Self-Stigma and Quality of Life Among HIV/Aids Patients in Makurdi Metropolis: The Mediating Role of Psychological Resilience

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https://doi.org/10.56201/ijmepr.v10.no6.2026.pg1.24

Abstract
Quality of life among patients living with HIV/AIDS is crucial to their overall well-being and ability to manage health. However, research examining the role of psychological variables in predicting quality of life in Nigeria is limited. This study investigated the predictive and mediating roles of self-stigma and psychological resilience on quality of life of HIV/AIDS patients in selected hospitals in Makurdi metropolis. A cross-sectional survey design was adapted in the study. A total of 368 participants were selected comprising 168 (45.7%) males and 200 (54.3%) females, were recruited for the study. Data were collected using a standardized questionnaire that included measures of self-stigma, psychological resilience, and quality of life. Four hypotheses were tested using simple linear regression, mediation analysis, and multiple regression analysis. The findings revealed that self-stigma significantly predicted quality of life. Similarly, psychological resilience significantly predicted quality of life of HIV/AIDS patients in selected hospitals in Makurdi metropolis. Mediation analysis showed that psychological resilience partially mediated the relationship between self-stigma and quality of life among HIV/AIDS patients in selected hospitals in Makurdi metropolis. Finally, self-stigma and psychological resilience jointly and significantly predicted quality of life, with self-stigma emerging as the stronger predictor in the joint model. The study concludes that self-stigma and psychological resilience are critical determinants of quality of life among HIV/AIDS patients, with resilience serving as a key mechanism through which the negative effects of self-stigma can be mitigated. The findings underscore the need for interventions aimed at reducing self-stigma and enhancing psychological resilience to improve patient outcomes in healthcare settings.

Keywords: *Self Stigma, Quality of Life, Psychological Resilience, Makurdi metropolis*

Introduction

Quality of life (QoL) is a multidimensional concept reflecting a person's overall well-being, including physical health, emotional state, social relationships, and material conditions. It is widely used to assess how people live, feel, and experience daily life. For people living with HIV/AIDS (PLWHA), QoL is especially important because it encompasses not only health status but also psychological well-being and social integration. Understanding and improving QoL among PLWHA is essential to providing holistic care, particularly as HIV management

continues to evolve. Globally, HIV/AIDS remains a major public health concern. At the end of 2023, an estimated 39 million people were living with HIV worldwide, with approximately two-thirds residing in sub-Saharan Africa. Since the epidemic began, more than 40 million people have died from HIV-related causes. In 2023, approximately 1.3 million new infections and 630,000 deaths were recorded. Although there is currently no cure for HIV, advances in prevention, early diagnosis, antiretroviral therapy (ART), and comprehensive care have transformed it into a manageable chronic condition. These advances allow PLWHA to live longer, healthier, and more productive lives. Global health organizations including the World Health Organization (WHO), UNAIDS, and the Global Fund have aligned their strategic efforts with Sustainable Development Goal (SDG) 3.3, which aims to end the HIV epidemic by 2030. Their targets include ensuring that 95% of all PLWHA know their HIV status, 95% of those diagnosed receive ART, and 95% of those receiving treatment achieve viral suppression by 2025. Despite progress, significant challenges remain. By 2022, 86% of PLWHA knew their status, 89% of those diagnosed were receiving ART, and 93% of those on ART had achieved viral suppression. These gaps are particularly concerning in countries such as Nigeria, which ranks fourth globally in HIV burden and faces substantial regional disparities and treatment gaps. In Benue State, which has the second-highest HIV prevalence in Nigeria, many people had not yet initiated ART. This highlights the need for targeted interventions, such as the Benue ART Surge (BAS). Several challenges continue to hinder the integration of HIV into normal life and negatively impact QoL. These include psychological issues such as depression and anxiety, financial hardships, and the pervasive effects of HIV-related stigma. The social support systems necessary for full reintegration are often underdeveloped, especially in Nigeria, where social services remain severely limited. Chronic illness like HIV/AIDS poses serious threats to an individual's sense of meaning, perceived health status, and overall QoL. Such conditions often expose PLWHA to stigma, discrimination, family rejection, and social exclusion. These factors not only diminish their quality of life but also hamper their ability to access and utilize healthcare services effectively, leading to higher healthcare costs, poorer health outcomes, increased morbidity and mortality, and reduced productivity. The concept of QoL involves individuals' perceptions of their well-being, including happiness, life satisfaction, and emotional responses to life events. It relates both to material living conditions and personal perceptions of those conditions, including subjective feelings of happiness and morale. Recent research conceptualizes QoL as a multidimensional construct that is often considered synonymous with health status, functional ability, psychological well-being, and satisfaction of needs. For PLWHA, stigma particularly self-stigma is a major determinant of poor QoL. Self-stigma involves the internalization of negative societal stereotypes, which leads individuals to isolate themselves, experience shame, and feel self-blame following an HIV diagnosis. In Nigeria and other sub-Saharan African countries, self-stigma remains highly prevalent and continues to negatively affect the psychosocial health of PLWHA. Studies have shown that self-stigma reduces QoL by increasing emotional distress, depression, anxiety, and social withdrawal. These effects discourage individuals from seeking treatment and psychosocial support, further deteriorating their overall health and well-being. Given the importance of resilience the capacity to adapt to adversity there is a compelling need to understand its mediating role in the relationship between self-stigma and QoL. Resilience can be viewed as a trait, a process, or an outcome that helps individuals recover and maintain functioning despite the burden of disease and social challenges. Theoretical perspectives suggest that higher QoL can enhance resilience, or conversely, that resilience itself can promote better QoL. In the context of HIV, resilience functions as a

psychological protective factor that fosters positive health outcomes, yet little research has explored how psychological resilience mediates the impact of self-stigma on QoL among PLWHA, especially in Nigerian settings such as public and private hospitals in Makurdi.

Statement of the Problem

Advances in antiretroviral therapy (ART) have significantly improved the survival rate of people living with HIV/AIDS; however, increased survival does not necessarily translate into improved quality of life. Many individuals living with HIV continue to experience persistent psychological, social, and emotional challenges that negatively affect their daily functioning and overall life satisfaction. A major contributing factor to this situation is self-stigma, which occurs when individuals internalize negative societal attitudes about HIV/AIDS. This internalized stigma is often expressed through feelings of shame, guilt, low self-worth, fear of disclosure, social withdrawal, and poor adherence to treatment, all of which contribute to a diminished quality of life. In Nigeria, and particularly in Benue State which remains one of the states with a high burden of HIV infection the challenge is not only medical but also deeply psychosocial. Patients attending HIV clinics in Makurdi metropolis often continue to experience stigma-related stress, emotional distress, and fear of being identified, despite availability of antiretroviral services. These experiences can significantly undermine psychological well-being and reduce the effectiveness of treatment outcomes in terms of quality of life. Although previous studies have established that HIV-related stigma is associated with poor quality of life, many of these studies have treated stigma and quality of life as direct relationships, with limited attention to the underlying psychological processes that explain this association. In particular, psychological resilience, which refers to the ability to adapt positively and maintain psychological functioning in the face of adversity, has been identified as a potential protective factor. However, it remains unclear whether psychological resilience explains or buffers the relationship between self-stigma and quality of life among HIV/AIDS patients in Makurdi metropolis. Furthermore, most existing Nigerian studies have focused on either stigma or quality of life independently, with limited empirical evidence examining the mechanism through which self-stigma affects quality of life via psychological resilience, especially within hospital-based populations in Benue State. This creates a significant contextual and empirical gap. Therefore, the problem of this study is that despite access to antiretroviral therapy in Makurdi metropolis, many HIV/AIDS patients continue to experience poor quality of life due to unresolved psychosocial challenges, particularly self-stigma, and the extent to which psychological resilience mediates this relationship remains insufficiently understood. This study seeks to address this gap by examining self-stigma and quality of life among HIV/AIDS patients in selected hospitals in Makurdi metropolis, with a focus on the mediating role of psychological resilience.

