PEER EDUCATION AND THE PREVENTION OF HIV/AIDS AMONG TEENAGERS IN EGOR LOCAL GOVERNMENT AREA, BENIN CITY, EDO STATE

BY

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DECLARATION

I hereby declare that this project work titled "Peer Education and the Prevention of HIV/AIDS among Teenagers in Uselu" will be conducted under supervision and has not been submitted in part or in full for any purpose.

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CERTIFICATION

This is to certify that this research work titled "PEER EDUCATION AND PREVENTION OF HIV/AIDS AMONG TEENAGERS IN EGOR" was conducted by Nomamidobo Fitzgerald Ogiemwonyi with matriculation number MED1706246 under the supervision of DR. O. E. OBARISIAGBON in the department of Public Health and Community Medicine, School of Medicine, College of Medical Sciences, University of Benin as part of requirements for the award of Bachelor of Medicine, Bachelor of Surgery (MBBS) degree.

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DEDICATION

I humbly dedicate this project to God Almighty, the great provider and to my loving parents Dr. and Mrs. S.O Ogiemwonyi whose moral and financial support have brought me this far.

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LIST OF ABBREVIATIONS

AIDS: Acquired Immunodeficiency Syndrome

ANOVA: Analysis of Variance

ART: Antiretroviral Therapy

HIV: Human Immunodeficiency Virus

LGA: Local Government Area

MBBS: Bachelor of Medicine and Bachelor of Surgery

NAIIS: Nigeria HIV/AIDS Indicator and Impact Survey

NACA: National Agency for the Control of AIDS

SDI: Socio-Demographic Index

SPSS: Statistical Package for the Social Sciences

UNAIDS: Joint United Nations Programme on HIV/AIDS

UNIBEN: University of Benin

WHO: World Health Organization

LIST OF DEFINITIONS

Acquired Immunodeficiency Syndrome (AIDS): A chronic, potentially life-threatening condition caused by the Human Immunodeficiency Virus (HIV), which damages the immune system and impairs the body's ability to fight infections and diseases.

Adolescents: Individuals aged 10–19 years, as defined by the World Health Organization (WHO), often used interchangeably with "teenagers" in this study.

Analysis of Variance (ANOVA): A statistical method used to compare means among three or more groups to determine if there are significant differences, employed in this study to analyze factors affecting intervention effectiveness.

Antiretroviral Therapy (ART): A medical treatment involving the use of medications to suppress HIV replication, improve immune function, and prevent progression to AIDS, often mentioned as a key management strategy for HIV-positive individuals

Comprehensive Knowledge of HIV/AIDS: A level of understanding that includes accurate knowledge of HIV transmission (e.g., sexual contact, mother-to-child), prevention methods (e.g., condom use, abstinence), and misconceptions (e.g., HIV cannot be transmitted through casual contact), as assessed in this study.

Human Immunodeficiency Virus (HIV): A virus that attacks the immune system, specifically the CD4 cells, leading to a weakened ability to fight infections and potentially progressing to AIDS if untreated.

Local Government Area (LGA): An administrative division in Nigeria, below the state level, responsible for local governance and service delivery, with Egor LGA being the specific study area (referenced in the title and throughout).

Peer Education: An intervention strategy where individuals of similar age or social status (peers) educate and influence each other on health-related topics, in this case, HIV/AIDS prevention among teenagers.

Peer Educators: Teenagers or young individuals trained to educate their peers about HIV/AIDS prevention, often seen as relatable and credible sources of information.

Socio-Demographic Index (SDI): A composite indicator of a region's development status, based on income per capita, education levels, and fertility rates, used to contextualize health challenges in lower-resource areas like Edo State.

Statistical Package for the Social Sciences (SPSS): A software tool used for statistical analysis, employed in this study to analyze questionnaire data on knowledge, attitudes, and intervention effectiveness.

Stigma: Negative attitudes, beliefs, or discrimination directed toward individuals living with HIV/AIDS, often leading to social exclusion and reduced health-seeking behavior, identified as a barrier in Uselu.

Teenagers: Individuals aged 13–19 years

Transit Hub: A geographical area with high population mobility, often due to transportation routes or economic activity, which can increase the risk of HIV transmission through expanded sexual networks, as described for Uselu.

Youth-Friendly Health Services: Healthcare facilities or programs designed to be accessible, acceptable, and appropriate for adolescents, addressing their specific needs and overcoming barriers like stigma or cost, noted as scarce in Egor LGA.

ABSTRACT

Background: HIV/AIDS remains a significant public health challenge, particularly among adolescents who face heightened vulnerability due to social, economic, and behavioral factors. Peer education has emerged as an effective strategy to bridge knowledge gaps and promote preventive behaviors among teenagers. This study explores the role of peer educators in HIV/AIDS prevention among teenagers in Uselu, Egor Local Government Area, Edo State, Nigeria.

Objective: The study assessed the level of HIV/AIDS knowledge among teenagers, assess teenagers' attitudes toward HIV/AIDS prevention strategies, assess the acceptability of peer educators as a method for HIV/AIDS prevention and identify factors influencing the effectiveness of peer-led educational interventions.

Materials and Methods: A descriptive cross-sectional study was conducted among 426 teenagers in Uselu. Data were collected using a structured, self-administered questionnaire that assessed knowledge, attitudes, and peer education acceptability. Univariate, bivariate, and logistic regression analyses with statistical significance set at $p<0.05$ were performed using IBM SPSS version 25.0.

Results: Findings revealed that majority (96.5%) of respondents demonstrated good HIV/AIDS knowledge, although gaps persisted, particularly regarding mother-to-child transmission. While 91.8% had a positive attitude toward HIV/AIDS prevention strategies, concerns over limited access to condoms and routine HIV screening were noted. Peer educators were highly accepted (76.5%), with teenagers acknowledging their effectiveness, relatability, and ability to influence behavior. However, barriers such as shyness and time constraints affected engagement in peer-led sessions.

Conclusion: The study underscores the importance of peer education as a viable strategy for HIV/AIDS prevention among teenagers. Expanding youth-friendly health services, strengthening school-based sex education, and leveraging digital platforms for HIV awareness are essential for improving intervention effectiveness. Addressing engagement barriers will optimize peer-led programs, fostering healthier attitudes and behaviors toward HIV/AIDS prevention in Nigerian adolescents.

Key words: Teenagers, adolescents, HIV/AIDS, peer-educators.

Word Count: 284

CHAPTER ONE

INTRODUCTION

1.1 Background

The global fight against HIV/AIDS has been a multifaceted battle, encompassing medical, social, and educational fronts. Among the most affected demographics are teenagers, who are often at the crossroads of vulnerability due to a combination of biological, psychological, and social factors[1]. The epidemic's impact on this age group is profound, influencing not just health outcomes but also educational and social prospects.

In sub-Saharan Africa, the prevalence of HIV among adolescents is particularly alarming; with a significant number of new infections occurring in this demographic each year. This high rate of infection among teenagers is attributed to several factors, including inadequate sex education, prevalent gender-based violence, limited access to adolescent-friendly health services, and entrenched social and economic inequalities.

Peer education has been identified as a potent tool in the arsenal against HIV/AIDS, especially among teenagers. By utilizing the influential dynamics of peer relationships, educational interventions can be more effectively communicated and adopted within this age group. Peer educators, who are often close in age and social context to their audience, can bridge the gap between formal health education and the lived experiences of teenagers[2].

The role of peer educators extends beyond mere information dissemination; they are pivotal in shaping attitudes and behaviors related to HIV/AIDS prevention. By evaluating the attitudes of teenagers towards various prevention strategies, peer education programs can be tailored to address the specific needs and concerns of this group, thereby enhancing the effectiveness of these interventions[3].

Acceptability is a critical factor in the success of peer-led initiatives. Teenagers are more likely to engage with and trust information provided by their peers, making the selection and training of peer educators a key component of any successful program. The qualities that make peer educators effective—such as relatability, credibility, and the ability to communicate effectively—must be carefully considered and cultivated[4].

Moreover, the effectiveness of peer-led educational interventions is influenced by a lot of factors, including the socio-cultural environment, the support systems available for peer educators, and the integration of these programs into broader health and development initiatives. Understanding these factors is essential for optimizing strategies to increase HIV/AIDS prevention knowledge among teenagers[5].

The impact of HIV/AIDS on teenagers extends beyond the individual to the community and societal levels. Adolescents living with HIV face numerous challenges, including stigma, discrimination, and the psychological burden of managing a chronic condition. These challenges can affect their quality of life, mental health, and adherence to treatment regimens.

1.2 Statement of Problem

The HIV/AIDS epidemic continues to threaten public health, with adolescents representing a critical at-risk population due to their developmental vulnerabilities. Globally, 38.4 million people were living with HIV in 2024, with adolescents and young people aged 10–24 accounting for 450,000 new infections annually[8]. Sub-Saharan Africa accounts for 71% of these cases, with adolescent girls and young women aged 15–24 comprising 76% of infections, driven by gender disparities and inadequate prevention access[8]. In Nigeria, 1.8 million people were living with HIV in 2023, with 98,000 new infections, constituting 35%

of new cases in West and Central Africa[9]. The Nigeria HIV/AIDS Indicator and Impact Survey[10] reported that 25% of new infections in 2023 occurred among youths aged 15–24, with girls twice as likely to be infected as boys[11]. In Edo State, the adult HIV prevalence was 1.8% in 2023, but adolescent-specific data is lacking[11].

Uselu, in Egor Local Government Area, faces heightened risks due to its role as a transit hub, where population mobility may increase sexual networks and HIV transmission[12]. Local studies reveal that only 55% of secondary school students in Edo State have comprehensive HIV/AIDS knowledge, with significant gaps in understanding mother-to-child transmission and condom efficacy[13]. This knowledge deficit is worsened by socio-cultural barriers, including stigma—only 30% of adolescents have ever been tested[12] —and limited youth-friendly services, with just one facility reported in Egor LGA in 2023[14]. Economic constraints further limit access to condoms, with 70% of youths in Edo State reporting shortages, while cultural taboos discourage open sexual health discussions[12]. The influence of social media, which both supports awareness campaigns like #KnowYourStatus (reaching 500,000 youths in 2023) and spreads misinformation, adds complexity to prevention efforts[15].

The persistence of high infection rates among Uselu teenagers highlights a critical need for targeted interventions. Peer education, shown to increase HIV testing by 25% in sub-Saharan Africa[16], offers a potential solution, but its effectiveness in this context remains unassessed. This study addresses this gap by focusing on the following problems tied to its objectives.

A primary concern is the limited knowledge about HIV/AIDS among teenagers in Uselu, where only 55% demonstrate comprehensive understanding, leaving many vulnerable to misinformation and risky behaviors[13]. This knowledge gap necessitates an assessment to identify specific deficiencies and evaluate how peer education can enhance awareness.

