Accessibility of Antiretroviral Therapy Services by People Living with HIV and Aids in Benue State

Rachael O. Ameh[1*], & E.S. Samuel[2],
[1]*Government Day Secondary School Wuse II, Abuja*
[2]*Department of Human kinetics and Health Education University of Nigeria, Nsukka*
** Corresponding Author*

Abstract

This study investigated access of people living with HIV and AIDS to Antiretroviral Therapy Services (ARTs) in Benue State. One objective with two corresponding research questions and two hypotheses guided the study. Cross-sectional survey research design was used. The population study consisted of 570,175 People Living with HIV and AIDS (PLWHA) in Benue State. A sample of 659 PLWHA was drawn using a multi-stage sampling procedure. Questionnaire and focus group discussion guide were used for data collection. The instruments were validated. Frequencies, percentages and Chi-square were used for data analysis. Findings revealed, among others, that 53.5 percent of PLWHA accessed ARTs. There was no significant difference in access based on gender and age. It was recommended, among others, that the State Government and health providers should organize and introduce home-based services and constantly organize ARTS mobile outreach services as well. This will meet the needs of those residing in the rural areas of the State.

Keywords: *Accessibility, Antiretroviral Therapy Services, PLWHA*

Introduction

Antiretroviral therapy services (ARTs) are necessary for the longevity and productive life of People Living positive with HIV and AIDS (PLWHA). These services are expected to be accessed maximally to keep PLWHA alive and healthy. Accessibility of ART services globally pose a challenge to the health sector objective, which aims at achieving universal access to antiretroviral therapy services. Care Resource Audit-CRA (2013) observed that with antiretroviral therapy services people are still dying from HIV and AIDS; 1.5 million people died from HIV related causes in 2013. The CRA further posited that globally at the end of 2013, 35 million people were living with HIV and AIDS, only 12.9 million were receiving antiretroviral therapy services and only one (1) out of four (4) children living with HIV globally had access to ART in 2013. Since the start of the epidemic, 78 million people have become infected and 35 million have died from AIDS related illness. However, 17 million people are currently receiving ART therapy services (UNIAIDS, 2015). According to World Bank (2014) ART therapy coverage in Nigeria was 22 per cent in 2014; the ART coverage indicates the percentage of adults and children with advanced HIV infection currently receiving ART therapy. Ministry of health Makurdi (2014) also revealed that Benue State had 52 ART centres with an estimated population of over 507,175 people Living positive with HIV and AIDS receiving treatment in all the ART centres. Benue State is ranked ninth in the current HIV and AIDS prevalence rating in the country (Ameh, 2015). Duru (2016) stated that over 14,200 Benue youths are infected and currently living with the dreaded HIV and AIDS. The situations therefore require urgent attention which was to determine access to antiretroviral therapy to save the life of the PLWHA.

ART therapy services are very important for the survival of people living with HIV and AIDS in both developed and developing nations, including Nigeria. ART means treating retroviral infection like HIV virus with drugs. World Health Organization-WHO (2012) also defined antiretroviral therapy as drugs used in the treatment and prevention of HIV infection. ART fights HIV by stopping or interfering with the reproduction of the virus. However, when taken in combination they can prevent the growth of virus. ART therapy services are made up of counseling, testing, treatment and follow-up they are required to be accessed by PLWHA.

The standard treatment consist of a combination of at least three drugs often called “highly active antiretroviral therapy’’ (HAART) that suppress HIV replication. ART has the potential both to reduce mortality morbidity rate among HIV-infected people and to improve their quality of life (WHO, 2017).

ART indeed is a life saver for people living with HIV and AIDS. ART averted 5.5 million deaths in low-and middle- income countries from the peak in 1995 and until 2012 where ART reduced the risk of HIV transmission by up to 96 per cent. ART reduced the risk of tuberculosis infection among PLWHA by 65 per cent. HIV treatment is still not reaching enough children and the key population are the children, children younger than 15 years receiving ART rose from 566,00, in 2011 to 630, 000 in 2012 but the percentage increase was small, 11 per cent versus 21 per cent (WHO, 2013). ART keeps PLWHA productive and working age adults return to work earlier when they receive the treatment, boosting labour, productivity and reducing hardship among affected households. The work of ART is to keep the amount of HIV in the body at a low level and stop any weakening of the immune system and allow it to recover from any damage that HIV mighty have caused already. ART services further work to reduce HIV and AIDS incidence and prevalence and ensure that as far as possible PLWHA should remain alive and healthy.

