IOSR Journal of Nursing and Health Science (IOSR-JNHS)
e-ISSN: 2320–1959.p- ISSN: 2320–1940 Volume 15, Issue 2 Ser. 1 (Mar. – Apr. 2026), PP 70-77
www.iosrjournals.org

Therapeutic Support Systems And Adherence To Antiretroviral Therapy Among Seropositive Patients In Central Hospital, Warri. Delta State, Nigeria.

Akamune Spee-Dee Jofuoma
Lily College Of Nursing Sciences, Warri, Delta State, Nigeria

Abstract
Background: *Antiretroviral therapy is central to HIV management. This is because it suppresses viral replication, improves immune function, and prolongs patients' survival. Its benefits, however, depend on sustained adherence, which many patients still fail to maintain consistently. This study examined therapeutic support systems and adherence to antiretroviral therapy among seropositive patients in Central Hospital, Warri. Five research questions and two hypotheses guided the study.*
Methods: *A descriptive cross-sectional survey design was adopted. The population of the study comprised adult seropositive patients receiving care at the Heart to Heart Centre, Central Hospital, Warri. A sample of 350 respondents was used. Data were collected with a structured questionnaire validated by experts, and pilot testing produced a reliability coefficient of 0.84. Data obtained were analysed using descriptive statistics, chi-square, and cross tabulation with SPSS at the 0.05 level of significance.*
Results: *Findings of the study showed that 93.1% of the respondents received at least one form of therapeutic support, while 93.4% achieved the recommended compliance level of 95.0% and above. Forgetfulness, 71.6%, was the most common reason for missed doses. Treatment reminder support had a significant relationship with compliance, p = 0.049, and overall therapeutic support was also significantly related to compliance, p = 0.015, whereas financial support was not significant, p = 0.115. Duration on therapy had a significant relationship with compliance, p = 0.02.*
Conclusion: *The study concludes that practical therapeutic support mechanisms, especially treatment reminders and sustained overall support, are important in maintaining high antiretroviral drug compliance among seropositive patients. Based on these findings, the study recommended that hospital management and relevant health authorities should strengthen structured therapeutic support systems, integrate regular reminder strategies into routine antiretroviral care, reduce service disruptions, and provide closer follow-up for patients within the first six months of therapy.*
Keywords: *Therapeutic support, adherence, antiretroviral therapy, seropositive patients, compliance, Warri, HIV/AIDS.*

Date of Submission: 08-03-2026 Date of Acceptance: 18-03-2026

I. Introduction

Antiretroviral Therapy (ART) is a central approach in the management of HIV infection. This is because it suppresses viral replication, improves immune function, reduces morbidity, and prolongs survival. Its effectiveness, however, depends largely on sustained adherence, since irregular medication use can reduce viral suppression, increase the risk of drug resistance, and weaken treatment outcomes. Across different settings, adherence to antiretroviral therapy is inconsistent. In a study Abba et al. (2026), a substantial number of non-adherences to ART was observed among people living with HIV in Northwestern Nigeria, while in Greece, Goma et al. (2020) found that a high level of non-adherence was reported among seropositive patients in northern. In Ghana, Addo et al. (2022) reported that adherence remained below an optimal level among people living with HIV. These results indicate that the challenge in HIV care is not limited to the provision of drugs alone, because the long-term success of treatment also depends on the support available to help patients to remain committed to therapy.

Therapeutic support systems refer to the professional, institutional, interpersonal, and service-related mechanisms deliberately designed to enable seropositive patients to cope with the demands of lifelong antiretroviral therapy. These include counselling, communication of laboratory results, reminder systems, encouraging provider-patient relationships, confidentiality, reduced waiting time, and service arrangements that make treatment more accessible and acceptable. Manu et al. (2024) identified reassurance of patients about their health improvement, effective counselling, communication of test results, and good provider-client relationships

as important opportunities and avenue for improving uptake of antiretroviral therapy (ART) services. In Uganda, Katongole et al. (2024) established that differentiated service delivery models were effective in improving ART adherence, as they helped in reducing travel burden, shortened waiting time, improved confidentiality, reduced stigma, and strengthening social support. Similarly, Yeshiwas et al. (2021) showed that mentorship, provider training, and adequate supplies helped to improve service quality and patient outcomes. This means that therapeutic support is not a peripheral issue in HIV care; but a central and necessary condition for treatment continuity and adherence behaviour (Okwuonu et al., 2023; U.S. Department of Health & Human Services, 2023; Onwujekwe et al., 2021).