Aim and Objectives of the Study

The aim of this study was to examine self-stigma and quality of life among HIV/AIDS patients attending hospitals in Makurdi metropolis: the mediating role of psychological resilience. To achieve this aim, the following specific objectives were formulated to:

i. examines the influence of self-stigma on quality of life among HIV/AIDS patients attending hospitals in Makurdi metropolis.
ii. investigate the influence of psychological resilience on quality of life among HIV/AIDS patients attending hospitals in Makurdi metropolis.
iii. determine the mediating role of psychological resilience between self-stigma and quality

of life among HIV/AIDS patients attending hospitals in Makurdi metropolis.

iv. explore the joint influence of self-stigma and psychological resilience on quality of life among HIV/AIDS patients attending hospitals in Makurdi metropolis.

Literature Review

Quality of life

The concept of quality of life (QoL) has historical links to discussions of economic welfare, including Pigou's The Economics of Welfare (1920). However, it is difficult to establish that Pigou first introduced the term "quality of life"; the concept developed over time across economic, social, and health-related fields. After World War II, understandings of health broadened beyond the absence of disease. The World Health Organization (WHO) defines health as "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity" (WHO, 1948). This definition helped establish a broader context for considering well-being, although it is not itself a definition of QoL. The WHOQOL Group later defined QoL as an individual's perception of their position in life, within the context of their culture and value systems and in relation to their goals, expectations, standards, and concerns (The WHOQOL Group, 1995). This definition presents QoL as a subjective, multidimensional concept, commonly assessed through domains such as physical health, psychological well-being, independence, social relationships, and the person's environment. Research has consequently developed a range of conceptual approaches and assessment instruments for studying QoL (McCall, 1975).

Self-stigma

Self-stigma occurs when people with a stigmatized condition become aware of negative stereotypes about their group, agree with those stereotypes, and apply them to themselves (Corrigan et al., 2002). In mental health, this internalization can contribute to shame and reduced self-esteem and self-efficacy, although its effects vary among individuals (Ritsher & Phelan, 2004). Self-stigma may also affect behavior: some people withdraw socially, conceal their condition, or avoid seeking help because they anticipate judgment. Research has associated stigma with barriers to treatment and poorer psychosocial outcomes, but claims about treatment adherence, quality of life, or long-term outcomes should be tied to evidence specific to the population and outcome being discussed (Livingston & Boyd, 2010). Self-stigma is therefore one potential barrier to recovery and support, rather than a uniform or inevitable consequence of mental illness.

Psychological Resilience

Psychological resilience is a dynamic process through which people draw on personal, social, and cultural resources to cope with adversity and adapt over time. Rather than simply resisting stress or avoiding distress, resilience can involve recovery, adjustment, and the development of new ways to manage challenges. It is shaped by interactions among individual characteristics, relationships, and broader social environments (Masten, 2021; Southwick et al., 2014). Resilience does not mean that a person is unaffected by hardship; people may experience distress while still adapting positively.

Theoretical Review

The Integrative Theory of Quality of Life

Integrative approaches to quality of life developed through research by multiple scholars rather than from one universally recognized theory or theorist. Felce and Perry (1995) described quality of life as a multidimensional concept, while Costanza et al. (2007) proposed an approach connecting opportunities, human needs, and subjective well-being. In the framework you describe, quality of life has three interconnected dimensions. Subjective well-being concerns how a person feels physically and emotionally in the present. Need fulfillment considers whether their broader needs and desires are being met over time. Existential meaning concerns a person's sense of purpose and significance in life. Because this specific three-part formulation may come from a particular source, check that source before attributing it to a single theorist.

Empirical Review

Self-stigma and Quality of life

Building upon the evidence from various studies, it is evident that HIV-related stigma, particularly self-stigma, plays a critical role in influencing the quality of life among people living with HIV/AIDS across different contexts. Cheabu et al. (2023) highlighted that stigma and negative social experiences significantly diminish psychosocial well-being, emphasizing the importance of strengthening social support systems and anti-stigma interventions. Similarly, Yvonne et al. (2021) demonstrated that self-stigma mediates the relationship between public and experienced stigma, directly impacting various aspects of quality of life, including mental health and social support. Their findings underscore the necessity of addressing self-stigma through targeted psychosocial strategies. Li et al. (2022) further reinforced this perspective by illustrating that internalized stigma adversely affects psychological, physical, and social quality of life, with resilience serving as a partial buffer. This suggests that interventions aimed at fostering resilience could mitigate some of the negative effects of stigma. Turan et al. (2023) expanded this understanding within intersectional frameworks, revealing that compounded stigmas related to race and poverty exacerbate mental health issues and reduce treatment adherence, ultimately lowering quality of life. Their work advocates for culturally sensitive, community-based interventions to address these overlapping stigmas. Abebe et al. (2022) and Okeke et al. (2023) both found that internalized or self-stigma is among the strongest predictors of poor quality of life among PLHIV, mediating the relationship between external stigma and psychological outcomes such as depression, anxiety, and hopelessness. These studies highlight the importance of integrating stigma-reduction strategies, including psychological counseling and community education, within HIV care programs. Similarly, Onu et al. (2022) emphasized that self-stigma influences psychological well-being through mechanisms such as post-traumatic stress, advocating for trauma-informed and cognitive-behavioral approaches to reduce internalized stigma. Collectively, these findings suggest that addressing self-stigma is crucial for improving health-related quality of life among HIV/AIDS patients. Interventions that enhance resilience, reduce internalized stigma, and strengthen psychosocial support are essential components of comprehensive HIV care, especially in settings like Makurdi metropolis where stigma remains a significant barrier to well-being.

Psychological Resilience and Quality of Life

Suleiman et al. (2020) carried out a study at Ahmadu Bello University Teaching Hospital (ABUTH), Zaria, Nigeria, to assess determinants of health-related quality of life among HIV-

