

Socio-Economic Factors Influencing the Quality of Life of People Living with HIV/AIDS in Kogi, Nigeria.

Kehinde Charles MOFOLORUNSHO¹, Emmanuel Onwubiko NWANKWO¹, Taiye Babatunde MOFOLORUNSHO².

¹Department of Microbiology, Faculty of Natural Sciences, Kogi State University, Anyigba, Nigeria.

²Department of Arts and Social Sciences, School of Preliminary Studies, Kogi State Polytechnic Osara Campus, Kogi State, Nigeria.

ckmofolorunsho@gmail.com

Abstract: Human Immunodeficiency Virus (HIV) and Acquired Immune Deficiency Syndrome (AIDS) is a major public health problem in Sub-Saharan Africa and have contributed to lowering the life expectancy among those infected. Several factors have been attributed to causing the infection and its prevalence as well as the quality of life of those infected. The aim of this study was to determine the socio – economic factors influencing the quality of life of People Living with HIV/AIDS in Kogi State, Nigeria. A descriptive Cross-sectional study was carried out. The sample included 252 PLWHA from five health care centers recruited through Treatment Support Specialist, themselves PLWHA. The WHOQOL-HIV bref was used to assess each study respondents. Of the 252 respondents, 178 (70%) were in the age group 18 – 35 years, 158 (62.7%) were females, 98 (38.9%) had secondary school education, and 126 (58.3%) had no monthly income. Four variables which included occupation, income, education, and discrimination, showed significant association in relation to at least three of the six quality of life domains. Higher educational levels and income were associated with higher score for quality of life on the Physical health, Psychological health, Level of Independence and Spirituality/religion/personal beliefs domains while those who reported not been discriminated scored higher in all domains. The implication of this study is hinged on the fact that the quality of life of PLWHA as important as it is could be influenced by these factors which could be appropriated to the advantage of improving the quality of life of PLWHA in Nigeria.

[Kehinde Charles MOFOLORUNSHO, Emmanuel Onwubiko NWANKWO, Taiye Babatunde MOFOLORUNSHO. **Socio-Economic Factors Influencing the Quality of Life of People Living with HIV/AIDS in Kogi, Nigeria.** *Nat Sci* 2013;11(8):33-39]. (ISSN: 1545-0740). <http://www.sciencepub.net/nature>. 6

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Introduction

Human Immunodeficiency Virus (HIV) and Acquired Immune Deficiency Syndrome (AIDS), a major public health problem in many developing countries has contributed to lowering the life expectancy among those infected. Of approximately 33.2 million people living with HIV worldwide in 2007, 67% were estimated to be from Sub – Saharan Africa an indication that the region is the most heavily affected. The region also accounted for 68% of new HIV infections among adults (15 – 49); 91% of new HIV infections among children and 72% of the world's AIDS – related deaths in 2008 (UNAIDS, 2007; UNAIDS/WHO, 2009).

An estimated 3.1% of adults between ages 15 – 49 are living with HIV/AIDS in Nigeria. Although the HIV prevalence is much lower in Nigeria than other African countries, infection rate should be considered in the context of the size of Nigeria's population of about 140 million of which an estimated 2.6 million people are infected with HIV (UNAIDS, 2008). This epidemic has also enormously impacted on households, communities and businesses in the country. In 2007, approximately 170,000 people had

died from AIDS alone. With AIDS claiming so many lives, Nigeria's life expectancy has declined significantly with the recent average put at 46 for women and 47 for men (UNAIDS, 2008; NACA, 2009, UNAIDS, 2009).

Nigeria's 2009 HIV/AIDS statistics put the national average of HIV prevalence at 4.6% (NACA, 2009). Regional variations also exist in HIV/AIDS prevalence in Nigeria, probably because of the marked social and ethno-cultural differences at this level. For instance, the prevalence range from a low of 1.0% in the Southwest to a high of 10.6% in the North central parts. Kogi, a state in North central Nigeria has a prevalence of 5.7 (NACA, 2009; FMOH 2003; Olanike *et al.*, 2007).

Despite being the 12th largest producer of oil in the world and the largest in Africa, Nigeria is ranked 158 out of 177 on the United Nations Development Programme (UNDP) Human Poverty Index (EIA, 2007; UNDP, 2008). With this poor economic position, it means that Nigeria is faced with huge challenges in fighting HIV/AIDS epidemic.

Ever since the introduction of Highly Active Anti-Retroviral Therapy (HAART), People Living

with HIV/AIDS has had an appreciable rise in longevity, and can pursue their normal activities however the need for supporting their quality of life has become increasingly important (Fatiregun *et al.*, 2009).