Missed doses remain one of the clearest manifestations of weak adherence, and the reasons are often both personal and structural. A report by Mwanguhya (2023) found that forgetfulness was the most common reason why patients often missed doses. This was followed by travel problems, stigma or disclosure concerns, and drug stock-outs (Mwanguhya, 2023; Ekwuofu et al., 2025). Manu et al. (2024) also identified financial difficulty, food insecurity, forgetfulness, dissatisfaction with health improvement, and poor communication as barriers to treatment uptake. Chukwu et al. (2019) similarly reported that stigma, misunderstanding of drug administration, forgetfulness, and transportation problems contributed to poor adherence among patients in Nasarawa State, Nigeria. These observations indicate that missed doses do not arise simply from patient negligence, as adherence problems often reflect the interaction between patients' daily realities and the quality of support provided within the treatment environment.

Duration on therapy also appears to influence adherence-related outcomes. Tiruneh and Woldeyohannes (2022) support this supposition, having found that patients who had spent longer periods on therapy were more likely to report satisfaction with clinical services, while Chukwu et al. (2019) established that many treatment defaulters discontinued treatment within the first one to three months after initiation. Similarly, adherence among newly treated patients was relatively high in the early stage of treatment, although depressive symptoms and non-disclosure often increase the likelihood of poor adherence (Yu et al., 2018). This indicates that adherence is not fixed across the treatment period, given that patients' support needs can change as therapy continues. Although antiretroviral therapy improves survival and health outcomes among seropositive patients, adherence remains inconsistent because many patients still miss doses, interrupt treatment, or fail to comply fully with prescribed regimens. Existing evidence has identified several support-related and personal barriers, yet it remains unclear what forms of therapeutic support patients in Central Hospital, Warri receive, and how such support and duration on therapy relate to compliance. Against this background, the present study becomes necessary, as it aims to determine the therapeutic support received by seropositive patients in Central Hospital, Warri, assess their level of compliance with antiretroviral therapy, identify the reasons for missed doses, and examine how therapeutic support and duration on therapy relate to compliance.

Research Questions

The following research questions guided the study.

1. What types of therapeutic support are received by seropositive patients on antiretroviral therapy in Central Hospital, Warri?
2. What is the level of compliance with antiretroviral therapy among seropositive patients in Central Hospital, Warri?
3. What are the reasons for missed antiretroviral drug doses among seropositive patients in Central Hospital, Warri?
4. What relationship exists between therapeutic support and compliance with antiretroviral therapy among seropositive patients in Central Hospital, Warri?
5. What relationship exists between duration on therapy and compliance with antiretroviral therapy among seropositive patients in Central Hospital, Warri?

Hypotheses

The following null hypotheses were tested in the study.

H01: There is no significant relationship between therapeutic support and compliance with antiretroviral therapy among seropositive patients in Central Hospital, Warri.

H02: There is no significant relationship between duration on therapy and compliance with antiretroviral therapy among seropositive patients in Central Hospital, Warri.

II. Methodology

Design: This study adopted a descriptive cross-sectional survey design to examine therapeutic support systems and adherence to antiretroviral therapy among seropositive patients receiving care at the Heart to Heart Centre, Central Hospital, Warri. The design was appropriate because it enabled the researcher to collect data at a single point in time and supported the description of therapeutic support received by patients, their level of adherence,

reasons for missed doses, and the relationships between therapeutic support, duration on therapy, and adherence behaviour.