To ensure effective access and utilization, each ART centre must provide all the components of ART therapy services. The components of ART include counseling, testing, treatment and follow-up (Chipindele& French, 2001; Creel & Perry, 2002). Counseling means helping someone with a personal problem or psychological matters which is usually given by a professional such as health workers. There are two types of counseling: pre-test and post-test counseling, including information about how one can protect him or herself from infection, information about the confidentiality of the results and clear easy to understand explanation of what the result mean. Post-test counseling includes clear communication about what one's test results means. Testing services here refers to HIV screening to show if a person is infected with HIV virus or not. HIV test include antibody test, antigen test and PCR test (polymerase reaction test). When CD4 count (is confirmatory) test result indicate positive, treatment is promptly required (Web-Medical, 2013).

Treatment means provision of medications, the application of medical care to prevent the disease, heal injury or condition or medical remedy; produce or technique for curing or alleviating a disease, injury or condition, which in this case are HIV and AIDS (Avert, 2008). They are usually achieved by administering ART drugs. Follow-up services refer to those activities that facilitate patient retention in ART services. Ideally, these services should be accessible to every community to ensure maximum utilization in order to elevate pain and suffering of the PLWHA. Regrettably, accessibility of these services seems to be a great challenge which may adversely affect its utilization. ARTs seem to be poorly accessed by PLWHA in Benue State. This may have resulted to the observed increase of stigmatization, discrimination, separate ART centres geographical location, financial inability, people falling ill regularly, problem of transportation and accommodation; food expenditure, loss of time, non-disclosure of HIV status, and accessing ART services in a different location order than where the PLWHA reside among others. These challenges can directly or indirectly influence access negatively and also obstruct the treatment regimen programme.

Access refers to getting at something or approaching something to use. Access is defined as a means of approaching, the opportunity or right to receive health care (Medicine-Net, 2014). Access to health care means having the timely use of personal health services to achieve the best health outcomes. Attaining good access to care requires three discrete steps, getting entry into the health care system. Getting access to sites of care where patients can receive needed services and with whom patient can develop a relationship based on mutual communication and trust (Agency for Healthcare Research & Quality, 2011). Jeans-Frederic, Mark and Grant (2017) viewed access as the opportunity to identify healthcare needs, to seek healthcare services, to reach, to obtain or use health care services and to actually have a need for services fulfilled. They also identified five dimensions of accessibility, approachability, acceptability, availability and communication, affordability and appropriateness. In this framework, five corresponding abilities of populations interact with the dimension of accessibility to generate access. In this study access means to enter into health facility and make use of the ART services provided for PLWHA.

People living with HIV and AIDS are described as those infected with the HIV virus. World Health Organization, (2003) defined PLWHA as people living with Human Immunodeficiency Virus (HIV) the causative agent of the current incurable disease, Acquired Immune Deficiency Syndrome (AIDS). AIDS is a human disease characterized by progressive destruction of the body's immune system. It is widely accepted that AIDS results from infection with Human Immunodeficiency Virus (HIV). In the context of this, PLWHA refers to people who are carrier of the HIV virus in Benue

State. The rational for the choice of this group of people is because they are faced with health challenge that threatens their lives. People living with HIV and AIDS deserved expert and convenient ways to be treated, many of them may find it difficult to access and use these services due to some personal, social, geographical and economic reasons (America Psychological Association-APA, 2006).

Socio-demographic variables associated with accessibility of ART services include among others gender and age and others are set of independent variable (Ellis, 2004). Variable can be used to predict the value of another variable (Farlex, 2012). In this study, variable refers to factor that can determine or influence PLWHAs' access to ART services in Benue State. Literature revealed that despite the various efforts aimed at addressing the HIV and AIDS challenge, PLWHA in Benue State are still experiencing stigmatization and discrimination, the real situation concerning PLWHA accessing ARTS in the state was worrisome and justified the study. Therefore, the present study filled the existing gap.

Purpose of the study

The main purpose of the study was to determine the PLWHA's access to ART services in Benue State, Nigeria. Specifically, the study determined the percentage of PLWHA who were accessing ART services in Benue State.

Research Questions

One research question guided the study which was:

1. What proportion of PLWHA accessed ART services in Benue State?

Hypotheses

The following hypotheses were tested at .05 level of significance;

1. There is no significant difference in the proportion of PLWHA accessing ART in Benue State based on gender.
2. There is no significant difference in the proportion of PLWHA accessing ART in Benue State based on age.

Method

Design of the study: The cross-sectional research design was adopted to determine the accessibility of antiretroviral therapy services (ARTs) by people living with HIV and AIDS in Benue State. The study was carried out in the selected ART centres in the three senatorial zones of Benue State.

