

---

## **Relationship between HIV Status Disclosure and Quality of Life among People Living with HIV: A Study at Aregbesola Primary Health Care Centre, Lagos State**

**\*Bolanle O. Olayiwola**

**Tubosun A. Olowolafe**

**Samuel. A. Bankole**

*Department of Public Health, Faculty of Basic Medical and Health Sciences,*

*Lead City University Ibadan, Ibadan, Nigeria*

*\*Corresponding author: [olayiwolabola04@gmail.com](mailto:olayiwolabola04@gmail.com)*

### **ABSTRACT**

*This study utilized a facility-based cross-sectional survey design involving 288 HIV-infected individuals attending the Care and Treatment Clinic at Aregbesola Primary Health Care Center in Lagos State. A structured questionnaire adapted from the WHOQOL-HIV BREF instrument measured respondents' overall perception of QoL and health. Data were collected on socio-demographic characteristics, disclosure patterns, and perceived social support. Statistical analyses, including descriptive and inferential statistics using SPSS version 25, were performed to determine the relationship between HIV status disclosure and various QoL indicators. Among the 288 participants, 82.6% disclosed their HIV status, predominantly to their nuclear families. The findings revealed no significant association between HIV status disclosure and overall quality of life, although the participants reported varied mean scores across different QoL domains, with the environmental domain scoring the highest and the social domain the lowest. This study highlights the complex interplay between HIV status disclosure and quality of life among PLWHIV in Alimosho of Lagos State. Despite high rates of disclosure, the lack of a significant association with QoL underscores the need for targeted interventions to reduce stigma and enhance support systems.*

**Keywords:** *HIV-infected individuals, quality of life, PLWHIV, HIV/AIDS, health problem*

### **INTRODUCTION**

The incidence of HIV/AIDS continues to pose significant public health challenges in Sub-Saharan Africa, particularly in Nigeria, where stigma and discrimination against people living with HIV (PLWHIV) are prevalent. HIV status disclosure is essential for improving access to healthcare and support networks, yet the psychosocial factors influencing disclosure and quality of life (QoL) among PLWHIV in Nigeria remain underexplored. The rapid spread of HIV/AIDS in most of the Sub-Saharan Africa Countries over the past decade is no longer a health problem but a major cause of the ongoing development crisis (Kharsany & Karim 2016).

Across the regions of the world, sub-Saharan Africa remain most severely affected, with nearly 1 in every 20 adults (4.9%) living with HIV and accounting for 69% of the people living with HIV worldwide (UNAIDS 2022). In Nigeria, HIV prevalence is 3.2% among the adult population, giving a total estimate of 3.4 million Nigerians living with HIV (NACA 2019).

Adejumo (2011) argues that HIV self-disclosure is the tendency of an individual to be free to autonomously discuss his/her HIV status with a sexual partner, family, or units of society. Unfortunately, the potential for rejection, abandonment, physical and emotional abuse and other adverse consequences create substantial barriers to disclosing HIV status. HIV disclosure is a complex issue since quite often disclosure of status is also linked to disclosure of other clandestine behaviours (such as same sex activity, injection drug use, or any HIV risk behavior (Adejumo, 2011). According to Shushtari, Sajjadi, Forouzan, Salimi & Dejman (2014), the decision to disclose one's HIV status is thus intricately linked to an individual's perceived quality of life, incentives or barriers based on their environment, and the available support systems.

Despite the growing body of literature on HIV/AIDS, much of the existing research focuses predominantly on biomedical aspects of the disease, often neglecting the psychosocial dimensions that profoundly influence the lives of those affected. Stress, mental health, and quality of life are critical variables that can significantly impact the health outcomes of PLWHIV (Remien et al 2019; Walsh et al. 2023; Şahinoğlu et al. 2024). This is particularly relevant in Nigeria, where stigmatization and discrimination against individuals living with HIV are pervasive and can deter individuals from disclosing their status, thereby impacting their access to care, support, and overall quality of life (Odimegwu, Akinyemi & Alabi 2017; Adekoya et al, 2024).

