



Research Article

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Assessment of Quality of life and Depression among PLWHA receiving highly active anti-retroviral therapy at two tertiary health institutions in Enugu, South East Nigeria

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Abstract

The AIDS epidemic has claimed several lives globally. The introduction of Highly Active Antiretroviral Therapy (HAART) has led to improvement in the quality of life (QOL) of people living with HIV/AIDS (PLWHA). This study assessed Quality of life and Depression among 400 PLWHA receiving highly active anti-retroviral therapy at two tertiary health institutions in Enugu, South East Nigeria using the WHO-QOL BREF and the Beck's depression inventory. 28.5 % and 10% had mild and moderate depression respectively; while 35%; 36.25% and 28.75% respectively had high, moderate and low quality of life. The results were discussed in line with existing literature and recommendations made.

Keywords: Quality of life, Depression, Highly active retroviral therapy, PLWHA.

INTRODUCTION

The AIDS epidemic has claimed several lives globally. In Nigeria, the prevalence has varied from 1.8% of population in 1991 to 3.4% in 2014; with sex workers, gay men and injecting drug users being the most affected [1;2].

Psychosocial impacts of HIV include stigmatization, divorce; denial of employment and in some cases ostracized from the community [3]. Quality of life (QOL) refers to an individual's perceptions of his or her position in life in the context of the culture and value systems in which he or she lives and in relation to their goals, expectations, standards and concerns [4]

Health related quality of life refers to the physical, psychological, and social domains of health, seen as distinct areas that are influenced by persons experiences, beliefs, expectations and perceptions [5] Depression is characterised by such signs as deep sorrow, self dislike, hopelessness, irritability, loss of appetite and suicidal tendencies (DSM-IV TR). Variations in the prevalence of depression among people living with HIV/AIDS has been reported to range from 22% to 71% [6, 7]. A Nigerian study reported a prevalence of 14.4% [8]. Low level of social support, bereavement and poor drug compliance were the major predictors of depression among PLWHA. Depression has been found to be twice among people living with HIV than the general population and leads to low quality of life [9-13]. Studies have shown that as HIV disease progresses the quality of life worsens, but with the introduction of Highly Active Antiretroviral Therapy (HAART) the QOL of people living with HIV/AIDS (PLWHA) has improved [14; 15;]. It has earlier been posited that quality of life, relationships, employment and adherence to medical care of people with HIV/AIDS tend to be influenced by depression. [10] Furthermore, researchers have equally revealed the relationship between depression and low quality of life, suicide, HIV disease progression, increased health care utilization and poor adherence to treatment [13]. Given the paucity of data on quality of life and depression among HIV/AIDS patients on HAART regimen in the study area, the present study determined the association of quality of life and depression among HIV/AIDS patients receiving HAART in Enugu, south east Nigeria. The following hypotheses were tested: (1) there will be no significant difference between quality of life and depression among HIV/AIDS patients on HAART; (2) there will be no significant gender difference between QOL and depression among PLWHA on HAART (3) there will be no significant difference by marital status between QOL and depression among PLWHA on HAART.

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METHODOLOGY

Design: This is a cross sectional descriptive study conducted in Enugu south east Nigeria between the months of September and November 2019.

Subjects: Subjects for the study were patients on HAART attending the HIV/AIDS clinics of the Enugu state University Teaching hospital (Park lane) and the University of Nigeria Teaching hospital, Ituku Ozalla all in Enugu state, south east Nigeria. The centers run 5-day clinic services for HIV/AIDS patients per week with an average daily clinic attendance of 60 patients. A total number of 400 participants were randomly selected from the two centers and enrolled into the study. This number was arrived at using the formula for minimum sample size calculation for a prevalence study [18].

Ethical approval was obtained from the institutions' ethics committee and written informed consent obtained from participants. The purpose and procedure of the study was carefully explained to them. They were assured that their responses will be treated confidentially; no respondent will be identified in person and participation is voluntary. Furthermore, they were assured that non participation will not in any way prevent them from receiving their usual clinical services.

