Original Research Article

ADHERENCE TO ANTIRETROVIRAL THERAPY (ART) AMONG PREGNANT WOMEN LIVING WITH HIV/AIDS IN OKIGWE IMO STATE, NIGERIA

ABSTRACT

The antiretroviral medication (ART) compliance of expectant HIV/AIDS patients in Nigeria's Okigwe Imo state was investigated in this study. In particular, the study established the prevalence of HIV among expectant mothers in Okigwe Imo State, Nigeria, identified the behavioral and demographic factors associated with ART adherence, and looked at the obstacles to ART use among expectant mothers in Okigwe Imo State, Nigeria. The study adopted the AIDS risk reduction model by Catania and Coates, (1990), the pathway of survival model theory by Mosley and Chen (1984) and the health belief model by Rosenstock et al (1950). From the responses obtained and analysed, the findings revealed that the extent of the prevalence of HIV among pregnant women in Okigwe *Imo State, Nigeria is low. Also, the findings revealed that there is a significant relationship between demography and ART adherence among pregnant women in* Okigwe *Imo State, Nigeria. The findings further revealed that there is a significant relationship between behaviour and ART adherence among pregnant women in* Okigwe *Imo State, Nigeria. The study therefore recommends that PMTCT services should be accessible to every pregnant woman attending antenatal care, either onsite or through a referral to a nearby clinic, to improve coverage. When it comes to locating PMTCT facilities, using a geographic information system can help eliminate inequity and enhance accessibility within states.*

Keywords: Adherence, Antiretroviral therapy, Pregnant women, HIV/AIDS

Introduction

The HIV epidemic is one of the most significant health issues the world is now dealing with. Since 1981, almost 25 million individuals have perished from AIDS globally. 2.3 million of the estimated 38.6 million HIV-positive people are children, and roughly 15 million of them are women[1]. In 38 nations, the average life expectancy has decreased since 1999, mostly due to HIV. Currently, the worst-affected countries have an average life expectancy of 49 years, which is 13 years lower than it was before AIDS[2]. Women and children continue to experience disproportionately high rates of new HIV infections, according to Alemu *et al*., [3].

HIV-related diseases and fatalities are common. 90 percent of new HIV infections in children in 2005 occurred in Sub-Saharan Africa, which had more than 540 000 new cases of the virus.

"Human immunodeficiency virus (HIV) and acquired immunodeficiency syndrome (AIDS) infections in young women and girls are disproportionately common, and women make up almost half of those infected globally" [4]. The HIV/AIDS epidemic is a gendered illness since 18.8 million of the estimated 37 million persons living with HIV are women, according to the UNIADS[4]. In 2017, a whopping 7000 women got HIV per week[4]. The condition is one of the leading causes of mortality among women of reproductive age[4]. Due to the nature of the female reproductive system, women seem to be more prone to developing HIV than males [5].

"Cohort studies and clinical trials believe that the lowering prevalence reveals high HIV incidence rates in women despite indications that the prevalence of HIV in women is stable or declining in some parts of Africa, such as Southern Africa"[6]. Women in this region are at high risk for HIV infection if they are under 25 years old, unmarried, or have STDs [6].

Nigeria is responsible for 10% of the global HIV/AIDS load[3]. Since the first AIDS case was identified in 1986, HIV has spread throughout the six geopolitical regions of the country: the North East, North West, North Central, South East, South South, and South West. NACA (National AIDS Control Association), 2014. The severe stigma and prejudice associated with HIV/AIDS hindered individuals from being tested, disclosing their status, and seeking treatment, which aided in the virus's spread across the country[7]. Nigeria has the second-highest incidence of new HIV infections among women in the world, with 110,000 infected women aged 15 to 49[8]. In Nigeria, 1.5% of the population was estimated to have HIV in 2018, with 1.6 million women infected vs 1.3 million males[1,9].

Availability of Highly Active Antiretroviral Therapy (HAART) has been essential in the worldwide response to the HIV pandemic given the absence of a primary preventive vaccine. Antiretroviral medications (ARVs) have advanced throughout time from only treating HIV-positive people to also preventing the spread of the illness[9,10,11,12]. One of the most important prophylactic applications of ARV is to stop HIV transmission during pregnancy, which is the main source of HIV infection in children under the age of 15[13,14].

Since the 1990s, multiple studies have demonstrated the value of ARV medications in lowering the risk of HIV transmission from mother to child[15,16]. "Despite the effectiveness of antiretroviral therapy (ART), certain children in Sub-Saharan African countries like Nigeria continue to develop HIV through vertical transmission. According to UNAIDS' joint program on HIV/AIDS, 159 000 of the 180 000 new infections among children globally occurred in Sub-Saharan Africa in 2017. Nigeria accounted for 23% of these new infections (UNAIDS). With an anticipated 160 000 persons needing ARV medication each year, Nigeria will likely have the second-highest number of pregnant HIV-positive people in the whole world, behind South Africa"[17,18].

Nigeria established a nationwide PMTCT program in 2002 as a result of the restoration of a democratic government in 1999, which sparked an enhanced HIV response. Asserts that the country's efforts to lower new infections among children have been hampered by the inadequate coverage of PMTCT services[19]. Nigeria performed the lowest out of the 22 priority nations that the UNAIDS global plan targeted for the eradication of new HIV infections among children by 2015, with a 21% decline in new HIV infections among children between 2009 and 2015. In 2017, just 32% of pregnant HIV-positive women used antiretroviral drugs to lower the risk of perinatal transmission[20,21,22].

Additionally, getting an HIV test during pregnancy is challenging due to the dearth of PMTCT facilities. Due to the low rate of HIV testing and response among pregnant women and their male partners, scaling up has not resulted in a rise in PMTCT ARV coverage that is proportional to those rates[23]. This investigation will look at how effectively pregnant HIV-positive women in Okigwe IMO State, Nigeria, take their antiretroviral drugs (ART). Finding out the prevalence of

HIV among pregnant women in Okigwe Imo State, Nigeria, as well as the demographic and behavioral correlates of ART adherence among pregnant women in Okigwe Imo State, Nigeria, will be the focus of this study. The participants in this study's survey will be pregnant women in Okigwe Imo State, Nigeria.