Area of the study: This study was conducted in Benue State Nigeria, located in the North-central zone of the country. Many people in Benue State at the moment practice prostitution and drunkenness, which encourage the preponderance of the dreaded disease HIV and AIDS. Other harmful practice unsterilized needles and unscreened blood which predispose people to sexually transmitted infections, including HIV and AIDS and its consequences. This is why effective use of and access to ART services are important. One is therefore compelled ask to:

Population of the study: The population for the study consisted of 507,175 registered people living with HIV and AIDS (Ministry of Health, 2014) in all ART centres in Benue State (State Ministry of Health, 2014). Currently over 700, 000 a People Living With HIV and AIDS are on antiretroviral drug (Eyoboka, Agbakwuru & Duru (2017). PLWHA stands for People Living with HIV and AIDS. They are boys, girls, men and women infected with HIV and AIDS. People Living with HIV and AIDS also refer to infants, children, adolescents and adults infected with HIV and AIDS (US Department of Health and Human Services, 2017).

Sample for the study: A purposive sample technique was used to select 659 people living with HIV and AIDS from the three senatorial zones consisting of 52 ART centres and 25 were selected for the study. Zone A comprises of (8) ART centres having two hundred and five PLWHA (205), zone B has (10) ART centres with (255) PLWHA, while zone C consisting of (7) ART centres having a total number one hundred and ninth nine PLWHA. The technique was adopted because only those who consented to participate in the study were used.

Instrument for Data Collection: Questionnaire and Focus Group Discussion Guide were used for data collection. It was validated by five experts in Health Education, Nursing and measurement and evaluation Croobach's Alpha statistic was used to determine the reliability of the instrument which resulted in a reliability coefficient of .076.
Method of Data Collection: Six hundred and fifty-nine copies of the questionnaire were administered by the researcher and with the help of three health workers from the selected ART centres who served as research assistants. Out of this number, 651 copies were returned for data analysis of the study. The focus group discussion (FGD) was organized in the three zones and thematically discussed.
Method of Data Analysis: Frequencies and percentages were used to answer research question one while the null hypotheses were tested using chi-square statistic at .05 level of significance.

Results

Table 1
Frequency and Percentage of PLWHA Access ART Services (n=651)

ART Services	Access f (%)	Did Not Access f (%)
Counseling	555 (83.3)	96 (14.7)
1. Pre-counseling		
2. Post-counseling	147 (22.6)	504 (77.4)
3. Group-counseling	498 (76.5)	153 (23.5)
4. Ongoing-counseling	287 (44.1)	364 (55.9)
Overall (%)	**57.1**	**422.9**
Test		
	504 (77.4)	47 (22.6)
5. Enzyme-linked immunosobent assay (ELIZA)		
6. Rapid HIV test	206 (31.6)	445 (68.4)
7. Rapid saliva test	298 (46.8)	353 (52.2)
Overall (%)	**51.6**	**48.4**
Treatment		
8. Prevention of Mother-to-Child transmission	506 (77.7)	45 (22.3)
9. Tuberculosis and HIV treatment	211 (32.4)	440 (68.4)
10. HIV and care support	427 (65.6)	224 (34.4)
11. Condom use	280 (43.0)	371 (57.0)
12. Positive living	357 (54.8)	294 (45.2)
13. Adherence to drug	321 (49.3)	330 (50.7)
Overall (%)	**53.8**	**46.2**
Follow-up		
14. Visit to ART centres by patients	478 (73.4)	173 (26.6)
15. Visit to patients' home by caregivers	229 (35.2)	422 (64.8)
16. Adherence through technology based	362 (55.6)	289 (44.4)
17. Use of visual aids to remind patients of drug	275 (42.2)	376 (57.8)
Overall (%)	**51.6**	**48.4**
Grand (%)	**53.5**	**46.5**

Table 1 shows the proportion of PLWHA accessed pre-counseling service as (85.3%), post-counseling service (22.6%)' group counseling service (76.5%) and ongoing counseling service (44.1%) The table further indicates the proportion of PLWHA accessed as follows: ELIZA testing service (77.4%); rapid HIV test service (31.6%) and rapid saliva test (46.8%). The table also shows the proportion of PLWHA who accessed prevention of mother-to-child transmission-PMTCT service (77.7%); tuberculosis and HIV treatment service (32.4%); HIV and care support service (65.6%); condom use service (43.0%); positive living service (54.8);and adherence to drug service (49.3%). The table further indicates the proportion of PLWHA who accessed visit to ART centres by patients (73.4%); visit to patient's home by caregivers' service (35.2%), proportion of PLWHA who accessed (55.6%); adherence through technology based service; and use of visual aids to remind patients of

their drugs (42.2%). The table further shows that overall slightly above one half (53.5%) of the PLWHA accessed ART services.