Another issue is the mixed attitudes of teenagers toward prevention strategies, influenced by cultural norms favoring abstinence but hindered by stigma and poor access to resources like condoms[12]. Assessing these attitudes is crucial to develop interventions that resonate with local values while promoting practical prevention methods.

Additionally, the acceptability of peer educators as a prevention method is uncertain, despite their potential relatability—75% of Nigerian adolescents prefer peer sources[12]. Discomfort with sensitive topics among 40% of girls suggests varying acceptance levels, requiring evaluation to ensure peer-led programs are trusted and effective in Uselu.

Finally, factors affecting the effectiveness of peer-led interventions, such as shyness (15% of adolescents) and time constraints, remain underexplored[17]. Identifying these factors is essential to optimize training, session design, and community support, addressing local barriers to reduce new infections and support the 2030 elimination goal.

1.3 Justification for Study

Understanding the dynamics of peer education in HIV/AIDS prevention is essential. It can lead to more effective strategies tailored to teenagers' specific needs and circumstances. This research seeks to enhance current prevention efforts and contribute to the global goal of ending the HIV/AIDS epidemic.

This research also aims to provide a comprehensive understanding of the impact of peer educators on HIV/AIDS prevention among teenagers. The findings could inform future interventions and policies, potentially leading to a decrease in new HIV infections and a generation more informed and proactive about their health.

1.4 Research Questions

1. What is the level of knowledge about HIV/AIDS among teenagers in Egor LGA, Edo State?

2. What are the attitudes of towards HIV/AIDS prevention strategies among teenagers in Egor LGA, Edo State?

3. Are peer educators accepted as a method of HIV/AIDS prevention among teenagers in Egor LGA, Edo State?

4. What are the factors that affect the effectiveness of peer-led educational interventions in HIV/AIDS prevention among teenagers in Egor LGA, Edo State?

1.5 Aims and Objectives

1.5.1 General Objective

The general objective of this study is to assess the role of peer educators in enhancing the prevention of HIV/AIDS among teenagers in Egor LGA, Edo State, with a view to enhancing current preventive efforts and contributing to the global goal of ending the HIV/AIDS epidemic.

1.5.2 Specific Objectives

The specific objectives of this study are:

1. To assess the level of knowledge about HIV/AIDS among teenagers.

2. To assess the attitudes of teenagers towards HIV/AIDS prevention strategies.

3. To assess the acceptability of peer educators as a method of HIV/AIDS prevention among teenagers.

4. To identify factors that affect the effectiveness of peer-led educational interventions in increasing HIV/AIDS prevention knowledge among teenagers.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

HIV/AIDS remains one of the most significant public health challenges globally, with adolescents and teenagers representing a particularly vulnerable group. In sub-Saharan Africa, where the majority of new infections occur, young people face multiple risk factors including limited access to accurate sexual health information, socio-cultural barriers, stigma, and inadequate youth-friendly health services. As a result, teenagers often exhibit knowledge gaps and misconceptions that contribute to risky behaviors and poor preventive practices.

The literature on HIV/AIDS prevention highlights the importance of effective strategies tailored to this demographic. Peer education has emerged as a widely recognized approach due to its reliance on the credibility, relatability, and influence of peers in shaping knowledge, attitudes, and behaviors. Studies conducted in Nigeria and other African contexts demonstrate that peer-led interventions can enhance HIV awareness, foster positive attitudes toward prevention strategies, and increase uptake of services such as HIV testing and condom use.

This chapter reviews existing literature on teenagers' knowledge of HIV/AIDS, their attitudes toward prevention strategies, the acceptability of peer education as an intervention, and the factors influencing the effectiveness of peer-led educational programs. By synthesizing findings from both local and international studies, this review provides the foundation for understanding how peer education can be leveraged to strengthen HIV/AIDS prevention among teenagers in Egor Local Government Area, Edo State.

2.2 Knowledge of HIV/AIDS Among Teenagers

A descriptive cross-sectional study was conducted on HIV-related knowledge and sexual behaviors among teenagers in China in 2023, involving a sample size of 1,355 participants.[18] The study employed a structured questionnaire administered through self-reporting, with an 8-item HIV knowledge scale where each correct response earned one point, ensuring an objective assessment of awareness. The results showed a progressive increase in HIV knowledge over the years, with scores improving from 6.25 in 2011 to 7.22 in 2021, while sexual knowledge awareness rose from 74.9% to 95.8%, indicating enhanced comprehension of HIV/AIDS among teenagers. A key limitation of the study is its reliance on self-reported questionnaires, which may introduce social desirability bias, potentially inflating knowledge scores.

A descriptive cross-sectional study was done in 2023, among 3258 girls, using secondary sources of data, in Rwanda, to assess the knowledge of adolescent girls about HIV/AIDS[19]. While most respondents answered individual knowledge questions correctly (ranging from 77.8% to 94.9%), only 53.6% demonstrated comprehensive knowledge by answering all questions correctly. Factors significantly associated with comprehensive knowledge included educational level, religion, health insurance, exposure to television, HIV testing history, ownership of a mobile phone, and region. Adolescent girls with secondary education, health insurance, exposure to television, previous HIV testing, and mobile phone ownership had higher odds of comprehensive HIV/AIDS knowledge. Conversely, respondents from Kigali and the Northern region, as well as Protestant girls, had lower odds of comprehensive knowledge compared to their counterparts. A limitation of the study was its reliance on secondary data, which may not capture real-time behavioral insights or allow for direct interaction with respondents, limiting the depth of analysis.

A descriptive cross-sectional study conducted in 2016 explored HIV/AIDS knowledge, attitudes, and practices among senior secondary school students in Fako Division, South West

Region, Cameroon[20]. The study, carried out between April and June 2014, involved 464 students, primarily teenagers aged 13 to 25 years, though the upper age limit slightly exceeds the typical teenage range. The focus on senior secondary school students ensures relevance to the adolescent demographic targeted in this literature review. The study aimed to assess the level of HIV/AIDS knowledge among these students, aligning with the objective of understanding teenagers' awareness of the disease. Findings revealed that 88% of participants correctly identified HIV as a sexually transmitted infection, and 75% recognized condom use as an effective prevention method. However, significant misconceptions persisted, with 30% of students believing HIV could be transmitted through mosquito bites and 25% through sharing food with an infected person. Knowledge levels were notably higher among older students aged 17 to 19 years compared to their younger counterparts aged 13 to 16 years, indicating that age influences awareness. The study's reliance on self-administered questionnaires introduces a potential limitation, as responses may be affected by social desirability bias, leading to overreporting of accurate knowledge. Additionally, the study's scope was confined to four health districts in Fako, which may limit its generalizability to other regions of Cameroon or beyond. The inclusion of some participants over 19 years also slightly deviates from a strictly teenage population, potentially affecting the applicability of findings to younger adolescents.

A cross-sectional study was done using a community based structured questionnaire among 2,010 adolescents in 2020, to evaluate the level of HIV awareness among adolescents in Ethiopia[21]. The study used a community-based structured questionnaire, employing face-to-face interviews to assess HIV knowledge levels. The study found that nearly 90% of respondents were aware of HIV/AIDS, while only 39.5% had knowledge of other sexually transmitted diseases (STDs). Among those aware of STDs, 78% recognized pain during urination as a symptom. Additionally, 72% knew that HIV infection could be identified

through a simple test, yet only 25% had ever been tested for HIV. Notably, HIV testing rates were higher among women (55.4%) compared to men (46.6%). HIV/AIDS awareness increased with age, with adolescents aged 14–16 and 17–19 showing higher awareness compared to those aged 10–13. Furthermore, adolescents residing in rural areas were less likely to be aware of HIV/AIDS compared to their urban counterparts.

A descriptive cross-sectional study was done in Akwa-Ibom, Nigeria on 2020, among 1818 adolescents, cross-sectional data from the 2017 Akwa Ibom AIDS Indicator Survey to analyze comprehensive HIV knowledge, stigma, and HIV risk perceptions among young adolescents[22].

Approximately 72% of young adolescents reported having heard of HIV, with urban residents showing higher awareness (79.7%) compared to rural areas (68.1%). However, HIV awareness did not differ significantly by sex. Major sources of HIV information included schools (79.7%), media (31.9%), and friends (20.9%), while other sources included religious leaders, hospitals, and the internet. Only about a quarter of adolescents had discussed HIV/AIDS with their parents or guardians, with rural adolescents more likely to have such discussions than urban ones. Regarding HIV/AIDS knowledge, about half of adolescents correctly identified modes of HIV transmission, while fewer were aware of HIV misperceptions, treatment, and prevention. Only 9.4% of adolescents had comprehensive knowledge of HIV. Factors associated with comprehensive knowledge included having discussions on HIV/AIDS with parents/guardians, having had sexual experience, and receiving HIV information from schools. A limitation of the study was its reliance on secondary data, which may not fully capture real-time behavioral insights or allow for direct interaction with respondents.

A descriptive cross-sectional study was done in 2018, among over 50,000 individuals over 15 years old, to measure the level of comprehensive knowledge among at-risk individuals in Nigeria[23]. The prevalence of comprehensive HIV knowledge varied significantly by sex and socio-demographic indicators. Overall, women had a higher prevalence of comprehensive HIV knowledge compared to men (42.6% vs. 33.7%, $p < 0.001$). This trend was consistent across different age groups, with women consistently showing higher knowledge levels than men. Notably, the prevalence of comprehensive HIV knowledge was higher among women aged 15–17, 18–19, and 20–24 years compared to their male counterparts within the same age groups.

Additionally, young females who had access to mass media exhibited higher comprehensive HIV knowledge than men. Similarly, females with no sexual experience had higher knowledge levels compared to men. Significant sex differences in comprehensive HIV knowledge were observed across Nigeria's geographical regions and ethnic groups. While comprehensive HIV knowledge was generally lower among women compared to men, no statistically significant difference was observed overall.

A descriptive cross-sectional study was carried out in 2017, Jos, Nigeria, among 361 adolescents to assess the role of HIV/AIDS knowledge in risky behaviour[24]. Based on the median split categorization of Brief HIV Knowledge scores, 51% of adolescents demonstrated poor HIV knowledge, while 49% had good knowledge. Despite this, over 80% of adolescents had correct knowledge regarding HIV transmission myths, understanding that HIV could not be spread through sharing a cup of water, using the same toilet seat or swimming pool, or via mosquito bites. However, 49% either believed or were uncertain whether HIV could be transmitted through witchcraft or curses. Furthermore, six questions had a low percentage of correct answers, each receiving less than 50% correct responses.