HIV and AIDS in Pregnant Women

Since 1981, more than 25 million people have died from AIDS, and an estimated 38.6 million people worldwide have HIV. The majority of HIV infections in children occur as a result of mother-to-child transmission (MTCT). MTCT can occur during pregnancy, childbirth, or nursing. Antiretroviral therapy (ART) reduces mortality and morbidity rates in HIV-infected people. Three different classes of medications are used as part of the treatment and prophylactic measures to stave off opportunistic infections.[24].

Each patient must be given the best opportunity to live a long and healthy life while living with HIV. Three different classes of medications are used as part of the treatment and prophylactic measures to stave off opportunistic infections.[24].
Adherence to antiretroviral therapy (ART) is a crucial indicator of how well ART therapy is working for a patient. Poor or inadequate adherence to therapy is often associated with higher morbidity and premature death. Monitoring and analyzing ART adherence are crucial HIV preventive techniques in high-, middle- and low-income countries. The development of ART medicine resistance, mortality, viral suppression, and disease progression are all predicted in large part by adherence. Poor or insufficient adherence to therapy is frequently linked to increased morbidity, early death, and financial loss[25].

Nigeria launched a nationwide ART program in 2002 as a part of the World Health Organization's "3 5" initiative. The Nigerian Federal Government launched an ARV program in 2002 to treat and aid PLWHA[26,27]. Effort suffered a setback in 2004 when it was unable to make use of $3.5 million worth of pharmaceuticals from India. In 2006, a different project was launched with the goal of providing over 250,000 HIV-positive patients with free antiretroviral treatment. HIV infection has little impact on pregnancy-related issues or outcomes in richer countries[28].
In addition, HIV during pregnancy is a well-known pregnancy problem in low-resource environments. Increased ectopic pregnancies are more common in women with HIV, most likely as a result of concurrent STDs. It is still unknown how HIV is transmitted from a mother to a child. About 50% of MTCT occur during labor and delivery because virus detection occurs within the first 48 hours of life. A negative pregnancy test does not necessarily mean that there was no in utero transmission. MTCT can happen if a fetus consumes contaminated amniotic fluid while the mother is pregnant, blood, vaginal secretions, or breast milk. The placenta is believed to be crucial in acting as an HIV barrier during pregnancy. Adults seldom contract HIV orally, and tonsil epithelium-bound HIV only sporadically progresses to infection. MTCT happens when mucosal surfaces are exposed to HIV despite the epithelial layers' protection from infection. Avoiding MTCT is not the primary goal of PMTCT programs[30].

Maternal exposure to HIV-infected fluids, such as breast milk and genital secretions, can reduce the risk by 50%. Antiretroviral therapy (ART) during pregnancy has been demonstrated to be

successful in reducing intrauterine and postnatal HIV transmission. ART is especially effective in reducing the risk of MTCT, a crucial component of PMTCT[31,32]. The WHO advised that pregnant women receive lifetime ART regardless of their CD4 cell count. Maternal ART might not be available if HIV is found later in pregnancy or even after birth. When administered to an infant, ARVs are still helpful at preventing MTCT. Poor adherence to ART can result in the mother developing medication resistance, increasing the risk of HIV and drug-resistant viral transmission to the newborn[33].

In this investigation, we examined pregnant HIV/AIDS patients' compliance with antiretroviral therapy in Nigeria's Okigwe IMO state (ART). Finding out the prevalence of HIV among pregnant moms in Okigwe Imo State, Nigeria, as well as the demographic and behavioral characteristics related with ART adherence and the barriers to ART usage among expecting mothers in Okigwe Imo State were the study's specific aims.

METHODOLOGY

RESEARCH DESIGN

Research designs are perceived to be an overall strategy adopted by the researcher whereby different components of the study are integrated in a logical manner to effectively address a research problem. In this study, the researcher employed the survey research design. This is due to the nature of the study whereby the opinion and views of people are sampled. According to Singleton & Straits, [10], Survey research can use quantitative research strategies (e.g., using questionnaires with numerically rated items), qualitative research strategies (e.g., using open-ended questions), or both strategies (i.e., mixed methods). As it is often used to describe and explore human behaviour, surveys are therefore frequently used in social and psychological research.

AREA OF STUDY

Okigwe is the third largest city, after Owerri and Orlu, while Ohaji/Egbema is fourth in Imo state. Okigwe is located in Okigwe Local Government Area of Nigeria. The city lies between the Port Harcourt-Enugu-Maiduguri rail line. being the nearest city to the biggest cattle market in Nigeria located at the Umu Nneochi Area of Abia state Thus, the city has grown into a major cattle transit town for the southeast and south subregions of Nigeria. Okigwe has a population of 132,237 (2005 census). Most of the population is made up of immigrant workers from other states. Okigwe city was the primary host site of the old Imo State University (now Abia State University). Okigwe has various tourist and historical sites. The Federal Government College in the city has remained one of the best unity schools in Nigeria. Okigwe remains one of the breadbaskets of Nigeria with terrace cultivation practised on its hilly farmlands. Okigwe also boasts many relaxation spots. Geographic limits of the map: N: 14° N S: 4° N W: 2° E E: 15° E

Okigwe has five autonomous communities with different villages (in bracket) namely;

- *Ikigwu (Aro-ubaha, Aro-Okigwe, Ope, Ubanaka, Umuka, Umuokpara),*
- *Otanzu (Amaeze-Ogii, Umuawa-Ogee, Unualumoke), Amuro (Amuro, Aro-Amuro),*
- *Umulolo (Agbobu, Agbuala, Aku/Ihette, Aku/Ikenga, Amaosu, Amasator, Aro-Agbobu, Aro-Umulolo West, Aro-Umulolo East, Ibinta, Ndi-Oji, Ndi-Okoroji, Okanachi, Umuawa-Ibu)*
- *Ihube (Agbala, Akpugo, Amagu, Amalator, Amano, Nkoto, Ogube, Ozara)*

- *Otan-Chara (Alaike-Ogwaku, Alaocha-Igwaku, Ihitte-Isiokwe, Ikenga, Ikenga-Isiokwe) umuinem, umuzegem, Umueze, Umukeoke*

POPULATION OF THE STUDY

According to Udoyen [34], a study population is a group of elements or individuals as the case may be, who share similar characteristics. These similar features can include location, gender, age, sex or specific interest. The emphasis on study population is that it constitute of individuals or elements that are homogeneous in description.