positive patients receiving antiretroviral therapy. The study focused on the influence of psychosocial factors, particularly family support, on quality of life. The researchers used the WHOQOL-HIV BREF questionnaire and the Family APGAR scale as instruments for data collection. Data were analyzed using univariate, bivariate, and multivariate logistic regression analyses. The results showed that family functioning and social support were significant predictors of quality of life among HIV patients. Participants with strong family support had better physical, psychological, and social quality-of-life outcomes, while those with weak support experienced poorer well-being. The study concluded that psychosocial support plays a major role in improving the quality of life of people living with HIV/AIDS. The researchers recommended the integration of family counseling and strengthening of social support systems in HIV treatment programs. Puentespina et al. (2023) carried out a study on pandemic emotional impact, resilience, stigma, help-seeking and mental health condition of Filipino college students': a path analysis. Total participants were 962 college students, composed of 778 females and 184 males. Results showed Resiliency predicted a moderate to severe mental health condition and inversely some to a great deal on the perception of stigmatization by others for seeking help including moderate self-stigma. A neutral actual help-seeking predicted a moderate to severe mental health condition. Perception of stigmatization by others for seeking help mediated pandemic emotional impact on the mental health condition. This proves that Filipino college students have silently suffered from mental health condition. Moreover, it is recommended that proactive and collaborative efforts of students, faculty, higher education's student affairs office, mental health professionals, and government line agencies should target the stakeholders' resiliency, and social stigma. In another study by Zhang et al. (2023) carried out a study on automatic thoughts, self-stigma, and resilience among schizophrenia patients with metabolic syndrome: A cross-sectional study was used. One hundred and thirty-two male and female (18-65 years of age) participants with a DSM 5 diagnosis of BD (BD- I & BD- II) were included. The remission criteria (YMRS< 5 and HDRS< 7) was evaluated using clinician-administered measures and all participants were found to be remitted. Correlation and mediation analyses were performed. Participants completed the Internalized Stigma in Mental Illness Scale (ISMI), the Self-Compassion Scale (SCS) and the Resilience Scale for Adults (RSA). Significant correlations were found between internalized stigma, sub-dimensions of self-compassion (self-kindness, self-judgement, common humanity, isolation, mindfulness, and over-identification), and resilience in the expected directions like negative correlations between internalized stigma and positive dimensions of self-compassion (self-kindness, common humanity and mindfulness). Self-judgement and self-kindness mediated the relationship between internalized stigma and psychological resilience. The findings of the study shed light on which dimensions of self-compassion might be more beneficial to work with in order to increase resilience when working with internalized stigma in BD. This strengths-based investigation would be valuable to enrich psycho-social interventions for the prevention of relapse in BD. Adejumo et al. (2020) carried out a study in Lagos State, Nigeria, to assess health-related quality of life and associated psychosocial factors among people living with HIV/AIDS on antiretroviral therapy. The study focused on the influence of psychological factors such as coping ability and social support on quality of life. The researchers used the WHOQOL-HIV BREF instrument and a structured psychosocial questionnaire for data collection. Data were analyzed using chi-square tests, independent t-test, and multiple logistic regression analysis. The results showed that respondents with higher psychosocial support and stronger coping ability had significantly better quality of life, while those experiencing psychological distress and stigma reported poorer outcomes. The

study concluded that psychosocial resources, including resilience-related coping skills, are important determinants of quality of life among HIV patients. It was recommended that HIV treatment programs should incorporate mental health screening and strengthen support systems for patients. Oni et al. (2022) conducted a hospital-based cross-sectional study in Ibadan, Oyo State, Nigeria, examining psychological resilience, depression, and quality of life among people living with HIV/AIDS attending antiretroviral clinics. The study aimed to assess how resilience influences mental health and quality of life outcomes. The researchers used the Connor–Davidson Resilience Scale (CD-RISC), the Beck Depression Inventory-II (BDI-II), and the WHOQOL-HIV BREF questionnaire for data collection. Data were analyzed using descriptive statistics, Pearson correlation, and hierarchical multiple regression analysis. The findings showed that higher resilience was significantly associated with lower depression and better quality of life across all domains. Depression was found to mediate the relationship between resilience and quality of life. The study concluded that psychological resilience is a key protective factor that improves mental health and quality of life among HIV patients. It was recommended that resilience-focused counseling and mental health interventions be integrated into routine HIV care services in Nigeria. Phi et al. (2024) evaluated the HRQL of HIV/AIDS outpatients at the Hospital for Tropical Diseases in Vietnam and identify key factors impacting their well-being. A cross-sectional study was conducted among 328 PLHA receiving care at the Hospital for Tropical Diseases between March 2023 to March 2024. Data was collected using the World Health Organization Quality of Life-HIV Brief Version (WHOQOL-HIV BREF) instrument and included socio-demographic, clinical, and treatment-related variables. Descriptive statistics were utilized to summarize the data. Inferential statistical analyses, including independent *t*-test, one-way ANOVA, Kruskal–Wallis tests, and linear regression, were performed to evaluate the relationships between HRQL domains and participant characteristics. Statistical significance was set at $p < 0.05$. The mean overall quality of life score was 14.6 ± 2.2. The highest domain scores were observed in spirituality (15.1 ± 3.5) and environment (15.1 ± 2.9), while the lowest was in the physical domain (14.1 ± 2.0). Significant determinants of overall quality of life included age, marital status, employment type, income, financial difficulties, chronic diseases, and CD4 counts (all $p < 0.05$). This study highlights the multifaceted challenges affecting the quality of life of PLHA, emphasizing the need for a holistic care approach. Being married, having stable employment, and having higher CD4 counts were associated with better quality of life, whereas older age, unstable income, financial struggles, and comorbidities were linked to poorer outcomes. Interventions addressing these determinants, including chronic disease management, social and mental health support are crucial for enhancing overall well-being. Firman et al. (2025) examined the relationship between resilience, social support, and quality of life among people living with HIV/AIDS during the pandemic. Conducted as a cross-sectional study, it involved 433 respondents. Data collection was carried out using a questionnaire, with Connor–Davidson Resilience Scale-25 (CD-RISC-25), Multidimensional Scale of Perceived Social Support (MSPSS), and World Health Organization Quality of Life–HIV Brief Version (WHO QoL-HIV-BREF) as the study instruments. The results indicated that resilience and social support were significantly associated with quality of life ($p = 0.000$; $p = 0.000$). Multiple logistic regression analysis identified resilience as the dominant factor influencing quality of life in people living with HIV (OR = 59.533). Respondents with high resilience were found to have a 59.53 times greater likelihood of experiencing a good quality of life compared to those with medium and low resilience after adjusting for marital status, income status, and length of time since HIV diagnosis. Resilience plays a crucial role in determining a person's quality of life.

HIV patients who actively participated in foundation-based assistance demonstrated greater optimism and a more positive acceptance of their condition, enabling them to cope with difficulties better. Bottolfs et al. (2020) examined whether lifestyle-related factors and resilience predict health-related quality of life (HRQoL) in a sample of nurses. A total of 611 nurses (response rate 97%) participated in this cross-sectional study. The variables measured were physical activity (accelerometer), cardiorespiratory fitness (Andersen test) and a questionnaire assessing dietary, sleep disturbance, resilience (resilience scale for adolescents) and HRQoL. (Kidscreen-27). A total of 36 of the sample met the official recommendations of 60 minutes of daily physical activity. Univariate analysis identified physical activity, dietary habits sleep disturbances body mass index (BMI), cardiorespiratory fitness and resilience, but not sedentary time, as predictors of HRQoL. Multivariate regression analysis identified resilience as a positive predictor of all HRQoL. Domain and sleep disturbance as a negative predictor of four HRQoL. BMI and cardiorespiratory fitness were predictors of the HRQoL domain physical well-being. Adherence to dietary recommendations was both a positive and a negative predictor of HRQ0L resilience and sleep disturbance were the main predictors of HRQ0L that notwithstanding, this study is accused of limitation the sample of HIV patients for the study by not sampling patients in Benue state for the study. Wong et al. (2021) examined professional quality of life and resilience as well as their relationships among emergency department healthcare professionals in Hong Kong during the COVID-19 outbreak. This study employed a cross-sectional design. Healthcare professionals (doctors and nurses) working in emergency department in Hong Kong were recruited via snowball sampling. The professional quality of Life scale, version 5, and the 10-item Connor-Davidson resilience scale and were used to assess their positive (compassion satisfaction) and negative (secondary traumatic stress and burnout) aspects of professional quality of life and self-reported resilience. Resilience socio demographic and work-related characters were also analysed. A total of 106 participants provide valid responses. The results showed an overall moderate level of compassion satisfaction, secondary traumatic stress and burnout among emergency department of compassion professional. The mean score of the 10-item connor-Davidson resilience scale was 23.8% backward linear regression analysis revealed self-reported resilience was the only significant predictor of compassion satisfaction, secondary traumatic stress and burnout explaining 70.6% 18.5% and 59.8% of total variance, respectively. Emergency department healthcare professional in Hon Kong experienced an overall moderate level of professional quality of life during the COVID-19 outbreak. Those with a higher level of self-reported resilience had better compassion satisfaction and lower levels of secondary traumatic stress and burnout. The results support the importance of developing intervention that foster resilience among this group of emergency department healthcare professionals of combat COVID-19. Although, the study was carried out during the COVID-19 era differs significant from the post-COVID19 era when the present study is conducted.

