women towards Antenatal Exercise: A Cross-Sectional Survey. *ISRN Obstet Gynecol.* 2014; 2014:260539. doi: 10.1155/2014/260539.
8. Evenson KR, Moos MK, Carrier K, Siega-Riz AM. Perceived barriers to physical activity among pregnant women. *Matern Child Health J.* 2009;13(3):364-75. doi: 10.1007/s10995-008-0359-8.
9. Moreno-Ávila IDM, Martínez-Linares JM, Mimun-Navarro K, Pozo-Muñoz C. Muslim and Christian Women's Perceptions of the Influence of Spirituality and Religious Beliefs on Motherhood and Child-Rearing: A Phenomenological Study. *Healthcare (Basel).* 2023;11(22):2932. doi: 10.3390/healthcare11222932.
10. Al-Mujtaba M, Cornelius LJ, Galadanci H, Ereka S, Okundaye JN, Adeyemi OA, Sam-Agudu NA. Evaluating Religious Influences on the Utilization of Maternal Health Services among Muslim and Christian Women in North-Central Nigeria. *Biomed Res Int.* 2016; 2016:3645415. doi: 10.1155/2016/3645415.
11. Guinhouya BC, Duclos M, Enea C, Storme L. Beneficial Effects of Maternal Physical Activity during Pregnancy on Fetal, Newborn, and Child Health: Guidelines for Interventions during the Perinatal Period from the French National College of Midwives. *J Midwifery Womens Health.* 2022;67 Suppl 1(Suppl 1): S149-S157. doi: 10.1111/jmwh.13424.
12. Bayisa D, Waltengus F, Lake S, Wakuma B, Bayisa L, Chala M, Regasa MT, Besho M, Mosisa G. Pregnant women's knowledge, attitudes, and associated factors toward physical exercise during pregnancy among those attending antenatal care at Bahir Dar city, Northwest Ethiopia. *SAGE Open Med.* 2022; 10:20503121221115252. doi: 10.1177/20503121221115252.
13. Watson ED, Oddie B, Constantinou D. Exercise during pregnancy: knowledge and beliefs of medical practitioners in South Africa: a survey study. *BMC Pregnancy Childbirth.* 2015; 15:245. doi: 10.1186/s12884-015-0690-1.

14. Diamanti A, Koutsogianni MC, Iliadou M, Georgakopoulou VE, Vivilaki V. Opinions and Knowledge of Midwives Regarding Physical Exercise During Pregnancy: Insights and Implications for Midwifery Practice. Cureus. 2024;16(10): e71318. doi: 10.7759/cureus.71318.

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