This study was carried out to examine the adherence to antiretroviral therapy (ART) among pregnant women living with HIV/AIDS in Okigwe Imo State Nigeria. Selected pregnant women living with HIV/AIDS in Okigwe IMO State form the population of the study.

SAMPLE POPULATION / SAMPLE SIZE

A study sample is simply a systematic selected part of a population that infers its result on the population. In essence, it is that part of a whole that represents the whole and its members share characteristics in like similitude[34]. In this study, the researcher adopted the convenient sampling method to determine the sample size.

SAMPLING TECHNIQUE AND PROCEDURE

According to Nwana [35], sampling techniques are procedures adopted to systematically select the chosen sample in a specified away under controls. This research work adopted the convenience sampling technique in selecting the respondents from the total population.

In this study, the researcher adopted the convenient sampling method to determine the sample size. Out of all the entire population of pregnant women living with HIV/AIDS in Okigwe IMO State, the researcher conveniently selected 147 out of the overall population as the sample size for this study.

According to Torty [36], a sample of convenience is the terminology used to describe a sample in which elements have been selected from the target population on the basis of their accessibility or convenience to the researcher.

INSTRUMENT OF DATA COLLECTION

The research instrument used in this study is the questionnaire. A survey containing series of questions were administered to the enrolled participants. The questionnaire was divided into two sections, the first section inquired about the responses demographic or personal data while the second sections were in line with the study objectives, aimed at providing answers to the research questions. Participants were required to respond by placing a tick at the appropriate column. The questionnaire was personally administered by the researcher.

VALIDITY AND RELAIABILTY OF THE STUDY

Validity referred here is the degree or extent to which an instrument actually measures what is intended to measure. An instrument is valid to the extent that is tailored to achieve the research objectives. The researcher constructed the questionnaire for the study and submitted to the project supervisor who used his intellectual knowledge to critically, analytically and logically examine the instruments relevance of the contents and statements and then made the instrument valid for the study.

The reliability of the research instrument was determined. The Pearson Correlation Coefficient was used to determine the reliability of the instrument. A co-efficient value of 0.68 indicated that the research instrument was relatively reliable. According to Taber, [37] the range of a reasonable reliability is between 0.67 and 0.87.

METHOD OF DATA COLLECTION

Two methods of data collection which are primary source and secondary source were used to collect data. The primary sources was the use of questionnaires, while the secondary sources include textbooks, internet, journals, published and unpublished articles and government publications.

METHOD OF DATA ANALYSIS

The responses were analyzed using the frequency tables, which provided answers to the research questions.

In analyzing one of the data collected, a mean score was used to achieve this. The four-point rating scale will be given values as follows:

SA = Strongly Agree 4
A = Agree 3
D = Disagree 2
SD = Strongly Disagree 1

Decision Rule:

To ascertain the decision rule; this formular was used

$$\frac{4+3+2+1}{4} = \frac{10}{4}$$

Any score that was 2.5 and above was accepted, while any score that was below 2.5 was rejected. Therefore, 2.5 was the cut-off mean score for decision taken.

The hypothesis test was conducted using the Chi-Square and the Pearson Correlation Coefficient statistical tool, SPSS v.23.

RESULTS

This chapter includes the analysis of the data obtained from the key informant interviews and the questionnaire given to respondents in the study region. The study's findings served as the basis for the analysis and interpretation. The data analysis shows the respondents' simple frequency and response rate as well as an interpretation of the data collected. One hundred and forty-seven (147) questionnaires total, of which one hundred and forty-one (141) were validated, were received from respondents.

Table 1 :Demographic Information

Demographic information	Frequency	Percent
Gender Female	141	100%
Age of mothers		
20-24	33	23.4%
25-30	56	39.7%
31-35	35	24.8%
36+	17	12.1%
Duration of pregnancy		
1st Trimester	40	28.3%
2nd Trimester	39	27.6%

3rd trimester	62	44.0%
Educational qualification		
SSCE	41	29.0%
BSC/HND	80	56.7%
MASTERS	20	14.1%