The Mediating Role of Psychological Resilience and Quality of Life

Ogaji et al. (2021) conducted a cross-sectional study in Nigeria (University of Port Harcourt Teaching Hospital, Rivers State) to examine health-related quality of life among people living with HIV/AIDS and the psychosocial factors influencing it. The study aimed to assess how demographic and psychological variables affect quality of life. The researchers used the WHOQOL-HIV BREF questionnaire and a structured socio-demographic instrument for data collection. Data were analyzed using descriptive statistics, chi-square test, and logistic regression analysis. The findings showed that psychological factors such as social support and coping

ability were significantly associated with better quality of life, while psychological distress and stigma were linked to poorer outcomes. The study concluded that psychosocial variables play an important role in determining the quality of life of HIV patients. It was recommended that HIV care services should integrate psychosocial counseling and strengthen support systems to improve patients' well-being. In another study by Onu et al. (2021) carried out a study in Nigeria (University of Nigeria, Nsukka) to examine the relationship between HIV-related stigma, treatment adherence, and health-related quality of life among people living with HIV/AIDS. The study focused on how psychological and behavioral factors influence quality of life outcomes. The researchers used the WHOQOL-HIV BREF scale and a self-reported HIV stigma questionnaire for data collection. Data were analyzed using descriptive statistics and mediation analysis (regression-based approach). The findings revealed that HIV-related stigma was significantly associated with lower quality of life, and treatment adherence partially mediated this relationship. This means that patients with better adherence experienced improved quality of life even in the presence of stigma. The study concluded that adherence behavior and psychological factors are important in explaining quality of life among PLHIV. It was recommended that interventions should focus on reducing stigma and improving adherence through counseling and psychosocial support. Na Li (2024) examined the mediating role of psychological resilience between depression and quality of life in maintenance hemodialysis patients in Baoding city, china. This cross-sectional study aimed to explore the mediating effect of psychological resilience on the relationship between depression and quality of life in MHD patients in Baoding, China. Conducted from January 2024 to July 2024, the study involved a questionnaire survey of 215 MHD patients across five hospitals in Baoding. Data were collected using General information questionnaire, Hemodialysis Patient Depression Scale, Psychological Resilience Scale, and Quality of Life Scale, and structural equation modeling using AMOS 21.0 was employed to analyze the mediating effect. The scores for depression, psychological resilience, and quality of life in these MHD patients were 9.37±4.6, 30.58±6.1, and 59.48±9.3, respectively. Depression had a negative correlation with quality of life, while psychological resilience had a positive correlation with quality of life (with correlation coefficients of −0.453 and 0.578, respectively, all P<0.01). Psychological resilience played a mediating role in the relationship between depression and quality of life (β=−0.13, P<0.05), with the mediating effect analysis showing a significant indirect effect of depression on quality of life. The direct and indirect effects of depression on quality of life were −0.34 and −0.13, respectively, with a total effect of −0.47. The mediating effect accounted for 27.7% of the total effect. Interpretation: PHQ-9 scores range from 0 to 27, with higher scores indicating more severe depressive symptoms. CD-RISC scores range from 0 to 100, with higher scores reflecting greater psychological resilience. SF-12 scores range from 0 to 100, with higher scores indicating a better quality of life. Depression, psychological resilience, and quality of life in MHD patients were at a moderately low level. Depression in MHD patients can indirectly affect their quality of life through psychological resilience, suggesting that healthcare professionals should take measures to reduce depression levels, enhance psychological resilience, and ultimately improve the quality of life for these patients. Psychological resilience was identified as a significant mediator in this relationship, highlighting its potential as a target for interventions aimed at improving the mental well-being and quality of life of MHD patients. These results underscore the importance of integrating psychological support into the care of MHD patients. David (2023) investigated the mediating effect of psychological resilience on the association between chronic pain intensity and quality of life among rheumatoid arthritis (RA) patients in Accra, Ghana. The study adopted

a descriptive cross-sectional design, conducted from October 2023 to March 2024, involving 195 RA patients from two public hospitals. Data were obtained using the Brief Pain Inventory (BPI), Resilience Scale for Adults (RSA), and the SF-36 Quality of Life Questionnaire. Analysis using PROCESS macro (Model 4) in SPSS 28.0 revealed that chronic pain negatively correlated with both resilience ($r = -0.427$, $p < 0.01$) and quality of life ($r = -0.521$, $p < 0.01$). Resilience positively correlated with quality of life ($r = 0.563$, $p < 0.01$). The indirect (mediating) effect of resilience on the relationship between chronic pain and quality of life was significant ($\beta = -0.15$, 95% CI [−0.25, −0.07]), explaining 28.4% of the total effect. Findings indicate that psychological resilience can mitigate the detrimental impact of chronic pain on patients' perceived well-being, suggesting that resilience training may improve coping and overall life satisfaction among RA patients. Bello (2024) explored the mediating role of psychological resilience in the relationship between perceived stress and quality of life among Type 2 diabetes patients attending outpatient clinics in Lagos, Nigeria. The quantitative cross-sectional study, conducted from January to June 2024, included 230 participants recruited through systematic sampling. Instruments used were the Perceived Stress Scale (PSS-10), Connor-Davidson Resilience Scale (CD-RISC-10), and the Diabetes Quality of Life Measure (DQOL). Data were analyzed using structural equation modeling with AMOS 25.0. Mean scores for stress, resilience, and quality of life were 21.7±6.5, 59.4±8.2, and 66.3±10.9, respectively. Perceived stress had a significant negative association with quality of life ($r = -0.471$, $p < 0.01$), while psychological resilience was positively correlated with quality of life ($r = 0.549$, $p < 0.01$). Mediation analysis revealed that resilience significantly mediated the effect of stress on quality of life ($\beta = -0.17$, $p < 0.05$), accounting for 30.1% of the total effect. The findings emphasize that resilience serves as a psychological buffer against stress-related declines in quality of life, highlighting its importance in diabetes self-management programs.

Hossam et al. (2021) investigated the mediating effects of resilience on the relationship between perceived stress and quality of life in Jordanian clinical registered nurses during the COVID-19 pandemic. The study used a cross-sectional correlational design with an online survey and adhered to the STROBE guideline for cross-sectional studies. A total of 550 registered nurses working in 6 hospitals were conveniently selected. Data were collected via a demographic questionnaire, the Perceived Stress Scale (PSS), the Connor-Davidson Resilience Scale (CD-RISC), and the WHOQOL scale. Descriptive, Pearson correlation, t-test, one-way ANOVA, and hierarchical linear regression analyses were used to analyze the data. The results indicated that resilience was negatively correlated with perceived stress and quality of life. Further, resilience was found to play a partial mediating role in the relationship between perceived stress and quality of life. Therefore, the results partially supported our study hypotheses. Health policy makers and administrators in Jordan should be aware of the importance of assessing and improving nurses' resilience to decrease devastating effects of stress on quality of life. In another Oladejo et al. (2024) conducted a cross-sectional study in Lagos State, Nigeria, to examine health-related quality of life and its associated factors among people living with HIV/AIDS receiving care in selected treatment centres. The study aimed to identify demographic, clinical, and psychosocial predictors of quality of life among PLHIV. The researchers used the MOS-HIV Health Survey (Medical Outcomes Study HIV instrument) and structured questionnaires for data collection. Data were analyzed using descriptive statistics and binary logistic regression analysis. The results showed that physical and mental health scores were moderate, but factors such as longer duration of HIV infection, low income, and psychological distress significantly reduced quality of life. Conversely, higher education, marital support, and better psychosocial

functioning improved quality of life. The study concluded that quality of life among HIV patients is influenced by a combination of psychological, social, and clinical factors. It was recommended that healthcare providers should strengthen psychosocial counseling, improve income-support interventions, and enhance long-term care strategies for people living with HIV.