The data from FGD revealed that ART services were not easily accessible due to stigma and discrimination. They also mentioned that the follow-up process gives them sense of belonging and further promote positive living and enjoyment of normal life. They reported that care givers are not friendly while some are not, that they deserved to be treated with care and love like any patients in the health facilities. This implies that all stakeholders of Governments, Non-governmental organizations and Religious bodies should make conscious effort to encourage their members on the benefits of accessing ART services in order to ensure long and productive lives of the people living with HIV and AIDS.

Table 2

Chi-square (χ^2) Testing the Null Hypothesis of no significant Difference in the Proportion of PLWHA ARTs Accessibility According to Socio-demographic variables

ART Services	χ^2	df	P-value
Counseling	2.027	1	.155
Testing	6.952	1	.000
Treatment	.278	1	.598
Follow-up	.962	1	.327
Overall χ^2	**2.555**	**1**	**0.27**

Table 2 shows the χ^2 calculated value of 2.555 with the corresponding p-values of 0.27, which is greater than .05 level of significance at one degree of freedom. This implies that there was significance difference in the accessibility of ART services was the same according to gender. Since the χ^2 calculated value is greater than the P-value, then there is a significance difference. The null hypothesis is therefore rejected.

Table 3: Chi-square (χ^2) Testing the Null Hypothesis of no Significance Difference in the Proportion of PLWHA ARTs Accessibility According to Socio-demographic variables

ART Services	χ^2		df	P-value
Counseling	.022		2	989
Testing	.033		2	.984
Treatment	3.464		2	177
Follow-up	.772		2	680
Overall χ^2	**1.073**	**2**		**0.708**

Table 3 shows that the calculated χ^2 values of 1.073 with the corresponding p = values of .0708, which is greater than .05 level of significance at two degree of freedom. The χ^2 calculated value is greater than the P-value; there is a significance difference in the accessibility of ART services. The null hypothesis is rejected

Discussion

Finding in Table 1 indicated that the overall proportion of PLWHA who accessed ART services were 53.5 per cent. This finding was expected and therefore not surprising because PLWHA are expected to accessed ART services in order to maintain a healthy and productive life. This finding is in line with the report of World Bank (2014) which pointed out that ART therapy coverage in

Nigeria was 22 per cent of adults and children with advanced HIV infection currently receiving ART therapy (Ministry of Health Markudi, 2014).

The finding in Table 2 revealed that there was no significant different in the accessibility of ARTs according to gender. This finding is in contrast to that of Kamau, Mwanz and Gikonyo (2006) who found that men had a significant advantage over women on access to ARVs. However, the finding of this study disagree with that of Fred and Wilson (2004) who found that data from FGD revealed that female PLWHA has a higher proportion of accessibility to ARTs. This finding also disagrees with the finding of Kamau, Mwanz and Gikonyo (2006) who found that the numbers of females visiting ART clinics were twice that of males, and in the 18-26 years age bracket, females, were more affected by HIV and AIDS than males. This finding agrees with the finding of Xuetaoe, Wen, Lawrence, Neora, Julio et al (2012) who maintained that gender and sexuality also affect access to and interaction with key health services for HIV prevention, treatment and care. In culture where there is a preference for sons, families allocate resources for health care to boys and men before girls and women within the same family. In many patriarchal cultures, women are confined to their home and cannot travel unless accompanied by a male member of the family. Many traditional practices also require that women are served exclusively by female health care providers and when only male health care providers are available, female patients must do without.

The finding corroborates with that of Derrick (2014) who observed that gender inequalities are strong driver of HIV and AIDS. Women and Girls tend to have unequal power in sexual relationships, economic decision-making and access to health information and services, all of which greatly influence their vulnerability to disease, traditional power dynamics among couples may undermine a women's ability to receive ante natal care, including services to prevent mother to-child transmission services (PMTCT) when an expectant mother is HIV-positive.