Source: Field Survey, 2022

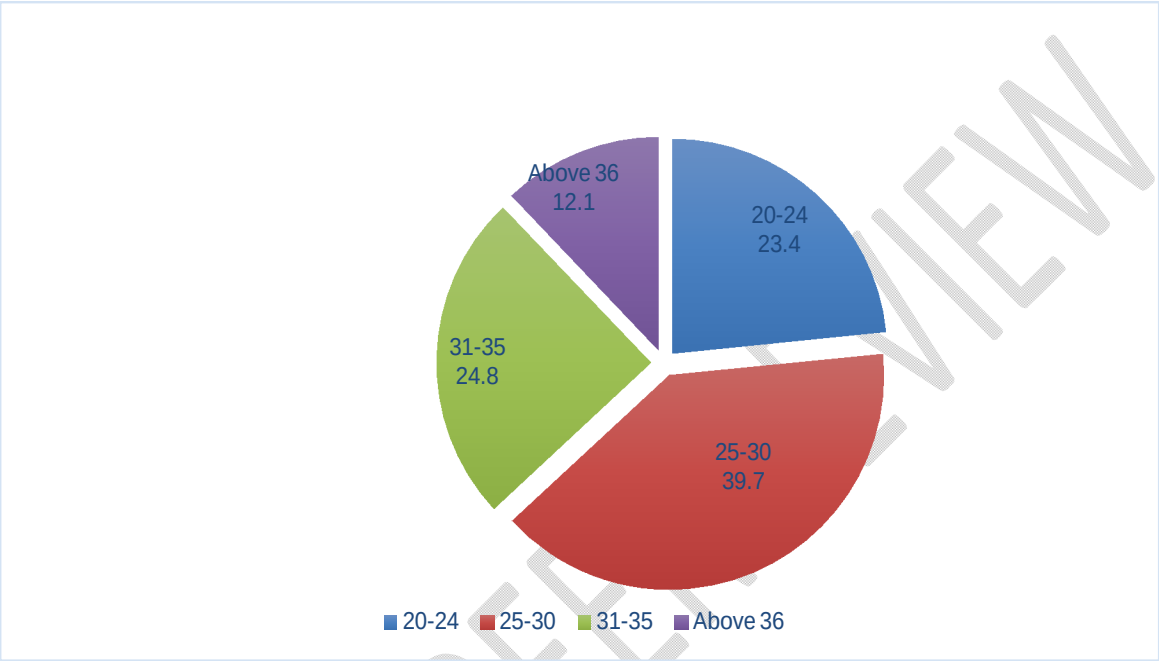


Fig 1: Age of Respondents

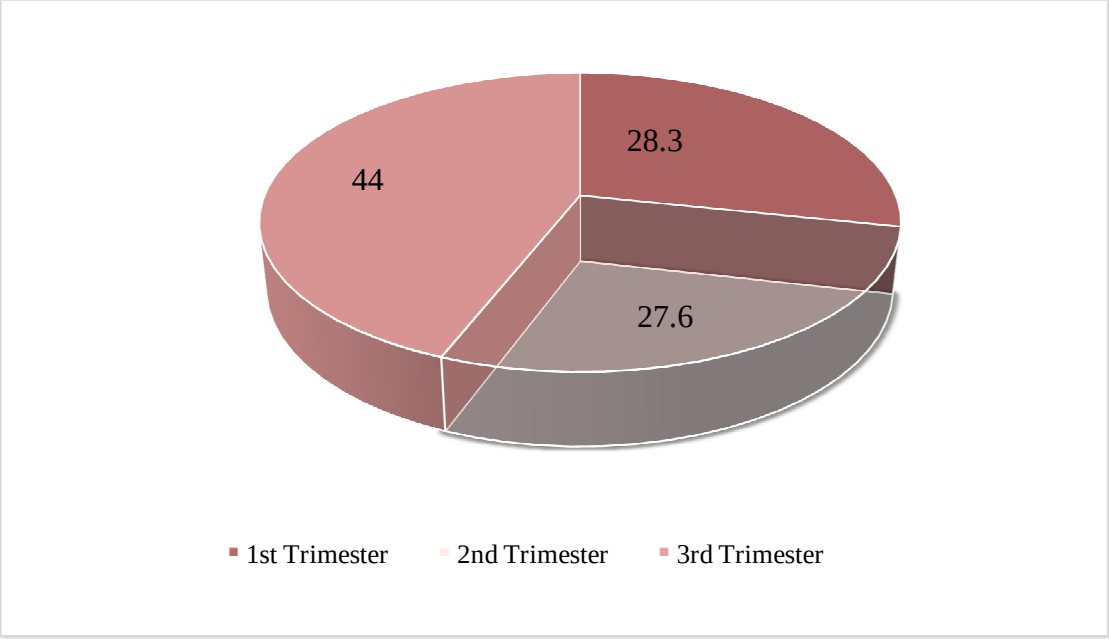


Fig 2: Respondents Duration of Pregnancy in Percentage

All of the poll respondents are female, according to the figures that have been obtained. The survey found that respondents between the ages of 25 and 30 participate in 56 surveys annually, or 39.7% of all surveys. After this figure, the respondents between the ages of 20 and 24 and those between the ages of 31 and 35 earn the distribution's next greatest percentages. The people who are 36 years of age and older made the least contribution.

A master's degree is held by 14.1% of respondents, compared to 56.7% who have a BSC or HND and 29.0% who have an SSCE, according to the poll. The survey finds that most responders have advanced degrees. The average amount of time spent by pregnant women throughout each trimester is around 44.0% in the third trimester, followed by 27.6% in the first and 27.0% in the second. The table above provides a summary of the distribution.

DATA PRESENTATION

Research Question One: To what extent is the prevalence of HIV among pregnant women in Okigwe Imo State, Nigeria?