Self-stigma and Psychological Resilience on Quality of Life

The findings from numerous international studies consistently support the hypothesis that self-stigma and psychological resilience jointly and significantly influence the quality of life among people living with HIV/AIDS. Mansoor and Abia (2025), in their study in Lahore, Pakistan, demonstrated that resilience and stigma are key variables that interact to impact quality of life, with resilience serving as a buffer against the negative effects of stigma. Their results highlight that individuals with higher resilience tend to report better quality of life despite experiencing HIV-related stigma, reinforcing the importance of resilience-building interventions in HIV care. Similarly, Aliche et al. (2025) in Nigeria found that HIV-related stigma significantly predicts lower quality of life, but resilience-related factors such as self-compassion can buffer this effect. Their moderation analysis revealed that positive psychological resources diminish the adverse impact of stigma, emphasizing that resilience and related constructs can serve as protective factors. Luo et al. (2023) in China provided further evidence, showing that resilience partially mediates the relationship between self-stigma and quality of life. Their structural equation modeling indicated that individuals with higher resilience are better equipped to cope with stigma, which in turn preserves their well-being. This mediating role aligns with findings from Smith and Akinboro et al. (2023) in Nigeria, where resilience reduced the negative effects of stigma, contributing to improved quality of life. Research from South Africa by Mthembu et al. (2022) reinforced that resilience significantly predicts better psychological and social quality of life, even in the presence of high perceived stigma. Their hierarchical regression analysis confirmed that resilience acts as an important resource to counteract the detrimental effects of stigma, emphasizing the necessity for resilience-oriented psychosocial interventions. In Western contexts, Brown (2022) in the United States found that resilience directly predicts quality of life and mitigates the adverse effects of perceived stigma, aligning with global evidence. Similarly, Martínez et al. (2021) in Spain and Osei-Yeboah et al. (2021) in Ghana both demonstrated that resilience moderates the relationship between HIV-related stigma and quality of life, such that higher resilience levels lessen the negative impact of stigma on emotional and social well-being.

Hypotheses

i. Self-stigma will significantly predict quality of life among HIV/AIDS patients in some selected hospitals in Makurdi metropolis.
ii. Psychological resilience will significantly predict quality of life among HIV/AIDS patients in some selected hospitals in Makurdi metropolis.
iii. Psychological resilience will significantly mediate the relationship between self-stigma and quality of life among HIV/AIDS patients in some selected hospitals in Makurdi metropolis.
iv. Self-stigma and psychological resilience will jointly and significantly predict quality of life among HIV/AIDS patients' hospitals in Makurdi metropolis.

Methods

Design

The present study employed a cross-sectional survey design to assess self-stigma and quality of

life among HIV/AIDS patients in selected hospitals in Makurdi metropolis, with psychological resilience serving as the mediating variable. A cross-sectional survey design was used to collect data from the population at a single point in time. This design was considered appropriate for the study because it allowed efficient data collection from a relatively large number of HIV/AIDS patients. In the study, self-stigma served as the independent variable, quality of life served as the dependent variable, and psychological resilience functioned as the mediating variable.

Population

The population of this study comprised 25,938 HIV/AIDS patients across the selected hospitals. Specifically, this included registered patients receiving treatment at three selected hospitals: Benue State University Teaching Hospital (1101), Federal Medical Centre, Makurdi (9,313), and Bishop Murray Hospital, Makurdi (5,614), representing both public and private healthcare facilities within the study area.

Sample Size Determination

The sample size for this study was determined using Krejcie and Morgan's (1970) table for estimating sample size from a given population. The target population comprised HIV/AIDS patients receiving treatment in the selected hospitals. Accordingly, the working population consisted of 9,413 HIV/AIDS patients receiving treatment at Benue State University Teaching Hospital (1,101), Bishop Murray Hospital (2,011), and Federal Medical Centre, Makurdi (6,301). Using the Krejcie and Morgan table, a population of 25,938 yielded a recommended sample size of 379 participants.

Participants

The study included 379 participants with males (55.7% vs. 44.3%). The largest age group was 40 years and above (36.4%), followed by ages 30–40 (33.2%). Muslims made up the largest religious group (47.8%), while 48.9% identified with ethnic groups other than Tiv or Idoma. Most participants were married (57.9%). Bishop Murray Hospital contributed the most respondents (39.9%), followed by FMC (32.7%) and BSUTH (29.3%).

Sampling Technique

This study used a multi-stage sampling method to select participants. Initially, a stratified sampling technique was employed, treating hospitals as separate groups. Three hospitals Benue State University Teaching Hospital, Bishop Murray Medical Centre, and Federal Medical Centre in Makurdi were chosen to represent both public and private healthcare facilities offering HIV/AIDS treatment. In the second stage, a purposive sampling approach was used within each hospital to identify eligible participants. Participants were selected based on criteria such as being adults diagnosed with HIV/AIDS, on antiretroviral therapy, attending routine clinic visits, and willing to give informed consent. Healthcare staff helped identify suitable patients during clinic days, and only those meeting the criteria were approached, informed about the study, and invited to participate. Those who consented completed research instruments in a confidential hospital setting. This approach ensured diverse representation across facilities and focused on individuals with relevant experiences related to self-stigma, resilience, and quality of life. While purposive sampling may limit the generalizability of results, it was appropriate for this hospital-based study to obtain in-depth, relevant data within practical and ethical considerations.

Instruments

Self-Stigma Scale This Scale was developed by Ritsher et al. (2003) was used for this study. It is a 9-item self-report instrument designed to assess the extent to which individuals with mental illness internalize negative stereotypes and attitudes about mental illness across five dimensions: alienation, stereotype endorsement, perceived discrimination, social withdrawal, and stigma resistance. The scale has demonstrated strong psychometric properties across different populations and cultural settings. Ritsher et al. (2003) reported a high level of internal consistency for the original scale, with a Cronbach's alpha of approximately .90, indicating good reliability. Subsequent evidence reported by Boyd et al. (2014) showed that the ISMI had internal consistency coefficients ranging from .80 to .92, while test-retest reliability coefficients ranged from .90 to .92, indicating satisfactory temporal stability. The shortened ISMI-9, from which the present nine-item measure was adapted, has also demonstrated good internal consistency, with a reported Cronbach's alpha of .86. In terms of validity, the instrument has demonstrated evidence of content and construct validity, with factor-analytic studies showing that the items adequately represent important components of internalized stigma. For example, items assessing stereotype endorsement, alienation, social withdrawal, perceived rejection, and stigma resistance have demonstrated meaningful factor loadings, supporting the underlying construct measured by the instrument. The present scale is a self-report, pen-and-paper instrument in which participants indicate the extent to which each statement describes their experience. The items are scored using a Likert-type response format, and negatively worded items are scored directly while positively worded stigma-resistance items are reverse-scored before computing the overall self-stigma score. Higher scores indicate greater internalized self-stigma. The instrument requires no specialized software for administration and can be administered and scored manually, making it suitable for research involving individuals with mental illness, for the present study.

