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Family Functioning of HIV-Seropositive Patients in a Tertiary Hospital in South-South Nigeria

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A B S T R A C T

Combined Antiretroviral therapy has markedly reduced HIV-related death. The life expectancy of PLHIV is now similar to that of the general population. Psychosocial and socioeconomic supports, best obtained from the family members, is a major determinant of quality of life (QOL) of PLHIV. This study assessed the family functioning of patients attending ART clinic of Irrua Specialist Teaching hospital, Irrua, as a measurement of their accessible family support and their satisfaction with their family. A descriptive cross-sectional study design in which 230 consenting PLHIV attending ART Clinic in ISTH, Edo State, Nigeria were systematically selected. A structured questionnaire for sociodemographic and clinical profiles of participants, Smilkstein's Family System Apgar Questionnaire, and WHOQOL-HIVBREF was used for data collection. Data were analyzed with IBM SPSS version 20.0. Two hundred and sixteen (93.9%) of the participants had functional family. The QOL of the participants is strongly dependent on their family functioning in all QOL domains, except the spiritual/Religious/Personal belief domain. The family functioning is not affected by Gender, Age, HIV-status of partners, level of education or the WHO clinical stage of the participants. The only factor significantly affecting the family functioning of the participants is their marital status. Participants who are married or cohabiting had better family functioning than others. Healthcare provider in care of PLHIV should mandatorily look into the psychosocial life, especially the family functioning of their clients. The family functioning of these patients determined their QOL and other outcomes. They should be encourage to married or abide in their marriage as those who are married had better family functioning.

Introduction

HIV/AIDS, since early 1980s, when the first few cases were reported has evolved to become a pandemic of global concern (Micheala Murphy *et al.,* 2021; National AIDS/STIs control program, 2016). Since the beginning of the epidemic, estimated average of 88.4 million people have been infected with the HIV virus and about 42.3

million people have died of HIV (UNAIDS, 2024). Globally, about 39.9 million people were living with HIV at the end of 2023. An estimated 0.6% of adults aged 15–49 years worldwide are living with HIV, although the burden of the epidemic continues to vary considerably between countries and regions (UNAIDS, 2024). The WHO African Region remains most severely affected, with one in every 30 adults (3.4%) living with HIV and accounting for more than two-thirds of the people living with HIV worldwide (UNAIDS, 2024). Nigeria at the start of 2024 has about 2.45 million cases of HIV (HIV statistics, 2023). With HIV rate of over 1%, Nigeria is classified as having Generalized HIV epidemics by UNAIDS (HIV statistics, 2023).

The use of combined antiretroviral therapy and other supportive care has markedly reduced HIV-related death (HIV-CASUSAL Collaboration, 2010; Wang-Da Liu *et al.,* 2020). The life expectancy of People Living with HIV (PLHIV) is now comparable with HIV-seronegative individuals (Wang-Da Liu *et al.,* 2020). HIV infection can now be regarded as a chronic disease requiring lifelong use and adherence to Antiretroviral and other therapeutic measures (HIV-CASUSAL Collaboration, 2010; Wang-Da Liu *et al.,* 2020). Despite the reduction in the HIV-related death, the disease is a major immunosuppressing condition facilitating morbidity of opportunistic and non-opportunistic infections and conditions (Wang-Da Liu *et al.,* 2020; Marta Sistere-Oro *et al.,* 2022). A main objective of HIV care is to sustain immunocompetency or markedly slow down progression to immunosuppressive states (Marta Sistere-Oro *et al.,* 2022). Good adherence to care, quality of life and eventual outcomes of PLHIV, like other chronic diseases, is significantly dependent on socioeconomic and psychosocial supports accessible to the patient (Jenni M Wise *et al.,* 2022). This support can be obtained from friends, neighbor, colleagues, and family members (Yi-Ching Lynn Ho *et al.,* 2022).