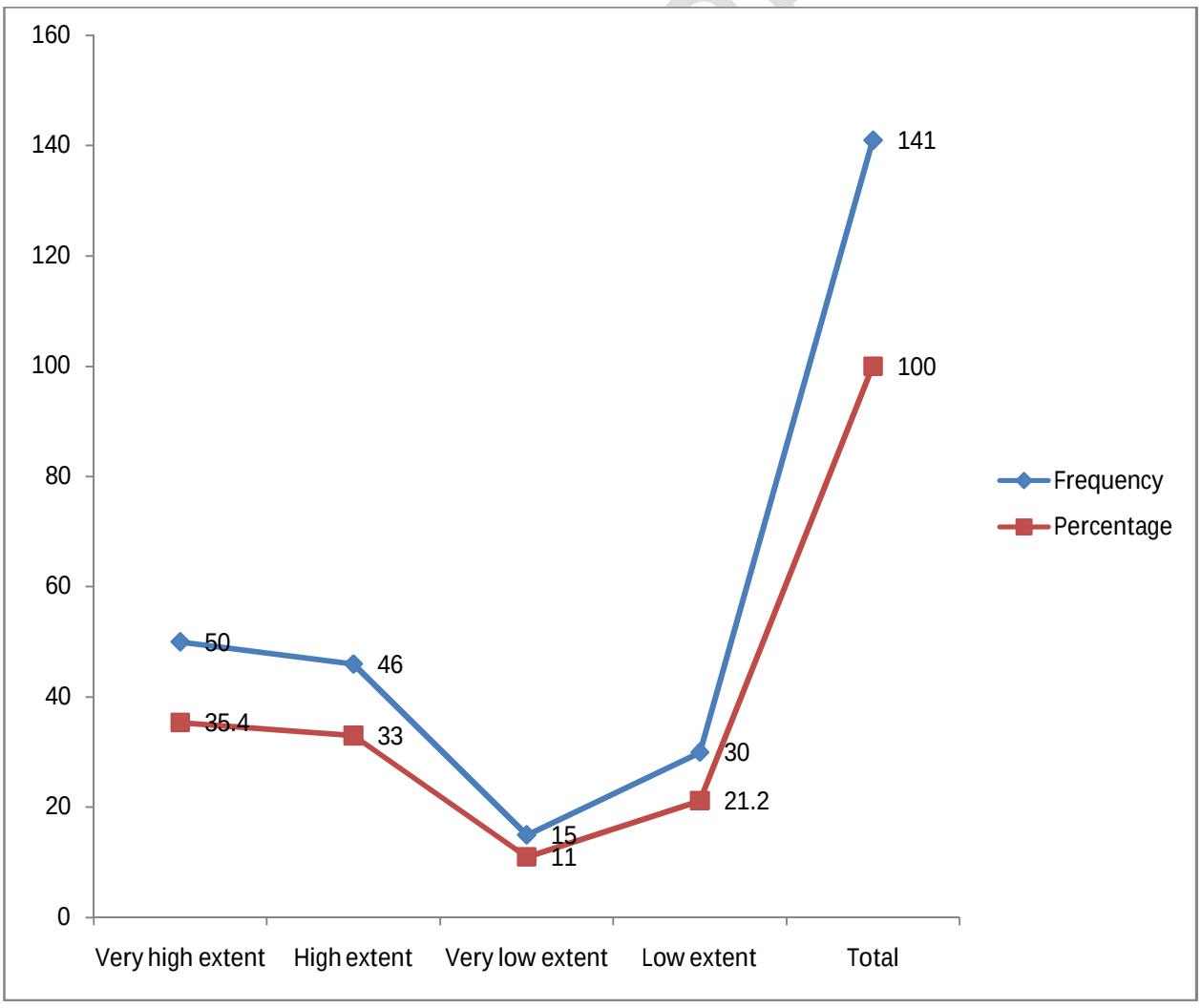


Fig 3: Respondents on the extent of the prevalence of HIV among pregnant women in Okigwe Imo State, Nigeria

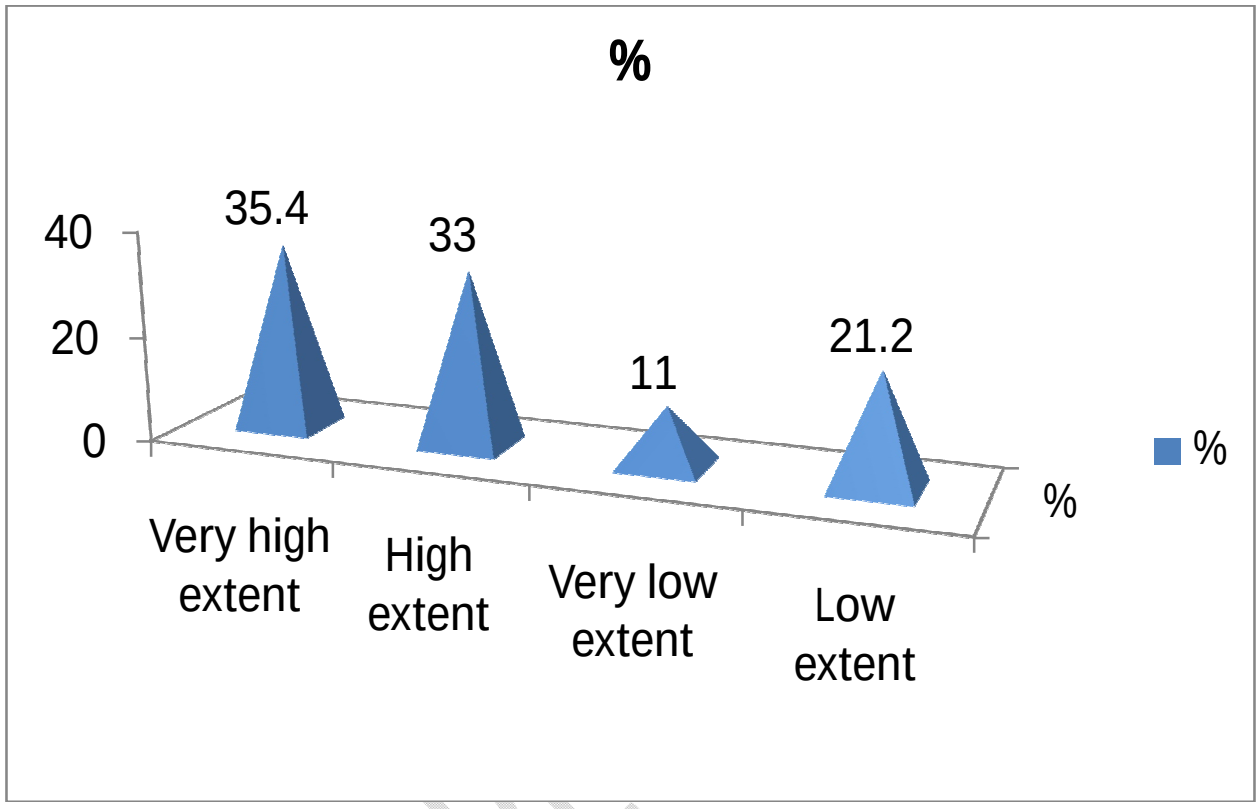
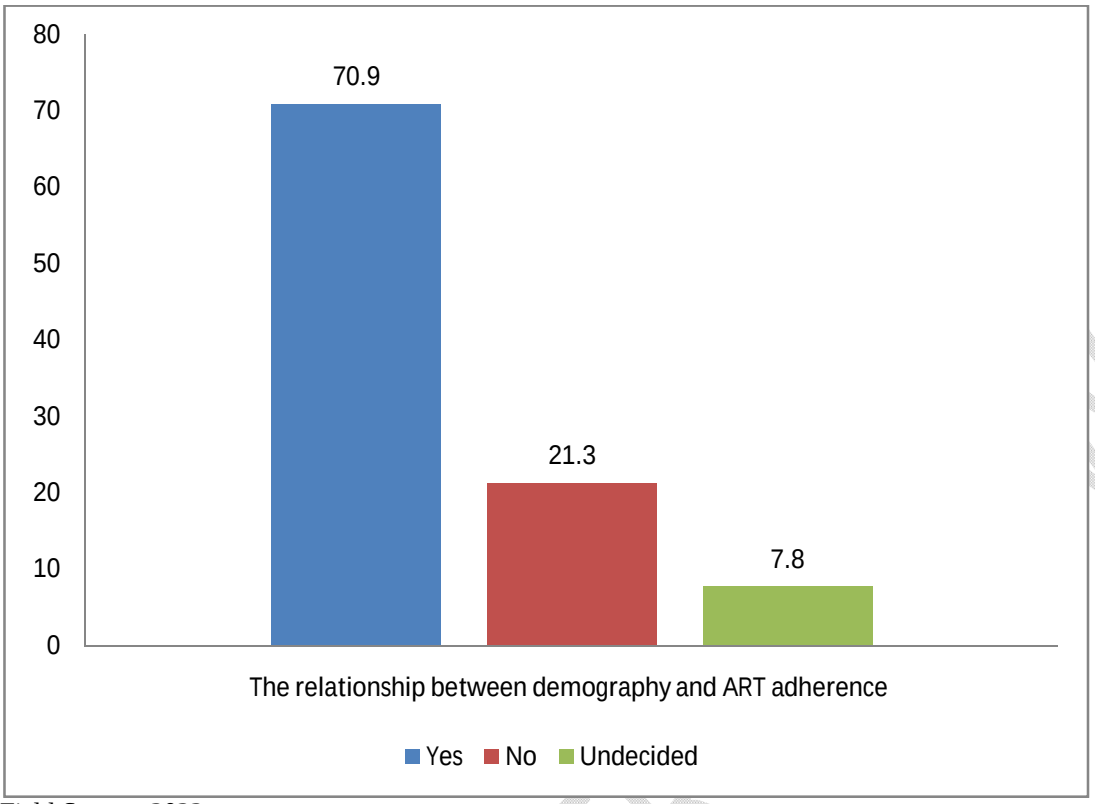


