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Determinants of Adherence to Option B+ Antiretroviral Therapy among HIV Positive Pregnant Women Attending Antenatal Clinics at Tertiary Health Institutions in Anambra State

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Abstract

Purpose: The study ascertained determinants of adherence to option B+ antiretroviral therapy (ART) among HIV positive pregnant women attending antenatal clinics at tertiary health institutions in Anambra state.

Methodology: A cross-sectional descriptive design was adopted in conducting the study among HIV positive pregnant women attending antenatal clinics at tertiary health institutions in Anambra state. A sample size of one hundred and forty six (146) HIV positive pregnant women was selected by purposive and convenience sampling techniques. Adult AIDS Clinical Trial Group (AACTG) standardized questionnaire was used in data collection which were analyzed with IBM SPSS software database (version 25). Chi square was used for test of hypotheses at $p < 0.05$ level of significance.

Findings: Results revealed that the women with parity less than 4 (105(89%) were more adherent to ART; the women with primary education as highest level of education (13(92.9%) were more adherent to ART; the women within the age range 15-25 years (32(97%) were adherent; the women working in the informal sector (31 (96.9%) were more adherent to ART. The study also showed that there is no significant relationship between the women's level of education, parity, age and adherence to ART but there is significant relationship between the women's occupation and adherence to ART. From the study, it was ascertained that the HIV positive pregnant woman's parity, level of education and age are not determinants of adherence to Option B+ ART but occupation of the women is.

Recommendations: Health care providers or mentor mothers in the health care facilities should give more attention to the HIV positive pregnant women working in the informal sector and unemployed than the women working in the formal sector in regards to their adherence to ART.

Keywords: *Adherence, women, HIV, positive, pregnant.*

INTRODUCTION

HIV is a virus that attacks and weakens the immune system of individuals making the infected individual susceptible to infection. Prevalence of HIV in Nigeria has fluctuated over the last few decades; from lows of 1.8% in 1991 through 5.8% and 3.0% in 2001 and 2014 respectively to 2.9% in 2016 (Federal Ministry of Health (FMoH), 2014; United Nations Programme on HIV/AIDS (UNAIDS), 2018) but that in 2019, 1.4% among adults aged 15-49 years (UNAIDS, 2022). Nigeria has the second largest HIV epidemic in the world. The country currently accounts for 3.2 million People Living with HIV with an average of 160,000 AIDS-related deaths annually and of the estimated 220,000 new infections in Nigeria, 37,000 were from mother-to-child transmission (UNAIDS, 2018; National Agency for the Control of AIDS (NACA), 2015).

HIV can be transmitted from a pregnant woman to her baby during pregnancy, labour and delivery when the maternal blood mixes up with that of the fetus in the uterus. Adherence to option B+ Antiretroviral therapy is the extent to which HIV positive pregnant woman continues to take prescribed ART so as to prevent transmission of the virus to the fetus in her womb. Non adherence to ART by HIV positive pregnant women will increase the chances of their babies becoming infected with the deadly virus and if HIV is transmitted to the baby, it will weaken his/her immune system resulting to increased susceptibility to infection, delayed growth and development, lack of energy, persistent fever and sweating, frequent diarrhea, enlarged lymph nodes, weight loss and failure to thrive (Pietrangelo, 2021).

To address the International Human Immunodeficiency Virus epidemic, the World Health Organization developed three drug treatment regimens between 2010 and 2012 specifically for HIV positive pregnant women and their infants. World Health Organization (WHO) developed the regimens calling them Option A, Option B and Option B+, to reduce or prevent mother to child transmission of HIV. Each option comprises of different types and schedules of antiretroviral medications. WHO in Darby and Jones (2021) stated that in Africa alone about 1,200,000 pregnant women were living with untreated HIV and that those women have up to forty-five percent chance of transmitting HIV to their offspring if they do not receive treatment.

With Option B+, all HIV-infected pregnant and breastfeeding women are immediately initiated on lifelong antiretroviral therapy (ART), regardless of clinical stage or CD4+ T-cell count. By 2015, all Global Plan priority countries, except Nigeria, had adopted the Option B+ programme. Nigeria finally adopted the Option B+ in 2016 with full implementation reported in 2017 (Omonaiye, Kusljic, Nicholson, Mohebbi and Manias, 2019).