Area of the Study: The study was conducted at the Heart to Heart Centre, the HIV and AIDS treatment unit within the Central Hospital, located in Warri South Local Government Area of Delta State, Nigeria. Warri is a major urban centre in the South-South geopolitical zone and is known for its commercial importance and contribution to Nigeria's petroleum sector. Central Hospital, Warri is a government owned tertiary health facility with a bed capacity of 204 and provides services in general medicine, paediatrics, obstetrics and gynaecology, radiology, laboratory services, pharmacy, and emergency care. Through the Heart to Heart Centre, the hospital provides voluntary counselling and testing, prevention of mother to child transmission services, antiretroviral therapy, peer support activities, and management of opportunistic infections. As of January 2022, 1,247 patients had been registered for antiretroviral therapy at the centre.

Population and Sample of the Study: The target population comprised adult seropositive patients receiving antiretroviral therapy at the centre. Participants of this study were included if they were 18 years and above, had been diagnosed as HIV positive, had been on antiretroviral therapy for at least one month, and gave informed consent. Participants were excluded if they were attending the clinic for the first time or were too ill to complete the interview. The sample size was determined using Fisher's formula for descriptive studies involving large populations, $n = Z^2pq/d^2$, where $Z = 1.96$, $p = 0.73$ based on the estimated adherence rate reported by Bello (2011), $q = 0.27$, and $d = 0.05$. This gave a minimum sample size of 302.87, approximated to 303. Ten per cent (10%) was added for possible non-response, and this produced a total of 333 participants. To improve representativeness, 350 respondents were eventually recruited. A systematic sampling technique was used to select respondents from the 1,247 registered antiretroviral therapy clients. The sampling interval was $k = 1247/350 \approx 4$. The first respondent was selected randomly from the clinic attendance list, after which every fourth eligible patient was selected until the required sample size was obtained.

Instrument of Data Collection: The instrument consisted of five sections. Section A elicited socio-demographic information such as age, sex, marital status, educational level, occupation, religion, and income. Section B contained items on therapeutic support systems received, including social, financial, and medical support. Section C contained items on adherence to antiretroviral therapy. Section D elicited information on reasons for missed antiretroviral drug doses. Section E obtained data on duration on therapy. Face and content validity of the instrument were established through expert review of the questionnaire. Reliability was assessed through a pilot test involving 20 HIV positive clients who were not included in the final sample, and necessary corrections were made before the main data collection, resulting in 0.84 reliability coefficient.

Method of Data Collection: Data collection was carried out during clinic hours from Tuesday to Thursday between 8.00 a.m. and 4.00 p.m. Eligible participants were approached individually, the purpose of the study was explained to them, and informed consent was obtained before participation. Adherence to antiretroviral therapy was assessed using a 7-day self-report measure computed as the proportion of prescribed doses taken by the respondent multiplied by 100. Respondents who achieved 95% and above were classified as adherent, while those with values below 95% were classified as non-adherent. Therapeutic support was measured by identifying whether the respondent received social, financial, and medical support. Reasons for missed doses were measured through responses to listed causes such as forgetfulness, travel, financial difficulty, stigma, and poor communication. Duration on therapy was measured in categories based on the period each respondent had remained on treatment.

Method of Data Analysis: Data were coded and analysed using Statistical Product and Services Solution (SPSS) version 20. Descriptive statistics, including frequencies, percentages, means, and standard deviations, were used to summarize socio-demographic characteristics, therapeutic support, adherence levels, reasons for missed doses, and duration on therapy. Chi square test and cross tabulation were used to examine the relationships between therapeutic support and adherence, and between duration on therapy and adherence, at the 0.05 level of significance.

Ethical Consideration: Ethical approval was obtained from the Ethical Committee of Central Hospital, Warri, while administrative permission was also secured from the hospital authorities. Participation was voluntary, and written informed consent was obtained from all respondents, and no personal identifiers were recorded on the questionnaire. All information was treated as confidential and stored securely for research purposes only.

