Quality of Life of People Living with HIV/AIDS: The Roles of Clinical and Demographic Factors

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ABSTRACT

The study examined quality of life of people living with HIVAIDS and the roles of clinical and demographic factors. A purposive sample of 210 (59 males and 151 females) PLWHA with age ranged between 18 and 90years participated in the study. A structured questionnaire format was used to gather data and analysed using descriptive and correlation analyses, Analysis of Variance (ANOVA) and Post-hoc analyses. The results revealed that educational qualification and HIV-Serostatus significantly have negative correlation with quality of life. Additionally, physical psychological, level of independence, social relationship, environment and spirituality domains and general health perception significantly have positive correlation with general quality of life. Conversely, age, gender, tested HIV-Positive, consideration of illness, risk factors and CD4 medical outcome have no significant correlation with general quality of life. Specifically, educational qualification negatively related with physical, level of independence, spirituality domains and general quality of life. Similarly, HIV–positive status negatively related with physical and spirituality domains of quality of life. Likewise, HIV-Serostatus significantly have negative relationship with psychological, level of independence and environment domains of quality of life. In addition, risk factors significantly have negative correlation with psychological domain of quality of life. ANOVA showed that participant's educational qualification and HIV-Serostatus significantly influenced quality of life whereby participants with postgraduate degrees and AIDS significantly difference on quality of life. The study concluded that clinical and demographic factors correlated with quality of life of people living with HIV/AIDS and hence should be taking into consideration when assessing PLWHA.

Keywords: *Clinical factors, Risk factors, Educational qualification, Age, Gender, Quality of life, People living with HIV/AIDS.*

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Highlights of this paper

- The study examined quality of life of people living with HIVAIDS and the roles of clinical and demographic factors.
- The results showed that educational qualification and HIV-Serostatus significantly have negative correlation with quality of life. There are correlation among domains of quality of life, general health perception and general quality of life.
- Age, gender, tested HIV-Positive, consideration of illness, risk factors and CD4 medical outcome have no significant correlation with general quality of life.
- ANOVA showed that participant's education and HIV-Serostatus influenced quality of life where participants with postgraduate degrees and AIDS significantly difference on quality of life.

1. INTRODUCTION

Quality of life of people living with human immunodeficiency virus (HIV) and Acquired Immunodeficiency Syndrome (AIDS) has been found to be affected (Webb and Norton, 2004; Rüütel *et al*., 2008; Imam *et al*., 2011; Reis *et al*., 2013; Osamika, 2019). Despite the prevalence of people living with HIV/AIDS in the world, with about 35 million (World Health Organization (WHO), 2015) annual mortality of about 210, 00 people are found in sub-Sahara Africa (UNAIDS, 2016). Since 2010, the estimated prevalence rates of people affected with HIV/AIDS have been reported to be more than 3.1 million Nigerians (Federal Ministry of Health, 2010). This condition only not affects the individual's serious health and socioeconomics (Department of Health and Human Services, 2012) but has ruined the social framework and system of many communities and countries especially in the affected countries (Imam *et al*., 2011). This continues to spread and affect the lives of millions of people in these areas.

However, the expansion of the assessment and diagnosis identification of the chronic nature and impact of the disease has created influences on the quality of life of these people which invariable leads to an increase in the survival rate (Domingues and Waldman, 2014). Monitoring of the clinical factors of PLWHA has been found to be one of the most important tools for following the progress and efforts needed to improve their life and care (Handajani *et al*., 2012; Reis *et al*., 2012; Ministério and Saúde, 2015; Nomoto *et al*., 2015). Particularly, antiantiretroviral therapy increases the survival of PLWHA, through the improvement in their clinical factors and as such becomes very important for concurrent assessment as it maintains their Quality of life (Almeida *et al*., 2014; Cunha *et al*., 2015).