Fig 4: Extent of Prevalence of HIV among Pregnant women in Okigwe, Imo State

According to the results of the survey on the prevalence of HIV among pregnant women in Okigwe Imo State, Nigeria, shown in the table above, 35.4% of respondents checked "very high extent," 33% of respondents checked "high extent," 11% of respondents checked "very low extent," and the remaining 21.2% of respondents were unsure. The results show a significant incidence of HIV among expectant mothers in Okigwe Imo State, Nigeria.

Research Question Two: Is there a relationship between demography and ART adherence among pregnant women in Okigwe Imo State, Nigeria?

Table 2: Respondents on the relationship between demography and ART adherence among pregnant women in Okigwe Imo State, Nigeria.



Field Survey, 2022

Fig 5: The relationship between Demography and ART adherence in Okigwe, Imo State

According to the responses collected and displayed in the table above regarding the correlation between demographics and ART adherence among pregnant women in Okigwe Imo State, Nigeria, the majority of respondents—roughly 70.9% of them—ticked "yes," 21.3% "no," and 7.8% "undecided."

Third research question: Are pregnant women in Okigwe Imo State, Nigeria's behavior and ART adherence related?

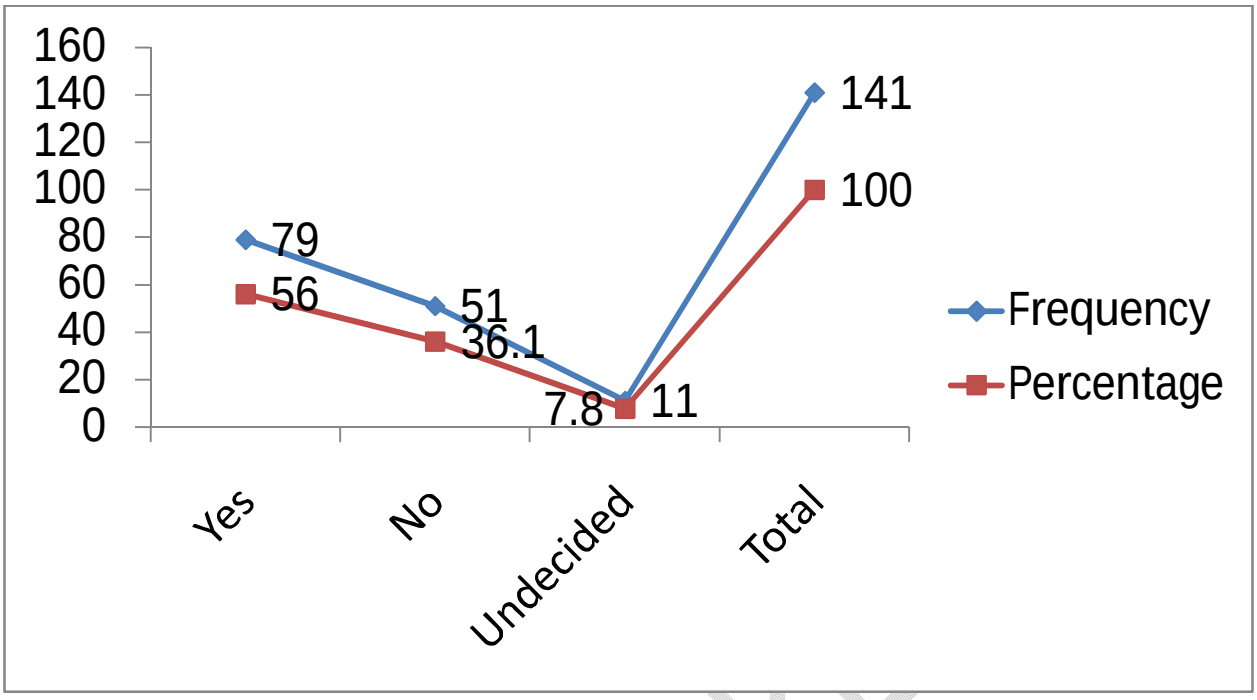
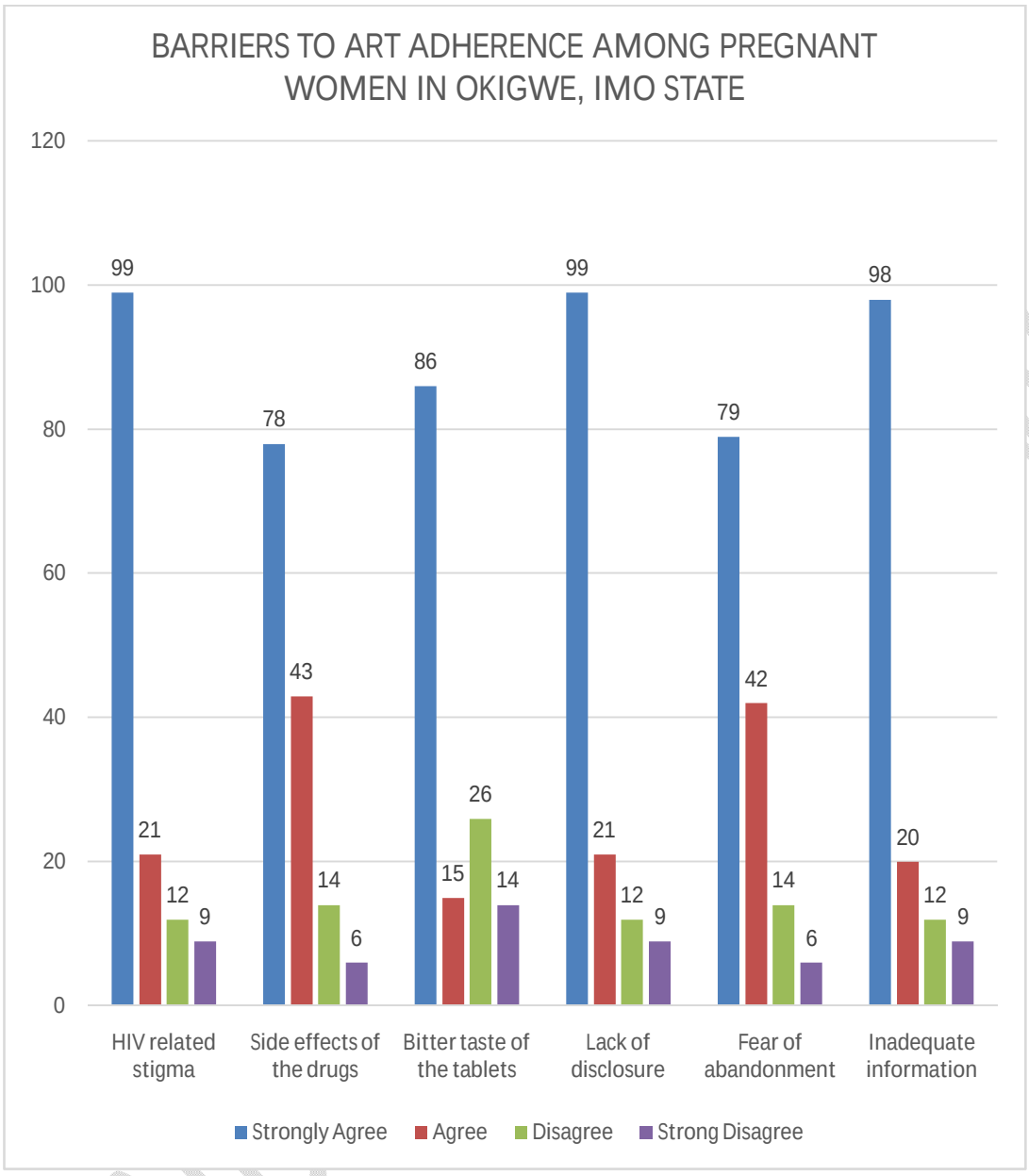