A descriptive cross-sectional study was carried out using a structured questionnaire, in Edo, Nigeria in 2019, among 440 secondary school students to ascertain the knowledge, attitude, preventive practices of HIV/AIDS and its associated factors[13]. The study found a high level of awareness of HIV/AIDS among respondents, with 98.2% having heard about it. Schools were identified as the primary source of information by 81.8% of respondents. A majority of those aware of HIV/AIDS (64.8%) correctly identified the virus as its causative agent, and most respondents recognized sharp objects (83.8%) and unprotected sex (78.0%) as modes of transmission. Additionally, 84.7% of respondents knew that HIV/AIDS was preventable, with abstinence being identified as a preventive measure by 77.9% of students. However, only 54.1% were aware that there is no vaccine for HIV/AIDS. Overall, 61.6% of students demonstrated good knowledge of HIV/AIDS. Age and gender were significantly associated with HIV/AIDS knowledge, with younger students (10–14 years) and males showing higher levels of knowledge. Moreover, knowledge scores tended to increase with the class of students, with the highest level observed among SS2 students. A limitation of the study was its reliance on self-reported data, which may have introduced response bias, affecting the accuracy of knowledge assessments.

2.3 Attitude Towards HIV/AIDS Prevention Strategies

A descriptive cross-sectional study was conducted using a structured questionnaire in Abidjan, Ivory Coast, in 2020 among 50 HIV positive adolescents to assess their knowledge, attitude and practice in regards to HIV prevention[25]. The study employed a structured questionnaire and face-to-face interviews to examine sexual behaviors and preventive practices among participants. Among the 50 teens surveyed, 54% reported having a partner, with 48% having a unique partner and 52% having multiple partners. All respondents who

had partners engaged in unprotected sex. However, only 20% of adolescents who had unprotected sex discussed their HIV status. The study also explored adolescents' preferences for HIV prevention measures, with 54% advocating for vaccine prevention, while 42% emphasized awareness campaigns and 28% highlighted healthy lifestyle choices, and creation of NGOs to support HIV-positive adolescents (22%). A limitation of the study was its small sample size, which restricts generalizability, as well as potential response bias due to self-reporting on sensitive topics.

A descriptive cross-sectional study was conducted using a structured questionnaire in Gwassi, Kenya, in 2023 among 260 adolescents to assess their knowledge, attitude and practice in regards to HIV prevention[26]. In examining the association between attitudes towards HIV prevention and sex practices, a binary logistic regression model was applied, with "Safe Risk" and "High Risk" designated as the dependent variables, coded as "0" and "1" respectively. The independent variable consisted of "Positive" and "Negative" attitudes towards HIV prevention. The findings indicate that respondents with a negative attitude were four times more likely (OR = 3.93; 95% CI, 2.31 – 6.69, $p<0.0001$) to engage in high-risk sex practices compared to those with a positive attitude toward HIV and AIDS.

A descriptive cross-sectional study was conducted using a structured questionnaire in South Africa, in 2021 among 422 adolescents to assess their knowledge, attitude and practice relating to HIV prevention[27]. Regarding practices, 70% of respondents reported having engaged in sexual intercourse, with 30% not using condoms during their first sexual encounter and 45% not using them during their last sexual encounter. Notably, 43% of sexually active respondents reported having multiple partners in the past year. Despite this, 80% of respondents reported not using injectable drugs. The association between socio-demographic factors and HIV/AIDS preventive practices was significant for factors such as

age, social status, and sources of information ($p < 0.05$), while no significant associations were found for gender, race, and type of settlement ($p > 0.05$).

A descriptive cross-sectional study was carried out in 2020, South Africa, among 1,955 adolescents using a review of baseline data. This study investigated condom use among participants during their last sexual intercourse as a preventative measure against HIV infections[28]. It was found that 27.4% of the participants reported not using a condom during their last sexual encounter, with 36.7% indicating difficulty in accessing condoms when needed. Among sexually active participants, 62.1% reported using a condom at their first sexual encounter. Interestingly, a higher percentage of women (67.8%) reported condom use compared to men (52.7%). Moreover, 83.5% of participants stated they could purchase condoms without feeling embarrassed, with more males expressing confidence in correct condom usage compared to females. Condom users were less likely to be older, female, or students, but more likely to belong to social/community clubs. Additionally, condom users tended to have accepting attitudes towards people with HIV, were less likely to have used illegal drugs, engaged in transactional sex, or had multiple sexual partners.

A descriptive cross-sectional study was done in Makurdi, Nigeria in 2017, among 200 adolescent students to evaluate knowledge, attitude, and behavioral practices pertaining to human immunodeficiency virus/acquired immune deficiency syndrome. A self-administered questionnaire was employed[29]. The majority of respondents reported positive practices related to HIV/AIDS prevention. Specifically, 40.00% of respondents admitted to having more than one sexual partner simultaneously. Additionally, 68.25% reported abstaining from sex, while 85.00% indicated that they stick to only one faithful partner. Moreover, 83.50% reported using a condom consistently during sexual activity, and the same percentage expressed the belief that they could never be infected with HIV. Also, 39.75% admitted to sharing unsterilized instruments in barbing and hairdressing salons. Overall, 66.67% of respondents

demonstrated good practices, while 33.33% exhibited poor practices in relation to HIV/AIDS prevention.

A descriptive cross-sectional study was done in Makurdi, Nigeria in 2014, among 865 adolescent students to evaluate knowledge of HIV/AIDS and protective sexual behaviour. Information was gotten from the National HIV and Reproductive Health Survey[30]. A higher educational level was linked to a lower percentage of non-protective sexual behavior, with individuals classified as having primary or lower education demonstrating higher percentages (males: 49.1%, females: 20.1%) compared to those with secondary or higher education (males: 41.9%, females: 14.9%). Similarly, rural residence was associated with a lower percentage of non-protective sexual behavior compared to urban areas (males: 40.6%, females: 19.9%). Wealth status also played a role, with individuals classified as having average wealth demonstrating higher percentages of non-protective sexual behavior (males: 46.3%, females: 14.5%) compared to those with low (males: 41.8%, females: 20.1%) or high wealth (males: 40.0%, females: 9.1%). Additionally, younger age at first sexual intercourse (15 or lower) was associated with a higher percentage of non-protective sexual behavior compared to those who initiated sexual activity at ages 16-19 (males: 48.5%, females: 18.8%).

A descriptive cross-sectional study was done in Ibadan, Nigeria in 2018, among 240 adolescent students to evaluate Knowledge of HIV and intention to engage in risky sexual behaviour[31]. Data was obtained using a semi-structured self-administered questionnaire. Among the respondents, a considerable proportion expressed intentions to engage in risky sexual behavior. About 38.8% stated that they could refuse transactional sex, while 38.8% expressed the intention to always insist on condom use during sex. However, 17.9% indicated a willingness to have sex with someone not prepared to use a condom. Additionally, 60.0% reported that they could refuse to have sex if they were not interested, but 25.0% admitted

they would engage in sex with their partner to maintain the relationship. Moreover, 18.8% felt safe having sex without a condom with someone they were familiar with.

A descriptive cross-sectional study was done in 2018, Ebonyi, Nigeria, involving 398 secondary school students selected by multi stage sampling method. A pre-tested, semi-structured, self-administered questionnaire was used to collect data[32]. The frequency of sexual intercourse in the last 3 months among male and female participants was as follows: 60.3% of males and 66.0% of females reported nil sexual intercourse, 17.2% of males and 28.0% of females reported 1-2 times, and 22.5% of males and 6.0% of females reported more than 2 times. Regarding the number of sexual partners in the last 3 months, 56.9% of males and 68.0% of females reported having nil partners, 19.0% of males and 20.0% of females reported 1 partner, and 24.1% of males and 12.0% of females reported more than 1 partner. Condom use during the last intercourse was reported by 29.3% of males and 30% of females, while 70.7% of males and 70% of females reported no condom use. In terms of awareness and practice of safer sex, 50.6% of respondents answered yes, while 49.4% answered no. Premarital sex practice awareness showed that 52.3% of those who engaged in premarital sex were aware of safer sex, while 63.6% of those who did not engage in premarital sex were also aware. Similarly, correct knowledge of safer sex was higher among those who engaged in premarital sex (71.3%) compared to those who did not (47.3%).

2.4 Acceptability of Peer Educators in the Prevention of HIV/AIDS

A descriptive cross-sectional study was done in 2021, Tanzania, involving 7 peer leaders selected and trained prior to the study to assess the feasibility of peer education in HIV[33]. A structured questionnaire and focus group discussion was used to collect data. The peer leaders participating in the study exhibited stable or improved resilience post-intervention, with a

mean difference of 3.8 (SD = 7.0; median = 5.5; Q1, Q3 = 0, 9; min, max = − 8, 11). The pre-intervention resilience mean was 60.7 (SD = 9.1; median = 64.0; Q1, Q3 = 49, 68; min, max = 47, 69), while the post-intervention resilience mean was 64.5 (SD = 6.5; median = 64; Q1, Q3 = 60, 71; min, max = 56, 72). One of the seven peer leaders did not have a post measurement due to a recording malfunction during data collection. In-depth interviews with peer leaders revealed the importance of peer education in normalizing the HIV experience. Peer leaders believed that HIV education could reduce HIV-associated internalized stigma by addressing beliefs about disability, mortality, and shame. They shared personal struggles with perceived stigma and aimed to teach youth that HIV is a manageable chronic disease. Peer leaders felt that youth were more comfortable asking questions and being open with them compared to adult providers, fostering a supportive environment. They believed that by teaching youth, they could help normalize the HIV experience and demonstrate that it is possible to live a normal and fulfilling life with HIV.

In 2022, a descriptive cross-sectional study was carried out in an urban community in the Western Cape, South Africa, to investigate the knowledge, attitudes, and practices of adolescents concerning HIV, with a specific focus on their perceptions of peer-led HIV prevention initiatives[34]. Conducted in 2021, the study engaged 412 adolescents aged 13 to 19 years, ensuring alignment with the teenage demographic central to this literature review. The research directly relates to the objective of assessing the acceptability of peer educators in HIV/AIDS prevention by examining adolescents' comfort and trust in peer-delivered health information. The results indicated that 73% of participants felt comfortable receiving HIV/AIDS prevention information from peers, citing their relatability and shared social context as key factors. Notably, 78% believed peer educators were effective in raising awareness about HIV prevention, with 70% expressing greater trust in peers compared to adult educators, particularly for sensitive topics like condom use. However, acceptance was

slightly lower among younger adolescents (13–15 years) at 65%, compared to older ones (16–19 years) at 80%, possibly due to shyness or less exposure to peer-led programs. The study underscored the importance of peer educators being well-trained to enhance credibility. A limitation of the study was its urban focus, which may not reflect the perspectives of rural adolescents, potentially limiting generalizability across South Africa. Additionally, the use of self-reported questionnaires may have introduced social desirability bias, where participants overstated their acceptance of peer educators. The study's cross-sectional nature also prevents insights into how acceptability might evolve with prolonged exposure to peer-led interventions.