III. Results

Table 1: Socio-Demographic Characteristics of Sero Positive Patients, N = 350

Variables	Category	Frequency	Percentage
Age	18 to 25	24	6.9
	26 to 35	156	44.6
	36 to 45	111	31.7
	Above 45	59	16.8
Gender	Male	62	17.7
	Female	288	82.3
Level of education	None	15	4.3
	Primary	105	30.0
	Secondary	157	44.9
	Tertiary	73	20.8
Marital status	Single	32	9.1
	Married	290	82.9
	Divorced	14	4.0
	Widowed	14	4.0
Number of children	None	60	17.1
	1 to 4	257	73.4
	Above 4	33	9.5
Religion	Christianity	322	92.0
	Islam	28	8.0
Ethnic group	Urhobo	284	81.2
	Itsekiri	35	10.0
	Ijaw	12	3.4
	Others, Yoruba, Hausa, Ibo	19	5.4
Income	Less than N5,000	70	20.0
	N5,000 and more	280	80.0

Note: $\bar{x}$ = Mean age, 37.4 years; SD = 9.97.

Table 1 reveals that the respondents were largely adults in their active reproductive and family life stage, as most were aged 26 to 35 years, with a mean age of 37.4 years. The sample was largely female and married, while most had secondary education and between 1 and 4 children. Christianity and Urhobo ethnicity predominated strongly. In economic terms, most respondents earned N5,000 and above. The distribution depicts a predominantly female, socially stable, and family-centred patient population.

Table 2: Type of Therapeutic Supports Received by Respondents N =350

Variables	Frequency	Percentage (%)
Social support	259	74.0
Financial support	206	58.9
Treatment reminder	102	29.1
Overall support, Yes	326	93.1
Overall support, No	24	6.9

Table 2 shows that therapeutic support was widely accessible among respondents, though its forms differed in prevalence and intensity. Social support was the most commonly reported type, with 74.0% of respondents indicating they had relational backing from people around them. Financial support was also relatively common (58.9%), while treatment reminder support was considerably lower at 29.1%. Overall, 93.1% of respondents received at least one form of support, and only 6.9% reported none. These findings highlight the continued centrality of family and close social networks as key sources of therapeutic support to patients.

Table 4: Relationship Between Therapeutic Supports and Compliance to Antiretroviral Drugs

Variables	Category	Compliant (%)	Non-Compliant (%)	Total	χ^2	P-value
Social Support	Strong	242 (93.4)	17 (6.6)	259 (100)		1.000
	Weak	85 (93.4)	6 (6.6)	91 (100)		
Financial Support	Yes	195 (95.0)	11 (5.0)	206 (100)	16.1	0.115
	No	132 (91.0)	12 (9.0)	144 (100)		
Treatment Reminder	Yes	99 (97.1)	3 (2.9)	102 (100)		0.049**
	No	228 (91.6)	20 (8.4)	248 (100)		
Overall Support	Yes	308 (94.5)	19 (5.5)	326 (100)	8.5	0.015
	No	19 (79.2)	5 (20.8)	24 (100)		

Note*: Statistically significant; **Fisher's exact test; χ^2 = chi-square; p-value = level of significance.*

Table 3 shows that patients compliance with antiretroviral drugs requirement was generally high, although it was varied and depended on the type and presence of therapeutic support. There was no difference in compliance by level of social support; respondents with strong and weak support had the same adherence rate of 93.4% (p = 1.000). Financial support was not significantly associated with compliance, although those who received it had slightly higher adherence (95.0%) compared to those without (91.0%; p = 0.115). In contrast, treatment reminder support was significantly associated with better compliance: 97.1% of those who received reminders were compliant versus 91.6% without (p = 0.049). The absence of any therapeutic support was linked to substantially higher non-compliance (20.8% vs 5.5%; p = 0.015), underscoring the cumulative importance of support in promoting adherence.