According to Lakshmi (2017), quality of life (QoL) is a term that is popularly used to convey an overall sense of well-being and includes aspects such as happiness and satisfaction with life as a whole. World Health Organization (1998) has defined QoL as individuals' perceptions of their position in life in the context of the culture and value systems in which they live and in relation to their goals, standards, expectations and concerns. Previous studies have examined the relationships between health-related quality of life (HRQOL) and depression, social supports, HIV infection stage, functioning in daily living, employment, perceived health status, severity of HIV infection symptoms, stress and adverse effect of treatments for HIV infection among subjects living with HIV infection (Walsh et al 2-23; Zhang et al 2023; Şahinoğlu et al 2024). Living with HIV can impact upon many of the factors that affect their quality of life; not only their physical health, but also their mental and social wellbeing. After all, HIV is not simply a virus that causes disease, but also a social and historical event that impacts how others react towards. Issues including personal safety and human rights as well as other aspects of the political and social infrastructure can radically affect their quality of life.

In Nigeria, there is a considerable gap in the literature addressing the psychosocial effects of HIV status disclosure, particularly regarding its relationship with health-related quality of life. Previous studies in other regions have indicated that HIV-related stigma, social support, and personal resilience contribute to disparities in the well-being of PLWHIV

(Odimegwu, Akinyemi & Alabi (2017). However, empirical studies that combine an examination of self-disclosure with an assessment of health-related quality of life within the Nigerian context are limited.

The lack of foundational data regarding these psychosocial variables is a critical area of concern, especially since many PLWHIV face significant stressors that could be alleviated by understanding and improving their disclosure experiences and quality of life. Furthermore, existing studies rarely consider how various factors such as age, gender, and socioeconomic status intersect with disclosure and quality of life, thereby neglecting important social dynamics that influence these experiences. In light of these issues, there is a pressing need for comprehensive research that investigates the relationship between self-disclosure of HIV status and health-related quality of life in Nigeria's unique sociocultural context. This study aims to fill the existing gaps in literature by exploring these psychosocial variables among HIV-infected individuals in Mosan Okunola LCDA, Alimosho of Lagos State. The findings from this study are anticipated to provide valuable insights for healthcare practitioners, policymakers, and researchers aiming to improve the mental health and quality of life of PLWHIV in Nigeria.

## **METHOD**

**Study Design and population:** A facility-based cross-sectional survey was conducted among HIV-infected individual attending the Care and Treatment Clinic (CTC) at the Aregbesola Primary Health Care Center, Okunola in Mosan Okunola LCDA, Alimosho of Lagos State.

**Sample Size and Sampling Technique:** The study adopted a systematic sampling method for the selection of the participants until the required sample size of 288 was obtained. The sample size was determined using Yamane's formula for a finite population. The estimated population size was 1,028, based on records from May 31, 2022. All HIV positive patients were eligible to participate and all those that were willing participated.

**Research Instruments:** A structured questionnaire was adapted to obtain data from the participants an adopted WHOQOL-HIV BREF instrument which was to be used to examine the respondent's overall perception of quality of life as well as the respondent's overall perception of his or her health (Whoqol Group, 1998). The WHOQOL-HIV BREF instrument was used to evaluate respondents' quality of life from six domains and 28 facets. These facets are scored on a 3-point Likert Scale with 3 corresponding to very good and 0 corresponding to very poor. In addition to the six domains examined, the respondents' overall perception of quality of life and general health were examined. Also questions on disclosure and social support were asked.

**Data Collection:** Data collection was executed by trained research personnel who ensured that participants understand their rights and the goals of the study. Written consent was obtained

from each respondent prior to the completion of the questionnaires. Anonymity and confidentiality were maintained by using numerical codes for participant identification.

**Data Analysis:** Statistical analysis was conducted using SPSS version 25, employing descriptive and inferential statistics to assess the relationship between HIV status disclosure and quality of life indicators.

**Ethical Considerations:** Ethical approval for the study was obtained from both the Lagos State Primary Health Care Research Ethics Committee and the Lead City University Health Research and Ethics Committee. Participants were informed of the study's aims and any potential impacts, ensuring voluntary participation throughout the data collection process.

