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INFLUENCE OF DEMOGRAPHIC AND SOCIO-CULTURAL VARIABLES ON NON-ADHERENCE TO ANTI-RETROVIRAL THERAPY (ART) AMONG HIV/AIDS PATIENTS ATTENDING A GOVERNMENT OWNED HOSPITAL, ONDO STATE, NIGERIA

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ABSTRACT: An anti-retroviral therapy adherence of at least 95% has been proven necessary in order for treatment to be effective. Failure to meet this level leads to poor immunological and virological outcome. This study assessed the influence of demographic and socio-cultural variables on non-adherence to anti-retroviral therapy (art) among HIV/AIDs patients attending a government owned hospital in Ondo State, Nigeria using a descriptive research design. A total number 110 respondents were recruited using a convenience sampling techniques. Questionnaire with reliability index of 0.70 was used as an instrument for data collection. Data were analyzed using statistical package for social science (SPSS). Descriptive and inferential statistics were used to test the hypotheses. Results were presented in tables and figures. Findings showed that 66(60%) adherence to anti-retroviral therapy which is below 95% adherence rate and 44(40%) do not adhere to ART. The outcome of this study further established that there was a significant relationship between gender (p=0.00), level of education (p=0.00), family support (p=0.00), cultural factor(p=0.00), religion (p=0.00), employment status (p=0.00), poverty (p=0.00) and noncompliance with ART, however, there was no relationship between age (p=0.26), access to clinic (0.31) and non-adherence to ART. This study concluded that, HIV/AIDS patients should therefore be supported in all aspects to promote compliance with the use of Anti-Retroviral Drugs.

KEYWORDS: anti-retroviral, HIV/AIDS, patients, non-adherence,

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INTRODUCTION

According to Sweileh, (2018), Human immune deficiency Virus/ Acquired immune deficiency syndrome (HIV/AIDs) is one of the major public health challenge globally and also in Nigeria. Globally, in 2018, an estimate of 37.9 million has HIV/AIDs and about 1.7 million people were newly infected and total mortality was recorded to be 770,00 (*WHO | HIV/AIDS*, 2018) while in Nigeria an estimate of 1.9 million was documented to have HIV/AIDs in 2019 (Monjok et al., 2010)The HIV virus when presence in the body of the host attack the body's immune system destroys by using the DNA of CD4+ cells to replicate itself and eventually destroying the CD4 cells count. This expose the body to various opportunistic infections and this leads to presentation of symptoms like fever, sore throat, skin rashes, muscles and joint pain, swollen lymph nodes and some other symptoms as it progresses(Blut & Blood',(2016).

In management of HIV, there is need for strict adherence to Anti-retroviral Therapy (ART) (Adeniyi et al., 2018). Adherence can be defined as the sum total process of deciding, commencing, working towards and coping to complete a prescribed given medicinal therapy while non-adherence can be defined as the incoherence, pausing or termination of prescribed therapy in form of missing a dose, overdosing or under dosing of drugs. Non –adherence has an impact on the effectiveness, safety and budget for drug therapy (Gast & Mathes, 2019).

Treatment for HIV/AIDS is accomplished through numerous combinations of antiretroviral agents (Selwyn, Hartel & Lewis., 2016). The use of high level of Antiretroviral Therapy adherence among HIV infected patients helps to suppress the virus (Leyva-Moral etal., 2019 & Adeniyi et al., 2018) and contributes to better treatments outcome as the effectiveness of the drugs depend majorly on stringent adherence to ART (Mitiku et al., 2013; Robbins et al., 2013). When the ART is stringently adhere to with the use of ART 95% or above, it helps to prevent multiplication and overpower the viral load to unnoticeable form and prevent permanent resistance to the medication within a given combination therapy regimen, therefore it is a palliative form to curb the disease advancement (Arts & Hazuda,2012; Chineke et al., 2015) and this subsequently leads to the improvement in the quality of life and makes the patient live longer and healthier hence, morbidity and morbidity related to HIV/AIDs can be controlled (Robbins et al., 2012; Sweileh, 2018; Gebrezgabher et al., 2017; Altice et al., 2019; Olusi, et al., 2019 & Okoronkwo etal., 2013).