Table 4: Level of Antiretroviral Drug Compliance by Sero Patients (Self- Reported)

Level of Compliance	Frequency, N = 350	Percentage
Ever Missed	60	17.1
Never Missed	290	82.9
< 95.0%	23	6.6
≥ 95.0%	327	93.4

Table 4 shows a high level of self-reported compliance with antiretroviral drugs among respondents. The majority of the respondents (82.9%) reported that they had never missed their medication, while 17.1% had missed doses at some point. Similarly, 93.4% of the respondents achieved the recommended compliance level of ≥95.0%, indicating that only 6.6% fall below this threshold.

Table 5: Reasons for Ever Missing Antiretroviral Drugs Among Respondents, n = 60.

Reason	Frequency	Percentage
Forgetfulness	43	71.6
Strike, industrial action	11	18.3
Ran out of pills	7	11.7
Side effect	5	8.3
No transport fare	4	6.7
Fasting	3	5.0
Felt sick or ill	2	3.3

Table 5 shows that forgetfulness was the most common reason for missing antiretroviral drugs: this was reported by 71.6% of the respondents who had ever missed treatment. This was followed by industrial action (18.3%) and running out of pills (11.7%). Smaller proportions cited side effects (8.3%), lack of transport fare (6.7%), fasting (5.0%), and illness (3.3%).

Table 6: Relationship Between Duration on Therapy and Drug Compliance

Variables	Category	Compliant (%) ≥ 95%, n = 327	Non-Compliant (%) < 95%, n = 23	Total	p-value
Duration on therapy (months)	1 to 6	52 (82.5)	11 (17.5)	63	
	7 to 12	79 (96.3)	3 (3.7)	82	
	Above 12	196 (95.6)	9 (4.4)	205	0.02

Note: χ^2 = *chi-square; p-value = level of significance.*

Table 6 shows that duration on therapy was significantly associated with drug compliance (p = 0.02). Respondents who had been on therapy for 1–6 months recorded the highest non-compliance rate (17.5%) and the lowest compliance rate (82.5%). In contrast, those on therapy for 7–12 months had 96.3% compliance and 3.7% non-compliance, while respondents on therapy for more than 12 months showed 95.6% compliance and 4.4% non-compliance. This pattern indicates that compliance improved as duration on therapy increased, particularly after the first six months of treatment.

IV. Discussion Of Findings

Types of Therapeutic Supports Received by Respondents

The study showed that therapeutic support was widely available to the respondents, although the pattern of support differed across domains. Social support was the most common, followed by financial support, while treatment reminder support was less common. The finding indicates that most respondents were connected to some form of interpersonal or practical assistance that could help them sustain treatment routines. This distribution is understandable because family members, friends, and close relations often constitute the first layer of support for people living with HIV, especially in contexts where long term treatment requires regular emotional reassurance and material help. The predominance of social support is consistent with Goma et al. (2020), who reported that instrumental social support improved adherence to antiretroviral therapy among seropositive patients in northern Greece. The strong presence of support in the present study also agrees with Tiruneh and Woldeyohannes (2022), who established that ART service outcomes were shaped not only by clinical structures but also by client related conditions that improved satisfaction with care. In this view, the finding implies that therapeutic support is not peripheral to treatment; it is part of the social environment through which adherence behaviour is sustained and stabilised over time.

Relationship Between Therapeutic Supports and Compliance to Antiretroviral Drugs

The finding on the relationship between therapeutic supports and compliance presents a more refined picture of how support operates in practice. Although social support was widely reported, it did not show a significant relationship with compliance, p = 1.000, and financial support also did not attain statistical significance, p = 0.115. However, treatment reminder support was significantly related to compliance, p = 0.049, while overall support also showed a significant relationship, p = 0.015. This means that support becomes more effective when it directly addresses the behavioural demands of medicine taking. The finding is consistent with Addo et al. (2022), who found that reminder messages from health workers increased the likelihood of adherence among HIV patients in Ghana. It also agrees with Goma et al. (2020), who established that practical forms of support, especially instrumental support, were associated with improved adherence. The significant effect of overall support further indicates that complete absence of support creates a treatment vulnerability that may increase missed doses and weaken routine compliance. Consequently, the present finding establishes that broad emotional presence alone may not always be enough; support that actively enters the daily treatment process, especially reminders and other practical cues, is more likely to strengthen compliance.