Evidence showed that the optimal benefits of option B+ drugs were maintained at the adherence level of ≥95% and 61–80% virologic failure was documented among those with less than 95% adherent to ARVs (Wondimu et al, 2020). Similarly, children of women with over 95% of adherence to ART were well protected from HIV infection while children of women with a low adherence were less protected. Non-adherence to ART (<95%) increases the risk of rapid viral replication, the development of drug-resistant HIV strains, maternal HIV disease progression and maximizes the chance of mother-to-child transmission (World Health Organization (WHO), 2016).

Calder *et al.* (2020) from their descriptive cohort study on adherence to combination antiretroviral therapy among pregnant women enrolled in a HIV prevention Program in Rural North-Central

Nigeria are of the view that there were no differences between adherent and non-adherent participants by maternal age, education, employment status, CD4+ cell count and postpartum clinic attendance. Conversely, Zacharius *et al.* (2019) from their study on the level and predictors of adherence to ART Option B+ among HIV positive pregnant and lactating women in rural and urban setting of Eastern Tanzania, discovered from their findings that parity, educational level, age and occupation are determinants of poor adherence to Option B+ ART.

Therefore, this study was to ascertain determinants of adherence to Option B+ ART among HIV positive pregnant women attending antenatal clinics at tertiary health institutions in Anambra State, Nigeria.

Objectives

The general purpose of this study was to ascertain determinants of adherence to Option B+ ART among HIV positive pregnant women attending antenatal clinics at tertiary health institutions Anambra State, Nigeria.

Specific objectives of the study were to:

1. Assess the level of adherence of the HIV positive pregnant women to option B+ ART based on their parity.
2. Ascertain the level of adherence of the HIV positive pregnant women to option B+ ART based on their educational levels.
3. Assess the level of adherence of the HIV positive pregnant women to option B+ ART based on maternal age.
4. Ascertain the level of adherence of the HIV positive pregnant women to option B+ ART based on their occupation.

MATERIALS AND METHODS

Cross-sectional descriptive survey design was adopted for the study to ascertain determinants of adherence to option B+ antiretroviral therapy among HIV positive pregnant women attending antenatal clinics at tertiary health institutions in Anambra state. This study was conducted in the tertiary health institutions in Anambra State, Nigeria. There are two tertiary health institutions in Anambra State which include Nnamdi Azikiwe University Teaching Hospital (NAUTH), Nnewi owned/managed by the Federal Government and Chukwuemeka Odimegwu Ojukwu University Teaching Hospital (COOUTH), Awka owned by the State Government.

The study population consisted of 230 HIV positive pregnant women who attend antenatal clinics at tertiary health institutions in Anambra state for one year. The sample size for the study is 146 which was calculated with Yaro Yamane formula. Convenient and purposive sampling techniques were used in the selection of the participants. The instrument for data collection was Adult AIDS Clinical Trial Group (AACTG) standardized questionnaire consisting of two sections. The first section of the questionnaire is on socio-demographic characteristics of participants while section two of the questionnaire is on self-reported adherence and reasons for missed medication which was validated by a statistician and an expert in the field of study. A secondary analysis was conducted by Reynolds et al (2007) to test the reliability of the AACTG questionnaire. Data were collected from six hundred and forty (640) subjects in two ACTG trial and was analyzed using the

Cronbach alpha and correlational and logistic regression techniques. Cronbach alpha coefficients for the standardized scores for the AACTG questionnaire items were all >0.80 demonstrating good reliability per a priori section. A total of 146 copies of the questionnaire were distributed and were all retrieved, making the response rate 100%. Consent of the respondents was sought, confidentiality of information supplied by the respondents during and after the procedure was ensured and anonymity was also ensured by their names not appearing on the questionnaire. Data were analysed using IBM SPSS software database (version 25). Tables and charts were used to present data while bivariate associations between the HIV positive pregnant women's characteristics and adherence to ART were tested using Chi-square tests with the level of significance set at 95% confidence interval.

Table 1: Summary of socio-demographic characteristics of the women (n=146)

Characteristics		Frequency	Percentage
1. Age	15 – 25	33	22.6
	26 – 35	70	47.9
	36 - 45	41	28.2
	Above 45	2	1.4
2. Religion	Christian	141	96.6
	Islam	2	1.4
	Traditional	3	2.1
3. Marital status	Married	121	82.9
	Divorced	4	2.7
	Widowed	9	6.2
	Single	12	8.2
4. Occupation	Formal sector	34	23.2
	Informal sector	56	38.4
	Unemployed	56	38.4
5. Ethnicity	Hausa	11	7.5
	Igbo	131	89.7
	Yoruba	2	1.4
	Others	2	1.4
6. Highest level of Education	No formal education	13	8.9
	Primary education	14	9.6
	Secondary education	94	64.4
	Tertiary education	25	17.1