Various government agencies have tried to provide drugs and care for HIV/AIDs patients so complications can be reduced and a better life style maintained. But people living with HIV/AIDs do not make use of this opportunity and they fail to adhere strictly to antiretroviral therapy. Studies have established that there is low adherence to use of ART among HIV/AIDs patients and factors identified responsible for this include forgetfulness, fear of side effects, running out of medicine, seeing impossibility in the efficacy of the drugs, stigma, being busy at work, use of alcohol, not being around, improvement in symptoms, long term use of the drug, health workers attitude, having access to medication, uneasiness with AR Drugs as factor militating non adherence to ART (Tsega etal., 2015; Okoronkwo et al., 2013; Mitiku et al., 2013; Weaver et al., 2014; Leyva-Moral et al., 2019; Chineke et al., 2015; Odimegwu et al., 2017 & Bukenya et al., 2019) but there is

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paucity of information on the influence of demographic and socio-cultural factors that influence the non-adherence to ART among HIV positive patients, hence, this study assessed the influence of demographic and socio-cultural variables on non-adherence to anti-retroviral therapy (ART) among HIV/AIDs patients attending a government owned hospital in Ondo State, Nigeria

Objective of the study

The objective of this study is to explore the influence of demographic and socio-cultural variables on non-adherence to anti-retroviral therapy (ART) among HIV/AIDs patients attending a government owned hospital in Ondo State, Nigeria

Hypotheses

H1; There is significant relationship between selected socio demographic variable (gender, age level of education, religion, and occupation) and non-adherence to antiretroviral therapy

H1; There is significant relationship between family support and non-adherence to antiretroviral therapy

H1; There is significant relationship between cultural factor and non-adherence to antiretroviral therapy

H1; There is significant relationship between poverty and non-adherence to antiretroviral therapy **H1;** There is significant relationship between access to clinic and non-adherence to antiretroviral therapy.

METHODOLOGY

Research design

This study employed a descriptive Non-experiment research design

Study Setting

This study was carried out in a government owned Hospital, Ondo State, Nigeria. The hospital has six units which includes; accident and emergency ward, male ward, female ward, maternity ward, children's ward and the theatre. The hospital has a HAART center where HIV/AIDS patients visit to take treatment and follow-up care. The clinic helps in giving drugs, counseling and follow-up of HIV positive patients. The clinic is readily available and accessible to HIV patients.

Target population

The target population for this study was HIV/AIDS patient taking ART treatment.

Sample Size Determination

Total enumeration was used for this study because average of 110 patients attended the clinic; therefore everybody available was used as respondent to this project.

Sampling Technique

A non-probability sample technique of convenience sample technique was used to recruit people living with HIV who were available at the clinic.

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Instrument for Data Collection

A structured questionnaire was constructed by the researchers for data collection.

Validity of the Instrument

The instrument was carefully constructed in line with the objectives of the study after reviewing relevant literature. The instrument was given to expert in the field and necessary corrections were made before administering the questionnaire.

Reliability of the Instrument

A pilot study was conducted in another government owned hospital with similar characteristics as where the main study was done. Reliability of this study was measured by a split half method and the reliability index was 0.70

Method of data collection

The respondents were met and the objectives of the study were explained to them. Informed consents were signed. Research assistants were trained on administration, filling and collection of the instrument. Respondents were met at the hospital and the instruments were administered and retrieved on the spot.

Data analysis

Data analyses were done using SPSS. Descriptive and inferential statistics of chi-square was used to test the hypotheses and results were presented in tables.

Ethical Considerations

Approval was sought from ethical committee of the institution to obtain data. Also informed consent was sought from the subjects while confidentially and anonymity was maintained. Protection of the rights of the study participants was also ensured by giving them due freedom to participate in the study or not to participate. Privacy and confidentially was maintained during study.