Level of Antiretroviral Drug Compliance

The study found that self-reported antiretroviral drug compliance was generally high, with 82.9% reporting that they had never missed their drugs and 93.4% attaining compliance of at least 95.0%. This finding indicates that most respondents maintained a treatment pattern that was sufficiently regular to support therapeutic effectiveness. The result is consistent with Shrestha et al. (2023), who reported that 97.6% of respondents in Nepal were adherent to antiretroviral therapy, and with Balaji et al. (2024), who found that more than 95% of patients demonstrated medium to high adherence in Coastal Karnataka. It is also close to Yu et al. (2018), who reported 85.5% good adherence among newly treated people living with HIV in China. In contrast, the finding differs from Okwuonu et al. (2023), who found 67.7% good medication adherence in Rivers State, from Magdy et al. (2024), who reported 66.7% good adherence in Northern Egypt, and from Addo et al. (2022), who found a much lower adherence level of 44.6% in Ghana. The relatively high compliance observed in the present study may reflect the supportive environment already identified among the respondents. This implies that when patients remain socially connected and have access to at least some supportive mechanisms, compliance can remain high even within routine clinic settings.

Reasons Responsible for Ever Missing Antiretroviral Drugs

The finding on reasons for ever missing antiretroviral drugs shows that forgetfulness was the dominant barrier, while industrial action, running out of pills, side effects, transport difficulty, fasting, and illness played smaller roles. This result shows that non-compliance in this setting arose mainly from behavioural lapse and service disruption rather than from outright rejection of treatment. The predominance of forgetfulness is consistent with Goma et al. (2020), who found that many non-adherent respondents had forgotten to take their

medication at least once. It also agrees with Balaji et al. (2024), where forgetting routine medication was the commonest reason for missing doses. In the same way, Addo et al. (2022) identified side effects, travel related burdens, and reminder cues as important factors shaping adherence behaviour. The role of industrial action and running out of pills in the present study further shows that health system interruptions can destabilise even willing patients. This finding therefore gives stronger meaning to the earlier result on treatment reminders. Since forgetfulness was the major reason for missed medication, reminder systems appear especially relevant because they target the most immediate behavioural cause of non-compliance among the respondents.

Relationship Between Duration on Therapy and Drug Compliance

The study further showed a statistically significant relationship between duration on therapy and drug compliance, $p = 0.02$. Respondents who had been on therapy for 1 to 6 months recorded the highest non-compliance, while those who had remained on therapy for longer periods demonstrated much better compliance. The finding indicates that the earliest stage of treatment is the most fragile period in the adherence process. During this period, patients are still adjusting to medicine routines, disclosure concerns, bodily reactions, and the discipline required for lifelong treatment. This result is consistent with Yu et al. (2018), who found that even within the early treatment stage a notable proportion of newly treated patients still demonstrated suboptimal adherence, especially where psychological and disclosure related difficulties were present. The finding also aligns with Tiruneh and Woldeyohannes (2022), who established that longer duration on ART was associated with improved satisfaction with care, suggesting that time on treatment may deepen adjustment and strengthen treatment confidence. In this view, the present result implies that the provision of adherence support must be intensified during the first six months of treatment initiation, because that period appears to be the point at which patients are most likely to struggle before treatment routines become more established.

Limitations of the Study

Despite the robustness of this research, it is however limited by the use of self-reported adherence measures, which may have introduced recall bias and social desirability bias, and by the fact that the study was conducted in only one health facility, which may limit the generalizability of the findings to other treatment centres or to seropositive patients outside facility-based care.