Most studies have shown that socio-demographic factors such as age, gender, education, employment status and income strongly connected with the quality of life of PLWHA (Wachtel *et al*., 1992; Cowdery and Pesa, 2002; Murr *et al*., 2003; Mcdonnell *et al*., 2005; Hipolito *et al*., 2017), no published studies focused on the influence of the levels of education and clinical factors on general quality of life among Nigerian samples, except the few ones that looked at social, environment and physical and psychological domains (Odili *et al*., 2011; Raji *et al*., 2017). Specifically, male gender, asymptomatic, occupation, income *per capita*, religion, a longer time since diagnosis and absence of HIV related symptoms positively correlated with quality of life (Blalock *et al*., 2002; Worthington and Krentz, 2005; Odili *et al*., 2011; Oliveira *et al*., 2015; Tesfaye *et al*., 2018). Clinically, asymptomatic patients have reported better QoL than those with symptoms or AIDS diagnosis, as those with advanced HIV disease and low QoL scores have been correlated (Cohen *et al*., 1998). HIV/AIDS stages have been discovered to significantly have influence on overall quality of life (George *et al*., 2016; Osamika and Mayungbo, 2017) with low viral load and AIDS significantly difference from other groups (Folasire *et al*., 2012; Reis *et al*., 2013). Similarly, illness consideration negatively associated with overall quality of life, as those who do not considered themselves as ill score high on quality of life (Raji *et al*., 2017; Tesfaye *et al*., 2018). Moreover, domains of WHO quality of life including physical, psychological spiritual, level of independence, social and environment have been found to correlate with general quality of life in Nigerian sample but with patients who have and have not started anti-retroviral therapy (Odili *et*

al., 2011; Raji *et al.*, 2017) coupled with the fact that the use of the WHO-BREF instrument in HIV studies in Nigeria is limited (Fatiregun *et al.*, 2009) and the inconsistency findings of relationship among domains, clinical and demographic factors on overall quality of life of people living with HIV/AIDS. Therefore, this study is set to achieve whether domains of quality of life will significantly correlate with their general quality of life, whether clinical and demographic factors will significantly correlates with quality of life and levels of clinical and educational qualification of the PLWHA will significantly different in quality of life. To achieve the mentioned purpose, the following hypotheses were raised.

1. There will be a significant relationship among the domains of quality of life and general quality of life among PLWHA.
2. Clinical and demographic factors will significantly correlates with quality of life among PLWHA.
3. Levels of clinical and educational qualification of PLWHA will significantly different in quality of life.

2. METHOD

2.1. Participant Characteristics

Two hundred and ten (210) PLWHA were sampled for the study with the age ranged between 18 and 90 years. The participants have been diagnosed with HIV/AIDS, attending antiretroviral in Pathology and Haematology Clinic of State Specialist Hospital Akure (SSHA), can read and write in English Language forms their inclusion criteria for the participation in the study. The mean age of 44.46 and standard deviation of 15.74, 59(28.1%) males and 151(71.9%) females, 34 (16.2%) were single, 136 (64.8%) claimed to be married, 28 (13.3%) widowed and 12 (5.7%) had divorced at the time of the study. Sixteen (7.6%) were students, 36(17.1%) unemployed, 99 (47.1%) workers, and 59 (28.1%) involved in business/others involved in the study. Thirty three (15.7%) respondents were primary leaving certificate holder, while 91 (43.3%) were SSCE holder, 46 (21.9%) NCE/OND, 38(18.1%) were HND/BSc holder, no professional certificate holder while 2 (1%) Postgraduates participated in the study.

2.2. Sampling Procedures

At the onset of the research, a proposal was written, submitted and approved by the appropriate authorities. Afterward, the need to apply for ethical committee approval at the research settings arose that lasted for about five weeks before the formal approval of the study in the research setting. A purposive sampling technique was adopted to recruit the participant into the study haven identified the prevalence HIV/AIDS among the participants and the setting, about two hundred and twenty (220) questionnaires were administered (taken to the field) while two hundred and ten (210) questionnaires were retrieved and good for analysis after data collection for about five weeks in the research setting, after the consent of the respondent has been informed coupled with proper information and guidelines on the purpose of the study has been disseminated to the respondent. The names and personal details of the respondents were excluded from the questionnaire in an attempt to ensure them of anonymous and confidentiality of their responses. Each section of the questionnaire was in likert point format response except some of the demographic variables.

2.2.1. Sample Size

At the time of the study, there was no documented prevalence of people living with HIV/AIDS at the clinic. However, the researcher made use of Krejcie and Morgan (1970) sample size determination table to arrive at 210 sample size with an assumed population of about 450 of people living with HIV/AIDS.