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RESULTS

VARIABLES	Responses Frequency		Percentage	
	_	(n=110)		
Gender	Male	43	39.1	
	Female	67	60.9	
	Total	110	100	
	9-17	2	1.8	
Age Groups	18-29	35	31.8	
	30-39	44	40.0	
	40-49	19	17.3	
	50 and above	10	9.1	
	Total	110	100	
	No Formal Education	9	8.2	
Level of Education	Primary	17	15.5	
	Secondary	66	60.0	
	Tertiary	18	16.4	
	Total	110	100	
	Employed	69	62.7	
Employment Status	Retired	4	3.6	
	Students	23	20.9	
	Unemployed	14	12.7	
	Total	110	100	
Religion	Christianity	51	46.4	
	Islam	49	44.5	
	Others	10	9.1	
	Total	110	100	

Table 1: Respon	ndents' Socio-	demographic (Characteristics
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The results as presented in the Table 1 shows that 60.9% of the respondents were female and this indicated that the number of male respondents was much less than the female. The age groups showed very few 2(1.8%) respondents were aged below 18 years. The results on the level of education showed that 60% of the respondents had secondary education while 16.4% were schooled up to tertiary level. It was further shown that 62.7% were currently employed, 20.9% students and 12.7% retired. The distribution of the respondents by religion showed that 46.4% were Christians while 44.5% practiced Islam.

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Non-adherence =44(40%)Adherence =(60%)

The figure 1 above shows that the pattern of the respondents' adherence to HIV treatment indicated that 60% of them adhere to Anti-retroviral Therapy (ART) while 44(40%) do not adhere to ART.

Figure 1: level of adherence and non-adherence to ART.

		Non-Complia		χ^2	Р	
Variables	Response	Use of ART				
	Groups	YES	NO	Total		
	Male	20	23	43		
Gender		(46.5%)	(53.5%)		24.87**	0.00
	Female	46	21	67		
		(68.7%)	(31.3%)			
	Below 30	19	18	37		
		(51.4%)	(48.6%)			
Age (in years)	30 - 39	30	14	44	4.65	0.26
		(68.2%)	(31.8%)			
	40 - 49	10	9	19		
		(52.6%)	(47.4%)			
	Above	7	3	10		
		(70.0%)	(30.0%)			

Table 2: Chi-Square Cross tabulation showing influence of demographic and socio-cultural variables on non-adherence to anti-retroviral therapy

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	No/Primary	5	23	28		
		(17.9%)	(82.1%)			
Level of Education	Secondary	45	21	66	35.26**	0.00
		(68.2%)	(31.8%)			
	Tertiary	16	2	18		
	-	(88.9%)	(11.1%)			
	Employed	60	9	69		
Employment Status		(87.0%)	(13.0%)		28.69**	0.00
	Others	6	35	41		
		(14.6%)	(85.4%)			
	Islam	15	34	49		
		(30.6%)	(69.4%)			
	Others	6	4	10		
		(60.0%)	(40.0%)			
	Total	66	44	110		
		(60.0%)	(40.0%)	(100%)		
	Good	60	9	69		
Family Support		(87.0%)	(13.0%)		38.91**	0.00
	Poor	6	35	41		
		(14.6%)	(85.4%)			
	Total	66	44	110		
		(60.0%)	(40.0%)	(100%)		
	Negative	9	39	48		
Religious Factor		(18.8%)	(81.2%)		27.69**	0.00
	Non-	57	5	62		
	negative	(91.9%)	(8.1%)			
	Total	66	44	110		
		(60.0%)	(40.0%)	(100%)		
	Negative	21	39	60		
Cultural Factor		(35.0%)	(65.0%)		42.02**	0.00
	Non-	45	5	50		
	negative	(90.0%)	(10.0%)			
	Total	66	44	110		
		(60.0%)	(40.0%)	(100%)		
	High	14	37	51		
Poverty		(27.5%)	(72.5%)		35.58**	0.00
	Low	52	7	59		
		(88.1%)	(11.9%)			
	Total	66	44	110		
		(60.0%)	(40.0%)	(100%)	ļ	
	Good	18	19	37		
Access to Clinic		(48.6%)	(51.4%)		5.59	0.31
	Poor	48	25	73		
		(65.8%)	(34.2%)			
	Total	66	44	110		
		(60.0%)	(40.0%)	(100%)		