Fig 6: Respondents on the relationship between behaviour and ART adherence among pregnant women in Okigwe Imo State, Nigeria.

According to the responses collected and displayed in the table above regarding the relationship between behavior and ART adherence among pregnant women in Okigwe, Imo State, Nigeria, the majority of respondents—roughly 56% of them—ticked yes, 36.1% of them—ticked no, and the remaining 7.8%—ticked neither yes nor no.

Research question 4: What are the barriers to ART adherence among pregnant women in Okigwe Imo State, Nigeria?



Source: Field Survey, 2022

Fig 7: Barriers ART Adherence among Pregnant women in Okigwe, Imo State

The responses to the questions about the barriers to ART adherence among pregnant women in Okigwe Imo State, Nigeria, are compiled in the figure above. The average response to item 1 was 3.4, also acknowledging the negative effects of the medicine, while the average score for item 2 was 3.4, the average score for item 3, and the average reaction to item 1 was 3.5. Additional responses included accepting the non-disclosure in item 4, which received a mean score of 3.5, accepting the fear of abandonment in item 5, which received a mean score of 3.4, and accepting the insufficient information in item 6, which received a mean score of 3.5. Items 1, 2, 3, 4, 5, and 6 all have average scores that are at or above 2.50. This demonstrates that all of the

respondents agreed with the statements made in the questions about the challenges to ART adherence faced by expectant mothers in Orlu Imo State, Nigeria.

TEST OF HYPOTHESIS

H0: The prevalence of HIV among pregnant women in Okigwe Imo State, Nigeria is high.
H1: The prevalence of HIV among pregnant women in Okigwe Imo State, Nigeria is low
Table 2: The prevalence of HIV among pregnant women in Okigwe Imo State, Nigeria is high

Options	Fo	Fe	Fo - Fe	(Fo - Fe)2	(Fo--Fe)2/Fe
Yes	70	47	23	529	11.3
No	36	47	-11	121	2.6
Undecided	35	47	-12	144	3.1
Total	141	141			17.0

Source: Extract from Contingency Table

Degree of freedom = (r-1) (c-1)
(3-1) (2-1)
(2) (1)
= 2

At 0.05 significant level and at a calculated degree of freedom, the critical table value is 5.991.
Findings
The calculated X^2 = 17.0 and is greater than the table value of X^2 at 0.05 significant level which is 5.991.

Decision

The alternative hypothesis, which claims that the prevalence of HIV among pregnant women in Okigwe Imo State, Nigeria, is low, is accepted since the X2 computed value is higher than the critical table value, which is 17.0 is larger than 5.991.
The second hypothesis, Ho2, states that there is no discernible connection between ART adherence and demography or behavior.

Ha2: The demographics and behavior have a substantial impact on ART adherence.

Table 3: Pearson Correlation Table showing the relationship between the Demography (D) and behaviour(B) to ART adherence(ARTA)

		D	B	ARTA
D	Pearson Correlation	1	.821**	.821**
	Sig. (2-tailed)		.000	.000
	N	141	141	141
B	Pearson Correlation	.821**	1	.821**
	Sig. (2-tailed)	.000		.000
	N	141	141	141

ARTA	Pearson Correlation	.821**	.821**	1
	Sig. (2-tailed)	.000	.000	
	N	141	141	141

Source: Survey data, 2022
**. Correlation is significant at the 0.05 level (2-tailed)

The Pearson Correlation result in table contains the degree of association between D, B and ARTA. From the result, the Pearson correlation coefficient, r, value of 0.821 was positive and statistically significant at ($p < 0.000$). This indicates that demography (D) and behaviour(B) affects HIV pregnant women ART adherence(ARTA).
Thus, D, B and ARTA are correlated positively.