The best caregiver and psychosocial supporters of PLHIV as well as other chronic disease are the family members (Yi-Ching Lynn Ho *et al.,* 2022). Immediate family members hardly dissociate themselves from the infected individuals despite the HIV-associated stigma. However within a family, the quality of support available to PLHIV is dependent on level of family intimacy (Jenni M Wise *et al.,* 2022; Yi-Ching Lynn Ho *et al.,* 2022). Family support plays important role in patient's ability to make healthier choices (Yi-Ching Lynn Ho *et al.,* 2022). Family support reduces stress related symptoms and signs among people (Jenni M Wise *et al.,* 2022; Yi-Ching Lynn Ho *et al.,* 2022). It reduces the chances of becoming sick or die from the disease (Jenni M Wise *et al.,* 2022; Yi-Ching Lynn Ho *et al.,* 2022). Patients without social support were more likely to die from the disease compared to their counterpart with social support. Family support will help patients adhere to their medications, keep medical appointments, monitor their health indices, get regular exercise and eat healthier foods (Jenni M Wise *et al.,* 2022; Yi-Ching Lynn Ho *et al.,* 2022).

Functional family is one which is able to provide the emotional, psychological and physiological needs of its members (Henry, 1978). The capacity of the family system to meet the needs of its members through developmental transitions is called Family Function (Henry, 1978; Afolabi *et al.,* 2013). Programs and interventions dealing with family functioning focus on improving family relationships and the overall functioning of the family (Henry, 1978; Afolabi *et al.,* 2013). It is therefore crucial to measure family functioning so that caregivers can provide informed support, tailor intervention and measure outcome for both the individual, and the entire family.

There are different methods of assessing family functioning (Dai and Wang, 2015). Methods other than self-questionnaire are time consuming, costly and require extensive training and expertise to administer. Such methods are more comprehensive than self-report questionnaire but not always feasible or clinically indicated (COPMI Family functioning, 2024). The self-report questionnaire has the advantage of being relatively quick and cost-effective. It can gather information about the attitudes of individuals within the family; identify differences in attitude between family members and target specific aspect of Family Functioning relevant to the clinical or research questions. Self-report questionnaires' can be useful during the screening process to identify high and low risk families (COPMI Family functioning, 2024). Self-reporting family functioning measuring tools include: Family environment scale, Beaver's self- report family inventory, Family Adaptability and cohesion evaluation scale IV, Family assessment device, Family assessment measure III and Family APGAR (COPMI Family functioning, 2024).

Family APGAR was selected because of its acceptable reliability, validity, and ease with which it could be administered. Family APGAR is a family therapy rating

system in which the name APGAR contains the first letters of five words; Adaptability, Partnership, Growth, affection, and Resolve. That represents the questionnaire categories (COPMI Family functioning, 2024).

This study assessed the Family functioning of PLHIV accessing care in Irrua Specialist Teaching Hospital, Irrua as a means of determining the strength of family support for the patients as well as prognosticating the likely quality of life and other outcomes of HIV in this population. The findings of this study will also provide baseline data for subsequent studies as this is the first time a family functioning study was done in the centre.

Materials and Methods

Study setting and design

This study is a descriptive cross-sectional design conducted at the Antiretroviral Therapy (ART) clinic of Irrua Specialist Teaching Hospital (ISTH) Irrua, Edo State, south-south geopolitical region of Nigeria in 2016, with 3.1% as prevalence of HIV/AIDS (AVERT, 2016).

Study population and participants

The study population was PLHIV at the ART clinic of ISTH Irrua. Two hundred and thirty participants on Highly Active Antiretroviral Therapy (HAART), for not less than a year, were recruited by systematic random sampling from the study population. Excluded were patients with pregnancy and co-morbidities such as diabetes mellitus, depression, HIV-encephalopathy, obesity, seizure disorders and hypertension.

Sample size and sampling technique

The minimum sample size for the study was determined using the formula for proportion; $n=z^2pq/d^2$, where 'n' is the desired sample size, 'z' is the normal standard deviation for the required level of confidence (1.96), 'p' is the estimated prevalence of 83% or 0.83 from a previous study (Motilewa *et al.,* 2015), 'q' is 1-p and 'd' is the tolerable margin of error (set at 5% or 0.05). This gave a calculated sample size of 216, which was adjusted (based on 5% attrition rate) to 228, and rounded up to 230 HIV infected adults as sample size for the study. Eligible participants were consecutively recruited by systematic random sampling till the sample size was obtained. To calculate the k-value (i. e. sampling interval), the total number of adult PLHIV seen during the period of the study was divided by the sample size. The average number seen per month is 480, therefore, for a study that spanned over 3 months, the k-value was calculated as (480x3)/230 or 6.26. This made every 6th adult participant who meets the eligibility criteria to be recruited for the study. The first participant was selected using a simple random sampling with ballot of numbers one to six. The second and subsequent participants were selected at interval of six. No participant was selected twice.