Many different instruments have been developed to describe and quantify quality of life (QoL). These include HIV-specific instruments such as the Medical Outcomes Study – HIV, (Smith *et al.*, 1996) the HIV Overview of Problems – Evaluation System (HOPES) (O’Leary *et al.*, 1998) and the World Health Organization’s Quality of Life instrument module (WHOQOL) for international assessment of HIV/AIDS (The WHOQOL-HIV Group, 2003). The WHOQOL-HIV instrument provides a promising means for quality of life assessment for PLWHA in diverse cultural settings (Peltzer and Phaswana-Mafuya, 2008). Peltzer and Phaswana-Mafuya, (2008) described the analysis of the WHOQOL-HIV BREF, which was given to 607 PLWHA from eight districts of the Eastern Cape Province. Men’s perceived overall QoL, general health perceptions, and psychological QoL were lower than the women’s. Higher education levels were associated with higher scores for perceived overall QoL, general health perceptions, psychological health, level of independence, social relationships and environment, and lower scores on the HIV-symptoms index. Marital status was not associated with any of the WHOQOL-HIV Bref subscales and HIV symptoms index, except for being single, which was associated with greater psychological health.

Adedimeji and Odutolu (2007) in a study conducted in Southwest Nigeria on care support and quality of life outcomes among PLWHA in the highly active anti-retroviral therapy (HAART) era, also identified and ranked certain issues that they considered most important in terms of improving the quality of life of PLWHA some of which included social and economic issues. The issue rated highest was availability of care and social support from family members and close friends (93%). Other highly rated concerns include; financial pressures (89%), stigma and discrimination (87%) among others. Adedimeji and Odutolu’s study findings further confirms earlier studies that psychosocial factors and social support influence health outcomes of PLWHA (Stansfeld *et al.*, 1998). There is also evidence that social support affects health outcomes through its effects on the function of the immune system (Antoni *et al.*, 1990).

Education and employment status have also been seen as factors influencing quality of life of PLWHA based on previous studies on quality of life in relation to education and employment. A study conducted to ascertain the employment status, level of income and quality of life of PLWHAs in Calgary,

Alberta reported that 59% had attended or completed College/University, 58% were employed while mean monthly household income was \$3,922. The research also showed that employment appeared to be a stronger predictor of quality of life (Catherine and Hartmut, 2004).

The aim of this study was to explore the socio-economic characteristics and perceived factors influencing the quality of life of PLWHA using the WHOQOL-HIV Bref. Limited studies have been conducted using this instrument in our environment (Fatiregun *et al.*, 2009).

Materials and Methods

Methods

This descriptive cross sectional study was carried out in Kogi state Nigeria. The study population were a sample of 252 PLWHA from five healthcare facilities: Federal Medical Centre *Lokoja* (47); MTN foundation PAAC (Partner Against AIDS in the Community) *Obangede* (60); St. John’ Catholic Hospital *Kabba* (56); Grimard Hospital *Anyigba* (53) and the Evangelical Church of West Africa Hospital *Egbe* (36).

Owing to the already established relationship with the study participants, ten Treatment Support Specialists (TSS) themselves PLWHA, were trained as data collectors to conduct face – to – face interviews at these health facilities. The criteria for inclusion were PLWHA who were at least 18 years old and who were able to respond to an interviewer – administered questionnaire. The TSS obtained the participants’ informed consent before conducting the interview. All participants gave their consent to the study.

Study instruments

The World Health Organization Quality of Life HIV-Bref instrument was used for the evaluation of quality of life. The WHOQOL-HIV Bref is based on the WHOQOL-HIV measure, one of the two World Health Organization’s Quality of Life instruments for use with HIV – infected population (O’Connell *et al.*, 2003). This instrument is intended for cross – cultural use and is meant to be accessible to researchers in low – income countries without incurring the financial costs associated with acquiring copyright permission for the use of survey instruments developed in economically richer nations. Various versions of the WHOQOL-HIV have been used in Italy, (Starace *et al.*, 2002) Taiwan, (Fang *et al.*, 2002) India (Chandra *et al.*, 2006) and Rwanda (Hakuzimana *et al.*, 2006). It comprises of 31 items with each using a five point likert type scale distributed into six domains. The six domains of quality of life are: Physical health domain (measures pain and discomfort; energy and fatigue; sleep and rest), Psychological health domain (measures positive feelings; thinking, learning, memory and concentration; self-esteem; bodily image

and appearance; negative feelings), Level of independence domain (measures mobility; daily life activities; dependence on medications or treatments; and work capacity), Social relationship domain (include personal relationships; social support; and sexual activity), Environment domain (measures physical safety and security; home environment; financial resources; health and social care: accessibility and quality; opportunities for acquiring new information and skills; participation in and opportunities for recreation and leisure activities; physical environment), Spirituality/Religion/Personal beliefs domain (measures forgiveness and blame; concerns about the future and death and dying) (Fleck, 1998).