Psychological-resilience Scale: Psychological resilience was measured using The Brief Resilience Scale (BRS) developed by Smith et al. (2008) is a widely validated instrument specifically designed to measure an individual's ability to bounce back or recover from stress. The BRS consists of six items, scored on a 5-point Likert scale ranging from 1 = strongly disagree to 5 = strongly agree. Three of the items are positively worded, while the other three are negatively worded and are reverse scored to control for response bias. Higher total scores indicate a greater level of psychological resilience. The scale has demonstrated strong psychometric properties across different populations and cultural contexts. Smith et al. (2008) reported Cronbach's alpha reliability coefficients ranging from 0.80 to 0.91, indicating excellent internal consistency. Test–retest reliability over a one-month interval was reported between 0.62 and 0.69, confirming its stability over time. Evidence of construct validity was established through significant negative correlations with anxiety, depression, and perceived stress, and positive correlations with social support and health outcomes, supporting its convergent and discriminant validity. The BRS has also been used in studies involving chronic illness populations, including individuals living with HIV/AIDS, demonstrating stable reliability above 0.80 and cultural adaptability in African contexts. Its brevity, clarity, and psychometric strength make it highly suitable for use among medically vulnerable populations such as HIV patients in the present study.

Quality of life Scale: This scale was developed by the World Health Organization (WHO, 2004) was used for this study. It is a 26-item self-report instrument designed to assess individuals' perceived quality of life across four domains: physical health, psychological well-being, social relationships, and environmental health. The WHO developed this scale through a rigorous international process to ensure cross-cultural applicability, and it has been reported to possess strong reliability and validity across diverse populations. The instrument is pen-and-paper based, and participants will be required to respond by indicating the extent to which each item applies to their current life experience. The questionnaire is scored by summing the individual item responses to produce a total quality of life score, with possible scores ranging from 16 to 112, where higher scores indicate a better quality of life. The scale does not require any specialized software for administration or scoring; it is simple to administer manually and appropriate for both literate and moderately literate populations. This instrument is widely accepted and suitable for use in health-related research, particularly among chronic illness groups such as people living with HIV/AIDS, making it appropriate for the present study.

Procedure

The researcher first collected an official letter of introduction from the Department of Psychology, Rev. Fr. Moses Orshio Adasu University, Makurdi. This letter was presented to the authorities of Benue State University Teaching Hospital (10,101), Federal Medical Centre, Makurdi (6,301), and Bishop Murray Hospital, Makurdi (2,011) to request formal permission to conduct the study among patients living with HIV/AIDS who were receiving antiretroviral treatment. During these visits, the researcher also held brief meetings with the HIV/ART clinic coordinators in each hospital to agree on the appropriate clinic days, ethical guidelines, and designated private spaces for administering the questionnaires. The administration of the questionnaire spanned a total of three (3) weeks. In the first week, the researcher and a trained research assistant assigned to BSUTH visited the HIV clinic during patients' routine ART appointment days. With the cooperation of the clinic staff, a brief introduction was made to the patients in the waiting area, explaining the purpose, voluntary nature, and confidentiality of the study. Interested participants were taken aside to a private space where the study details were explained in simple language and written informed consent was obtained. Literate participants were allowed to self-administer the questionnaire, while those with literacy challenges were assisted by the research assistant in a confidential manner. Completed questionnaires were immediately collected, checked for completeness, and securely stored. In the second week, the same procedure was carried out at Federal Medical Centre, Makurdi. The researcher and a second trained research assistant, fluent in the local language, engaged participants during their ART clinic days, following the same protocol for introduction, informed consent, private administration, and immediate retrieval of questionnaires to maintain consistency across hospitals. In the third week, follow-up visits were conducted across all three hospitals to target participants who were unavailable during the first visits or who needed additional time. This phase also allowed for the retrieval of any pending or partially completed questionnaires. Only fully completed and validated questionnaires were prepared for data entry and analysis. At every stage of questionnaire administration, confidentiality, anonymity, and voluntary participation were strictly upheld. Research assistants were carefully selected and trained prior to data collection. Each assistant was fluent in English and the local language(s) spoken by the participants. Training covered ethical standards, consent procedures, interviewer-administration techniques, participant support, and clarification of questionnaire items without influencing

responses. Confidentiality agreements were signed by all assistants. Throughout the process, ethical standards were fully respected. No personal names or identifying information appeared on any questionnaire. Participation was entirely voluntary, and any participant who felt uncomfortable could withdraw without any consequences for their medical care. Participants who appeared emotionally distressed were immediately referred to the hospital counsellor or relevant mental health unit for professional support. Only completed and valid questionnaires were used for statistical analysis.

Data Analysis

Descriptive statistics, such as frequencies, simple percentages, means, and standard deviations, were used to summarize data on the demographic characteristics of respondents. Hypotheses one and two were tested using simple linear regression, hypothesis three was analyzed using micro-analysis, and hypothesis four was tested using standard multiple regression. All analyses were conducted using the Statistical Package for Social Sciences (SPSS) version 20.

Results

Hypothesis 1: This hypothesis stated that, self-stigma will significantly predict quality of life among HIV/AIDS patients in some selected hospitals in Makurdi metropolis. The hypothesis was tested using simple linear regression and the result is presented in Table 4.1 Below

Table 4.1: Simple Linear Regression Showing Influence of Self-stigma as a Predictor of Quality of Life Among HIV/AIDS Patients in Some Selected Hospitals in Makurdi Metropolis.

Predictor Variables	R	R^2	df	F	β	t	P
Constant	.933	.871	1, 376	2479.039		6.855	.000
Self-stigma					. 933	49.790	.000

The result in Table 4.1 above shows that there was a significant prediction of self-stigma on quality of life among HIV/AIDS patients in some selected hospitals in Makurdi metropolis [R=.933, R^2=.871 F(1, 376)=2479.039, p<.05]. The result showed a strong prediction between self-stigma and quality of life, as indicated by the correlation coefficient R = .933. This high value suggests that self-stigma is strongly associated with changes in the quality of life of HIV/AIDS patients. The coefficient of determination (R^2 = .871) indicates that 87.1% of the variance in quality of life is explained by self-stigma. This means that a large proportion of differences in patients' quality of life can be attributed to their level of self-stigma, showing that self-stigma is a major predictor. The regression model was statistically significant F(1, 376) = 2479.039, p < .05, indicating that the model reliably predicts quality of life and that the observed relationship is unlikely to have occurred by chance. Furthermore, the standardized regression coefficient β = .933 shows that self-stigma has a strong predictive influence on quality of life. The t-value (t = 49.790, p = .000) confirms that this effect is statistically significant. This implies that increases in self-stigma are associated with significant changes (typically poorer outcomes) in quality of life among HIV/AIDS patients Based on these findings, self-stigma significantly predicts quality of life among HIV/AIDS patients in selected hospitals in Makurdi metropolis. Therefore, hypothesis one was confirmed.

Hypothesis 2: This hypothesis stated that, psychological resilience will significantly predict

quality of life among HIV/AIDS patients in some selected hospitals in Makurdi metropolis. The hypothesis was tested using simple linear regression and the result is presented in Table 4.2

Table 4.2: Summary of Multiple Linear Regression Showing Psychological resilience as a significant predictor of quality of life among HIV/AIDS patients in some selected hospitals in Makurdi metropolis.

Predictor (s)	R	R^2	F	df	β	t	P
Constant	.886	.785	1337.478	1, 376		6.091	.000
Psychological Resilience					.886	36.572	.000

The result in Table 4.2 above shows that, psychological resilience significantly predict quality of life among HIV/AIDS patients in some selected hospitals in Makurdi metropolis [R=.886, R^2=.785, F(1, 376)=1337.478; p<.05]. The findings revealed a strong prediction between psychological resilience and quality of life, as indicated by the correlation coefficient R = .886. This value suggests that psychological resilience is strongly associated with variations in the quality of life of HIV/AIDS patients. The coefficient of determination (R^2 = .785) shows that 78.5% of the variance in quality of life is explained by psychological resilience. This indicates that psychological resilience plays a major role in determining how well HIV/AIDS patients experience their quality of life. The regression model was statistically significant F(1, 376) = 1337.478, p < .05, meaning that psychological resilience reliably predicts quality of life and the relationship is not due to chance. Furthermore, the standardized regression coefficient β = .886 indicates that psychological resilience has a strong predictive influence on quality of life. The t-value (t = 36.572, p = .000) confirms that this effect is statistically significant. This implies that higher psychological resilience is associated with better quality of life among HIV/AIDS patients. Based on these results, psychological resilience significantly predicts quality of life among HIV/AIDS patients in selected hospitals in Makurdi metropolis. Therefore, hypothesis two was confirmed.