Ethical Consideration

Ethical approval was obtained from the Ethical Review Committee of ISTH, Irrua and informed consent was obtained from each participant.

Data Collection

Data collection was done using a three-sectioned structured-questionnaire, administered on consenting PLHIV who met the inclusion criteria for the study.

The section A consisted of information regarding sociodemographic and clinical characteristics such as age, sex (gender), marital status, occupation, education level, place of residence, date of first enrolment, CD4 cell count, HIV status of partner, status disclosure and WHO clinical stage of participants.

Section B contained a structured questionnaire for assessing family functioning: Smilkstein's Family APGAR scale (see table 1).

Section C consisted of a structured questionnaire on assessment of quality of life: the WHOQOL-HIV BREF instrument. WHOQOL-HIVBREF is a shorter version of WHOQOL-HIV instrument and also explores six domains of the quality of life. It has a total of 31 questions used to ask respondents to rate themselves on their quality of life during the two weeks preceding the interview (WHO, 2022).

Statistical analysis of data

After appropriate verification, the data were transferred into a master sheet and analyzed using IBM SPSS 20.0 software. Data collected from the study questionnaire were entered using numerical codes. Frequency distribution tables of variables were generated.

Statistical comparison of variables was done using the Chi-squared test for categorical variables, Students' t' test (comparison of two means) and analysis of variance (comparison of more than 2 means) for continuous variables. A p-value of <0.05 was considered statistically significant.

Results and Discussion

The sociodemographic characteristics of the participants are as shown in Table 2 below. The age range of the participants was 20 to68 years, and the mean age is 41.13±9.96 years.

Clinical profiles of the participants are as shown in Table 3. Using the WHO clinical staging of the participants, 174 (69.6%) participants were in stage 1, 32 (13.9%) in stage 2,14 (6.1%) in stage 3, and 10 (4.3%) in stage4. The CD4 cell count of 160 (69.6%) participants was ≤ 500 cells/mm3 while count for the remaining 70 (30.4%) was >500 cells/mm3.

Concerning duration on HAART, 171 (74.4%) participants had been on the ART drugs for 1-5 years, 58 (25.2%) for 6-10 years, while only 1 (0.4%) had been on the drug for up to 11 years. The body mass index (BMI) was normal for 135 (58.7%) participants (18.5-24.9 kg/m2), 82 (35.6%) participants were overweight (BMI 25.0-29.9 kg/m2), while 13 (5.7%) were underweight (BMI < 18.5 kg/m2). Two hundred and twenty-four participants (97.39%) had good adherence to antiretrovirals, while only 6(2.61%) had poor adherence to medications (Table 3).

Family Functioning of the Participants

Based on the 230 respondents to the Smilkstein's Family System Apgar Questionnaire used in the study, 74 (32.2%) had highly functional family; majority, 142 (61.7%) had moderately functional family; while only 14 (6.1%) had dysfunctional family. See figure 1.

Mean Quality of Life Scores of Participants (Adewuyi and Adewuyi, 2023)

The mean quality of life scores of participants for each domain and the overall score is as shown on Table 4.

Physical domain: The mean QOL Score at 95% Confident Interval (CI) is 15.83±0.28.

Psychological Domain: The mean QOL score at 95% CI was 15.07±0.24.

Level of Independence Domain: The mean QOL score at 95% CI was 14.95±0.26.

Social Relationship Domain: The mean QOL Score at 95% CI is13.49±0.28.

Environment Domain: The mean QOL Score at 95% CI is 13.45±0.20.

Spiritual/Religion/Personal Beliefs Domain: The mean QOL score at 95% CI is 16.33±0.36

Overall: Mean Overall quality of life score is 89.13±1.18 at 95% CI.