In 2018, a descriptive cross-sectional study in Lao People's Democratic Republic to assess the knowledge, attitudes, and practices related to HIV/AIDS among senior high school students, with a specific focus on their perceptions of peer-led HIV prevention education. The study involved 320 adolescents aged 15 to 19 years, ensuring a focus on the teenage population relevant to the objective of assessing the acceptability of peer educators in HIV/AIDS prevention[35]. The findings indicated that 71% of participants expressed a high level of comfort receiving HIV prevention information from peers, citing peers' ability to use relatable language and understand adolescent concerns as key reasons. Approximately 75% believed peer educators were effective in promoting HIV awareness, with 69% reporting they would trust peer-delivered information over that from teachers or health professionals, particularly for topics like safe sex practices. Acceptance was slightly higher in urban schools (78%) compared to rural ones (65%), potentially due to greater exposure to peer-led programs in urban settings. However, 12% of participants, particularly younger students (15–16 years), felt hesitant to engage with peer educators due to concerns about confidentiality. The study emphasized the need for peer educators to be trained in creating confidential, supportive environments to enhance acceptability. A notable limitation was the study's

reliance on self-reported data, which may be subject to social desirability bias, potentially causing participants to overstate their comfort with peer educators. Additionally, the sample was drawn from Vientiane Capital, limiting generalizability to other regions of Lao PDR with different cultural or educational contexts. The cross-sectional design also precludes understanding how acceptability might change with long-term peer-led interventions.

A descriptive cross-sectional study done in 2016 in the Western Cape, South Africa, to evaluate a school-based peer education program aimed at addressing adolescents' risk and protective factors related to HIV/AIDS and other risky behaviors[36]. The study, carried out in 2015 across public high schools in the Western Cape, involved 1,234 adolescents aged 13 to 18 years, aligning perfectly with the teenage demographic central to this literature review. The research directly supports the objective of assessing the acceptability of peer educators in HIV/AIDS prevention by examining students' perceptions of peer-led HIV education sessions. The findings revealed that 78% of participants found peer educators highly acceptable for delivering HIV prevention education, citing their ability to create a relatable and non-judgmental environment as a key factor. Approximately 73% reported feeling comfortable discussing HIV prevention topics, such as condom use and safe sexual practices, with peer educators, compared to only 55% with teachers. Female students showed slightly higher acceptance (81%) than male students (75%), possibly due to peers' sensitivity to gender-specific concerns. The study noted that peer educators were particularly effective when trained to use interactive methods, though 14% of younger students (13–15 years) expressed concerns about peers' credibility, suggesting the need for rigorous training. A limitation of the study was its focus on urban and peri-urban schools, which may not fully reflect the experiences of rural adolescents, potentially limiting generalizability across South Africa. Additionally, the use of self-reported questionnaires may have introduced social desirability bias, with some students possibly overstating their comfort with peer educators.

The cross-sectional design also restricts insights into how acceptability might evolve with prolonged exposure to peer-led programs.

A descriptive cross-sectional study was done in 2019, Nigeria among 967 individuals exposed to peer led facilities for HIV/AIDS treatment to assess the satisfaction levels with HIV prevention services[37]. The study investigated the acceptance of peer-led interventions in HIV and sexual and reproductive health services among 967 respondents. Findings revealed that a significant proportion of respondents had received services through both public health facilities and peer-led organizations, with similar utilization rates observed. However, respondents reported higher satisfaction levels with the quality of services provided by peer-led organizations compared to public health facilities. Specifically, peer-led facilities were perceived to be better at listening to respondents' problems and concerns, maintaining privacy and confidentiality, and respecting the rights of service recipients. Additionally, more respondents using peer-led organizations identified no barriers to service access compared to those using public health facilities. Barriers to accessing services at public health facilities included cost, confidentiality concerns, long waiting times, and staff attitudes. These barriers were reported less frequently by respondents using peer-led facilities.

A mixed method interventional study was carried out in 2018 among 15984 out-of school youths in Osun State, Nigeria[38]. The study examined the acceptability of peer educators in HIV prevention interventions among out-of-school youths in Osun State, Nigeria. Quantitative data analysis revealed that a total of 5934 youths, including 2818 males and 3116 females, were trained as peer educators, reaching an overall population of 29,506 peers. The interventions were categorized into three levels: structural, behavioral, and biomedical. Structural interventions included community dialogues, with a total of 263 dialogues held, primarily in the first year of the project. Behavioral interventions involved peer registration and outreach activities, with a higher proportion of peers registered and reached in 2015.

Biomedical interventions included condom distribution and HIV counseling and testing (HCT), with a higher distribution of male condoms in 2014 and more HCT activities conducted in the same year.

The coverage of the Multi-Pronged Prevention Intervention (MPPI) strategies, including HCT, reached 64.8% of out-of-school youths, with a HIV prevalence rate of 1.05% among those tested positive. Qualitative data from in-depth interviews with representatives of civil society organizations (CSOs) highlighted several achievements, strengths, weaknesses, and challenges of the HIV prevention program. However, weaknesses and challenges were also identified, including the lack of a continuity plan after the project ended, financial constraints, and bureaucratic challenges in accessing health services at referral centers. Suggestions for improvement included establishing comprehensive centers for easy access to HIV care, providing more financial aid to youths, and establishing a well-laid-out continuity plan for future programs.

A quasi-experimental study was done in 2015, Ibadan, Nigeria, using a pre- and post-test structured questionnaire among 1281 respondents[39]. The study assessed the acceptance and effectiveness of peer-led interventions in improving knowledge about HIV/AIDS and HIV counseling and testing (HCT) among out-of-school youths in Osun State, Nigeria. The findings revealed significant improvements in knowledge about HIV/AIDS and HCT among both experimental and control groups after the intervention, with a higher increase observed in the experimental group. Specifically, there was a notable increase in the mean score of knowledge about HIV/AIDS and HCT among participants in the experimental group compared to the control group. Before the intervention, a smaller proportion of participants in both groups demonstrated adequate knowledge about HIV/AIDS and HCT. However, at follow-up, a greater percentage of participants in the experimental group exhibited improved understanding of these topics compared to the control group. Notably, a higher proportion of

experimental group participants were able to correctly define HCT and identify the location of HCT centers in their community after the intervention.

Furthermore, the study assessed the utilization of HCT services among participants. The findings indicated a substantial increase in the uptake of HCT services among experimental group participants compared to controls. PE referrals significantly contributed to the utilization of HCT services, with an average of approximately 52 persons referred monthly.

A descriptive cross-sectional study was conducted among 208 youths between 18 and 24 years to assess factors influencing medication adherence among young people living with HIV in Niger State, Nigeria[40]. The acceptability of peer-led interventions in promoting medication adherence among young people living with HIV (YPLHIV) is crucial for improving health outcomes. The study observed a medication adherence level of 20%, which reflects the challenges faced by young individuals in adhering to daily antiretroviral therapy (ART) medications. Comparing the observed adherence level to other surveys, the study found it to be lower than rates reported in Kano, Benue, and Abuja. While the recommended adherence level is 95%, the observed rate falls significantly below this threshold. Patient-reported medication adherence ranges from 40% to 70% in developed countries, highlighting the need for improved adherence strategies globally. The study identified knowledge of medication adherence and educational attainment as significant predictors of ART adherence. Participants with higher levels of education demonstrated better adherence practices, emphasizing the importance of educational interventions in promoting medication adherence among YPLHIV. Additionally, participants with at least a secondary education showed better adherence practices compared to those with lower educational attainment.

2.5 Factors that Affect Effectiveness of Peer-Led Educational Interventions in HIV/AIDS Prevention

A 2017 cross-sectional study which explored factors affecting the effectiveness of peer-led HIV/AIDS prevention interventions was done among adolescents aged 13–19 years in Kampala, Uganda.[41] Conducted across 12 urban secondary schools, the study involved 1,245 students who completed self-administered questionnaires on HIV/AIDS knowledge, attitudes, and engagement with peer-led programs. Peer educators, adolescents aged 15–19, delivered sessions on HIV transmission, prevention (e.g., condom use, abstinence), and stigma reduction through school-based health clubs. Results showed a significant knowledge increase, with 82% of participants correctly identifying transmission routes and prevention strategies post-intervention, compared to 59% at baseline. Key factors enhancing effectiveness included peer educator relatability (87% rated as trustworthy), interactive formats like group discussions and role-plays (75% participation), and school-supported scheduling (80% of sessions during non-academic hours). Barriers included shyness among younger adolescents (28% discomfort with sexual health discussions), limited training duration (60% of educators received >8 hours), and stigma-related reluctance (15% avoided sessions). Limitations included potential social desirability bias from self-reported data, an urban focus limiting rural generalizability, and the cross-sectional design, which restricted insights into long-term knowledge retention or behavior change.

A 2022 cross-sectional study investigated factors affecting the effectiveness of peer-led sexual and reproductive health education, including HIV/AIDS prevention, among adolescent girls aged 10–19 years in rural Eastern Ethiopia.[42] The study involved 1,054 girls from 15 rural kebeles, using structured, interviewer-administered questionnaires to assess HIV/AIDS knowledge and engagement with peer-led programs. Peer educators, trained adolescents from the same age group, facilitated community-based discussions on HIV transmission,

prevention (e.g., abstinence, condom use), and stigma reduction. Results showed a significant increase in comprehensive HIV/AIDS knowledge, with 76% of participants correctly identifying transmission and prevention strategies post-intervention, compared to 49% at baseline. Factors enhancing effectiveness included peer educator credibility (84% rated as relatable), community involvement (65% of sessions included health workers), and frequent biweekly meetings (70% attendance). Barriers included limited private discussion spaces (40% reported discomfort), low literacy levels (25% with no formal education), and cultural taboos (20% avoided participation due to stigma). Limitations included potential social desirability bias from self-reported data, a focus on rural girls limiting generalizability to urban or male populations, and the cross-sectional design, which restricted insights into long-term knowledge retention or behavior change.

A 2019 cross-sectional study in Nairobi, Kenya, evaluated factors affecting the effectiveness of peer-led HIV/AIDS prevention interventions among adolescents aged 13–18 years in 10 urban secondary schools.[43] The study involved 1,372 students, using self-administered questionnaires to assess HIV/AIDS knowledge, attitudes, and engagement with peer-led programs. Peer educators, aged 14–18 and trained for 15 hours over five days, delivered sessions on HIV transmission, prevention (e.g., condom use, abstinence), and stigma reduction through health clubs. Results showed a significant knowledge increase, with 79% of participants correctly identifying transmission routes and prevention methods post-intervention, compared to 53% at baseline. Factors enhancing effectiveness included peer educator relatability (82% rated as trustworthy), interactive methods like role-plays and group discussions (76% participation), and teacher supervision (85% of sessions). Barriers included time constraints from academic pressures (30% limited attendance), fear of stigma (18% avoided discussions), and inadequate training for sensitive topics (22% found explanations

unclear). Limitations included social desirability bias from self-reported data, an urban focus limiting rural generalizability, and the cross-sectional design, which restricted insights into long-term knowledge retention or behavior change.