Discussion

In this study, we examined the adherence to antiretroviral therapy (ART) among pregnant women living with HIV/AIDS in orlu IMO state Nigeria. The study specifically was aimed at determining the prevalence of HIV among pregnant women in Orlu Imo State, Nigeria, determining the demographic and behavioral correlates of ART adherence, and examining the barriers to ART adherence among pregnant women in Orlu Imo State, Nigeria.

This research is reported in five distinct yet interrelated chapters. In the chapter one we describes the study objectives clearly by stating the motive behind this study. Research hypotheses were developed for testing while the scope of this research was defined as well.

In the chapter two, a review of related and relevant literature were carried out. The concept of HIV/AIDS formed the introduction for this chapter. Other concepts reviewed in this chapter are WHO clinical staging of HIV/AIDS, HIV Subtypes, epidemiology of HIV/AIDS, transmission of HIV, the invasion and mutation of HIV, diagnosis of HIV/AIDS, overview of HIV/AIDS, awareness and Attitude towards HIV and AIDS, management Strategies Of HIV/AIDS. Further concepts reviewed are the rationale For counselling people living with HIV/AIDS, psychosocial effects of HIV/AIDS, the etiology of HIV/AIDS in Nigeria, HIV/AIDS in Women, HIV/AIDS in pregnant women, concept of Antiretroviral Therapy (ART) and the

Nigerian ART program. HIV and pregnancywas reviewed from the perspective of Amusa (2015), who found out that the different challenges these women face ranging from stigmatization, to the size and bitterness of the pills to the effects these pills have on them. The study was anchored on the theory of the AIDS Risk reduction model by Catania *et al.,* [39], the pathway of survival model theory by Mosley and Chen [46] and the health belief model by Rosenstack *et al.,* [45]

Empirical works were also reviewed in the review. Notable works such as studies conducted by Sherr *et al.*,[40], were reviewed. Further studies carried out by Amusa [42]was also recognized. Adopting the survey research design, responses were obtained from pregnant women living with HIV/AIDS in Okigwe IMO state Nigeria using the stratified random technique to select the sample size of the 141 which cut across the senior classes in the secondary schools. Responses received were analysed using the Chi-square statistics and the Pearson correlation statistics while the results were reported in tables using mean and standard deviation and frequency counts and percentages.

CONCLUSION

To achieve long-term HIV suppression, enhance immune system function, prevent drug resistance, and enhance general health, adherence to ART is essential. Cost, stigma, alcohol use, and structural barriers including a lack of transportation and pharmacy stock-outs are the most important and frequent factors that negatively affect adherence in developing nations, according to systematic reviews carried out by UNAIDS in 2018.

Using SNS technology for social purposes has long been a common method of communication for many individuals. These kinds of linkages have been warmly welcomed by students, especially those at the Higher Center, who see them as wonderful opportunities to engage with

family and friends through extracurricular activities. Among these pupils, social networking services including Facebook, 2go, BB Messenger, and WhatsApp are the most often used.The success of antiretroviral (ARV) treatments depends on careful adherence to the approved dosing schedule, which is a lifetime need for pregnant women. An adherence rate of between 90% and 95% is required to avoid the rapid formation of drug resistance and the failure of the therapy.

The study's findings indicate that Okigwe Imo State, Nigeria, has a very high prevalence of HIV among pregnant women.Additional studies show a link between ART adherence and the demography of pregnant women in Okigwe Imo State, Nigeria.

Finally, the study's findings revealed a link between behavior and ART adherence among pregnant women in Okigwe Imo State, Nigeria.

Our study's findings lead us to the conclusion that pregnant women with HIV/AIDS who stick to their antiretroviral therapy (ART) are protecting both the mother and the growing fetus. "Pregnant women who cannot comply to their medications further encounter treatment failure and secondary HIV infection," according to a 2017 study by Afolabi, Ijadunola, Fatusi, and Olasode.

ETHICAL APPROVAL AND CONSENT

The study was approved by the Project Committee of the Department. Informed consent was obtained from all study participants before they were enrolled in the study. Permission was sought from the relevant authorities to carry out the study. Date to visit the place of study for questionnaire distribution was put in place in advance.

RECOMMENDATION

In light of the responses, the researcher offers the following advice: To expand coverage, every pregnant woman receiving ANC should have access to PMTCT services, either on-site or through a referral to a nearby clinic. The use of a geographic information system when locating PMTCT locations aids in reducing disparities in distribution and improving accessibility between states. It is also crucial to equip some of the facilities offering PMTCT treatments with new

equipment in order to deliver top-notch services. This can be done in stages, beginning with facilities with a huge capacity.

ii. Expanding access to medical supplies will help prevent missed opportunities to provide PMTCT services. One of the main causes of supplies of HIV-related products being discontinued in Nigeria is poor data management of commodities, especially at the facility level, which leads to insufficient requests and a scarcity of commodities. Long lead times and the availability of products with short shelf lives are further influencing variables. The management of logistical data can be improved by healthcare workers through on-the-job training and encouraging supervision.

All pregnant patients getting antenatal care have to have access to PMTCT services, either on-site or via a referral to a nearby clinic, to broaden coverage. Locating PMTCT facilities using a geographic information system can help to lessen disparity and increase accessibility between states.

PROGRESS IN KNOWLEDGE

Despite the fact that many specialists have made significant contributions to ART compliance among HIV/AIDS patients, few research have been conducted on the adherence of pregnant women to ART. For instance, Sherr, Mueller, and Varrall (2019) conducted a clinical trial to compare the suppression of the viral load at delivery and throughout lactation among women randomised to receive different ARV regimens. Studies about women's adherence to ART during pregnancy have not been conducted.

Given that it would be concentrated on the Okigwe LGA in Imo State, this research is useful. In contrast to other parts of the federation and throughout the world, Okigwe, Imo State, has seen little to no study. As a result of this study, knowledge in this area will grow.

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