7. Income of per month(in ₦)	Less than 50,000	138	94.5
	Above 50,000	8	5.5
8. Income of Spouse per month(in ₦)	Less than 50,000	107	73.3
	Above 50,000	27	18.5
	Unknown	12	8.2
9. Parity	Less than 4	119	81.5
	4 and above	27	18.5
10. CD4 Count	<350	26	17.8
	(b) >350	68	46.6
	Unknown	52	35.6

Table 1 showed that majority of the women 101(67.8%) were in the age range of 26-35 years, followed by 41(27.5%) within the age range of 15-25 years then 6(4.0%) in the age range of 36-45 years and finally 1(0.7%) in the age range of 46-55 years. Also, majority of the women 145(97.3%) were Christians, 1(0.7%) was a traditionalist, 1(0.7%) of the respondents was a muslim and 2(1.3%) fell under 'others' (atheists). Majority of the respondents were married (148(99.3%) and 1(0.7%) was divorced. 73(49.0%) of the women were into business, 44(29.5%) were professionals while 32(21.5%) are unemployed. 144(96.6%) of the women were Ibos, 2(1.3%) followed by those from other ethnic groups (2(1.3%) while 1(0.7%) of the respondents were Hausas. 99(66.4%) of the women had tertiary education, 45(30.2%) stopped at secondary school while 5(3.4%) of the respondents had no formal education. 72(48.3%) of the respondents had a child less than five years, 43(28.9%) had two children less than five years, 21(14.1%) had three children below five years while 13(8.7%) had four children less than five years of age.

Research Question 1: What is the level of adherence of the HIV positive pregnant women to option B+ ART based on their parity?

Table 2: Parity and adherence of the HIV positive pregnant women to option B+ ART

Variable	**Adherence to Option B+ ART**		**Total**
Parity	Adherent	Non adherent	
Less than 4	105(89.0)	13(11.0)	118
4 and above	24(88.9)	3(11.1)	27
Missing	1(100.0)	0(0.0)	1
Total	130(89.0)	16(11.0)	146

Table 2 shows the adherence of the HIV positive pregnant women to option B+ ART based on their parity.

105(89%) of the HIV positive pregnant women with parity of less than 4 adhered to option B+ ART while 13 (11%) of them were not adherent. Also, among those with parity of 4 and above, 24 (88.9%) adhered to option B+ ART while 3 (11.1) were not adherent.

Research Question 2: What is the level of adherence of the HIV positive pregnant women to option B+ ART based on their educational levels?

Table 3: Educational level and adherence of the HIV positive pregnant women to option B+ ART

Variable	Adherence to Option B+ ART		Total
Educational level	**Adherent**	**Non adherent**	
No formal education	11(84.6)	2(15.4)	13
Primary education	13(92.9)	1(7.1)	14
Secondary education	85(90.4)	9(9.6)	94
Tertiary education	21(84.0)	4(16.0)	25
Total	**130(89.0)**	**16(11.0)**	**146**

Table 3 shows the adherence of the HIV positive pregnant women to option B+ ART based on their educational levels. Out of the 13 HIV positive pregnant women with no formal education, 11 (84.6%) were adherent to their drugs while 2 (15.4%) were not. Also, out of the 14 women that ended their education at the primary level, 13(92.9%) were adherent to option B+ ART while 1(7.1%) were not. 94 of the women ended their education at the secondary level. 85(90.4%) of them were adherent to their drugs while 9(9.6%) were not adherent. 25 HIV positive pregnant women had tertiary education; 21 (84%) of them were adherent to option B+ ART while 4 (16%) were not.

Research Question 3: What is the level of adherence of the HIV positive pregnant women to option B+ ART based on maternal age?

Table 4: Age and adherence of the HIV positive pregnant women to option B+ ART

Variable	Adherence to Option B+ ART		Total
Age (Years)	**Adherent**	**Non adherent**	
15 – 25	32(97.0)	1(3.0)	33
26 – 35	61(87.1)	9(12.9)	70
36 - 45	35(85.4)	6(14.6)	41
Above 45	2(100.0)	0(0.0)	25
Total	**130(89.0)**	**16(11.0)**	**146**

Table 4 shows the adherence of the HIV positive pregnant women to option B+ ART based on the maternal age. Out of the 33 HIV positive pregnant women within the age range 15-25years, 32(97%) were adherent to ART while 1 (3%) was not. For those within the ages 26-35 years,

61(87.1%) were adherent to option B+ ART while 9(12.9) were not. Also, out of the HIV positive pregnant women within the ages 36-45 years, 35(85.45) were adherent to their antiretroviral drugs while 6(14.6%) were not. The two women above 45 years old were adherent to their antiretroviral drugs.