2.2.2. Measure

The research instrument was a single pencil and paper questionnaire which was adopted for the collection of data. The questionnaire was divided into two sections which included: Section A consists of eight items that seek information on the respondents' demographic information which includes age, gender, educational qualification and clinical factors: tested HIV-Positive, HIV Sero-status, consider ill, risk factors, medical outcome CD4 count.

Section B contained WHO-BREF Quality of life scale developed by World Health Organization's Quality of Life Instrument (Whoqol Hiv Group) (2003). The scale was designed to measure domains of quality of life in terms of physical, level of independence, social relationships, environment, psychological and spirituality; general quality of life, and general health perceptions. The scale consisted of 31 items reflecting in 5-point Likert-type format, example of the item include "How would you rate your quality of life? How much do you enjoy life? How satisfied are you with your health?". The responses ranged from not all, A little, Moderate Amount, Very Much, and An extreme amount and were scored 1 2 3 4 and 5 respectively. The scale produced six domain scores, that includes Physical (item 3, 4, 14 and 21), Level of Independence (items 5, 22, 23, and 20), Social Relationships (item 27, 26, 25, and 17), Environment (item 12, 13, 16, 18, 19, 28, 29, and 30), Psychological (item 6, 11, 15, 24 and 31), and Spirituality (item 7, 8,9 and 10), while item (1) measured overall quality of life and item (2) measured general health perception with their response format were: very poor, poor, neither poor or good, good and very good. In addition, items (3, 4, 5, 8, 9, 10 and 31) were reversed negatively, while others are directly scored. The Test –Retest Reliability of the scale was 0.99. In this study, the Cronbach alpha was 0.73.

2.2.3. Research Design

The study employed a cross sectional survey research design. The factors examined are clinical factors (included tested HIV-Positive: < 3months, < 6 months, <12 months, 2years, 3years, 3years and above; HIV Sero-status: HIV positive Asymptomatic, HIV positive-Symptomatic, AIDS; consider ill: yes and no; risk factors: injection, sex with others, from husband/wife, blood transfusion; medical outcome CD4: <200, >200), demographic factors are age which in measured in continuous form, gender (male and female), educational status (primary, SSCE, NCE/OND, BSC/BA/BEng, MSc, PhD, Professional) and World Health Organization BREF quality of life (domains included: physical, psychological, level of independence, social relationship, environment, spirituality and a session for general health perception). The was carried out in Pathology and Haematology Clinic at the State Specialist Hospital, Akure South Local Government, Akure, Ondo State, Nigeria.

2.2.4. Ethical Approval

The permission to conduct the study at the Pathology and Haematology Clinic of SSHA, Ondo State, Nigeria, was granted by the Health Research Ethics Committee of State Specialist Hospital, Akure (*Private bag No. 603*). A representative of the Review Board monitored and evaluated the research work to ensure compliance with the research ethical regulations of international, national and institutional guidelines. Both written, verbal informed consents and permission were obtained from each participant of the study before the administration of the questionnaire.

3. RESULTS

3.1. Recruitment

Participants were recruited into the study on the clinic days, which were Mondays and Thursdays. The study including the collection of data lasted for about five weeks in the setting, which was between the first week of July

to the second week of August 2015. Patient's responses to the standardized and structured questions were the sole source of information from the participants of study. The participants of study were people living with HIV/AIDS attending antiretroviral in Pathology and Haematology clinic of the SSHA.

3.2. Participants Flow

Moreover, participants who are tested HIV-Positive: < 3months are 26(12%), 28(13%) are < 6 months, 29(14%) are <12 months, 32(15%) are 2years, 16(8%)are 3years while 16(8%) participants have been diagnosed for 3years and above; On HIV Sero-status: 66(31%) had HIV positive Asymptomatic while 138(66%) had HIV positive-Symptomatic and 6(3%) participants had AIDS at the time of the study. About 144(69%) participants considered themselves ill will 66(31%) did not. Similarly, on the risk factors of the HIV/AIDS, 44(21%) participants claimed they contacted the illness through injection, 69(33%) participants claimed it was through sex with others, 41(20%) participants claimed it was through from husband or wife, while 56(27%) participants claimed through blood transfusion; on medical outcome CD4 counts: 85(40%) participants claimed <200 while 125(60%) claimed >200.