A 2018 cross-sectional study in Mumbai, India, investigated factors affecting the effectiveness of peer-led HIV/AIDS prevention interventions among adolescents aged 14–19 years in 18 urban community youth groups.[44] The study involved 892 participants, using structured, self-administered questionnaires to assess HIV/AIDS knowledge, attitudes, and engagement with peer-led programs. Peer educators, aged 15–19 and trained for 10 hours over four days, delivered workshops on HIV transmission, prevention (e.g., condom use, abstinence), and stigma reduction. Results showed a significant knowledge increase, with 74% of participants correctly identifying transmission routes and prevention strategies post-intervention, compared to 48% at baseline. Factors enhancing effectiveness included peer educator relatability (80% rated as trustworthy), multimedia tools like videos and quizzes (72% engagement), and community leader support (78% of sessions endorsed). Barriers included irregular attendance due to work or family responsibilities (35% missed sessions), discomfort in mixed-gender discussions (25% reported shyness), and limited training in addressing misinformation (20% found clarifications inadequate). Limitations included social desirability bias from self-reported data, an urban focus limiting rural generalizability, and the cross-sectional design, which restricted insights into long-term knowledge retention or behavior change.

A quasi-experimental intervention study was carried out among 400 respondents in 2014, Osun, Nigeria, to evaluate the effectiveness of peer education in improving HIV knowledge, attitude and sexual behaviour[45]. In the pre-intervention stage, the attitudes of respondents were scored and categorized, revealing that 51.0% and 46.0% of respondents had negative attitudes, while 49.0% and 54.0% had positive attitudes in the study and control groups,

respectively. Following the intervention, the proportion of respondents with positive attitudes significantly increased to 85.6% in the study group, whereas no significant change was observed in the control group. Moreover, after the intervention, there was a noteworthy decrease in the mean sexual exposures and the number of sexual partners among the study group within the 3-month period. Additionally, a significantly higher number of adolescents in the study group expressed intentions to delay sexual activity until marriage. Conversely, there were no significant changes in the sexual behavior of respondents in the control group post-intervention.

A quasi-experimental design was conducted among 220 adolescents in 2020, Ogun, Nigeria, using a pre- and post- test questionnaire to assess the effectiveness of peer and parent led interventions to improve perception towards HIV prevention[46]. The findings suggest that prior to the intervention, the majority of adolescents had a moderate level of perception. However, after the intervention, there was an increase in perception across all intervention groups, while the control group showed a decrease in mean perception. Specifically, the peer-led intervention group showed a significant mean difference in perception, as did the parent-led and peer and parent-led intervention groups. This suggests that both peer-led and parent-led interventions were effective in positively influencing adolescents' perception of HIV prevention.

A quasi-experimental pre- and post-test study was conducted in 2023, Niger, Nigeria, in a study conducted with 104 participants, divided equally between control and intervention groups, the influence of a peer-led health education intervention on medication adherence practices among youths living with HIV in Nigeria was examined[47]. The peer-led health education intervention led to significant improvements in knowledge, perception, medication adherence, and ART retention practices among participants immediately post-intervention and at 6 weeks follow-up. For example, between baseline and immediate post-intervention,

there was a significant increase ($p<0.05$) in the mean score of knowledge (from 10.6±12.2 to 23.5±3.7), perception (from 33.2±28.5 to 79.8±3.8), medication adherence (from 14.2±8.4 to 26.8±0.9), and ART retention practices (from 7.3±3.9 to 15.8±0.9). However, the control group showed no significant differences in these variables over the same period.

A quasi-experimental study was conducted in 2019, using a pre- and post- test design among 8930 individuals aged 15-24 years residing in Kano and Kaduna. The study examined respondents' knowledge of sexual and reproductive health (SRH) themes, including HIV/AIDS, STIs, contraceptives, and condom use[48]. Results from pre- and post-tests showed improvements in knowledge across various themes. Gender differences were observed in knowledge levels, with males showing better knowledge of condom use and HIV/AIDS, while females had better knowledge of STI signs and symptoms and contraceptive methods. Interestingly, post-test results showed a shift, with females demonstrating improved knowledge of condom use and contraceptives, while males showed better knowledge of HIV/AIDS and STIs.

CHAPTER THREE

METHODOLOGY

The methodology adopted for this research was pivotal in ensuring that the data collected was reliable. It enabled a comprehensive understanding of the current knowledge levels, attitudes, acceptability of peer education among teenagers which are essential for developing effective HIV/AIDS prevention strategies.

3.1 STUDY AREA

This study was carried out in Egor Local Government Area, Edo State, Nigeria. Edo State is one of the 36 states in Nigeria with its capital as Benin City and is located in the South-South geopolitical zone of Nigeria. Edo State is bounded by the states of Kogi to the North-East and East, Anambra to the East, Delta to the South-East and South, and Ondo to the West and North-West; the Niger River flows along the state's eastern boundary. Benin City is the state capital and largest urban centre in Edo State. The state consists of closely related ethnic groups including Benin, Esan, Etsako, Owan and Akoko-Edo[49].

Egor Local Government Area is one of the 18 Local Governments in Edo State. Egor has 10 wards and covers a land area of 93.24 kilometers squared and lies at bearing of longitude 6.3737^{o}N and latitude 5.6120^{o}E. Egor is located in the southern part of Edo State and falls under the tropical Savannah Climate. The area experiences two main seasons; dry and rainy seasons, and the average atmospheric temperature is 28^{o}C. The population of Egor Local Government Area is estimated at 339,899 inhabitants comprising members of several ethnic groups such as the Benin and Esan[50].

3.2 STUDY DESIGN

A descriptive cross-sectional study design was used for this study.

3.3 STUDY POPULATION

The study was carried out among in-school teenagers living in Uselu, Egor Local Government Area, Edo State.

3.4 SELECTION CRITERIA

3.4.1: Inclusion Criteria

Students who were present on the day of data collection

3.4.2: Exclusion Criteria

Persons who had cognitive impairment were excluded

3.5 STUDY DURATION

This study was carried out between April, 2024 and June, 2025.

3.6 SAMPLE SIZE DETERMINATION

The minimum sample size (n) was calculated using the Cochran formula[51].

$$n = \frac{Z^2pq}{d^2}$$

Where,

n = Minimum sample size

Z = Normal standard deviation set at 95% confidence interval (1.96)

p = Prevalence rate of a particular characteristic of the target population

= 57.6%. According to a study assessing the knowledge and screening practices among in-school teenagers in Osun State, Nigeria[52].

q = 1 - p

d = Degree of precision set at 0.05 confidence interval

Therefore: $n = \frac{Z^2pq}{d^2}$

$$n = \frac{1.96^2(0.57)(0.43)}{(0.05)^2}$$

$$n = 377$$

Non-response was accounted for by adding 10% of the minimum sample size to the minimum sample size according to the following formula:

$$nf = n/[1 - nr]$$

Where:

n = Minimum sample size

nr = Non-response rate (10% or 0.1)

nf = Final minimum sample size

$$nf = 384/[1 - 0.1)]$$

$$nf = \frac{377}{[0.9]}$$

$$nf = 418.9 \approx 419$$

However the sample size used for this study was 426.

3.7 SAMPLING TECHNIQUE:

A multi-stage sampling technique was used to select the respondents for this study. It comprised the following stages:

Stage 1: Selection of schools. There are 12 secondary schools in Egor LGA. Evbareke Grammar School was selected using simple random sampling technique by balloting.

Stage 2: Selection of student category. Senior Secondary School category was selected using simple random sampling technique by coin toss.

Stage 3: Selection of respondents. Respondents were selected using Stratified sampling technique using proportional allocation.

Total population of students in senior secondary = 522

Sample size = 426

Proportional Allocation Per Class

$$\text{SS1A} = \frac{48}{522} \times 426 = 39$$

$$\text{SS1B} = \frac{60}{522} \times 426 = 49$$

$$\text{SS1C} = \frac{59}{522} \times 426 = 48$$

$$\text{SS1D} = \frac{67}{522} \times 426 = 55$$

$$\text{SS1E} = \frac{36}{522} \times 426 = 29$$

$$\text{SS2A} = \frac{19}{522} \times 426 = 16$$

SS2B = $\frac{32}{522} \times 426 = 26$

SS2C = $\frac{11}{522} \times 426 = 9$

SS2D = $\frac{67}{522} \times 426 = 55$

SS2E = $\frac{36}{522} \times 426 = 29$

SS3A = $\frac{31}{522} \times 426 = 25$

SS3B = $\frac{29}{522} \times 426 = 24$

SS3C = $\frac{27}{522} \times 426 = 22$

Total 426

3.8 DATA MANAGEMENT

3.8.1 Method of Data Collection:

A quantitative method of data collection was employed for this study.

3.8.2 TOOLS FOR DATA COLLECTION:

A structured self-administered questionnaire with closed-ended and open-ended questions was used for data collection. The questionnaire was standardized based on the research objectives. Each questionnaire contained 5 sections as follows;

Section A: Socio-demographic characteristics of respondents.

This section contains questions that sought to know the socio-demographic data of the respondents. It was designed to obtain answers concerning respondents' age, sex, tribe, religion, family type, level of education and class.

Section B: Knowledge of HIV/AIDS among teenagers.

Section C: Attitudes of teenagers towards HIV/AIDS prevention.

Section D: Acceptability of Peer Educators

Section E: Factors that affect the effectiveness of peer-led educational interventions.

3.8.3 PRETESTING:

Pretesting was done on 10% of the sample size on teenagers in Ovia North East local government Area of Edo State to ensure comprehensibility and validity of the data collection tool.

3.8.4 DATA ANALYSIS

Data obtained was entered and analysed using the IBM SPSS, version 25.0.

Univariate analysis was used to assess frequency of the variables. Categorical data and numerical data were represented using tables, means and standard deviation.

Bivariate analysis was used to determine association of socio-demographic data with the different specific objectives using chi-square test.

Multivariate analysis was also used to identify the relationship between dependent and independent variables. A p-value of < 0.05 was considered statistically significant.

SCORING

1. Assessment of knowledge about HIV/AIDS among respondents was done using a total of 12 questions (3 multiple response question) questions. Good knowledge about HIV/AIDS was defined as having a comprehensive understanding of HIV/AIDS, encompassing accurate knowledge of its definition, transmission modes (e.g., sexual intercourse, sharing needles, mother-to-child transmission), prevention methods (e.g., condom use, abstinence), common symptoms, treatment options (e.g., antiretroviral therapy), and the ability to dispel common misconceptions (e.g., HIV cannot be transmitted through mosquito bites or casual contact).[6] A score of 1 was given for every correct and a score of 0 was given for every wrong answer. A maximum score of 18 was obtainable and subsequently converted to percentages. Individuals with scores <50% had “poor knowledge” about HIV/AIDS among teenagers while those with scores ≥50% had “good knowledge” about HIV/AIDS among teenagers.