Research Question 4: What is the level of adherence of the HIV positive pregnant women to option B+ ART based on their occupation?

Table 5: Women's occupation and adherence of the HIV positive pregnant women to option B+ ART

Variable	**Adherence to Option B+ ART**		**Total**
Occupation	**Adherent**	**Non adherent**	
Formal sector	31(96.9)	1(3.1)	32
Informal sector	54(96.4)	2(3.6)	56
Unemployed	45(76.8)	13(23.2)	56
Total	**130(89.0)**	**16(11.0)**	**146**

Table 5 shows the adherence of the HIV positive pregnant women to option B+ ART based on their occupation. Out of the thirty-two women working in the formal sector, 31(96.9%) were adherent to their antiretroviral drugs while only 1(3.1%) was not. Also, out of the fifty-six (56) HIV positive pregnant women working in the informal sector, 54(96.4%) were adherent to their drugs while 2 (3.6%) were not. Fifty-six (56) HIV positive pregnant women are not working; 43(76.8%) were adherent to option B+ ART while 13(23.2%) were not.

Test of Hypotheses

Hypothesis 1: Relationship between the parity of the HIV positive pregnant women and their level of adherence to Option B+ ART.

Table 6: Chi-square test showing relationship between the parity of the HIV positive pregnant women and their level of adherence to Option B+ ART.

		Adherence to Option B+ ART		**X^2**	**Df**	***P***
		Adherent	**Non adherent**			
Parity	Less than 4	106	13			
	4 and above	24	3			
Total		**130**	**16**	**0.124***	**2**	**0.940**

**= Significant at p< 0.05*

Hypothesis 1: There is no significant relationship between the parity of the HIV positive pregnant women and their level of adherence to Option B+ ART.

Inference: The statistical analysis showed that there is no significant relationship between the parity of the HIV positive pregnant women and their level of adherence to Option B+ ART.

Verdict: The researcher fails to reject the null hypothesis.

Hypothesis 2: Relationship between the HIV positive women's level of education and their level of adherence to Option B+ ART.

Table 7: Chi-square tests relationship between HIV positive pregnant women's level of education and their level of adherence to Option B+ ART

		Adherence to Option B+ ART		X^2	Df	P
		Adherent	**Non adherent**			
Highest level of Education	No formal education	11	2			
	Primary education	13	1			
	Secondary education	85	9			
	Tertiary education	21	4			
	Total	**130**	**16**	**1.306***	**3**	**0.728**

**= Significant at p< 0.05*

Hypothesis 2: There is no significant relationship between HIV positive pregnant women's highest level of Education and their level of adherence to Option B+ ART.

Inference: The statistical analysis showed that there no significant relationship between HIV positive pregnant women's Highest level of Education and their level of adherence to Option B+ ART.

Verdict: The researcher fails to reject the null hypothesis.

Hypothesis 3: Relationship between the HIV positive women's age and their level of adherence to Option B+ ART.

Table 8: Chi-square tests relationship between HIV positive pregnant women's age and their level of adherence to Option B+ ART

	Adherence to Option B+ ART		X^2	Df	P
Age(Years)	**Adherent**	**Non adherent**			
15 – 25	32	1			
26 – 35	61	9			
36 - 45	35	6			
Above 45	2	0			
Total	**130**	**16**	**3.198***	**3**	**0.362**

**= Significant at p< 0.05*

Hypothesis 3: There is no significant relationship between HIV positive pregnant women's age and their level of adherence to Option B+ ART.

Inference: The statistical analysis showed that there no significant relationship between HIV positive pregnant women's age and their level of adherence to Option B+ ART.

Verdict: The researcher fails to reject the null hypothesis.

Hypothesis 4: Relationship between the HIV positive women's occupation and their level of adherence to Option B+ ART.

Table 9: Chi-square tests showing the association between HIV positive women's occupation and their adherence to Option B+ ART

Occupation	Adherence to Option B+ ART		X^2	Df	P
	Adherent	Non adherent			
Formal sector	31	1			
Informal sector	54	2			
Unemployed	45	13			
Total	**130**	**16**	**14.010***	**3**	**0.003**

**= Significant at p< 0.05*

Hypothesis 4: There is no significant relationship between adherence of the HIV positive pregnant women to Option B+ ART and their occupation.