## RESULTS AND DISCUSSION

**Table 1:** Socio demographic Characteristics of Respondents

| Variables                           | Frequency         | Percent (%) |
|-------------------------------------|-------------------|-------------|
| <b>Age</b>                          |                   |             |
| Mean $\pm$ SD                       | 34.54 $\pm$ 9.531 |             |
| <b>Sex</b>                          |                   |             |
| Male                                | 132               | 45.8        |
| Female                              | 156               | 54.2        |
| <b>Educational Level</b>            |                   |             |
| Primary                             | 12                | 4.1         |
| Secondary                           | 151               | 52.4        |
| Tertiary                            | 121               | 42          |
| None                                | 4                 | 1.5         |
| <b>Marital Status</b>               |                   |             |
| Single                              | 120               | 41.7        |
| Married                             | 131               | 45.5        |
| Divorced                            | 27                | 9.4         |
| Widowed                             | 10                | 3.5         |
| <b>Employment Status</b>            |                   |             |
| Employed                            | 179               | 62.2        |
| Unemployed                          | 109               | 37.8        |
| <b>Number of Years of Diagnosis</b> |                   |             |
| < 1 year                            | 107               | 37.2        |
| 1-5 years                           | 144               | 50          |
| >5 years                            | 37                | 12.8        |

Table 1 shows that a total of 288 respondents participated in the study with a mean age of 34.54  $\pm$  9.5 years. The majority of the participants were female (54.2%) and 45.8% were Male. Most of the participants are Secondary school leavers (52.4%), 42% had tertiary level of education, 4.1% had a primary level of education and 1.5% of the participant did not have any form of education. On marital status 45.5% of the participants are married, 41.7% were single, 9.4% were divorced and 3.5% were widowed. The majority of the participants were employed

(62.2%) while 37.8% were unemployed. Most of the respondents were diagnosed with HIV in 1-5 years, 37.2% of the respondents were diagnosed with HIV in less than 1 year and 12.8% were diagnosed more than 3 years.

**Table 2A:** Self-disclosure among HIV infected individuals in Mosan Okunola LCDA, Alimosho of Lagos State

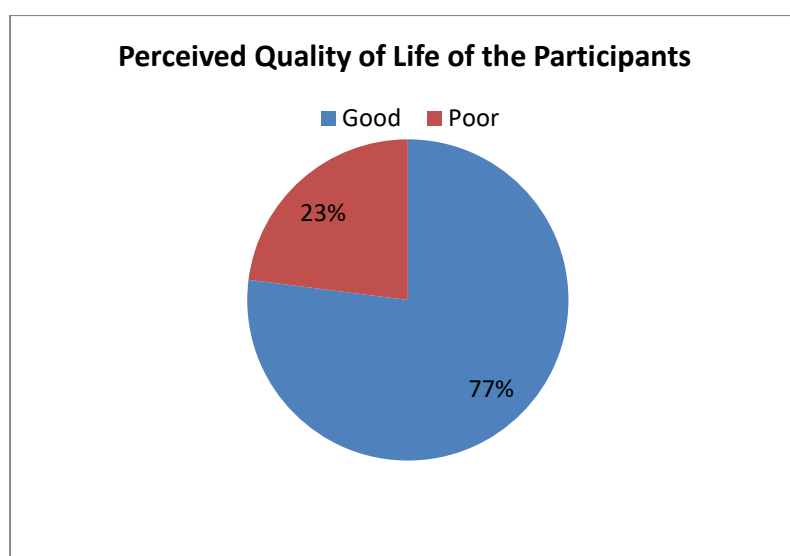
| Variables                               | Frequency | Percentage     |         |
|-----------------------------------------|-----------|----------------|---------|
| Self-disclosure                         |           |                |         |
| Yes                                     | 238       | 82.6           |         |
| No                                      | 50        | 17.4           |         |
| Variables                               | Frequency | Percentage (%) | P value |
| <b>First disclosed to (n=238)</b>       |           |                | 0.000   |
| Nuclear Family                          | 149       | 62.6           |         |
| Extended Family                         | 62        | 26.1           |         |
| Non-Family Relations                    | 27        | 11.3           |         |
| <b>Receive Any Support (n=238)</b>      |           |                | 0.000   |
| Yes                                     | 200       | 84             |         |
| No                                      | 38        | 16             |         |
| <b>Type of Support Received (n=200)</b> |           |                | 0.000   |
| Medical Expenses                        | 90        | 45             |         |
| Cash For Upkeep                         | 68        | 34             |         |
| Shelter                                 | 19        | 9.5            |         |
| Food                                    | 10        | 5              |         |
| Clothing                                | 13        | 6.5            |         |

Table 2 shows that 82.6% of the respondents have disclosed their status, it also show respondent who first disclosed their HIV status and the various types of support received among respondents that have disclosed their status (238). The majority of them disclosed their status to their nuclear family (62.6%), and also receive support (84%). 45% of the respondents that receive support have their medical expenses covered.