Inclusion criteria were; Patients who are diagnosed HIV-Positive (screened by ELISA and confirmed by western blot technique) and have received HAART for at least 6months, Subjects aged between 18-65 years and those that consented to participate in the study. While the exclusion criteria were; Patients who are too ill to participate, those outside the age range, those who decline consent and those with previous DSM IV axis I diagnosis of depression.

Instruments: The instrument for data collection was made up of 3 parts.

(1) Part one was a socio demographic questionnaire containing information bothering on age, sex, occupation, educational status, religion and marital status.

(2) Part two was the World Health Organization HIV Quality of Life instrument (Brief version) (WHO QOL-HIV BREF). This is a 31-item self-administered instrument that has been used extensively in assessing the quality of life of people living with HIV/AIDS. In the WHO QOL- HIV BREF, higher scores indicate high quality of life. In this study, we categorized quality of life into high, moderate and low for ease of analysis.

(3) Part three was the Becks Depression Inventory version two (BDI-2). This is a 21- item self- rated instrument which measures the presence and degree of depression in Adolescents and adults. Values from 0-3 are used in scoring each item and the total score ranges between 0 -63. Total scores ranging from 0-9 indicates absence of depression; 10-18 indicates mild depression; 19-29 indicates moderate depression; while scores ranging from 30-63 indicates severe depression. The validity and reliability of the BDI-2 has been well established across a broad spectrum of clinical and non-clinical population and has been used extensively in various countries including Nigeria. [19;20;21].

Data Analysis: Data for the study was analyzed using the Statistical package for social science, SPSS version 16.0. Means, standard deviations, percentages and chi square test were performed to find relationships between variables. The level of significance chosen for this study is $p \leq 0.05$ at 95% confidence interval.

RESULTS

Age of respondents ranged from 26-56 years. (Mean age was 38.41 years; while the standard deviation was 6.96). 51.25% of the respondents were males; while 48.75% were females. 31% were single; 51.25% were married; majority (90%) was Christians. Furthermore, 16.5%; 38% and 45.5% had primary, secondary and tertiary education

respectively. Equally 79% were employed. Result further revealed that 61.5% had no depression, while 28.5 % and 10% had mild and moderate depression respectively. No case of severe depression was recorded. With regards to quality of life, 35%; 36.25% and 28.75% respectively had high, moderate and low quality of life respectively as shown in table 1. Significant associations were noticed between quality of life and gender $\chi^2 = 7.96$; $P \leq 0.01$; quality of life and educational attainment $\chi^2 = 16.29$; $P \geq 0.00$; as well as quality of life and depression $\chi^2 = 6.59$; $P \leq 0.03$ as shown in tables 3,4, and 6 respectively.

Table 1: Showing the Distribution of Socio demographic variables of the Respondents

VARIABLES	FREQUENCIES	PERCENTAGE S (%)
Age(In Years)		
26-40	257	64.25
41-56	143	35.75
Gender		
Male	205	51.25
Female	195	48.75
Marital Status		
Single	124	31.00
Married	205	51.25
Divorced/widow/separated	71	17.75
Religion		
Christianity	384	96.00
ATR	16	4.00
Educational attainment		
Primary	66	16.50
Secondary	152	38.00
Tertiary	182	45.50
Employment		
Employed	316	79.00
Unemployed	84	21.00
Depression		
Non depressed	246	61.50
Mild	114	28.50
Moderate	40	10.00
Quality of Life		
Low	115	28.75
Moderate	145	36.25
High	140	35.00

ATR=African traditional religion

Table 2: Showing the relationship between Quality of Life, Depression and age groups

Quality of Life	Age Group (In Years)	
	26-40(N=257)	41-56(N=143)
Low	67 (26.1)	48(33.6)
Moderate	98 (38.1)	47(32.8)
High	92 (35.8)	48(33.6)
	N/S	
Depression		
Non	167 (65.0)	79(55.2)
Mild	67 (26.1)	47(32.9)
Moderate	23 (8.9)	17(11.9)

Table 3: Showing the relationship between Quality of Life, depression and gender

Quality of life	GENDER	
	Male(N=205)	Female(N=195)
Low	48 (23.4)	66 (33.8)
Moderate	87(42.4)	59(30.3)
High	70(34.2)	70(35.9)
	$\chi^2 = 7.96$; $P \leq 0.01$ *	
Depression		
Non	125(61.0)	121(62.1)