Family Functioning and Some Characteristics of Participants

Chi square test was done to determine the impact of some characteristics of the participants on their family functioning taking p-value ≤0.05 as significant. Gender (Sex), Age, Partner's HIV status, Educational status, HIV status disclosure and the WHO clinical stage of the participants had no significant relationship with the family functioning. The only characteristic which had significant impact on the family functioning of the participants is their marital status. (see Table 5 below)

Family Functioning and Marital Status of Participants

Table 6 shows the chi square test of the relationship between family functioning and marital status of participants. Most of the participants (142) had moderately functional families and 74 had highly functional families. Among the 74 participants with highly functional families, 49 (66.22%) are married, Widows/widowers and singles constitutes 13.52% and 17.57% respectively. The X^2=25.30 and the p-value=0.005, hence it is significant.

Relationship between Family Functioning and Quality of Life of the Study Participants (Adewuyi and Adewuyi, 2023)

Table 7 showed the relationship between Family Functioning and Quality of Life of the study Participants.

The inferential statistical analysis was done using Analysis of variance (ANOVA). Seventy-four participants had high functional family, 142 participants had moderately functional family, while only 14 participants had dysfunctional family.

For the overall QOL, the mean QOL score for the highly functional families was 92.2±7.4. It was higher than mean QOL score for the moderately functional and dysfunctional families, which were 87.4±9.3 and 90.4±8.7 respectively. Overall, perceived family functioning had statistically significant association with QOL. (F=7.39, P<0.001)

In the Physical Health domain, the mean QOL score for the highly functional families was 16.3±1.8, while the mean QOL scores for the moderately functional and dysfunctional families were 15.5±2.4 and 16.5±2.3 respectively. Perceived family functioning had statistically significant association with QOL in the Physical Health domain (F=3.34, P=0.04).

In the Psychological Health domain, the mean QOL score for the highly functional families was 15.6±1.7, and those of the moderately functional and dysfunctional families were 15.5±2.4 and 16.5±2.3 respectively. There was statistically significant association between Perceived family function and QOL of Participants in this domain. (F=9.77, P=0.0001)

In the level of Independence domain, the mean QOL score for the highly functional families was 15.5±1.6, and it was 14.8±1.9 and 15.7±2.1 respectively. The Perceived family functioning had statistically significant association with the QOL in this domain. (F=3.79, P=0.024)

There is statistically significant association between the Perceived family functioning and QOL in the Social relationship domain. (F=6.99, P=0.001). The mean QOL scores in this domain were 14.2±2.3, 13.3±1.9 and 12.1±2.6 for highly functional, moderately functional and Dysfunctional families respectively.

In the Environmental domain, the mean QOL scores were 14.0±1.3, 13.2±1.5 and 13.4±1.2 for highly functional, moderately functional and Dysfunctional families respectively. There is statistically significant association between family functioning and QOL in the Environment Health domain. (F=6.89, P=0.001)

Table.1 Smilkstein's Family System Apgar Questionnaire (COPMI Family functioning, 2024)

	Almost Always	Some of the Time	Hardly Ever
1) I am satisfied that I can turn to my family for help when something is troubling me.			
2) I am satisfied with the way my family talks over things with me and shares problems with me.			
3) I am satisfied that my family accepts and supports my wishes to take on new activities or directions.			
4) I am satisfied with the way my family expresses affection and responds to my emotions such as anger, sorrow and love.			
5) I am satisfied with the way my family and I share time together.			

Rating Scale:
Almost Always = 2 pts.
Some of the Time = 1 pt.
Hardly Ever = 0 pts.