Statistical analyses

The data were cleaned, coded, entered and analyzed using the Statistical Package for the Social Sciences (SPSS) software version 14.0. Basic

statistical analyses consisted of summaries of respondents' socio-demographic characteristics. Each of the six domains measuring quality of life of the respondents was subjected to one-way analysis of variance (ANOVA) and the student t-test to determine the factors that were significantly associated with quality of life of the respondents. The level of statistical significance was set at $P < 0.05$.

Results

The respondents' who participated in the study were in the age range 18 to 58 years with 70.7% in the age group 18 – 35 years. About 62% were females. The majority were Ebira (25.8%) and Igala (25.8%) by ethnicity and Muslim (45.2%) by religion. About 39% had secondary school education, 39.7% were traders and 51.6% were married. Of the 216 respondents who reported income, 58.3% had no monthly income (Table 1).

Table 1. Socio-demographic status of respondents

Variables	N	%
Age (n=252)		
18 – 25	102	40.5
26 – 35	76	30.2
36 – 45	43	17.0
46 – 55	25	9.9
>56	6	2.4
Gender (n=252)		
Male	94	37.3
Female	158	62.7
Tribe (n=252)		
Yoruba	60	23.8
Ebira	65	25.8
Igala	65	25.8
Bassa	13	5.2
Others	49	19.4
Marital status (n=252)		
Married	130	51.6
Single	60	23.8
Widowed	26	10.3
Divorced	16	6.3
Separated	12	4.8
Cohabitation	8	3.2
Educational status (n=252)		
Primary	72	28.5
Secondary	98	38.9
Tertiary	38	15.1
Not at all	44	17.5
Occupation (n=252)		
Teaching	16	6.3
Civil service	24	9.5
Trading	100	39.7
Farming	14	5.6

Housewife	28	11.1
Students	34	13.5
Others	36	14.3
Individual income (216)		
Income	90	41.7
No income	126	58.3
Religion (n=252)		
Catholic	52	20.6
Protestant	82	32.5
Islam	114	45.2
Traditional	2	0.8
Others	2	0.8

In the one – way analysis of variance (ANOVA), three variables perceived to influence the quality of life (QoL) of PLWHA showed a statistically significant association in relation to at least three of the six quality of life domains. These variables included occupation, income and education. Domain scores were scaled in a positive direction. Scores ranged from 4 to 20, with a higher score indicating a better QoL.

A significant association was observed with respect to respondents' occupation in relation to the domains Physical health, Psychological health, Level of independence, Social relationship and Environment. Housewives and students scored higher in the Physical health, Psychological health and Spirituality/religion/personal beliefs domains (Table 2).

The association between the respondents' income and their quality of life was significant for five of the six domains (Table 3). On comparing participants who had income below \$7 with those who had income of above \$34, the latter group scored higher on the domains; Physical health, Psychological health, Level of independence and Spirituality/religion/personal beliefs.

Table 2. Quality of life and respondents' occupation

Domain	Teaching mean±sd	Civil Service mean±sd	Trading mean±sd	Farming mean±sd	Housewife mean±sd	Student mean±sd	Others mean±sd	p-value
Physical Health	13.5±1.2	15.0±2.5	15.7±2.4	14.9±2.7	16.5±2.7	16.5±2.7	13.7±1.8	0.000
Psychological Health	13.2±2.0	14.7±2.3	15.8±2.9	14.2±1.5	16.6±1.8	16.6±1.8	13.7±2.6	0.000
Level of independence	13.3±1.4	14.0±1.4	14.6±2.0	14.2±1.5	14.3±1.2	14.3±1.2	13.3±1.6	0.003
Social relationship	12.5±2.9	13.5±2.3	13.5±2.8	13.2±2.0	14.0±1.6	14.0±1.6	11.8±2.0	0.005
Environment	11.9±1.9	13.8±1.8	13.3±2.0	12.9±2.0	13.9±0.8	13.9±0.8	12.5±1.4	0.000
Spirituality	15.7±2.5	16.6±2.0	15.8±3.6	14.6±3.7	16.5±4.0	16.5±4.0	14.7±2.4	0.142

Analysis of Variance

Table 3. Quality of life and respondents' income status

Domain	below \$7 mean±sd	\$7 – \$34 mean±sd	above \$34 mean±sd	p-value
Physical Health	13.4±2.2	16.0±2.2	17.4±1.7	0.000
Psychological Health	13.6±3.0	15.2±2.8	17.8±0.8	0.000
Level of independence	13.1±1.5	13.9±1.7	15.2±2.4	0.001
Social relationship	12.2±2.1	13.2±2.3	14.6±2.2	0.005
Environment	12.8±2.0	12.8±2.0	13.4±1.3	0.732
Spirituality	14.5±3.8	17.0±3.0	19.6±0.5	0.000

Analysis of Variance

The comparison of educational level found that higher educational levels were associated with higher score for quality of life for domains Physical health, Psychological health, level of independence and Spirituality/religion/personal beliefs. The educational status of respondents was significantly associated with three dimensions of the respondents' quality of life (Table 4).