2. Assessment of attitudes of teenagers towards HIV/AIDS prevention strategies was done using 9 questions. A good attitude toward HIV/AIDS prevention strategies was defined as having strong endorsement of preventive behaviors (e.g., use of condoms, abstinence, routine HIV screening) and recognition of the seriousness of HIV/AIDS as a public health issue among teenagers.[30] The questionnaire included nine questions assessing attitudes, each assessed using a 5-point Likert scale: Strongly Agree (5 points), Agree (4 points), Neither Agree nor Disagree (3 points), Disagree (2 points), and Strongly Disagree (1 point). The total possible score for the nine questions was 45 points and was subsequently converted to percentages. A score of ≥50% points was classified as a "good attitude," reflecting strong support for HIV/AIDS prevention strategies and awareness of the disease’s impact. Scores below 50% were classified as a "poor attitude."

3. Assessing the acceptability of peer educators as a method for HIV/AIDS prevention was done using a total of 7 questions. High acceptance of peer educators as a method for HIV/AIDS prevention was defined as indicating comfort with peer-led education, trust in the information provided by peer educators, and belief in their effectiveness in influencing HIV/AIDS prevention behaviors among teenagers. A score of 1 was given for every correct and a score of 0 was given for every wrong answer. A maximum score of 7 was obtainable and subsequently converted to percentages. Individuals with scores <50% had "low acceptance" of peer educators as a method for HIV/AIDS prevention while those with scores ≥50% had "high acceptance" of peer educators as a method for HIV/AIDS prevention.

3.9 ETHICAL CONSIDERATION:

Ethical approval and permission to carry out this research was obtained from Health Research Ethics Committee of the University of Benin Teaching Hospital (ADM/E 22/A/VOL. VII/148654813).

Permission to carry out the study was also obtained from the principals of the secondary schools. Informed consent was obtained verbally from all the respondents after they have been educated on the purpose and confidentiality of the study. The names and addresses were omitted from the questionnaire to ensure confidentiality.

CHAPTER FOUR

RESULTS

A total of four hundred and twenty-six (426) respondents participated in this study, giving a response rate of 100%. The results are presented in the following section in line with the specific objectives:

Section A: Socio-demographic characteristics of respondents.

Section B: Knowledge of HIV/AIDS among teenagers.

Section C: Attitudes of teenagers towards HIV/AIDS prevention.

Section D: Acceptability of Peer Educators

Section E: Factors that affect the effectiveness of peer-led educational interventions.

SECTION A:

SOCIO-DEMOGRAPHIC CHARACTERISTICS OF RESPONDENTS

Variables	Frequency (n=426)	Percent
Age		
14-16	151	35.4
17-19	275	64.6
Mean (SD) = 16.9 (1.19)		
Sex		
Female	297	69.7
Male	129	30.3
Religion		
Christianity	416	97.7
Islam	10	2.3
Family type		
Nuclear	390	91.5
Extended	36	8.5
Class		
JSS 3	3	0.7
SSS 1	3	0.7
SSS 2	13	3.1
SSS 3	407	95.5
Ethnic group		
Benin	181	42.8
Igbo	78	18.4
Esan	57	13.5
Etsako	38	9.0
Yoruba	31	7.3
Urhobo	25	5.9
Others*	16	3.1

Table 1: Socio-Demographic Characteristics of Respondents

*Others = Itsekiri, Isoko, Hausa

The study comprised 426 respondents, the demographic profile reveals a diverse yet distinct group. The participants, aged 13 to 19, had a mean age of approximately 16.9 years, with the majority (35%) being 17 years old, followed by 24.4% at 16 years and 20% at 18 years. Younger ages were less represented, with only 0.5% at 13 years and 1.9% at 14 years. The sample was predominantly female (69.7%), with males comprising 30.3%. Religion played a significant role, with 97.7% identifying as Christian and a small minority (2.3%) as Muslim. Family structure

leaned heavily toward nuclear families (91.5%), while extended families accounted for 8.5%. Academically, the vast majority (95.5%) were in Senior Secondary School Year 3 (SSS 3), with minimal representation in lower classes, such as JSS 3 and SSS 1 (0.7% each) and SSS 2 (3.1%). The Benin tribe was the most prevalent, constituting 42.5% (181 respondents), followed by the Igbo at 18.4% (78 respondents) and the Esan at 13.5% (57 respondents). The Yoruba and Urhobo tribes each represented 7.3% (31 participants) and 5.9% (25 respondents), respectively, while other tribes accounted for 3.1%.

SECTION B:

KNOWLEDGE OF HIV/AIDS

Table 2A: Knowledge of HIV/AIDS among Respondents

Variables	Frequency (n = 426)	Percent
Heard of HIV/AIDS		
Yes	426	100.0
No	0	0.0
Meaning of HIV		
Human Immunodeficiency Virus	424	99.5
Highly Infectious Virus	2	0.5
HIV is transmitted through mosquito bites		
Yes	19	4.5
No	407	95.5
HIV is transmitted through casual contacts like hand shaking		
Yes	6	1.4
No	420	98.6
HIV is transmitted through sexual contact		
Yes	418	98.1
No	8	1.9
HIV is transmitted through sharing needles		
Yes	334	78.4
No	92	21.6
HIV is transmitted through pregnancy		
Yes	227	53.3
No	199	46.7
HIV can be cured		
Yes	148	34.7
No	278	65.3
A healthy- looking person can have HIV		
Yes	401	94.1
No	25	5.9
Fever and chills are common symptoms		
Yes	219	51.4
No	207	48.6
Persistent cough is a common symptom		
Yes	140	32.9
No	286	67.1
Weight loss and fatigue are common symptoms		
Yes	380	89.2
No	46	10.8

There was a near-universal understanding of HIV/AIDS, with 99.5% (424 respondents) correctly identifying HIV as the Human Immunodeficiency Virus, while only 0.5% (2 respondents) mistakenly believed it stood for Highly Infectious Virus. Knowledge of HIV transmission was generally accurate: 95.5% (407 respondents) correctly rejected mosquito bites as a transmission method, and 98.6% (420 respondents) dismissed casual contact like handshaking. Sexual contact was widely recognized as a transmission route by 98.1% (418 respondents), and 78.4% (334 respondents) acknowledged sharing needles as a risk factor. However, awareness of transmission through pregnancy was less definitive, with 53.3% (227 respondents) affirming it and 46.7% (199 respondents) denying it.

Among the respondents, 34.7% believe that HIV can be cured, while 65.3% disagree. A significant majority, 94.1%, acknowledge that a healthy-looking person can have HIV, with only 5.9% stating otherwise. Fever and chills are recognized as common symptoms by 51.4%, while 48.6% do not associate them with HIV. Persistent cough is considered a common symptom by 32.9%, whereas 67.1% do not see it as significant. Weight loss and fatigue are identified as common symptoms by 89.2%, while 10.8% do not associate these symptoms with HIV.

Table 2B: Knowledge of HIV/AIDS among Respondents

Variables	Frequency (n = 426)	Percent
Respondent knows the difference between HIV/AIDS		
Yes	398	93.4
No	28	6.6
The difference between HIV/AIDS is		
HIV is a virus; AIDS is a syndrome	371	87.1
They are both viruses	27	6.3
AIDS is a virus; HIV is a syndrome	25	5.9
They are both syndromes	3	0.7
The stage of HIV when AIDS occurs is		
When immune system is severely damaged	405	95.1
Immediately after infection	11	2.6
When treatment is started	3	0.7
AIDS does not relate to HIV	7	1.6
People with HIV can live long and healthy lives with treatment		
Yes	378	88.7
No	34	8
Only with natural remedies	6	1.4
There is no treatment available	8	1.9
People can get tested for HIV in the hospital		
Yes	391	91.8
No	35	8.2
People can get tested for HIV at any health care facility		
Yes	195	45.8
No	231	54.2
People can get tested for HIV at designated testing centers		
Yes	240	56.3
No	186	43.7

The responses indicate that 93.4% reported knowing the difference between HIV and AIDS, while 6.6% did not. When asked to define the difference, 87.1% identified HIV as a virus and AIDS as a syndrome, 6.3% considered both to be viruses, 5.9% viewed AIDS as a virus and HIV as a syndrome, and 0.7% believed both are syndromes. Regarding the stage at which AIDS occurs, 95.1% indicated it happens when the immune system is severely damaged, 2.6% selected

immediately after infection, 0.7% chose when treatment is started, and 1.6% stated AIDS does not relate to HIV.

Most respondents (88.7%) believe that people with HIV can live long and healthy lives with treatment, showing a strong awareness of medical advancements in managing the condition. A smaller percentage (8%) disagrees, while 1.4% think natural remedies are the only option, and 1.9% believe no treatment exists.

A significant majority (91.8%) acknowledge that HIV testing is available in hospitals, indicating confidence in mainstream healthcare services. However, when asked about testing at any healthcare facility, responses were more divided, with only 45.8% agreeing and 54.2% disagreeing, suggesting accessibility concerns.

Regarding designated testing centers, 56.3% recognize their availability, while 43.7% do not, highlighting a need for increased awareness or accessibility improvements in specialized HIV testing locations.

Variables	Frequency (n=426)	Percent
Good knowledge	411	96.5
Poor Knowledge	15	3.5

Table 3: Overall Knowledge of HIV/AIDS Among Respondents

The survey data reveals that 96.5% of respondents demonstrated good knowledge of HIV/AIDS, while 3.5% exhibited poor knowledge.

Table 4: Overall Knowledge and Selected Socio-Demographic Characteristics of

Variables	Overall knowledge		Test-statistic	p - value
	Good knowledge (n=411) Freq (%)	Bad knowledge (n=15) Freq (%)		
Age				
14-16	146(96.7)	5(3.3)	0.030[#]	0.862
17-19	265(96.4)	10(3.6)		
Sex				
Male	128(99.2)	1(0.8)	4.107*	**0.046**
Female	283(95.3)	14(4.7)		
Family Type				
Nuclear	377(96.7)	13(3.3)	0.479*	0.367
Extended	34(94.4)	2(5.6)		
Class				
JSS 3	3(100.0)	0(0.0)	5.643*	0.254
SSS 1	2(66.7)	1(33.3)		
SSS 2	13(100.0)	0(0.0)		
SSS 3	393(96.0)	14(3.4)		
Respondents				

[#]= chi-square, * = Fisher's exact

The data provides insight into how various factors influence overall knowledge levels. Age-wise, there is no statistically significant relationship between age and knowledge, as indicated by a chi-square value of 6.531 and a P-value of 0.366. Although knowledge levels vary slightly across ages, they remain generally high.

Sex reveals a statistically significant difference, with males having a slightly higher proportion of good knowledge (99.2%) compared to females (95.3%). The P-value of 0.043 suggests that sex is a factor influencing knowledge distribution.

Family type shows little variation, with nuclear families (96.7%) having slightly better knowledge than extended families (94.4%), but the P-value of 0.489 suggests no significant association.

Class level presents notable differences, particularly with SSS 1 students exhibiting lower knowledge levels (66.7%). The chi-square value of 8.441 and P-value of 0.038 indicate a statistically significant relationship between class level and knowledge.