Inference: The statistical analysis showed that there is significant relationship between the HIV positive women's occupation and their adherence to Option B+ ART.

Verdict: The researcher rejects the null hypothesis and accepts the alternate hypothesis.

DISCUSSION

Research Question 1: What is the level of adherence of the HIV positive pregnant women to option B+ ART based on their parity?

Findings from the study showed that out of one hundred and eighteen (118) HIV positive pregnant women with parity of less than 4, 105(89%) were adherent to ART while 13(11%) were not. Also, 24(88.9%) out of twenty-seven women having parity of 4 and above were adherent to ART but 3 (11.1%) were not. This implies that parity is not a determinant of adherence to ART.

Also, looking at the first hypothesis which states that 'There is no significant relationship between the parity of the HIV positive pregnant women and their level of adherence to Option B+ ART', Chi-square test was done and P was calculated to be 0.940 which is more than 0.05. Therefore, there is no significant relationship between the parity of the HIV positive pregnant women and their level of adherence to Option B+ ART. This finding contrasts the finding of Zacharius *et al.* (2019). They investigated the level and predictors of adherence to ART Option B+ among HIV positive pregnant and lactating women in rural and urban setting of Eastern Tanzania. From their findings, they discovered that parity is one of the determinants of poor adherence to Option B+ ART. This disparity might be due to difference in the study population.

Research Question 2: What is the level of adherence of the HIV positive pregnant women to option B+ ART based on their educational levels?

The findings indicated that out of eleven HIV positive pregnant without formal education, 11(84.6) adhered to ART while 2(15.4%) did not. Of the fourteen with primary education as highest level of education, 13(92.9%) were adherent to ART and one person was not. Also, from the total of ninety-four (94) HIV positive pregnant women that ended their education at the secondary school level, 85(90.4%) were adherent to ART while 9(9.6%) were not. Finally, 21(84%) out of the 25 women that had tertiary education were adherent to ART while 4(16%) were not. This implies that educational level of the women is not a determinant of adherence.

In line with the above findings, the second hypothesis which states that 'There is no significant relationship between the HIV positive women's level of education and their level of adherence to Option B+ ART', was analyzed with chi square test and P value was calculated to be 0.728 using chi-square test which is more than 0.05. Therefore, there is no significant relationship between the HIV positive pregnant women's level of education and their level of adherence to Option B+ ART.

The above findings are in agreement with the findings of Calder *et al.* (2020). They conducted a descriptive cohort study which determined factors that affect adherence to ART among HIV positive women enrolled in a large PMTCT trial in rural North central Nigeria. From their findings, they deduced that there were no differences between adherent and non-adherent participants by education. Also, Girma (2016) in his observational cohort study assessed the effectiveness of PMTCT procedures among HIV infected women and their exposed infants in Addis Ababa, Ethiopia. From his findings, they concluded that education was not associated with poor adherence.

Conversely, the findings of Oginni *et al.* (2018) varies with the findings above. They assessed the level of adherence to ART among HIV positive pregnant women in a HIV/AIDS treatment centre in Ibadan, Nigeria and identified factors influencing adherence. Their findings showed that adherence was greater in women with women with higher level of education. Also, Atanga (2016) in his prospective cohort study assessed linkage and retention-in-care with adherence and determinants of poor adherence along the PMTCT cascade in HIV positive pregnant and breastfeeding women initiating Option B+ in five health facilities located within the Kumba Health District, Cameroon. He discovered from his findings that low level of education significantly predicted poor adherence. In agreement, Obonyo (2016) in her study that identified factors that lead to non-adherence to PMTCT treatment and loss to follow up of HIV Positive Mothers and Babies in Mombasa County, Kenya, non-adherence was associated with no high school education (64.3%). The disparity in findings might be due to the different study designs adopted for the studies.

Research Question 3: What is the level of adherence of the HIV positive pregnant women to option B+ ART based on maternal age?

Out of the thirty-three (33) HIV positive pregnant women within the age range 15-25 years, 32(97%) were adherent to ART while only one person was not. 61(87.1%) out of the seventy (70) women within 26-35 years of age were adherent to ART while 9(12.9%) were not. Also 35(85.4%) out of forty-one (41) HIV positive pregnant women within the age range 36-45 were adherent to ART while 6(14.6%) were not. Lastly, all the two (2) HIV positive pregnant women above 45

years were adherent to ART. Therefore, the woman's age is not a determinant of adherence to ART.