**Table 3:** Health-related Quality of life among HIV infected individuals in Mosan Okunola LCDA, Alimosho of Lagos State

| QoL Domain           | Mean ± S. D  | Minimum Score | Maximum Score |
|----------------------|--------------|---------------|---------------|
| <b>Physical</b>      | 5.6 ± 1.93   | 0.00          | 11.00         |
| <b>Psychological</b> | 7.5 ± 2.73   | 0.00          | 13.00         |
| <b>Independence</b>  | 6.17 ± 1.91  | 1.00          | 12.00         |
| <b>Social</b>        | 4.597 ± 1.96 | 0.00          | 9.00          |
| <b>Environment</b>   | 8.24 ± 2.34  | 2.00          | 15.00         |
| <b>Spiritual</b>     | 5.61 ± 2.10  | 0.00          | 12.00         |

The mean score which rates the average quality of life of participants within a given domain shows that quality of life was highest within the environmental domains with a mean score of  $8.24 \pm 2.34$  whilst the social domain indicated the lowest quality of life with the mean score for quality of life at  $4.597 \pm 1.96$ .



**Fig1:** Quality of life as perceived by the respondents

Figure 1 shows the Quality of life as perceived by the respondents. Of the 288 respondents, 77% perceived their Quality of life to be good and 23% perceived their lives to be of poor Quality of life.

**Table 4:** Mean QoL domain scores and HIV status disclosure of participants

| QoL Domain    | STATUS<br>YES   | DISCLOSURE<br>NO | t-statistic | P value |
|---------------|-----------------|------------------|-------------|---------|
|               | Mean $\pm$ S. D | Mean $\pm$ S. D  |             |         |
| Physical      | 5.61 $\pm$ 1.95 | 5.8 $\pm$ 1.85   | -0.635      | 0.526   |
| Psychological | 7.44 $\pm$ 2.85 | 7.80 $\pm$ 2.11  | -0.852      | 0.395   |
| Independence  | 6.15 $\pm$ 1.94 | 6.28 $\pm$ 1.77  | -0.418      | 0.676   |
| Social        | 4.61 $\pm$ 2.01 | 4.52 $\pm$ 1.68  | 0.306       | 0.759   |
| Environment   | 8.18 $\pm$ 2.47 | 8.54 $\pm$ 1.58  | -0.988      | 0.324   |
| Spiritual     | 5.52 $\pm$ 2.13 | 6.06 $\pm$ 1.91  | -1.652      | 0.100   |

Table 4 shows that out of the six domains of QoL measured with the WHOQOL-HIV BREF tool, none of the domains showed a significant association with HIV status disclosure

**Table 5: Factors influencing self-disclosure among HIV-infected individuals**

| Variables                           | cOR (95%CI)         | P-Value |
|-------------------------------------|---------------------|---------|
| <b>Sex</b>                          |                     |         |
| Male                                | 1.186 (0.621,2.266) | 0.606   |
| Female                              | Ref                 |         |
| <b>Educational Level</b>            |                     |         |
| Primary                             | 1.483(0.095,23.269) | 0.779   |
| Secondary                           | 0.836(0.074,9.442)  | 0.885   |
| Tertiary                            | 1.653(0.147,18.598) | 0.684   |
| None                                | Ref                 |         |
| <b>Employment status</b>            |                     |         |
| Employed                            | 0.301(0.148,0.614)  | 0.001*  |
| Unemployed                          | Ref                 |         |
| <b>Number of years of diagnosis</b> |                     |         |
| < 1 year                            | 0.819(0.285,2.525)  | 0.727   |
| > 1years                            | 1.320(0.463,3.764)  | 0.604   |
| >5 years                            | Ref                 |         |