Mild	54(26.3)	60(30.8)
Moderate	26(12.7)	14(7.1)
	N/S	

Table 4: Showing the relationship between Quality of Life, Depression, Educational attainment

Quality of Life	Educational Attainment		
	Primary(n=66)	Secondary(152)	Tertiary(182)
Low	26(39.4)	29 (19.1)	59 (32.4)
Moderate	24(36.4)	67 (44.1)	54(29.7)
High	16(24.2)	56 (36.8)	69(37.9)
	$\chi^2 = 16.29; P \geq 0.00^*$		
Depression			
Non	40(60.6)	88(57.9)	118(64.8)
Mild	19(28.8)	51(33.6)	44(24.2)
Moderate	7(10.6)	13(8.5)	20(11.0)
	N/S		

Table 5: Showing relationship between Quality of Life, Depression and marital status

Quality of Life	Marital Status		
	Single(n=124)	married(205)	divorced/widowed/separated(n=71)
Low	38(30.6)	54(26.3)	22(31.0)
Moderate	43(34.8)	73 (35.6)	30(42.3)
High	43(34.6)	78(38.1)	19(26.7)
	N/S		
Depression			
Non	72(58.1)	135(65.9)	39(54.9)
Mild	43(34.7)	47(22.9)	24(33.8)
Moderate	9(7.2)	23(11.2)	8(11.3)
	N/S		

Table 6: Showing the relationship between Quality of Life, depression and employment

Quality of Life	EMPLOYMENT	
	Employed(N=316)	Unemployed(N=84)
Low	94 (29.7)	21(25.0)
Moderate	112 (35.4)	33(39.3)
High	110(34.9)	30(35.7)
	N/S	
Depression		
Non	194(61.4)	52(62)
Mild	96(30.4)	18(21.4)
Moderate	26(8.2)	14(16.6)
	$\chi^2 = 6.59; P \leq 0.03^*$	

DISCUSSION

Result of this study has revealed the presence of mild and moderate depression as well as various levels of quality of life among PLWHA receiving highly active anti-retroviral therapy. For instance, it was found that 28.5% and 10% of the subjects had mild and moderate depression respectively; whereas 35%; 36.25% and 28.75% respectively had high, moderate and low quality of life respectively. This finding corroborates previous reports which found variations in the prevalence of depression among people living with HIV/AIDS [6,7,8]. Furthermore, Depression has been reported to be associated with low quality of life among people living with HIV [9-13] and that as HIV disease progresses the quality of life worsens, but with the introduction of Highly Active Antiretroviral Therapy (HAART) the quality of life of people living with HIV/AIDS (PLWHA) has improved [14; 15;]. The pattern of finding noticed in this study corroborates these previous reports.

Significant associations were noticed between quality of life, and gender $\chi^2 = 7.96; P \leq 0.01$; quality of life and educational attainment and quality of life and depression $\chi^2 = 6.59; P \leq 0.03$. These positive associations reflect the benefits of HAART on the management of HIV/AIDS disease. Furthermore, it has been observed that since the introduction of HAART in 1996, the HIV/AIDS disease has been witnessing improved treatment, leading to increased survival rates and reduced severity of co-morbid medical illness. [14]. The positive association between quality of life and depression noticed in this study was in line with the findings of Treisman and Angelino [13] who had earlier observed similar findings between depression and low quality of life, suicide, HIV disease progression, increased health care utilization and poor adherence to treatment.

CONCLUSION

This study had revealed the presence of only mild and moderate depression with no cases of severe depression among people living with HIV/AIDS receiving highly active retroviral therapy. Improved quality of life was also reported among the respondents. This shows the significance of HAART on the management of HIV disease. There is therefore the need for government to intensify effort in making HAART available to all those with HIV disease. There is also the need to provide routine psychological assessment to PLWA with a view to isolating those with symptoms of depression so that additional psychological help can be given to them to mitigate the negative impact of depression on their quality of life.

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Authors' contribution

The conception, literature review, data collection, proof reading and final approval of the manuscript were jointly executed by the authors.