3.3. Statistics and Data Analysis

The data were subjected to descriptive analysis, Pearson Product Moment Correlation analysis for hypotheses one and two, while hypothesis three was subjected to one-way analysis of variance. All data analysis was done using IBM SPSS 20.0. The further results are shown below.

Table-1. Showing the frequency analysis of the clinical factors of people living with HIV/AIDS (PLWHA).

Clinical Variables	Groups	N (%)
Tested HIV-Positive	<3mths	26(12)
	<6mths	28(13)
	<12mths	29(14)
	2yrs	32(15)
	3yrs	16(8)
	3Yrs and above	79(38)
HIV sero-status	HIV positive-Asympt.	66(31)
	HIV positive-Sympt.	138(66)
	AID	6(3)
Consider ill	Yes	144(69)
	No	66(31)
Risk Factors	Injection	44(21)
	Sex with Others	69(33)
	From Husband/Wife	41(20)
	Blood transfusion through CS	56(27)
Medical Outcome CD4	<200	85(40)
	>200	125(60)

Source: Field survey 2015.

Table 1, illustrates the frequency analysis of the clinical factors of the people living with HIV/AIDS. From the results, about most of the participants 79 (38%) have been tested positive on HIV for about three years and above, while about 26(12%) were tested positive on HIV for less than three months at the time of the study. Also, about 138 (66%) participants were on HIV positive symptomatic stage of HIV sero-status while 66(31%) were on HIV positive asymptomatic stage at the time of the study. Most of the participants 144 (69%) considered themselves ill at the time of the study with 69 (33%) of them contacted the virus through sex and 125 (60%) above 200 CD4 medical outcome.

Table-2. Showing the descriptive analysis of the domains and general of quality of life of PLWHA.

Quality of Life Domains	Min.-Max.	$\bar{X}$	SD
Physical	7.0 - 56	13.6	3.8
Psychological	5.0 – 19	12.8	3.2
Level of Independence	10.0 - 63	15.1	4.0
Social Relationship	8.0 -20	13.9	2.3
Environment	13.5 - 37	26.5	4.0
Spirituality	6.8 - 23.2	16.5	2.7
General Quality of Life	68.0 - 159	108.5	13.0

Source: Field survey 2015.

From Table 2, the descriptive analysis of the domains of WHO quality of life were shown, the results shown that participants scored lowest on psychological domain of quality of life with score ranged between 5.0-19, with 12.8 ± 3.2. However, the participants have the highest score on environmental domain of WHO quality of life with the score ranged between 13.5 -37, 26.5 ± 4.0.

From the Table 3, the result revealed that educational qualification (r(210)=-.192, p<.05), HIV-Serostatus (r(210)=-.150,p<.05) significantly have negative correlation with World Health Organization quality of life. This simply mean that, the more the patients educational status and HIV-Sero Status the poorer their quality of life. However, physical (r(210)=.593,p<.01), psychological (r(210)=.747, p<.01), level of independence (r(210)=.456, p<.01), social relationship (r(210)=.558,p<.01), environment (r(210)=.770, p<.01), spirituality (r(210)=.512, p<.01) domains and general health perception (r(210)=.516, p<.01) significantly have positive correlation with World Health Organization quality of life. This implies that the better the patient's domains of quality of life including their physical, psychological, spirituality, social relationship, environment, level of independence domains and their perception of health the better their quality of life.

Hence, age (r(210)=.004, p>.05), gender (r(210)=-.042, p>.05), tested HIV-Positive (r(210)=-.091, p>.05), consideration of illness (r(210)=.032, p>.05), risk factors (r(210)=-.031, p>.05) and medical outcome CD 4 (r(210)=.045, p>.05) significantly have no correlation with World Health Organization quality of life.