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The relationship between the respondents' non-compliance with ART and their socio-demographic characteristics was examined using chi-square analysis and the results were presented in the Table 2. There was significant relationship between gender (p=0.00), level of education (p=0.00), family support (p=0.00), cultural factor (p=0.00), employment status (p=0.00), poverty (p=0.00) and noncompliance with ART but there was no relationship between .age (p=0.26), access to clinic (0.31) and non-adherence to ART.

DISCUSSION OF FINDINGS

Figure 1 showed that 66(60%) adherence to anti-retroviral therapy which is below 95% adherence rate and 44(40%) do not adhere to ART. The outcome of this study substantiate the findings of Chineke et al,(2015), Adeniyi et al (2018) & Olusi et al., (2019) that documented high compliance with ART from their study.

From Table 2. It was observed that there was a significant relationship between gender (p=0.00) and non-adherence to ART. The outcome of this study verify the findings of Tapp et al., (2011), Moraes et al., (2014) & Okoronkwo et al., (2013) that documented relationship between gender and compliance with ART. These studies reported non-compliance to ART among men. Also, in this study, level of education (p=0.00) was found to have influence on non-compliance to ART. The outcome of this study was however against a findings that uphold that there was no relationship between level of education and non-compliance to ART (Silva et al., 2009) but the outcome of the study substantiates the findings of Uzochukwu et al., 2009; Akhara et al., 2017 & Okunola et al., 2018) that identified a link between education of HIV positive patients and non-adherence.

From this study, Religion was also found to have a significant relationship with non-adherence to ART among respondents. This findings however does not go in line with the findings of Okunola et al., (2018) that documented religion not part of socio-cultural factors that influence adherence to ART Furthermore, the findings from this study shows that family support has a significant relationship with non-adherence to ART among respondents (p=0.00). The findings of this study corroborate the findings of Weaver et al., (2014) that reported presence of social support as factor that influence adherence to ART. In addition, from this study, cultural factor was also found to have influence on non-compliance to ART among respondents (p=0.00). In the study conducted by Robbins et al., (2012) & Selamu et al., (2017) it was documented that there was a significance relationship between culture and adherence to ART.

Also, employment status of respondents has an influence on non-adherence to ART (p=0.00) from this study, this uphold the findings of Tsega et al., (2015) that identified employment as a factor for non-compliance with ART. Okunola et al., (2018) documented occupation as part of socio cultural factors that influence adherence to ART. This study also reveals that Poverty has an influence on non-adherence to ART (p=0.00) and noncompliance with ART.). The outcome of the study substantiate the findings of Moomba & Wyk, (2019) that documented poverty as part of economic factor that can determine the non-adherence to ART

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Lastly, this study shows there was no relationship between age and non-compliance to ART (p=0.26). The outcome of this study goes in line with the findings of Silva et al., (2009) that reported no relationship between age and non-adherence to ART. However, the findings of this study goes against the findings of Tsega et al., (2015) that identified age as a factor that influence the non-adherence to ART. This study however shows no relationship with access to clinic and non-compliance to ART (p=0.31).this findings conversely contradict the findings of Wakibi et al., (2011) That identified a relationship between accessibility to clinics and non-compliance to ART

CONCLUSION

This study established that there was significant relationship between gender, level of education family support, Religion, cultural factor, employment status, poverty and non-compliance with ART. However, there was no relationship between .age, access to clinic (0.31) and non-adherence to ART.

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