Table 4. Quality of life and respondents' level of education

Domain	Informal mean±sd	Primary mean±sd	Secondary mean±sd	Tertiary mean±sd	p-value
Physical Health	13.5±2.0	15.3±2.4	15.6±2.6	15.7±2.6	0.000
Psychological Health	13.8±2.4	15.3±2.8	15.3±3.0	14.9±2.3	0.027
Level of independence	13.8±1.4	14.1±1.8	14.5±2.1	14.3±1.9	0.241
Social relationship	12.2±2.0	13.5±3.1	13.3±2.0	13.3±2.8	0.045
Environment	12.8±1.5	13.2±2.0	13.2±1.8	13.2±2.1	0.561
Spirituality	15.4±2.8	15.4±3.3	16.1±3.6	15.7±4.0	0.519

Analysis of Variance

Discrimination played a significant role on the quality of life of the respondents as it was significantly associated with all six domains measuring the quality of life of the respondents. Those who reported never been discriminated scored higher in all domains when compared to those who reported been discriminated (Table 5).

Table 5. Discrimination and quality of life

Domain	Discriminated mean±sd	Never discriminated mean±sd	p value
Physical Health	14.3±2.4	16.0±2.5	0.000
Psychological Health	13.9±2.6	15.9±2.7	0.000
Level of independence	13.5±1.8	14.8±1.7	0.000
Social relationship	12.2±2.0	14.0±2.6	0.000
Environment	12.6±1.5	13.6±2.1	0.000
Spirituality	15.1±3.2	16.1±3.6	0.035

Independent Samples Test

Discussion

In this study, certain factors were identified as having significant association with quality of life of 252 PLWHA. These include occupation, income, education and discrimination. Some of which were observed from previous studies to affect quality of life of PLWHA. Among these socio – economic variables, having a higher level of education and earning higher income were identified as factors for improved quality of life. Peltzer and Phaswana – Mafuya (2008) examined health related QoL in a sample of HIV-infected South Africans and found that having sufficient food to eat, a higher educational level, and receiving a disability grant were related to QoL. Kovacevic *et al.*, (2006) found among Croatian HIV – infected individuals that health status, a “currently ill” status, and educational level were predictors for QoL. Education, employment and income are interconnected and cannot be disassociated from each other. As observed, when people have less education, their employment status is affected, ultimately affecting their income which will in turn affect their level of coping capability and attitude to life. This may explain why education and employment are seen to have a significant effect on QoL among the respondents of this study.

Stigma and discrimination against PLWHA is widespread in Nigeria and other African countries and involves all strata of the society including religious bodies that normally should provide succor (Adebajo

et al., 2003; Olley *et al.*, 2004). This study found that on comparing all WHOQOL – HIV bref domains for persons who reported been discriminated versus those who reported never been discriminated, the latter group scored significantly higher on the domains. Discrimination as observed in this study does play an important role in influencing quality of life of PLWHA as there were significant associations regarding all quality of life domains and discrimination. Previous studies have shown that discrimination influences the use of HIV related prevention and care services; and adversely affects the psychological, sexual and physical health of PLWHA, (Chesney and Smith, 1994; Wingood *et al.*, 2007) perhaps a reason for the observed low record number of PLWHA in the study centres. Social support also influences health outcomes of HIV infected individuals particularly the family which is an important component of the immediate environment of the patient. With a good and supportive home environment, PLWHA can be safe, secured and feel better (Stansfeld *et al.*, 1998; Wig *et al.*, 2006).

Fatiregun *et al.*, (2009) in a study conducted to assess the quality of life of PLWHA in Kogi State Nigeria, reported that PLWHA had a lower quality of life in the social relationships and environment domains which they attributed to discrimination as well as poor living conditions in their physical environment. Adedimeji and Odutolu (2007) having identified issues they considered most important in

terms of improving quality of life of PLWHA, rated social support, stigma and discrimination on the high amongst others.

Conclusion

It is apparent from this study that the under studied factors have implications for strategies in supporting PLWHA since they are crucial in the determination of their well-being. However, effective strategy in supporting PLWHA will require renewed government efforts and commitment to multi-sectorial plans against HIV/AIDS in the country.

Corresponding Author:

Kehinde Charles MOFOLORUNSHO
Department Of Microbiology, Faculty of Natural
Sciences, Kogi State University, P.M.B 1008,
Anyigba, Nigeria.
Email: ckmofolorunsho@gmail.com

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