Specifically, educational status negatively related with physical (r(210)=-.176,p<.05), level of independence (r(210)=-.190,p<.05) and spirituality (r(210)=-.151,p<.05) domains and general quality of life (r(210)=-.192,p<.01). Similarly, HIV –positive status negatively related with physical (r(210)=-.175,p<.05) and spirituality (r(210)=-.174,p<.05) domains of quality of life. More so, HIV-Serostatus significantly have negative relationship with psychological (r(210)=-.222,p<.01), level of independence (r(210)=-.141,p<.05) and environment (r(210)=-.235,p<.05) domains of quality of life. Additionally, risk factors (r(210)=-.158,p<.05) significantly have negative correlation with psychological domain of quality of life. From these results, hypothesis one and were confirmed and accepted, as there was a significant relationship among the domains of quality of life and general quality of life. Also, clinical factors (HIV Sero-status) and demographic factor (educational qualification) significantly associated with general quality of life.

Table-3. Showing the multiple correlation analysis of clinical, demographic factors and quality of life of people living with HIV/AIDS.

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	$\bar{x}$	SD
1. Age	1																44.46	15.74
2. Gender	.074	1																
3. Educational qualification	-.093	-.046	1															
4. Tested HIV-Positive	.220**	-.028	.118	1														
5. HIV Sero-status	.117	.086	-.008	.031	1													
6. Consider ill	-.101	-.010	.198**	.098	-.204**	1												
7. Risk Factors	.182**	.151*	-.124	.114	.197**	-.264**	1											
8. CD4	.114	-.041	.014	.193**	.033	.099	.320**	1										
9. Physical	-.068	-.055	-.176*	-.175*	.040	-.129	-.014	-.056	1								13.57	3.77
10. Psychological	-.044	-.050	-.030	-.059	-.222**	.032	-.158*	.002	.259**	1							16.52	2.69
11. Level of Independence	.049	.035	-.190**	.021	-.141*	.054	.016	.058	.129	.200**	1						15.14	3.97
12. Social Relationship	.036	.048	-.049	-.035	.002	.109	-.112	.026	.077	.510**	.075	1					13.94	2.33
13. Environment	.082	-.018	-.065	.023	-.235**	.112	-.008	.104	.220**	.643**	.162*	.497**	1				26.53	3.98
14. Spirituality	-.061	-.050	-.151*	-.174*	.013	-.024	.104	-.001	.381**	.252**	-.063	.134	.284**	1			12.81	3.22
15. Health Perception	-.017	-.164*	-.072	.040	-.038	.074	-.077	.034	.308**	.316**	.279**	.229**	.411**	.091	1		3.69	0.94
16. Quality of Life	.004	-.042	-.192**	-.091	-.150*	.032	-.031	.045	.593**	.747**	.456**	.558**	.770**	.512**	.516**	1	108.54	13.01

**. Correlation is significant at the 0.01 level (2-tailed). *. Correlation is significant at the 0.05 level (2-tailed). N= 210.

Source: Field survey 2015.

Table-4. Showing the one-way analysis of variance of the influence of educational qualification on quality of life of people living with HIV/AIDS.

Sources	Sum of Squares	df	Mean Square	F	*P*
Between Groups	2054.856	4	513.714	3.159	<.05
Within Groups	33337.26	205	162.621		
Total	35392.11	209			

Source: Field survey 2015.

From the Table 4, the results revealed that educational qualifications significantly influenced quality of life people living with HIV/AIDS ($F[4,209]=3.14$; $p<.05$). This shows that the level of learning and education acquired by the participants significantly have impact on their quality of life. The post hoc analysis in Table 4.1 shows which level of the educational qualification responsible for the significance.

Table 4.1. Showing the multiple comparisons of the levels of educational qualification on the quality of life of people using least significant difference analysis.

(I) Education Qualification	(J) Education Qualification	Mean Difference (I-J)	Sig.	*P*
Primary	O'level	-.34332	.895	>.05
	NCE/OND	1.57378	.589	>.05
	HND/BSc	5.92504	.052	>.05
	PG	23.03030*	.014	<.05
O'level	Primary	.34332	.895	>.05
	NCE/OND	1.91710	.407	>.05
	HND/BSc	6.26836*	.012	<.05
	PG	23.37363*	.011	<.05
NCE/OND	Primary	-1.57378	.589	>.05
	O'level	-1.91710	.407	>.05
	HND/BSc	4.35126	.121	>.05
	PG	21.45652*	.021	<.05
HND/BSc	Primary	-5.92504	.052	<.05
	O'level	-6.26836*	.012	<.05
	NCE/OND	-4.35126	.121	>.05
	PG	17.10526	.066	>.05
PG	Primary	-23.03030*	.014	<.05
	O'level	-23.37363*	.011	<.05
	NCE/OND	-21.45652*	.021	<.05
	HND/BSc	-17.10526	.066	>.05

*. The mean difference is significant at the 0.05 level.