Hypothesis 3: This hypothesis stated that, psychological resilience will significantly mediate the relationship between self-stigma and quality of life among HIV/AIDS patients in some selected hospitals in Makurdi metropolis. This hypothesis was tested using Process Macro and the result is presented in table 4.3 below

Table: Summary of Process Mediation Analysis Showing Psychological Resilience as a Mediator of Self-Stigma and Quality of Life among HIV/AIDS Patients in Selected Hospitals in Makurdi Metropolis

Variable	R	R^2	F	df	ß	t	Sig.	LLCI	ULCI
Constant	.698	.487	106.48	2, 376	40.1075	10.739	.000	0.8199	-0.068
Self-stigma					-0.1723	-3.265	.001	-0.277	1.0273
Psychological-Resilience					0.9027	14.229	.000	0.778	1.027
Int_1 (X * M)					-0.0620			-	-

The results presented in Table 4.3 show that psychological resilience significantly mediates the relationship between self-stigma and quality of life among HIV/AIDS patients in selected hospitals in Makurdi Metropolis. The overall regression model predicting quality of life from self-stigma and psychological resilience was statistically significant, with R = .698 and R^2 = .487, indicating that approximately 48.7% of the variance in quality of life was explained by the

combined effects of self-stigma and psychological resilience. The model's F-value (F(2, 376) = 106.48, p<.001) further confirms that the predictors significantly explain variations in patients' quality of life. Examining the individual predictors, self-stigma significantly predicted quality of life (β = −0.172, t = −3.265, p = .001). The negative coefficient and confidence interval (LLCI = −0.277, ULCI =−0.068) indicate that higher levels of self-stigma are associated with poorer quality of life among HIV/AIDS patients. This suggests that internalized stigma negatively affects patients' psychological, emotional, and social well-being. Similarly, psychological resilience significantly predicted quality of life (β = 0.903, t = 14.229, p < .001). The positive coefficient and confidence interval (LLCI = 0.778, ULCI = 1.027) indicate that patients with higher resilience tend to report better quality of life. This finding highlights psychological resilience as a protective factor that enhances coping and adjustment to living with HIV/AIDS. Regarding the mediation analysis, the total effect of self-stigma on quality of life was significant (Effect = 0.965, p < .001), indicating that self-stigma influences quality of life before accounting for psychological resilience. When psychological resilience was included in the model, the direct effect remained significant (Effect = 0.903, p < .001), suggesting that self-stigma still affects quality of life even after considering resilience. Importantly, the indirect effect of self-stigma on quality of life through psychological resilience was significant (Effect = −0.062), as the bootstrapped confidence interval (BootLLCI = −0.108, BootULCI = −0.022) did not include zero. This indicates that psychological resilience partially mediates the relationship between self-stigma and quality of life. In practical terms, higher self-stigma reduces psychological resilience, which in turn lowers quality of life. These findings suggest that while self-stigma directly reduces quality of life among HIV/AIDS patients, psychological resilience serves as an important mechanism through which this effect occurs. Therefore, interventions aimed at strengthening resilience may help buffer the negative impact of self-stigma and improve patients' quality of life.

Hypothesis 4: This hypothesis stated that, self-stigma and psychological resilience will jointly and significantly predict quality of life among HIV/AIDS patients' hospitals in Makurdi metropolis. The hypothesis was tested using multiple linear regression analysis and the result is presented in Table 4.3

Table 4: Standard Multiple Linear Regression Showing Joint Prediction of Self-stigma and Psychological Resilience on Quality of life among HIV/AIDS Patients' Hospitals in Makurdi metropolis

Predictors	R	R^2	df	F	β	t	P
Constant	.934	.871	2, 375	1237.593		6.811	.000
Self-stigma					.970	15.660	.000
Psychological Resilience					-.038	-.613	.010

The result in Table 4 above shows that self-stigma and psychological resilience jointly and significantly predicts quality of life among HIV/AIDS patients' hospitals in Makurdi metropolis [R=.934, R^2=.871, F(2, 375)=1237.593, P>.05]. The results revealed a strong overall prediction between the predictors and quality of life, as indicated by the correlation coefficient R=.934. This suggests that the combination of self-stigma and psychological resilience is strongly associated with variations in quality of life. The coefficient of determination (R^2 = .871)

indicates that 87.1% of the variance in quality of life is jointly explained by self-stigma and psychological resilience. This shows that the two variables together play a major role in determining the quality of life of HIV/AIDS patients. The regression model was statistically significant $F(2, 365) = 1237.593$, $p < .05$, meaning that the combined predictors reliably explain changes in quality of life and the relationship is unlikely due to chance. Independent Contributions of Predictors Examining the individual predictors, Self-stigma ($\beta = .970$, $t = 15.660$, $p = .000$) made a significant positive contribution to quality of life. This indicates that self-stigma is a strong predictor of quality of life among HIV/AIDS patients (in practice, higher self-stigma is typically associated with poorer quality of life). Psychological resilience ($\beta= -.038$, $t=-.613$, $p= .010$) showed a very small but statistically significant contribution to quality of life. The negative beta suggests an inverse relationship when both predictors are considered together, meaning the effect of resilience becomes weaker after accounting for self-stigma. The findings indicate that self-stigma is the stronger predictor, while psychological resilience contributes only minimally in the joint model. Based on the results, self-stigma and psychological resilience jointly and significantly predict quality of life among HIV/AIDS patients in selected hospitals in Makurdi metropolis. Therefore, the hypothesis on joint prediction was confirmed.

Discussion

Hypothesis one: stated that psychological resilience will significantly predict quality of life among HIV/AIDS patients in some selected hospitals in Makurdi metropolis. This hypothesis was tested using simple linear regression analysis and the finding of this study revealed that self-stigma significantly predicted quality of life among HIV/AIDS patients in selected hospitals in Makurdi metropolis. This implies that higher levels of self-stigma are associated with poorer quality of life among the patients. This result is consistent with several previous empirical studies. The study by Luo et al. (2023) supports the present finding as it showed that self-stigma was negatively correlated with quality of life among patients with diabetic foot ulcer. The authors further reported that self-stigma indirectly affected quality of life through coping style and social support. However, Livingston (2012) partially contradicts the current finding. Although cross-sectional analysis showed a negative relationship between self-stigma and quality of life, longitudinal analysis indicated that self-stigma was not a significant predictor over time, with symptom severity emerging as the strongest predictor. This difference may be due to methodological design and population differences. The findings of Van Thi Hai Hoang et al. (2022) are consistent with this study as they found that higher HIV-related stigma was associated with poorer quality of life across physical and psychological domains, supporting the predictive role of stigma identified in the present research. Similarly, Yvonne et al. (2021) reported that self-stigma significantly affected quality-of-life outcomes and mediated the impact of public stigma among people living with HIV, further confirming the importance of self-stigma as a predictor. In the same vein, Furthermore, Li et al. (2022) demonstrated that internalized stigma significantly predicted poorer quality of life, while psychological resilience buffered the effect. This supports the broader implication of the present study that stigma influences quality of life and highlights the protective role of resilience. Similarly, Turan et al. (2023) found that internalized stigma mediated the relationship between public stigma and quality of life, leading to depressive symptoms and reduced treatment adherence, which supports the predictive effect found in this study. The findings of Abebe et al. (2022) also corroborate the present study, identifying self-stigma as the strongest predictor of reduced quality of life among people living

with HIV, emphasizing the need for stigma-reduction interventions. Likewise, Okeke et al. (2023) reported that self-stigma mediated the relationship between perceived stigma and mental health outcomes, reinforcing its role as a key determinant of quality of life among Nigerian PLHIV, consistent with this study's context.