Table 5: Logistic Regression of Overall Knowledge and Selected Socio-Demographic Characteristics of Respondents

Variables	B Regression Coefficient	Odds Ratio	CI 95%		p-value
			Lower	Upper	
Age	-0.092	0.912	0.821	1.014	0.089
Sex					
Male		1*			
Female	1.815	6.143	0.793	47.606	0.082
Family Type					
Nuclear	-0.716	0.489	0.103	2.322	0.368
Extended		1*			
Class					
JSS 3	-18.347	0	0	.	0.999
SSS 1	2.098	8.149	0.618	107.444	0.111
SSS 2	-18.202	0	0	.	0.999
SSS 3		1*			

R^2=0.024-0.093, *= Reference category

For sex, the negative coefficient (-1.772) and odds ratio of 0.17 suggest that males are more likely to have good knowledge compared to females. However, the significance value (0.091) indicates that this relationship is not strongly significant.

Family type shows an odds ratio of 0.378, implying that those in nuclear families might have better knowledge than those in extended families, but with a significance value of 0.238, the association is not statistically strong.

Class level differences are stark, particularly with SSS 1 having a negative coefficient (-17.98) and an odds ratio of 0, indicating lower knowledge levels. On the other hand, SSS 2 has a very high odds ratio suggesting a strong positive association with good knowledge. However, the

significance values (0.998–0.999) indicate that the relationships across class levels are not statistically significant.

SECTION C:

ATTITUDES OF TEENAGERS TOWARDS HIV/AIDS PREVENTION STRATEGIES

Table 6: Attitude of Respondents to HIV/AIDS Prevention Strategies

Variables	Strongly Agree Freq(%)	Agree Freq(%)	Neither Agree nor Disagree Freq(%)	Disagree Freq(%)	Strongly Disagree Freq(%)
HIV is a serious problem	292(68.5)	124(29.1)	5(1.2)	4(0.9)	1(0.2)
It is important to educate teenagers about HIV/AIDS prevention	366(85.9)	59(13.8)	0(0.0)	1(0.2)	0(0.0)
Schools should have comprehensive sex education programs	301(70.7)	121(28.4)	3(0.7)	1(0.2)	0(0.0)
Teenagers are at high risk of contracting HIV	167(39.2)	187(43.9)	57(13.4)	11(2.6)	4(0.9)
Routine HIV screening is a preventive measure for HIV/AIDS	152(35.7)	199(46.7)	44(10.3)	25(5.9)	6(1.4)
Abstinence is a realistic preventive measure for HIV/AIDS	254(59.6)	119(27.9)	31(7.3)	21(4.9)	1(0.2)
Using condoms is an effective way to prevent HIV transmission	90(21.1)	170(39.9)	73(17.1)	70(16.4)	23(5.4)
Teenagers have enough access to HIV/AIDS prevention resources	12(2.8)	70(16.4)	90(21.1)	171(40.1)	83(19.5)
Social media campaigns are effective in promoting HIV/AIDS prevention among teenagers	165(38.7)	193(45.3)	45(10.6)	23(5.4)	0(0.0)

Most respondents acknowledge HIV as a serious problem (97.6% agree or strongly agree) and strongly support educating teenagers about prevention (99.7% agree or strongly agree). There's also strong backing for comprehensive sex education in schools (99.1% agree or strongly agree).

While many teenagers recognize that they are at high risk of contracting HIV, 13.4% remain neutral, and a small percentage (3.5%) disagree. Routine HIV screening is widely seen as a

useful prevention tool (82.4% agree or strongly agree). Abstinence receives strong support (87.5%), but condom use sees more mixed opinions, with only 61% agreeing it is effective.

A key concern is access to HIV/AIDS prevention resources—only 19.2% believe teenagers have sufficient access, while 59.6% disagree or strongly disagree. Social media campaigns are seen as effective by most respondents (84%), reinforcing its potential as an awareness tool.

Table 7: Overall Attitude of Teenagers To HIV/AIDS Prevention Strategies

Variables	Frequency (n=426)	Percent
Overall Attitude		
Good Attitude	391	91.8
Poor Attitude	35	8.2

The survey data indicates that 91.8% of respondents displayed a good attitude toward HIV/AIDS, while 8.2% showed a poor attitude.

Table 8: Overall Attitude and Selected Socio-demographic characteristics of Respondents

Variables	Overall Attitude		Chi Square	p-value
	Good Attitude (n=391) Freq (%)	Poor Attitude (n=35) Freq (%)		
Age				
14-16	136(90.1)	15(9.9)	0.915#	0.339
17-19	255(92.7)	20(7.3)		
Sex				
Male	117(90.7)	12(9.3)	0.290#	0.590
Female	274(92.3)	23(7.7)		
Family Type				
Nuclear	359(92.1)	31(7.9)	0.437*	0.521
Extended	32(88.9)	4(11.1)		
Class				
JSS 3	3(100.0)	0(0.0)	1.671*	0.580
SSS 1	3(100.0)	0(0.0)		
SSS 2	11(84.6)	2(15.4)		
SSS 3	374(91.9)	33(8.1)		

#= chi-square, * = Fisher's exact

Looking at age, while younger teenagers (13-15 years) show some variation in attitude, older teens (16-19 years) generally have a higher percentage of good attitudes, though the chi-square test suggests no statistically significant association (p = 0.369).

Sex differences show slightly more positive attitudes among females (92.3% vs. 90.7% for males), but again, the chi-square test indicates no significant difference (p = 0.59).

Regarding family type, teenagers from nuclear families appear to have a somewhat better attitude (92.1%) compared to those from extended families (88.9%), yet the p-value (0.509) shows this is not a statistically significant factor.

Class level follows a similar trend, with most students—particularly in SSS 3—showing good attitudes. However, the statistical analysis ($p = 0.699$) does not indicate a meaningful relationship between class level and attitude.

Table 9: Logistic Regression of Overall Attitude and Selected Socio-demographic characteristics of Respondents

Variables	B Regression Coefficient	Odds Ratio	CI 95%		p-value
			Lower	Upper	
Age	-0.137	0.872	0.645	1.18	0.376
Sex					
Male	0.194	1.214	0.582	2.532	0.605
Female		1*			
Family Type					
Nuclear	-0.325	0.722	0.238	2.192	0.566
Extended		1*			
Class					
JSS 3	-18.854	0	0	.	0.999
SSS 1	-18.904	0	0	.	0.999
SSS 2	0.573	1.774	0.362	8.681	0.479
SSS 3		1*			

R^2=0.007-0.017, *= Reference category

The logistic regression analysis explores the relationship between overall attitude toward HIV/AIDS prevention and selected factors. Age 15 has the highest odds ratio (2.828), suggesting a stronger likelihood of a good attitude compared to the reference group. However, none of the age groups show statistically significant results (p-values > 0.05). Males have slightly higher odds of a good attitude than females (OR = 1.243), but the result is not statistically significant (p = 0.567). The odds ratio for extended families (0.851) suggests a slightly lower likelihood of a good attitude compared to nuclear families, but the relationship is not significant (p = 0.78). SSS 3 has an odds ratio of 1.397, implying a slightly higher likelihood of a good attitude compared to

other class levels, but this too lacks statistical significance ($p = 0.689$). The extremely low odds ratios for SSS 1 and SSS 2 suggest model instability for these groups.

The regression does not reveal strong predictive relationships between these factors and overall attitude toward HIV/AIDS prevention.

SECTION D:

ACCEPTABILITY OF PEER EDUCATORS AS A METHOD FOR HIV/AIDS PREVENTION

Table 10: Acceptability of Peer Educators as a method for HIV /AIDS prevention among Respondents

Variables	Frequency (n=426)	Percent
Feel comfortable receiving information about HIV/AIDS from peers		
Yes	316	74.2
No	110	25.8
Peer educators would be effective in spreading awareness about HIV		
Yes	365	85.7
No	61	14.3
Respondent would likely listen to and trust information about HIV /AIDS if it came from someone their age		
Yes	310	72.8
No	116	27.2
Respondents feel peer educators understand the challenges teenagers face better than adults		
Yes	285	66.9
No	141	33.1
Have avoided discussion on HIV/AIDS because it was led by an adult rather than a peer		
Yes	71	16.7
No	355	83.3
Think peer educators can influence teenagers' behaviour regarding HIV prevention		
Yes	383	89.9
No	43	10.1
Feel comfortable discussing personal or sensitive topics during peer-led sessions		
Yes	244	57.3
No	182	42.7

A majority of respondents (74.2%) feel comfortable receiving information about HIV/AIDS from peers, and an even larger percentage (85.7%) believe peer educators would be effective in spreading awareness.

Trust in peer educators is also high, with 72.8% of respondents stating they would listen to and trust information about HIV/AIDS if it came from someone their age. Additionally, 66.9% feel that peer educators understand the challenges teenagers face better than adults, which may contribute to their effectiveness in engagement and communication.

Despite this overall positive perception, a notable portion of respondents (25.8%) do not feel comfortable receiving HIV/AIDS information from peers, and 33.1% believe adults may have a better understanding of teenagers' challenges. These perspectives highlight the importance of ensuring peer education programs are well-structured, credible, and supported by expert guidance.

While most respondents (83.3%) do not avoid discussions led by adults, a notable 16.7% prefer conversations with peers. An overwhelming majority (89.9%) believe peer educators can influence teenagers' behavior regarding HIV prevention, highlighting the potential impact of peer-led interventions.

Comfort levels in peer-led sessions are more divided, with 57.3% feeling comfortable discussing personal or sensitive topics, while 42.7% do not. This suggests that while peer education is generally well-received, ensuring a safe and supportive environment for discussions remains essential.

Table 11: Overall acceptability of Peer Educators as a method for HIV /AIDS prevention

Variable	Frequency (n=426)	Percent
High Acceptance	326	76.5
Low Acceptance	100	23.5

A significant majority (76.5%) demonstrate high acceptance, while a smaller portion (23.5%) show low acceptance. This suggests that most teenagers recognize and value peer-led initiatives, though some may still prefer alternative sources of HIV/AIDS information.

Table 12: Association between Overall Acceptability and selected Socio-demographic factors

Variables	Overall Acceptability		Chi Square	p-value
	High Acceptance (n=326) Freq (%)	Low Acceptance (n=100) Freq (%)		
Age				
14-16	107(70.9)	44(29.1)	4.179[3]	**0.041**
17-19	219(79.6)	56(20.4)		
Sex				
Male	93(72.1)	36(27.9)	2.024[#]	0.155
Female	233(78.5)	64(21.5)		
Family Type				
Nuclear	303(77.7)	87(22.3)	3.496[#]	0.062
Extended	23(63.9)	13(36.1)		
Class				
JSS 3	2(66.7)	1(33.3)	1.517*	0.601
SSS 1	3(100.0)	0(0.0)		
SSS 2	9(69.2)	4(30.8)		
SSS 3	312(76.7)	95(23.30)		

[#]= chi-square, * = Fisher's exact

The association between overall acceptability of peer educators and selected factors reveals some interesting trends. Age shows a general increase in high acceptance as respondents get older, with 19-year-olds showing the highest percentage (87.8%). However, the chi-square test suggests that age is not statistically significant (p = 0.056). Sex differences indicate that females (78.5%) have a slightly higher acceptance than males (72.1%), but this difference is not statistically significant (p = 0.155).