Scoring:
8-10 = Highly Functional
4-7 = Moderately Dysfunctional / functional
0-3= Dysfunctional

Table.2 Sociodemographic Characteristics of the Participants

Variables	Frequency (n=230)	Percent (100%)
****Age (in years)**		
20-29	25	10.9
30-39	83	36.1
40-49	69	30.0
50-59	45	19.6
60-69	8	3.4
****Age (in years)**		
15-45 (Reproductive age group)	159	69.1
46-64 (Middle age)	69	30.0
≥65 (Elderly)	2	0.9
Gender		
Male	62	27.0
Female	168	73.0
Highest Educational level		
No formal education	13	5.7
Primary	75	32.6
Secondary	79	34.3
Tertiary	63	27.4
Occupation		
Artisan	23	9.9
Civil servants	28	12.2
Driving	4	1.7
Farming	29	12.6
Students	10	4.3
Tailoring	7	2.2
Teaching	5	3.0
Trading	97	42.4
***Others**	12	5.2
Total Employed	***215***	***215***
Unemployed	15	6.5
Religion		
Christian	218	94.7
Moslem	12	5.3

**Mean age ± SD = 41.13 ± 9.96, Age range 20-68 year

*Others=Banker 1, Caterer 1, Clergy 1, Engineering 2, Industrialist 1, Journalist 1, Nurse 1, Policeman 2, Retired 2.

Table.3 Clinical Profile of Participants

Variables	Frequency (n=230)	Percent (100%)
CD4 count (in mm^3)		
≤500	160	69.6
>500	70	30.4
WHO HIV staging		
Stage 1	174	75.7
Stage 2	32	13.9
Stage 3	14	6.1
Stage 4	10	4.3
Duration on HAART		
1-5 years	171	74.4
6-10 years	58	25.2
≥11 years	1	0.4
BMI		
Underweight <18.5kg/m^2	13	5.7
Normal (18.5 to 24.9kg/m^2)	135	58.7
Overweight (25.0 to 29.9kg/m^2	82	35.6
ADHERENCE		
Good	224	97.39
Poor	6	2.61

Table.4 Mean Quality of Life Scores of Participants (Adewuyi and Adewuyi, 2023)

Variables	Mean quality of life scores ± SE	95%CI
Physical Health Domain	15.83±0.14	15.55-16.11
Psychological Health Domain	15.07±0.12	14.93-15.29
Level of Independence Domain	14.95±0.13	14.69-15.21
Social Relationship Domain	13.49±0.14	13.21-13.76
Environment Domain	13.45±0.10	13.25-13.65
Spiritual/Religion/Personal Beliefs Domain	16.33±0.18	15.97-16.69
Overall	89.13±0.59	87.95-90.31

Table.5 Family Functioning and Some Characteristics of Participants

Variables	N	X^2	P-value	Remark
Gender	230	0.604	0.739	Not significant
Age	230	74.15	0.770	Not significant
Partners' HIV Status	230	3.908	0.419	Not significant
Educational status	230	6.634	6.634	Not significant
WHO Stage	230	10.324	0.112	Not significant
Marital Status	230	25.30	0.005	significant

Table.6 Relationship Between Family Functioning and Marital Status of Participants

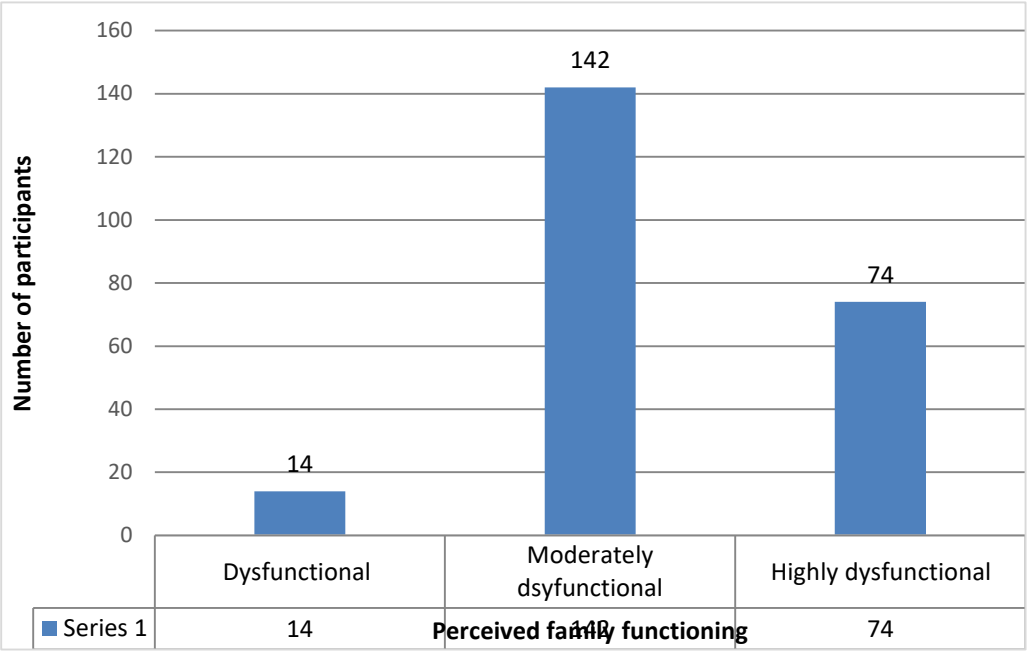
		Marital Status of Participants						Total
		Cohabiting	Divorced	Married	Separated	Single	Widow	
Family Apgar	**Highly functional**	0	0	49	2	13	10	74
	Moderately functional	3	2	81	8	12	36	142
	Dysfunctional	0	0	8	4	1	1	14
	Total	3	2	138	14	26	47	230
X^2=25.30; P=0.005								