Hypothesis Two: stated that psychological resilience will significantly predict quality of life among HIV/AIDS patients in selected hospitals in Makurdi metropolis. This hypothesis was tested using simple linear regression, and the results indicated that psychological resilience significantly predicted quality of life among the participants. This implies that higher levels of psychological resilience are associated with better quality of life among HIV/AIDS patients in these hospitals. This finding aligns with numerous studies in diverse populations and health contexts, highlighting resilience as a key determinant of quality of life such as Puentespina et al. (2023) who found that resilience among Filipino college students predicted lower self-stigma and mental health conditions, indicating that resilient individuals cope better with stress and stigma.
Building on the existing body of research, it is clear that psychological resilience is a vital determinant of quality of life among individuals living with chronic health conditions, including HIV/AIDS. Adefolalu et al. (2014) highlighted that higher resilience, coupled with strong social support, significantly enhances physical, psychological, and social well-being among HIV patients in Nigeria. Their findings suggest that resilience facilitates better coping mechanisms and overall health outcomes, underscoring its importance in HIV care interventions. Similarly, Adamu et al. (2019) demonstrated that resilience is negatively correlated with perceived stress and positively associated with psychological adjustment among women living with HIV/AIDS. Their study emphasizes that resilience serves as a protective factor, helping patients manage stress and maintain better mental health, which ultimately contributes to an improved quality of life. These findings align with the present hypothesis, indicating that higher resilience levels are linked to better health outcomes for HIV/AIDS patients. Suleiman et al. (2020) further supported this perspective by identifying family support and psychosocial factors, including resilience, as significant predictors of quality of life among HIV-positive patients. Their research suggests that resilience not only buffers against psychological distress but also promotes physical and social well-being. The role of resilience as a core component in HIV treatment programs is reinforced by Nyamathi et al. (2013), who found that stronger resilience correlates with better medication adherence, improved mental health, and higher overall quality of life over time. Research from Ethiopia by Deribe et al. (2008) and Mekuria et al. (2015) also emphasizes the buffering effect of resilience against the negative impacts of perceived stigma and depression on quality of life. Their studies advocate for integrating resilience-building strategies within HIV care, such as psychological counseling and community support, to improve long-term health outcomes. Puentespina et al. (2023) extended this understanding beyond HIV, illustrating that resilience among Filipino college students predicts lower self-stigma and better mental health, highlighting the universal importance of resilience in coping with stigma and stress. Moreover, studies on other populations, such as Wong et al. (2021), demonstrated that resilience among healthcare professionals significantly enhances their professional quality of life, especially during stressful periods like the COVID-19 pandemic.

Hypothesis three: stated that psychological resilience will significantly mediate the relationship between self-stigma and quality of life among HIV/AIDS patients in selected hospitals in Makurdi metropolis. The results of this study confirmed the hypothesis, indicating that

psychological resilience significantly mediates the effect of self-stigma on the quality of life of patients. This implies that higher levels of psychological resilience can buffer the negative effects of self-stigma, thereby improving overall quality of life among HIV/AIDS patients. Similar findings have been reported in related healthcare contexts. For instance, The body of evidence from diverse health contexts underscores the significant mediating role of psychological resilience in the relationship between self-stigma and quality of life among individuals living with chronic illnesses, including HIV/AIDS. The findings from Ogaji et al. (2021) in Nigeria demonstrate that psychological factors such as social support and coping ability can buffer the negative effects of stigma, leading to better quality of life outcomes. Similarly, Onu et al. (2021) found that treatment adherence and psychological resilience mediate the detrimental impact of stigma on quality of life, highlighting resilience's protective function. Research by Oguntibeju et al. (2017) emphasizes that psychological distress and stigma reduce quality of life, suggesting that resilience can serve as an essential intervention target to mitigate these effects. The study by Na Li (2024) in China offers further support, showing that resilience mediates the relationship between depression and quality of life, implying that enhancing resilience can help alleviate depressive symptoms and improve overall well-being. Additional studies across different patient populations, such as those by David (2023) on rheumatoid arthritis, Bello (2024) on diabetes, and Hossam et al. (2021) on nurses during COVID-19, consistently demonstrate that resilience significantly buffers the negative impact of stress, pain, or psychological distress on quality of life. These findings reinforce the importance of resilience-focused interventions to promote better health outcomes. Furthermore, Oladejo et al. (2024) highlight that factors such as psychological distress and social support influence quality of life among people living with HIV/AIDS, and that resilience can serve as a vital mechanism to improve long-term well-being. The collective evidence suggests that fostering psychological resilience can reduce the adverse effects of self-stigma, thereby enhancing the overall quality of life among HIV/AIDS patients.

Hypothesis four: stated that self-stigma and psychological resilience will jointly and significantly predict quality of life among HIV/AIDS patients in selected hospitals in Makurdi metropolis. This hypothesis was tested using standard multiple regression analysis, and the result revealed that self-stigma and psychological resilience jointly and significantly predicted quality of life among HIV/AIDS patients. This implies that the combined influence of negative self-perceptions associated with HIV status and individuals' ability to cope with adversity plays a crucial role in determining patients' overall well-being. Specifically, higher self-stigma tends to reduce quality of life, whereas stronger psychological resilience enhances adjustment, emotional stability, and life satisfaction among patients. The present finding is consistent with the study of

Conclusion

i. The findings of this study revealed that self-stigma significantly predicts the quality of life among HIV/AIDS patients in selected hospitals in Makurdi metropolis.
ii. The study also established that psychological resilience is a significant determinant of quality of life among HIV/AIDS patients in selected hospitals in Makurdi metropolis
iii. Furthermore, the results showed that psychological resilience significantly mediates the relationship between self-stigma and quality of life among HIV/AIDS patients in selected hospitals in Makurdi metropolis.
iv. Lastly, the study concluded that self-stigma and psychological resilience jointly and

significantly predict the quality of life among HIV/AIDS patients in selected hospitals in Makurdi metropolis.

Recommendations

Based on the findings of this study, the following recommendations are proposed:

The National Agency for the Control of AIDS (NACA) should collaborate with clinical psychologists and mental health professionals to design and implement structured psychological interventions for HIV/AIDS patients. These should include cognitive-behavioural therapy, stigma-reduction counselling, resilience training, and psychoeducation programmes. Such interventions will help reduce self-stigma, enhance coping skills, and improve overall quality of life. Hospitals and HIV treatment centres should integrate routine psychological screening and counselling into antiretroviral therapy (ART) services. Regular assessment of self-stigma, emotional distress, and psychological resilience will enable early identification of patients at risk of poor quality of life and ensure timely interventions. State agencies such as the Benue State Agency for the Control of AIDS (SACA), healthcare institutions, support groups, and community organisations should implement resilience-enhancement initiatives. These may include peer support groups, stress-management workshops, empowerment sessions, and skills training to help patients cope effectively with stigma and the challenges of chronic illness. Government agencies, hospital management, and non-governmental organisations should establish coordinated liaison structures that link HIV/AIDS patients with psychological, medical, and social support services. In addition, intensified public awareness campaigns should be conducted to reduce HIV-related stigma. Such collaboration will strengthen service delivery, ensure continuity of care, and enhance the quality of life of HIV/AIDS patients.

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