Table 5 shows that in the Employment status variable, the table shows that employed individuals are more likely to disclose their HIV status (OR=0.301, p-value=0.001) compared to unemployed individuals. This indicates that employment status is a significant factor influencing self-disclosure among HIV-infected individuals. The odds ratio for educational level is highest for those with a tertiary education level (OR=1.653, 95% CI=0.147-18.598), followed by those with a primary education level (OR=1.483, 95% CI=0.095-23.269) and those with a secondary education level (OR=0.836, 95% CI=0.074-9.442) compared to those with no formal education (the reference group). However, none of these odds ratios are statistically significant, as their p-values are all above 0.05 (0.779, 0.885, and 0.684, respectively). This suggests that there is no significant association between educational level and self-disclosure among HIV-infected individuals. The odds ratio for number of years of diagnosis is highest for those who had been diagnosed for between 1 and 5 years (OR=1.32, 95% CI=0.463-3.764), followed by those who had been diagnosed for less than a year (OR=0.819, 95% CI=0.285-2.525) compared to those who had been diagnosed for more than 5 years (the reference group). However, none of these odds ratios are statistically significant, as their p-values are above 0.05 (0.604 and 0.727, respectively). This suggests that there is no significant association between the number of years of diagnosis and self-disclosure among HIV-infected individuals.

A total of 288 respondents living with HIV participated in this study, with a mean age of  $34.54 \pm 9.5$  years. This aligns with UNAIDS (2022), which indicates that HIV prevalence is highest among young and middle-aged adults, particularly those between 25 and 49 years. Studies have shown that this age group is at higher risk due to increased sexual activity, socio-economic vulnerabilities, and limited access to preventive measures (Khan et al. 2023).

The study population comprised mostly women, according to the Nigeria HIV/AIDS Indicator and Impact Survey (NACA 2019). Women account for a larger proportion of people living with HIV (PLWHIV) in Nigeria, partly due to biological susceptibility and socio-economic factors such as gender-based violence and unequal access to healthcare (Charles-Eromosele et al. 2022).

Employment status significantly impacts HIV treatment adherence and health outcomes, as the majority of participants were employed. Research suggests that employment provides financial stability, enabling PLWHIV to access healthcare, afford nutritious diets, and adhere to ART regimens (Agbeko, Nd). However, unemployment among PLWHIV remains a major concern, as it has been linked to increased stigma, mental health challenges, and poorer treatment outcomes (Ncetakalo, Mabaso, Joska & Simbayi, 2021). In Nigeria, economic instability has been identified as a barrier to ART adherence, particularly among unemployed individuals (Okonkwo et al. 2024).

The findings showed that the majority of the respondents had disclosed their status to their spouse, family members or other persons. The high rate of HIV status disclosure among respondents aligns with findings that emphasize that disclosure to spouses, family members, or trusted individuals enhances social support and mental well-being (Otieno, Nd & Razak Nd). Arnold, Rebchook & Kegeles (2014) highlight that disclosure fosters treatment adherence and improves access to care. Additionally, Lam, Naar-King & Wright (2007) show that individuals who disclose their status experience better health outcomes due to increased emotional support and reduced psychological distress (Lee, Yamazaki, Harris, Harper & Ellen, 2015). Odimegwu, Akinyemi & Alabi (2017) state that stigma and fear of discrimination remain significant barriers to disclosure, necessitating targeted interventions to promote a supportive environment.

Quality of Life scores were highest within the environmental domain, whilst the social domain indicated the lowest quality of life, with the mean score for quality of life. Suleiman, Yahaya, Olaniyan, Sule & Sufiyan (2015) show a high score in the environmental domain with a low Quality of life in the spiritual domain. However, Cronje et al (2017) reported better quality of life scores in the social domain and the lowest score in the Spiritual domain. In addition, Dinsa, Megersa & Melesie Taye G. (2020) indicated a high score for low QoL in two domains: the physical domain and the environmental domain.

Respondents who disclosed their HIV status had higher quality of life scores in all six domains compared to those who did not disclose their status; however, there was no significant association between status disclosure and the individual domains or all domains jointly. Infantoro & Rukmi (2020) shows respondents who disclosed their status to their family. Dinsa, Megersa & Melesie Taye G. (2020) stated that most of them were satisfied with their decision because they got the support of their family, which increased from 90.4% at baseline, 91.8% at six months, 95.5% in a year, and 94.3% at 24 months. Also, this study contradicts a study that shows the relationship between HIV status disclosure and quality of life in this research is not only seen from general QoL but also seen through four other domains: physical, psychological, social, and environmental domain. However, the physical domain's quality of

life was mostly in the low category PLWHA in this research could have difficulty performing some daily physical activities while managing their illness (Okeke & Yohanna, 2019).