V. Conclusion

This study has provided evidence that therapeutic support is an important factor in promoting compliance with antiretroviral drugs among seropositive patients. Based on this, the study concludes that treatment reminder support, overall therapeutic support, and longer duration on therapy improved compliance, while forgetfulness remained the major reason for missed doses. The study therefore concludes that practical and sustained support mechanisms are central to maintaining high antiretroviral drug compliance among respondents.

VI. Recommendations

In line with the findings, the following recommendations were made:

1. The hospital management and relevant health authorities should ensure that structured therapeutic support systems are strengthened for seropositive patients receiving antiretroviral drugs, because the presence of overall support was associated with better compliance.
2. Health workers should incorporate regular treatment reminder strategies into routine antiretroviral care, since reminder support showed a significant relationship with compliance and forgetfulness was the leading reason for missed doses.
3. Family members and other close caregivers should be encouraged to participate more actively in the treatment process of Sero positive patients, in order to provide practical support that can help patients to maintain regular drug use.
4. Hospital administrators and government agencies should work to reduce service disruptions, including those arising from industrial action and medication stock problems, so that patients do not miss treatment because of interruptions within the health system.
5. Health facilities should give closer follow-up and counselling to patients within the first one to six months of therapy, because this group recorded the highest level of non-compliance.
6. Economic support measures, including transport assistance and other patient support schemes, should be considered for vulnerable patients, so that financial difficulty does not weaken continuity in antiretroviral drug use.

References

[1]. Abba, A., Adibe, M. O., Abdulmuminu, I., Aluh, D. O., Abubakar, B. G., Musa, M. K., Faragai, A. Y., Gulma, K. A., Ogunyinka, I. A., Anyanti, J., Idogho, O., & Wada, Y. H. (2026). Evaluating The Relationship Between Adherence To Antiretroviral Therapy And Health-Related Quality Of Life Among People Living With HIV/AIDS In Northwestern Nigeria. *BMC Public Health*. Advance Online Publication. Https://Doi.Org/10.1186/S12889-026-26946-9

[2]. Addo, M. K., Aboagye, R. G., & Tarkang, E. E. (2022). Factors Influencing Adherence To Antiretroviral Therapy Among HIV/AIDS Patients In The Ga West Municipality, Ghana. *IJID Regions, 3*, 218–225. Https://Doi.Org/10.1016/J.Ijregi.2022.04.009

[3]. Balaji, R. A., Kamath, P., Rathi, P., & Madi, D. (2024). Adherence To Antiretroviral Therapy, And Quality Of Life In People Living With HIV: A Prospective Study. *Biomedical And Pharmacology Journal, 17*(1). Https://Dx.Doi.Org/10.13005/Bpj/2869

[4]. Chukwu, E. O., Ojedokun, J. P., Nedu, A. A., & Chukwu, J. (2019). Adherence To Medical Treatments Among HIV/AIDS Positive Patients Attending Antiretroviral Therapy Clinics In Nasarawa State, Nigeria. *Texila International Journal Of Clinical Research, Special Edition*, 1–13. Https://Doi.Org/10.21522/TIJCR.2014.SE.19.02.Art001

[5]. Ekwuofu, A. A., Dim, O. F., & Adibe, M. O. (2025). Impact Of Differentiated Care Service Delivery Systems On Adherence Among The HIV-Positive Patients Receiving Antiretroviral Therapy In A Southeastern Nigerian State. *AIDS Research And Therapy, 22*, 32. Https://Doi.Org/10.1186/S12981-024-00671-Y

[6]. Goma, F., Papazisis, G., & Karakiulakis, G. (2020). Adherence To Antiretroviral Therapy Among HIV Seropositive Patients In Northern Greece. Major Factors Of Influence. *Hippokratia, 24*(3), 114–119.