Also, looking at the third hypothesis which states that 'There is no significant relationship between HIV positive pregnant women's age and their level of adherence to Option B+ ART', Chi-square test was used and P value was calculated to be 0.362 which is more than 0.05. Therefore, there is no significant relationship between the HIV positive pregnant women's age and their level of adherence to Option B+ ART.

The findings above correspond with that of Calder *et al.* (2020). They conducted a descriptive cohort study which determined factors that affect adherence to ART among HIV positive women enrolled in a large PMTCT trial in rural North central Nigeria. From their findings, they deduced that there were no differences between adherent and non-adherent participants by age. Also, Girma (2016) in his observational cohort study assessed the effectiveness of PMTCT procedures among HIV infected women and their exposed infants in Addis Ababa, Ethiopia and concluded that age was not associated with poor adherence. But the findings above sharply contrast that of Atanga (2016) who in his prospective cohort study after assessing linkage and retention-in-care with adherence and determinants of poor adherence along the PMTCT cascade in HIV positive pregnant and breastfeeding women initiating Option B+ in five health facilities located within the Kumba Health District, Cameroon, discovered from his findings that younger age significantly predicted poor adherence. Also, Desta *et al.* (2020) in their retrospective analysis assessed the level of adherence and associated factors among HIV infected patients on antiretroviral therapy in Northern Ethiopia. From their findings, age of 50+ years old was positively associated with good ART drug adherence. This contrast might be due to the different respondents in different geographical locations that participated in the study.

Research Question 4: What is the level of adherence of the HIV positive pregnant women to Option B+ ART based on their occupation?

From the study, a total of 32 HIV positive pregnant women works in the formal sector, 31(96.9%) of them adhered to option b+ ART while only 1(3.1%) did not. Also, 54 (96.4%) out of 56 of the women working in the informal sector were adherent to ART while 2(3.6%) were not. Finally, in the unemployed category, 43(76.8%) were adherent to ART while 13(23.2%) were no. This clearly implies that occupation is a determinant of adherence. In agreement, the fourth hypothesis which states that 'There is no significant relationship between level of adherence of the HIV positive pregnant women to Option B+ ART and their occupation', was analyzed with chi square test and P value was calculated to be 0.003 which is less than 0.05 indicating that there is significant relationship between the HIV positive pregnant women's occupation and their level of adherence to Option B+ ART.

The findings above agree with that of Wedminere *et al*. (2022). They carried out a nationwide analysis on adherence to HIV antiretroviral therapy among pregnant and breastfeeding women, non-pregnant women and men in Burkina Faso and identified factors associated with poor ART adherence. From their findings, not having income generating occupations was susceptible to have poor adherence compared to their pairs. Also, Jungmee *et al.* (2018) in their nationwide study assessed adherence to antiretroviral therapy and factors affecting low medication adherence among incident HIV-infected individuals during 2009-2016. Their findings revealed that lower socioeconomic status are among the risk factors for lower adherence. In agreement, Zacharias *et*

al. (2019) investigated the level and predictors of adherence to ART Option B+ among HIV positive pregnant and lactating women in rural and urban setting of Eastern Tanzania. From their findings, they discovered that occupation is one of the determinants of poor adherence to Option B+ ART.

Conversely, Calder *et al.* (2020) in their descriptive cohort study which determined factors that affect adherence to ART among HIV positive women enrolled in a large PMTCT trial in rural North central Nigeria, deduced that there were no differences between adherent and non-adherent participants by occupation. Also, Girma (2016) in his observational cohort study assessed the effectiveness of PMTCT procedures among HIV infected women and their exposed infants in Addis Ababa, Ethiopia and they concluded occupation was not associated with poor adherence. The disparity in findings might be as a result of differences in the understanding of the respondents

CONCLUSION

This study assessed determinants of adherence to option B+ antiretroviral therapy among HIV positive pregnant women attending antenatal clinics at tertiary health institutions in Anambra state. From the study, it was discovered that parity, age, level of education of the HIV positive pregnant women do not have effect on adherence to Option B+ ART in the population used but their occupation determines adherence to their drugs.

RECOMMENDATIONS

The recommendations are that nurses should intensify health education on adherence to ART among the unemployed and those working in the informal sectors and they should not entirely leave the job of caring for the HIV positive pregnant women for the mentor mothers. Also, there should be improvement in the follow up of HIV positive pregnant women by the nurses and mentor mothers.

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Declaration of interest

The authors declare there is no conflict of interest of any form with regards to this study

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