This finding implies that although ART services was by majority of male and female PLWHA accessed but a slight difference still exist in the PLWHA accessibility of ART services according to gender in Benue State. The data in Table 2 also is in line with the finding of Natrass (2008) which posited that 'masculinity factors' accounts for the most of the difference between the men and women when it comes to accessing highly active ART. In this regard, Natrass further argued that the unequal burden of HIV and AIDS in African women, particularly young females in the 15-34 years group, is symbolic of the low and unequal status of women. The finding further agrees with the finding of Tromp, Michael, Mikkelsen, Hontelez and Baltussen (2014) who pointed out that men are likely than women to access ARTs. The implication of this finding is that ART access is requirement for all PLWHA to maintain healthy living and not for a particular sex; therefore, all PLWHA should be encourage with financial token and other incentives that will attract access and use of ART services.

The finding from focus group discussion (FGD) revealed that respondents (women) reported that their spouses did not like to access counseling services and this pose a great challenge to them because as they try to observe all the counseling and testing services but their spouses who never access counseling will always counter the process while few of the women said that their spouses were the cause of the illness and they should face the problem alone and provide drugs for them. The respondents further reported that counseling services was not easily accessible, because those whose status were not known within their location still exist like non-PLWHA for fear of stigma and discrimination. Responses from FGD indicated that they like to be follow-up especially through their mobile phone to remind them drug intake, timing and appointment schedules to ensure adherence. They also mentioned that the fellow up process gives them sense of belonging and further promote positive living and enjoyment of normal life. They reported that some care givers are friendly while some are not, and that they deserved to be treated like any other patient in the health facilities.

The finding of no association of the accessibility of ART services by people living with HIV and AIDS in Benue State according to gender contrasted with that of the Kamau, Mwanz and Gikonyo (2006) in which the result showed that the number of females visiting ART clinics were twice that of males and in the 18-26 years age bracket, females were more affected by HIV and AIDS, than males. The finding showed that men had advantage over women on access to HIV, than male unlike the situation in the present study. However, the finding of this study disagree with that of Fred and Wilson (2004) who found that data from FGD revealed that female PLWHA had a higher

proportion of accessibility of ARTs than male. However, there is need, therefore, to mount gender specific programme targeting both sexes, especially women because of their unique vulnerability, biologically, economically, and culturally to the scourge.

Data in Table 3 indicated no significant difference in PLWHA accessibility according to age. This finding disagrees with the finding of Kannan and Stanthini (2014) who revealed that age (p= .004) was significantly associated with accessibility. This finding was expected and therefore not surprising. This finding also is in line with the finding of Okoli (2009) who found the mean age of the respondents was 36 years and 46.7 per cent were within the age range of 30-41 years. Furthermore, the findings corroborate with the finding of Kannan and Santhini (2014) who revealed that HIV + patients in the age group of 36-46 and above were more likely to access ART services 4.3 and 31 times respectively compared to HIV + patients in 24-35 years age group. This finding corroborate with the finding of Care Resource Audit-CRA (2013) who found that only one (1) out of four (4) children living with HIV globally had access to ART in 2013. This finding agrees with the finding of Kim, Gerver, Fidler and Ward (2014) who found that despite adherence being critical in controlling viral transmission there are limited data on ART adherence among adolescents and young adults' population.

This finding is in consonance with that of United Nation International Children Emergency Fund (2013) who noted that only one-third of children in need of life-saving ART drugs are receiving them. Evidence shows that early initiation of ART drugs in infants with HIV save lives. Yet coverage among children remains too low (twenty-three per cent in 2013). The finding also agrees with Abebe and Awoke (2014) they maintained that level of access and utilization of health services is lower in younger children and adolescents. This implies that across age groups, children especially need serious attention to access and utilize ART as strict adherence is key to sustained HIV suppression and improved overall health, quality of life; and survival, as well as decreased risk of HIV transmission. The implication of the finding is that the government and care givers should intensify effort to provide materials and enabling environment for easy access of ART and to pay special attention to the children. This implies that gender and age are significantly influence access to ART services.

Conclusion

About slightly one half of PLWHA accessed ART services. Majority of PLWHA males accessed ART services more than the females. There was no significant difference in the accessibility of ART services according to gender and age of PLWHA. Majority of PLWHA of various groups almost have the same proportion of accessibility of ART services according to age. Based on the findings, it is therefore concluded that disparity exist with gender and age among PLWHA accessing ART services particularly among children and adolescents, the State Government and health provider should pay serious attention to ensure that children and adolescents start their treatment as early as possible to reduce the spread of the disease.

Recommendation

Based on the findings, discussions and conclusions of the study, the following recommendations were made: It is recommended that should use spirited campaigns and create incentives for people to access ART services in the schools, churches, offices and market places. This can be done by using the radio, television and leaflets. Since ART access is a requirement for all PLWHA to maintain good health and productive life Benue State government should encourage PLWHA with financial token to augment their transportation cost that will attract access and use of ART services.

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