Table.7 Relationship between family functioning and quality of life among study participants (Adewuyi and Adewuyi, 2023)

Family functionality	Frequency (n=230)	QO	Q1	Q2	Q3	Q4	Q5	Q6
Dysfunctional	14	90.4±8.7	16.5±2.3	15.7±2.2	15.7±2.1	12.1±2.6	13.4±1.2	17.0±2.7
Moderately functional	142	87.4±9.3	15.5±2.4	14.5±2.0	14.8±1.9	13.3±1.9	13.2±1.5	16.0±2.7
Highly functional	74	92.2±7.4	16.3±1.8	15.6±1.7	15.5±1.6	14.2±2.3	14.0±1.3	16.8±2.4
		F=7.39, P<0.001	F=3.34 P=0.04	F=9.77 P=0.0001	F=3.79 P=0.024	F=6.99 P=0.001	F=6.89 P=0.001	F=2.31 P=0.101

QO=Mean Quality of Life Overall Scores ±SD; Q1=Mean of Physical Health Domain±SD
Q2=Mean of Psychological Health Domain ±SD; Q3=Mean Level of Independence Domain±SD
Q4=Mean of Social Relationship Domain±SD; Q5=Mean of Environment Domain±SD
Q6=Mean of Spiritual/Religion/Personal Beliefs Domain±SD

Figure.1 Bar Chart Showing Family Functioning of the Participants



In the Spiritual/Religion/Personal Beliefs Domain, the mean QOL score for the highly functional families was 16.8±2.4; and it was 16.0±2.7 and 17.0±2.7 for the moderately functional and dysfunctional families respectively. There was no statistically significant association between perceived family functioning and QOL in this domain. (F=2.31, P=0.101). Combined ART usage has led to increased live expectancy of PLHIV. HIV infection is now being managed as a chronic disease and the QOL of the patients is now a significant concern. QOL of patients with chronic illnesses (including HIV/AIDS patients) improves with adequate social support, especially good family functioning. This study investigated the Perceived Family functioning of HIV patients attending ART Clinic in ISTH. The study focused on family functioning of the patients and its associated factors; the QOL of these patients; as well as the relationship between their Perceived Family functioning and QOL. While many studies within and outside Nigeria focused on QOL of HIV patients in isolation; this study examined the QOL of HIV patients in relation to their family functioning.

One hundred and sixty-eight (73.0%) participants were females and 62 (27.0%) were males. This gender distribution was a reflection of the population of the clinic attendees, as there were more female attendees at the clinic. It may be due to higher female HIV prevalence than male globally (UNAIDS, 2024).

It may be because women have better health-seeking behaviour than men or have more time to attend clinics, while men were busy getting income for the family. This is similar to the gender distribution in other studies in Nigeria (Adewuyi and Adewuyi, 2023).

One hundred and fifty participants (69.1%) were within the reproductive age group, which is strongly associated with highest prevalence of HIV/AIDS (Adewuyi and Adewuyi, 2023). Only 2(0.9%) were elderly, probably because of the low life expectancy of about 56years in Nigeria.