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Conflicts of Interest

There was no conflict of interest in the study.

REFERENCES

- UNAIDS. Global-AIDS-update. UNAIDS 2016. (Internet). http://www.unaids.org/sites/default/files/media_asset/global-AIDS-update-2016_en.
- Nigeria National Agency for the Control of AIDS, (NACA) 2014. <https://naca.gov.ng/nigeria-prevalence-rate/>
- An, S.F. & Scaravilli, F. Early HIV-1 infection of the central nervous system. Archives of Anatomy and Cytology Pathology, 1997; vol. 45, pp. 94-105.
- Wig N, Lekshmi R, Pal H, Ahuja V, Mittal CM, Agarwal SK. The impact of HIV/AIDS on the quality of life: A cross sectional study in north India. Indian J Med Sci 2006;60:3-12.
- Geurtsen B. Quality of life and living with HIV/AIDS in Cambodia. Journal of Transcultural nursing, 2010;21(4).
- Campos LN, Guimaraes MD, Remien RH: Anxiety and depression symptoms as risk factors for non-adherence to antiretroviral therapy in Brazil. AIDS Behavior 2008, 14:289-299.
- Savetsky, J.B., Sullivan, L.M., Clarke, J., Stein, M.D., & Samet, J.H. Evolution of depressive symptoms in human immunodeficiency virus-infected patients entering primary care. Journal of Nervous and Mental Diseases, 2001,189(2):76-83.
- Adiari, O., Campbell, P.C. Prevalence and Severity of Depression among People Living with HIV/AIDS in a Tertiary Hospital. Nigerian Hospital Practice, 2014, 14, 1-2.
- Ciesla, J.A., & Roberts, J.E. Meta-analysis of the relationship between HIV infection and risk for depressive disorders. American Journal of Psychiatry, 2001, 158:725-730.

10. Rabkin, J.G., Charles, E., & Kass, F. Hypertension and DSM-III depression in psychiatric outpatients. *American Journal of Psychiatry*, 1983, 140:1072-1074.
11. Katon, W.J. Clinical and health services relationships between major depression, depressive symptoms, and general medical illness. *Biological Psychiatry*, 2003, 54:216-226.
12. Wulsin, L.R., Vaillant, G.E., & Wells, V.E. A systematic review of the mortality of depression. *Psychosomatic Medicine*, 1999, 61:6-17.
13. Treisman, G., & Angelino, A. Interrelation between psychiatric disorders and the prevention and treatment of HIV infection. *Clin Infect Disease* 2007; 45(Suppl 4):S313-S317.
14. Collier AC, Coombs RW, Schoenfeld DA et al. Treatment of human immunodeficiency virus infection with saquinavir, zidovudine, and zalcitabine. AIDS Clinical Trials Group. *N. Engl. J. Med.* 1996; 334: 1011-1017.
15. Deeks SG, Smith M, Holodniy M, Kahn JO. HIV-1 protease inhibitors. A review for clinicians. *JAMA* 1997; 277: 145-153.
16. Taylor DW. The calculation of sample size and power in planning experiments. Department of epidemiology and biostatistics. McMaster university. Hamilton Ontario Canada, 1994, 1-23.
17. Judd F, Komoti A, Chua P, et al. Depression in People living with HIV/AIDS attending primary care and outpatient clinics. *Australian and Newzealand Journal of Psychiatry* 2005; 37:70-77.
18. Beck AT, Steer RA, Garbin MG. Psychiatric Properties of the Beck Depression Inventory: Twenty Five Years of Evaluation. *Clinical Psychology Review*, 1988; 8: 77 - 100.
19. Ukpong DI, Owolabi AT. Postpartum Emotional Distress: A Controlled Study of Nigerian Women after Caesarian Child birth. *Journal of Obstetrics and Gynaecology*, 2006; Vol 26 No 2: 127 - 129.
20. Onyebueke GC and Okwaraji FE. Depression and suicide risk among HIV positive individuals attending an outpatient HIV/AIDS clinic of a Nigerian tertiary health institution. *Journal of Psychiatry*, 2015, 18: 182. Doi: 10.4172/1994-8220.1000182.