Source: Field survey 2015.

The Table 4.1 on the multiple comparisons of the significant levels of educational qualification on quality of life; the results showed that, participants with postgraduate (PG) educational qualification ($MD=23$, $p<.05$) significantly difference from other groups of the educational qualification on quality of life. This may probably due to the highest or advance educational qualification which always comes with more knowledge, enlightenment and advancement; this therefore influenced their quality of life. From this result, hypothesis three was confirmed and accepted; educational qualification of the participants significantly influenced their general quality of life.

Table-5. Showing the one-way analysis of variance of the influence of HIV-serostatus on quality of life.

Sources	Sum of Squares	df	Mean Square	F	p.
Between Groups	1765.154	2	882.577	5.433	<.01
Within Groups	33626.96	207	162.449		
Total	35392.11	209			

Source: Field survey 2015.

From the Table 5, the results showed that HIV-Serostatus significantly influence quality of life people living with HIV/AIDS ($F_{[2,209]}=5.4$; $p<.05$). This shows that the levels HIV-Serostatus of the participants significantly have impact on their quality of life. The post hoc analysis in Table 5.1 shows which level of the HIV-Serostatus responsible for the significance.

Table-5.1. Showing the multiple comparisons of the significant difference of the groups of HIV-Serostatus on quality of life.

(I) HIVserostatus	(J) HIVserostatus	Mean Difference (I-J)	Sig.	P
HIVpositive-Asympt.	HIVpositive-Sympt.	1.78524	0.35	>.05
	AIDS	17.89394*	0.001	<.05
HIVpositive-Sympt.	HIVpositive-Asympt.	-1.78524	0.35	>.05
	AIDS	16.10870*	0.003	<.05
AIDS	HIVpositive-Asympt.	-17.89394*	0.001	<.05
	HIVpositive-Sympt.	-16.10870*	0.003	<.05

Source: Field survey 2015.

From the Table 5.1 on the multiple comparisons of the significant groups of HIV Serostatus on quality of life; the results showed that, participants with AIDS (MD=17.8, $p<.05$) significantly difference from other groups of HIV-Serostatus on quality of life. This may probably due to the fact that these participants have already degenerated in general health and as such has affected their quality of life. Therefore, from the result, hypothesis three was confirmed and accepted as levels of HIV Serostatus of the participants significantly influenced their general quality of life.

4. DISCUSSION

The first hypothesis was confirmed as domains of quality of life significantly correlated with the general quality of life. The result showed that physical, spirituality, social relationship, environment, level of independence and psychological domains significantly have positive correlation with the overall quality of life of people living with HIV/AIDS. This outcome consistent with the findings of Raji *et al.* (2017) and Odili *et al.* (2011) findings from their cross sectional study, that domains of WHO of quality of life correlated with the overall quality although among PLWHA who have and have not been listed for antiretroviral therapy. In this study, the quality of life domains were found to be associated with the overall scores among those attending antiretroviral treatment, as most of the participants scored more on the psychological and level of independence domains. This simply showed that participants were effective on their level of independence and even fair psychologically despite their health condition.

Similarly, the second hypothesis was also supported. Among demographic and clinical factors of the people living with HIV/AIDS, educational qualification and HIV-Serostatus significantly have negative correlation with their overall quality of life. This result confirmed the research findings by Wachtel *et al.* (1992). The author stated that various demographics associated with the quality of life as education among other factors impact their perceived quality of life. Also, the result was in line with Murr *et al.* (2003) who established that education, employment status, and income been a demographic variables connect with quality of life, besides personal background including their educational status contributes to quality of life. Likewise, the result explains the advantages that come with education such as improvement, enlightenment and information which invariable impact the quality of life of individual. In Hipolito *et al.* (2017) and Mcdonnell *et al.* (2005) studies, social-demographic factors including educational qualifications were emphasized to influence perceived quality of life of people living with HIV/AIDS.