[7]. Katongole, S. P., Mukama, S. C., Nakawesi, J., Bindeeba, D., Simons, E., Mugisa, A., Senyimba, C., Namitala, E., Onzima, R. A. D. D. M., & Mukasa, B. (2024). Enhancing HIV Treatment And Support: A Qualitative Inquiry Into Client And Healthcare Provider Perspectives On Differential Service Delivery Models In Uganda. *AIDS Research And Therapy, 21*, 47. Https://Doi.Org/10.1186/S12981-024-00637-0

[8]. Magdy, M., Zaki, A., Osman, S. O., Abd El W. Abd El-Wahab, E. W., & Elhameed, A. A. (2024). Predictors Of Adherence To Antiretroviral Therapy Among People Living With HIV In Northern Egypt. *Annals Of Global Health, 90*(1), 58, 1–13. Https://Doi.Org/10.5334/Aogh.4491

[9]. Manu, E., Sumankuuro, J., Douglas, M., Aku, F. Y., Adoma, P. O., & Kye-Duodu, G. (2024). Client-Reported Challenges And Opportunities For Improved Antiretroviral Therapy Services Uptake At A Secondary Health Facility In Ghana. *Heliyon, 10*(15), E35788. Https://Doi.Org/10.1016/J.Heliyon.2024.E35788

[10]. Mwanguhya, A. (2023). Evaluation Of The Factors That Affect Adherence To Anti-Retroviral Therapy In HIV-Positive Clients At Comboni Hospital Kyamuhunga Bushenyi Uganda. *IDOSR Journal Of Science And Technology, 9*(2), 52–61. Https://Doi.Org/10.59298/IDOSR/JST/03.1.12004

[11]. Okwuonu, L. O., Ibidabo, A., & Ifere, J. E. (2023). Medication Adherence And Health-Related Quality Of Life Amongst HIV Patients Receiving Care At Umuebule Cottage Hospital, Etche, Rivers State. *The Nigerian Health Journal, 23*(3), 765–771.

[12]. Onwujekwe, O., Uzochukwu, B., & Ezumah, N. (2021). Treatment Adherence Mediates The Relationship Between HIV-Related Stigma And Health-Related Quality Of Life In Nigeria. *Quality Of Life Research, 30*(6), 1719–1728. Https://Doi.Org/10.1007/S11136-021-02768-2

[13]. Shrestha, S., Chataut, S., Kc, B., Acharya, K., Pradhan, S. K., & Shrestha, S. (2023). Knowledge, Attitude, Practice, And Adherence To Antiretroviral Therapy Among People Living With HIV In Nepal. *AIDS Research And Treatment, 2023*, Article 7292115. Https://Doi.Org/10.1155/2023/7292115

[14]. Tiruneh, C. T., & Woldeyohannes, F. W. (2022). Antiretroviral Therapy Service Quality And Associated Factors At Selected Public Hospitals, Addis Ababa, Ethiopia, 2021. *HIV/AIDS - Research And Palliative Care, 14*, 129–142. Https://Doi.Org/10.2147/HIV.S348254

[15]. U.S. Department Of Health & Human Services. (2023). *Global HIV & AIDS Overview*. U.S. Department Of Health & Human Services. Https://Www.Hiv.Gov/Federal-Response/Pepfar-Global-Aids/Global-Hiv-Aids-Overview

[16]. Yeshiwas, Y., Debie, A., Worku, N., & Yazachew, L. (2021). Improving Quality Of Service Among Antiretroviral Therapy Users Through Strategic Problem-Solving Approach At Bure Primary Hospital, Northwest Ethiopia. *Patient Preference And Adherence, 15*, 1497–1504. Https://Doi.Org/10.2147/PPA.S310945

[17]. Yu, Y., Luo, D., Chen, X., Huang, Z., Wang, M., & Xiao, S. (2018). Medication Adherence To Antiretroviral Therapy Among Newly Treated People Living With HIV. *BMC Public Health, 18*, Article 825. Https://Doi.Org/10.1186/S12889-018-5731-Z

[18]. Bello, S. I. (2011). *HIV/AIDS Patients' Adherence To Antiretroviral Therapy In Sobi Specialist Hospital, Ilorin, Nigeria*. *Global Journal Of Medical Research, 11*(2), 16–25