This study's findings of a non-significant association between status disclosure and other sociodemographic factors except for employment status is contrary to evidence from Agbeko (Nd) who showed a significant association between status disclosure and Education level in Ghana. This could be a result of the negative attitudes and judgments towards people living with HIV/AIDS which might have led to a significant number of the respondents with tertiary education not disclosing their seropositive status. Also, Okeke & Yohanna (2019) study in North-Central Nigeria also contradicts this study self-disclosure of HIV status had a statistically significant association with age. In addition, Ngige & Ndayala (2020) have demonstrated that the respondents who anticipated negative consequences from their intimate partners and social support networks were not likely to disclose their HIV seropositive status to significant others.

## CONCLUSION

The study made a concerted effort to bring about a comprehensive understanding of Self-Disclosure and Health-Related Quality of Life of HIV Infected Individuals in Mosan Okunola LCDA, Alimosho of Lagos State. The study showed that the majority of the participants in this study had disclosed their HIV status and status disclosure was not significantly associated with QOL. Targeted interventions to reduce stigma and enhance support systems are essential for improving the quality of life for PLWHIV. Furthermore, understanding the factors influencing self-disclosure, such as employment status and education, is crucial for developing effective public health strategies. Future research should continue to explore these psychosocial dynamics across various settings in Nigeria to inform interventions that can better support PLWHIV in their communities.

**Conflicts of Interests:** *The authors declare no conflicting interest.*

**Acknowledgement:** *The Authors appreciate the study participants and all the authorities who granted permission to make the study possible.*

## REFERENCES

- Adejumo A. O. (2011). Perceived HIV stigmatization, HIV/AIDS cognition and personality as correlates of HIV self-disclosure among people living with HIV in Ibadan, Nigeria. *Gender and Behaviour*, 9(2):3854-69.
- Adekoya P., Lannap F. D., Ajonye F. A., Amadiogwu S., Okereke I., Elochukwu C., Aruku C. A., Oluwaseyi A., Kumolu G., Ejeh M. & Olutola A. O. (2024). Experiences of Stigmatization and Discrimination in Accessing Health Care Services among People Living with HIV (PLWHIV) in Akwa Ibom State, Nigeria. *HIV/AIDS-Research and Palliative Care*, 31:45-58.

- Agbeko A. N. (Nd). HIV Status Disclosure and Quality of Life among Persons Living with HIV/AIDS (PLWHA) Accessing Care at the Volta Regional Hospital (Doctoral Dissertation, University of Ghana).
- Arnold E. A., Rebchook G. M. & Kegeles S. M. (2014). 'Triply cursed': racism, homophobia and HIV-related stigma are barriers to regular HIV testing, treatment adherence and disclosure among young Black gay men. *Culture, Health & Sexuality*, 16(6):710-22.
- Charles-Eromosele T. O., Kanma-Okafor O. J., Sekoni A. O., Olopade B. O., Olopade O. B. & Ekanem E. E. (2022). Gender disparities in the socio-economic burden of HIV/AIDS among patients receiving care in an HIV clinic in Lagos, Nigeria. *African Health Sciences*, 22(4):477-87.
- Cronje J. H., Williams M., Steenkamp L., Venter D. & Elkonin D. (2017). The quality of life of HIV-infected South African university students: Experiences with the WHOQOL-HIV-Bref. *AIDS Care*, 29(5):632-5.
- Dinsa A. H., Megersa A. K. & Melesie T. G. (2020). Assessment of health-related quality of life and associated factors among HIV/AIDS patients on highly active antiretroviral therapy (HAART) at Ambo General Hospital, West Shewa, Ethiopia. *HIV/AIDS-Research and Palliative Care*, 25:467-78.
- Irfantoro T. & Rukmi D. K. (2020). HIV disclosure and quality of life in people living with HIV/AIDS in Yogyakarta. *Indonesian Journal of Nursing Practices*, 4(2):50-8.
- Khan J., Greaves E., Tanton C., Kuper H., Shakespeare T., Kpokiri E., Wang Y., Ong J. J., Day S., Pan S. W. & Tang W. (2023). Sexual behaviours and sexual health among middle-aged and older adults in Britain. *Sexually Transmitted Infections*, 99(3):173-9.
- Kharsany A. B. & Karim Q. A. (2016). HIV infection and AIDS in sub-Saharan Africa: current status, challenges and opportunities. *The Open AIDS Journal*, 8, 10:34.
- Lakshmi V. (2017). A live experiences on quality of life among HIV positive patients. *Insights Biomed*, 2(02):1-4.
- Lam P. K., Naar-King S. & Wright K. (2007). Social support and disclosure as predictors of mental health in HIV-positive youth. *AIDS Patient Care and STDs*, 21(1):20-9.
- Lee S., Yamazaki M., Harris D. R., Harper G. W. & Ellen J. (2015). Social support and human immunodeficiency virus-status disclosure to friends and family: Implications for human immunodeficiency virus-positive youth. *Journal of Adolescent Health*, 57(1):73-80.
- National Agency for the Control of AIDS (NACA 2019). National HIV/AIDS Strategic Framework 2019–2021. Abuja, Nigeria: NACA.
- Ncitakalo N., Mabaso M., Joska J. & Simbayi L. (2021). Factors associated with external HIV-related stigma and psychological distress among people living with HIV in South Africa. *SSM-Population Health*, 14, 100809.
- Ngige L. W. & Ndayala P. D. (2020). Effects of Anticipated Stigma and Discrimination on Self-Disclosure of HIV Seropositive Status among People Living with HIV and AIDS in Kenya. *East African Journal of Health and Science*. 2(1):51-61.
- Odimegwu C. O., Akinyemi J. O. & Alabi O. O. (2017). HIV-Stigma in Nigeria: Review of Research Studies, Policies, and Programmes. *AIDS Research and Treatment*, (1):5812650.