However, age, gender, being tested HIV-Positive, consideration of illness; risk factors and medical outcome CD4 have no significant correlation with quality of life. This result negate the findings of Blalock *et al.* (2002) and Worthington and Krentz (2005) who revealed in their study that some demographics such like gender associated with quality of life. The variation in the findings possibly was due to the set of participants that involved in the study. In this study, PLWHA who routinely attend antiretroviral clinic, within eighteen and ninety years were used, which may slightly different from Blalock *et al.* (2002) and Worthington and Krentz (2005) findings and as such responsibly for the difference in results. Specially, educational qualification negatively related with physical, level of independence, spirituality and general quality of life among participants that involved in the study. This result underscored the fact that the more individual is scholastic, enlightened and believe in the efficacy of their knowledge and ideals, the less physical, level of independence, spirituality and general quality of life. In the same way, HIV–positive status negatively related with physical and spirituality domains of quality of life.

Additionally, HIV-Serostatus significantly have negative relationship with psychological, level of independence and environment domains of quality of life. This result established the findings of Cohen *et al.* (1998) who stated that serostatus of a patients living with HIV/AIDS determines their life quality, which was also emphasized in Osamika and Mayungbo (2017) results from their study, that stages of HIV/AIDS influenced the quality of life, those who have been progressed in their stages of HIV/AIDS seems to experience poor and negative psychological, environment and independence domains of their quality of life. This is not unconnected with their deterioration in their health status which may conspicuously show in their status.

Furthermore, risk factors significantly have negative correlation with psychological domain of quality of life. The result inconsistent with Oliveira *et al.* (2015) who indicated that some risk factors such like asymptomatic, time of diagnosis and absence of HIV related symptoms related with overall quality of life, however, the result from this study disconfirmed their findings, this may be connected with the fact that this present study basically explored the dimensions of WHO quality of life among PLWHA while the formal doesn't, However, the result supported (Raji *et al.*, 2017) and Tesfaye *et al.* (2018) study's outcome, that illness consideration which is one of the risk factors negatively associated with overall quality of life, as those who do not considered themselves as ill score high on quality of life.

The third hypothesis was also confirmed. Educational qualification and HIV-Serostatus significantly influenced overall quality of life as participants with postgraduate degrees and AIDS significantly difference from other participants respectively. This result retained the findings of Mcdonnell *et al.* (2005); Cowdery and Pesa (2002). The authors discovered that among socio-demographic factors, educational status strongly linked with quality of life of PLWHA, their levels of education interrelated with their life quality.

5. CONCLUSION

The study showed the influence of the clinical and demographic factors in relation to quality of life of people living with HIV/AIDS. The study therefore concluded that educational qualification and HIV-Serostatus significantly have negative correlation with quality of life. Though, the domains of WHO quality of life including physical, psychological, level of independence, social relationship, environment, spirituality domains and general health perception significantly have positive correlation with quality of life of people living with HIV/AIDS. On the other hand, age, gender, tested HIV-Positive, consideration of illness; risk factors and medical outcome CD 4 have no significant correlation with quality of life. Furthermore, educational qualification negatively related with physical, level of independence and spirituality domains and general quality of life. Similarly, HIV–positive status negatively related with physical and spirituality domains of quality of life. More so, HIV-Serostatus significantly

have negative relationship with psychological, level of independence and environment domains of quality of life. Additionally, risk factors significantly have negative correlation with psychological domain of quality of life. Likewise, educational qualification and HIV-Serostatus significantly influenced quality of life whereby participants with postgraduate degrees and AIDS significantly difference from other participants respectively. The study concluded that clinical and demographic factors correlated with quality of life of people living with HIV/AIDS and further recommends that clinical and demographic factors should be taking into consideration when assessing PLWHA.

6. LIMITATION

This study is not without limitation as this was a cross sectional study. Information was retrieved from participants that were available at the time of the study and the study was an hospital based. As such, generalization should be done with caution.

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