The Epidemiology of HIV/AIDS among Pregnant Women Attending Antenatal Clinics in Atisbo Local Government, Oyo State

Fabunmi Abiola David*, Adeshina James Oluwatosin, Jamiu Ahmed Muhammed and Adeniyi Temidayo

Department of Community Health, Kwara State College of Health Technology, Offa, Kwara State, Nigeria

Corresponding Author*

Fabunmi Abiola David
Department of Community Health,
Kwara State College of Health Technology,
Offa, Kwara State,
Nigeria
E-mail: fabunmiabiola166@gmail.com

Abstract

This research study delves into the epidemiology of HIV/AIDS among pregnant women attending antenatal clinics in Atisbo local government, situated in Oyo state, Nigeria. With a cross-sectional design, the study aims to uncover the prevalence of HIV/AIDS within this specific population and identify potential determinants of infection. By analyzing demographic characteristics and risk factors, the research sheds light on the local dynamics of HIV/AIDS transmission and its implications for maternal and child health. The findings hold significance for healthcare interventions and policy development, advocating for improved antenatal care services and targeted measures to mitigate the impact of HIV/AIDS on both pregnant women and their offspring. Through this study, we contribute valuable insights to the public health discourse, aiming to enhance the overall well-being of the community in Atisbo local government.

Keywords: HIV/AIDS • Antenatal • Maternal • Pregnant women

Introduction

Human Immunodeficiency Virus (HIV) infection and Acquired Immunodeficiency Syndrome (AIDS) continue to be a global health challenge, with substantial impacts on maternal and child health. In the context of Nigeria, the burden of HIV/AIDS remains a significant concern, particularly among pregnant women. The vulnerability of pregnant women to HIV/AIDS introduces complex health implications, demanding meticulous investigation and targeted interventions to safeguard both maternal and child health.

Atisbo local government, located in Oyo state, Nigeria, represents a unique microcosm of the broader national situation. With distinct socio-demographic and cultural factors shaping healthcare-seeking behavior and disease transmission dynamics, it becomes imperative to comprehend the specific epidemiological patterns of HIV/AIDS among pregnant women in this locale. Such insights are pivotal for formulating effective preventive and management strategies tailored to the needs of the local population.

This research study focuses on the epidemiology of HIV/AIDS among pregnant women attending antenatal clinics within Atisbo local government. By addressing key questions related to the prevalence,

risk factors, and distribution of HIV/AIDS cases, we aim to contribute essential information that will inform public health initiatives and enhance the quality of antenatal care services in the region [1].

The objectives of this study

* To determine the prevalence of HIV/AIDS among pregnant women in Atisbo local government.
* To identify socio-demographic and behavioral factors associated with the risk of HIV/AIDS infection in this population.
* To contextualize the findings within the broader framework of healthcare delivery and policy.

By investigating these objectives, we endeavor to bridge the existing knowledge gap regarding HIV/AIDS epidemiology among pregnant women in Atisbo local government. The outcomes of this study hold the potential to influence policy decisions, shape healthcare practices, and contribute to the reduction of maternal and child morbidity and mortality associated with HIV/AIDS. As such, this research underscores the urgent need for tailored interventions that address the unique challenges faced by pregnant women in Atisbo local government in their journey towards safe motherhood [2,3].

In the subsequent sections, we detail the methodology employed to collect and analyze data, present the results of our investigation, and discuss the implications of our findings within the broader context of public health and maternal care.

Materials and Methods

Study design

A cross-sectional study design was employed to assess the epidemiology of HIV/AIDS among pregnant women attending antenatal clinics in Atisbo local government, Oyo state, Nigeria. This design was chosen to capture a snapshot of the HIV/AIDS prevalence and associated risk factors within the study population during a specific time frame.

Study setting

The study was conducted in Atisbo local government, which comprises urban and rural communities. The local government has a total of 12 antenatal clinics, catering to the maternal health needs of pregnant women. The study was carried out over a period of 6 months from January 2023 to June 2023.

Sampling strategy

A systematic random sampling technique was employed to select participants from the antenatal clinics. The sampling frame consisted of pregnant women attending antenatal care services during the study period. The sampling interval was determined by dividing the total number of pregnant women by the desired sample size.

Sample size calculation

The sample size was calculated using a confidence level of 95% and a margin of error of 5%. Based on the population of pregnant women attending antenatal clinics in Atisbo local government, a sample size of 2,500 was determined.

Data collection

Data was collected through structured interviews and medical record reviews. Trained research assistants conducted face-to-face interviews with pregnant women using a standardized questionnaire. The questionnaire included sections on socio-demographic characteristics, reproductive history, knowledge about HIV/AIDS, and healthcare-seeking behavior. Additionally, data on HIV/AIDS status and other relevant medical information were extracted from the antenatal clinic records.

Results

Demographic characteristics

Out of the total of 400 pregnant women participating in the study, the majority (55.8%) fell within the age range of 20 to 30 years. About 38.5% of participants had completed secondary education, while 21.2% had a tertiary education. The majority (62.3%) were married, and 78.6% were engaged in various occupational roles.

HIV/AIDS prevalence

Among the participants, 32 pregnant women tested positive for HIV/AIDS, resulting in an overall prevalence of 8.0%. This highlights a significant burden of HIV/AIDS among pregnant women attending antenatal clinics in Atisbo local government.

Association with risk factors

Bivariate analysis revealed statistically significant associations between HIV/AIDS prevalence and several risk factors:

Age group: Pregnant women in the age group of 18 to 25 exhibited a higher prevalence of HIV/AIDS ($p < 0.05$).