- Okeke A. & Yohanna S. (2019). Determinants and rate of self-disclosure of human immunodeficiency virus sero-status among people living with HIV/AIDS attending antiretroviral therapy clinic of a tertiary hospital in North Central Nigeria. *West Afr J Med.*,d36: 246-52.
- Okonkwo P., Olatoregun O. J., Abolarin O., Olajide O. & Olatoregun O. (2024). Barriers to accessing antiretroviral treatment among key populations in Southwest Nigeria. *Cureus*, 16(4).
- Otieno P. (Nd). Determinants of HIV Serostatus Disclosure among People Living With HIV/AIDS in Msambweni County Referral Hospital, Kwale County, Kenya (Doctoral Dissertation, The Catholic University of Eastern Africa).
- Razak A. (Nd). An Exploratory Study towards Disclosure of Status and Reduction of Stigma for People Living with HIV/AIDS in a Low Income Community: The Development of a Community-based Framework (Doctoral Dissertation, University of KwaZulu-Natal, Durban).
- Remien R. H., Stirratt M. J., Nguyen N., Robbins R. N., Pala A. N. & Mellins C. A. (2019). Mental health and HIV/AIDS: the need for an integrated response. *AIDS*, 33(9):1411-20.
- Şahinoğlu M. S., Kandemir F. Ö., Alkan S., Evik G. & Türkegün-şengül M. (2024). Evaluation of Quality of Life, Anxiety and Depression in People Living with HIV. *Evaluation*, 13(1):19-.
- Shushtari Z. J., Sajjadi H., Forouzan A. S., Salimi Y. & Dejman M. (2014). Disclosure of HIV status and social support among people living with HIV. *Iranian Red Crescent Medical Journal*, 16(8):e11856.
- Suleiman B. A., Yahaya M., Olaniyan F. A., Sule A. G. & Sufiyan M. B. (2015). Determinants of health-related quality of life among human immunodeficiency virus positive (HIV-positive) patients at Ahmadu Bello University teaching hospital, Zaria, Nigeria. *BMC Public Health*, 20:1-9.
- UNAIDS (2022). Global HIV & AIDS Statistics - Fact Sheet. Geneva: Joint United Nations Programme on HIV/AIDS
- Walsh J. L., John S. A., Quinn K. G., Hirshfield S., O'Neil A. & Petroll A. E. (2023). Factors associated with quality of life, depressive symptoms, and perceived stress among rural older adults living with HIV in the United States. *The Journal of Rural Health*, 39(2):488-98.
- Whoqol Group (1998). Development of the World Health Organization. WHOQOL-BREF quality of life assessment. *Psychological Medicine*, 28(3):551-8.
- Zhang Y., Chai C., Xiong J., Zhang L., Zheng J., Ning Z. & Wang Y. (2023). The impact of anxiety, depression, and social support on the relationship between HIV-related stigma and mental health-related quality of life among Chinese patients: a cross-sectional, moderate-mediation study. *BMC Psychiatry*, 23(1):818.