All the participants had been on HAART for at least 12 months in order to exclude the initial shock or depression associated with early period of being HIV-diagnosed and to have benefited from the effect of the drugs. Choosing this category of patients also eliminates the initial challenges associated with initiating patients on HAART (adverse drug reactions) before the patients psychologically and physically adjusted. Most of the participants were in stage 1 and 2 of the WHO classification. This is partly due to the Adherence to HAART and exclusion of those with comorbidities; as the 3rd and 4th stages are associated with many HIV/AIDS associated comorbidities. Consequent to this relatively healthy state, two hundred and fifteen (93.5%) participants were medically fit and gainfully employed, while only 15 (6.5%) unemployed. Thus, majority of the participants had means of livelihood. This is similar to the study in Edo state of Nigeria where 88.7% of participants were employed (Adewuyi and Adewuyi, 2023).

The entire participants had an ongoing sexual relationship as their HIV serostata were not obvious. 138 (60%) were married, 47(20.4%) were young widows and 26(11.3%) were singles. The relatively large number of widows may be due to social impact of HIV on the family, when the spouse died of HIV-related death, leaving behind a single parent home.

Most of the participants were Christians 218(94.7%) probably because the hospital (i.e. the study site) is located in a Christian dominated Esanland. The few Muslims, 12 (5.3%) were from the Etsako area of the state, dominated by Muslims. Despite the skewed statistics, there was no statistically significant difference between the two groups and religion has no impact on family functioning and QOL of participants in this study.

The participants in this study had good family functioning in all the QOL domains. Seventy-four (32.2%) participants and 142 (61.7%) out of the total 230 participants, had highly functional and moderately functional families respectively. Only 14 (6.1%) of participants had dysfunctional families. In all the domains, the perceived family functioning significantly impacts on the QOL of the patients. This may be because majority of them are married, employed and are in good WHO Clinical stages of the disease. Marriage provides social security and affection needed for physical, psychological and social wellbeing. In addition, being married had statistically significant positive impact on family functioning in this study. Being employed provides some level of financial independence and thus reduces some of the stresses on them. Good clinical stage in most of these participants may make their HIV status obscured except they disclosed it. This in turn reduces chances of stigmatization, discrimination and other negative psychosocial effects of HIV on their relationship with other family members.

The relatively good family functioning among the widows may be because the society, religious doctrines as well as traditional empathy on widows. Hence, they may enjoy good social support from relations or their older children who may now be the breadwinners of the family.

Knowing that WHOQOL-HIV measures six domains namely, Physical health domain, Psychological health domain, Level of Independence domain, Social relationship domain, Environment domain, and Spirituality/Religion/Personal beliefs domain; it is inferentially deducible from this study that, with good family functioning PLHIV will experience the followings: Reduced pain and discomfort, enhanced rest and energy as seen in the physical domain. Secondly, positive thinking, self-esteem, concentration, learning, memory and self-image are better. In addition, daily activities and work capacity of these PLHIV are boosted. Furthermore, social safety and security of patients, financial resources, recreational and leisure opportunities as well as opportunities to acquire new information and skills are guarantee with good family functioning.

In conclusion, seeing that married and cohabiting PLHIV had better family functioning and QOL, while the widows and singles had worst QOL score in almost all QOL domains; it strongly advisable to encourage PLHIV to marry or sustain their existing marital relationship.

The regression analysis revealed very bad QOL prognosis for being a widow/widower or singles. A stable relationship conceivably contributes to a good family functioning and invariably good QOL. This was shown convincingly in almost all domains in this study and other studies17. Holistic healthcare service incorporating social wellness into comprehensive HIV treatment, care and support will in no small way guarantee better QOL and outcome in PLHIV. This should therefore be a major focus as we are try to roll back HIV.

Authors Contributions

Both authors conceptualized and participated actively as every stage of this study including writing of the manuscript

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Data Availability

The datasets generated during and/or analyzed during the current study are available from the corresponding author on reasonable request.

Declarations

Ethical Approval Not applicable.

Consent to Participate Not applicable.

Consent to Publish Not applicable.

Conflict of Interest The authors declare no competing interests.

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