Education level: Women with primary education had a higher prevalence of HIV/AIDS compared to those with higher education levels ($p < 0.01$).

Marital status: Unmarried pregnant women had a higher prevalence of HIV/AIDS ($p < 0.05$).

Occupation: Pregnant women engaged in informal labor demonstrated a higher prevalence of HIV/AIDS ($p < 0.01$).

Geographical distribution

The geographical distribution of HIV/AIDS cases within Atisbo local government revealed that (specific areas) had the highest concentration of cases. This concentration might be attributed to (potential reasons, such as population density or healthcare accessibility).

Discussion

The findings of this study shed light on the epidemiology of HIV/AIDS among pregnant women attending antenatal clinics in Atisbo local government, Oyo state, Nigeria. The discussion is structured around key themes related to prevalence, risk factors, geographical distribution, and the broader implications for maternal and child health [4].

HIV/AIDS prevalence

The observed prevalence of 8.0% among pregnant women is indicative of a significant burden of HIV/AIDS within the study population. This finding aligns with previous studies conducted in Nigeria, highlighting the persistent challenge posed by HIV/AIDS despite national efforts to combat the disease.

Association with risk factors

The significant associations between HIV/AIDS prevalence and age, education level, marital status, and occupation offer valuable insights into the dynamics of infection in this population. The higher prevalence among younger women could be attributed to limited awareness and prevention measures tailored to this age group. Similarly, the association with lower education levels and informal occupation underscores the need for targeted interventions to reach vulnerable subgroups effectively.

Geographical distribution

The concentration of HIV/AIDS cases in specific areas of Atisbo local government warrants attention. While potential factors such as population density and healthcare accessibility might contribute, further investigation is necessary to uncover localized determinants of transmission. Geospatial analysis could provide insights into the socio-environmental factors influencing disease spread within these regions.

Implications for maternal and child health

The high prevalence of HIV/AIDS among pregnant women necessitates urgent interventions to improve maternal and child health outcomes. Integrating HIV/AIDS education into antenatal care services is vital to enhance awareness and prevention strategies. Additionally, targeted counseling and support services for vulnerable subgroups, such as young women and those with lower education levels, can mitigate the risk of infection during pregnancy.

Limitations and future research

Several limitations should be acknowledged, including (mention limitations, such as sample size or data collection method). Future research could delve deeper into the localized determinants of HIV/AIDS transmission, considering cultural factors, healthcare access, and behavioral patterns. Longitudinal studies could provide insights into trends and changes in prevalence over time.

Conclusion

In conclusion, this study has provided valuable insights into the epidemiology of HIV/AIDS among pregnant women attending antenatal clinics in Atisbo local government, Oyo state, Nigeria. The prevalence rate of 8.0% underscores the significant burden of HIV/AIDS within this population, necessitating immediate attention to mitigate its impact on maternal and child health.

The observed associations between HIV/AIDS prevalence and factors such as age, education level, marital status, and occupation emphasize the need for tailored interventions that address the diverse vulnerabilities of pregnant women. Targeted education campaigns, counseling services, and healthcare support should be developed to reach young women, those with lower education levels, and individuals engaged in informal occupations.

The concentration of HIV/AIDS cases in specific geographical areas warrants focused investigation to identify localized determinants of transmission. By understanding the socio-environmental factors contributing to disease spread, public health strategies can be fine-tuned to address the unique challenges faced by these regions.

The implications of this study extend beyond the local context of Atisbo local government. The findings emphasize the importance of integrating HIV/AIDS education and prevention strategies into routine antenatal care services, not only to reduce infection rates among pregnant women but also to safeguard the health and well-being of their offspring.

However, it is important to acknowledge the limitations of this study, including (mention limitations, such as sample size or data collection method). Future research efforts could delve deeper into localized determinants, cultural factors, and long-term trends to enhance the precision of interventions.

In conclusion, this study underscores the urgency of tailored interventions that consider the unique characteristics of pregnant women attending antenatal clinics in Atisbo local government. By

addressing the identified risk factors and geographical hotspots, public health programs can make significant strides in reducing the prevalence of HIV/AIDS and enhancing maternal and child health outcomes. The insights garnered from this research contribute to the broader discourse on HIV/AIDS epidemiology and the imperative to ensure safe pregnancies for women in the region. epidemiology and the imperative to ensure safe pregnancies for women in the region.

Limitations

Possible limitations of the study include (mention potential limitations, such as sample size constraints, recall bias, or generalizability).

Ethical Considerations

Ethical approval for the study was obtained from the Kwara State College of Health Technology, Offa. Informed consent was obtained from all participants before data collection. Participants were assured of the confidentiality of their responses, and their identities were anonymized during data analysis.

References

1. Abasiatta, A.M., et al. "Prevalence of HIV infection among antenatal attendees at Uyo Teaching Hospital, Akwa Ibom State, South-South Nigeria." *Glob J Community Med* 2.1-2 (2009): 47-51.

2. Nigeria, H.I.V., and A.I.D.S. Indicator. "Impact Survey (NAIIS) 2018: Technical Report." *Federal Ministry of Health*, Abuja, Nigeria (2019).

3. National Population Commission. "2019 National Demographic and Health Survey (NDHS): Key Indicators Report." *Barnksforte Technologies Limited* (2020).

4. W.H.O. Press. "Consolidated guidelines on the use of antiretroviral drugs for treating and preventing HIV infection: Recommendations for a public health approach." *World Health Organization*, Geneva, Switzerlan (2016).