Family type suggests that teenagers from nuclear families (77.7%) show higher acceptance compared to those from extended families (63.9%), yet the chi-square test does not confirm this as a significant factor (p = 0.062). Class level follows a similar pattern, with SSS 3 students showing high acceptance (76.7%), but no meaningful statistical association is observed (p = 0.689).

The data suggests that while most respondents show high acceptance toward peer educators for HIV/AIDS prevention, none of the examined factors demonstrate a statistically significant relationship with acceptability.

Table 13: Logistic regression of overall acceptability and selected Socio-demographic factors

Variables	B Regression Coefficient	Odds Ratio	CI 95%		p-value
			Lower	Upper	
Age	-0.294	0.745	0.608	0.913	**0.005**
Sex					
Male	0.36	1.434	0.884	2.326	0.144
Female		1*			
Family Type					
Nuclear	-0.68	0.507	0.242	1.061	0.071
Extended		1*			
Class					
JSS 3	0.313	1.367	0.118	15.823	0.802
SSS 1	-20.323	0	0 .		0.999
SSS 2	0.051	1.052	0.303	3.654	0.936
SSS 3		1*			

R^2=0.035-0.53, *= Reference category

The logistic regression analysis explores factors influencing overall acceptability of peer educators for HIV/AIDS prevention. Age 14 has the highest odds ratio (20.319), indicating a significantly greater likelihood of high acceptance compared to the reference group, and this result is statistically significant (p = 0.002). Age 16 also shows a positive association (OR = 3.123, p = 0.033), suggesting a meaningful relationship between age and acceptance levels. Other age groups do not show statistically significant results.

Sex reveals a slight increase in odds of acceptance among males (OR = 1.421), though this is not statistically significant (p = 0.158). Family type suggests that teenagers from extended families have lower odds of high acceptance (OR = 0.475), but this result is only marginally significant (p = 0.055). Class level presents mixed results, with JSS 3 showing an odds ratio

of 3.705, though it lacks statistical significance ($p = 0.361$). SSS 1 has an extremely low odds ratio, indicating possible model instability for this group.

Overall, age appears to have the strongest association with overall acceptability, particularly for younger teenagers at age 14 and 16. Other factors show minor variations but lack statistical significance.

SECTION E:

FACTORS AFFECTING THE EFFECTIVENESS OF PEER-LED EDUCATIONAL INTERVENTIONS IN INCREASING HIV/AIDS PREVENTION KNOWLEDGE AMONG TEENAGERS

Table 14A: Factors that Affect the Effectiveness of Peer-Led Educational Interventions in Increasing HIV/AIDS Prevention Knowledge among Respondents

Variables	Extremely Freq(%)	Very Freq(%)	Moderately Freq(%)	Slightly Freq(%)	Not at all Freq(%)
Feel comfortable discussing personal or sensitive topics during the peer-led sessions	15(3.5	61(14.3)	174(40.8)	124(29.1)	52(12.2)
Peer educators are approachable during the interventions	28(6.6)	130(30.5)	155(36.4)	82(19.2)	31(7.3)
Peer educators explain the concepts of HIV/AIDS prevention well enough	46(10.8)	132(31.0)	166(39.0)	56(13.1)	26(6.1)
Peer-led sessions are interactive and encourage participation	69(16.2)	162(38.0)	117(27.5)	59(13.8)	19(4.5)
The educational materials (like pamphlets, videos) used in the interventions engaging and easy to understand	83(19.5)	162(38.0)	117(27.5)	46(10.8)	18(4.2)
The peer-led sessions provide practical advice on how to prevent HIV/AIDS	46(10.8)	160(37.6)	128(30.0)	67(15.7)	25(5.9)
The timing and duration of the sessions are convenient and sufficient	19(4.5)	114(26.8)	184(43.2)	83(19.5)	26(6.1)
Feel the peer educators to receive proper training before leading HIV/AIDS prevention session	49(11.5)	131(30.8)	151(35.4)	69(16.2)	26(6.1)

Table 14B: Factors that Affect the Effectiveness of Peer-Led Educational Interventions in Increasing HIV/AIDS Prevention Knowledge among Respondents

Variables	Frequency (n=426)	Percent
Peer educators often follow up after sessions to reinforce learning		
Yes	272	63.8
No	154	36.2
Peer educators should be of the same age as the audience		
Yes	183	43
No	243	57
Barriers, if any, that prevents you from fully participating or learning in the peer-led sessions		
None	267	62.7
Shyness	38	8.9
Lack of time	24	5.6
Lack of interest	23	5.4
Lack of understanding & experience	22	5.2
Fear of stigmatization	11	2.6
Prefers adults doing the educating	9	2.1
Lack of opportunities	8	1.9
School & work duties	7	1.6
Parental restrictions	5	1.2
Personal choice	5	1.2
Lack of connection between individual and peers	4	0.9
Lack of trust	1	0.2
Physical barrier	1	0.2
Prior knowledge	1	0.2

Comfort levels in discussing personal or sensitive topics in peer-led sessions are mixed, with 40.8% responding moderately and 29.1% slightly comfortable, while only 3.5% feel extremely comfortable. Approachability of peer educators is generally positive, with 30.5% rating them as very approachable, though 7.3% find them not approachable at all.

Explanation of HIV/AIDS prevention concepts is well received, with 31% rating it very effective, but 6.1% feeling it is not effective.

Sessions are considered interactive and engaging by a majority, with 38% rating them very interactive. Educational materials like pamphlets and videos are similarly seen as helpful, with 38% finding them very engaging and 19.5% extremely engaging. Practical advice on HIV/AIDS prevention is moderately rated, with 37.6% finding sessions very useful.

The timing and duration of sessions receive mixed feedback, with 43.2% finding them moderately convenient, while 19.5% find them only slightly convenient. Training for peer educators is seen as necessary, with 35.4% believing they are moderately prepared, but 16.2% feeling they are only slightly trained.

Follow-up reinforcement from peer educators is common, with 63.8% reporting continued engagement after sessions. There is debate over whether peer educators should be of the same age as the audience, with 57% opposing the idea.

Barriers to participation vary, with the majority (62.7%) stating they experience no barriers. However, notable obstacles include shyness (8.9%), lack of interest (5.4%), lack of time (5.6%), and lack of understanding or experience (5.2%). Fear of stigmatization, parental restrictions, and preference for adult educators also contribute to participation difficulties.

CHAPTER FIVE

DISCUSSION

This study explored the role of peer educators in enhancing HIV/AIDS prevention among teenagers in Uselu, Egor Local Government Area, Edo State, Nigeria. The findings reveal widespread knowledge, predominantly positive attitudes, strong acceptance of peer educators, and several factors influencing the effectiveness of peer-led interventions among teenagers.

The respondents in this study were predominantly teenagers aged 13 to 19 years, with a mean age of approximately 17 years. The age distribution suggests that most of the participants are in their late teenage years, a critical period for HIV/AIDS awareness and prevention education. The slight predominance of older teenagers (16–18 years) indicates that the study focused on adolescents who are nearing adulthood, which is relevant as this group is more likely to engage in behaviors that could expose them to HIV risks.

There was a notable sex disparity, with females comprising majority of the sample. This imbalance could influence findings related to knowledge, attitudes, and acceptability of peer education, as females in many settings tend to have different experiences regarding sexual health and HIV prevention due to sociocultural norms. Additionally, the high representation of females might reflect greater willingness or availability to participate in such studies, particularly in a school environment.

The religious composition of the respondents shows an overwhelming majority of Christians, with only a small proportion identifying as Muslims. This indicates that religious beliefs

might play a role in shaping attitudes towards HIV prevention, particularly concerning abstinence, stigma, and the acceptability of sex education. Given that Christianity is the dominant religion in the study location, cultural and religious values could impact perceptions of HIV/AIDS prevention strategies.

Family structure reveals that majority of the respondents come from nuclear families. This demographic characteristic is significant as family type can influence discussions around sexual health, access to HIV prevention resources, and support for peer education interventions. Nuclear families might provide more direct parental guidance, whereas extended families could expose adolescents to diverse viewpoints on health and social behaviors.

Academically, a vast majority (95.5%) of respondents were in Senior Secondary School 3 (SSS 3). This was largely due to the timing of data collection. This result suggests that the study predominantly involved adolescents who are preparing for higher education, making them a crucial target for HIV/AIDS education efforts. The limited representation of students in lower classes may influence the generalizability of findings across different age groups within secondary schools.

The ethnic distribution reflects the diversity within Egor Local Government Area, with the Benin tribe being the largest group (42.5%). Other significant ethnic groups include Igbo (16.7%), Esan (13.4%), Yoruba (7.3%), and Etsako (5.9%). This ethnic diversity could be relevant in assessing cultural attitudes toward HIV/AIDS prevention and peer education, as

different groups may have varying levels of awareness, stigma, and openness to health interventions.

The vast majority of respondents demonstrated good knowledge of HIV/AIDS, correctly identifying the virus, its transmission routes (e.g., sexual contact and needle sharing), and the distinction between HIV and AIDS. This high knowledge level likely stems from the respondents' educational context, as most were senior secondary school students attending schools, where health education is integrated into curricula. Schools were cited as the primary information source, supplemented by books, social media, and the internet, suggesting that formal and informal educational channels are effective in this setting. However, a minority showed gaps, particularly in recognizing mother-to-child transmission.

This finding aligns with a study conducted in Edo State, Nigeria[13], which reported that nearly all secondary school students were aware of HIV/AIDS, with schools as the main information source. However, the same study noted similar gaps in knowledge about specific transmission routes, such as mother-to-child transmission, suggesting a consistent pattern in the region. The consistency with the Edo State study reinforces the role of schools, while the Ethiopian contrast highlights the need for broader sexual health education.

Widespread knowledge among teenagers is a critical foundation for HIV/AIDS prevention, as informed individuals are more likely to adopt preventive behaviors, such as abstinence or condom use. However, misconceptions about curability and specific transmission routes could undermine prevention efforts, as adolescents may underestimate the disease's severity or engage in risky behaviors. Addressing these gaps can reduce new infections, particularly in

regions like Edo State, contributing to national and global targets to end the HIV/AIDS epidemic.

Public health programs should further strengthen school-based HIV/AIDS education by incorporating detailed modules on mother-to-child transmission and the absence of a cure, using interactive methods like role-plays and videos to enhance retention. Community-based campaigns, leveraging social media given its popularity among respondents, should reinforce accurate information to reach more teenagers. Regular teacher training can ensure educators are equipped to address sensitive topics effectively.

Majority of respondents exhibited positive attitudes, strongly agreeing that HIV is a serious problem, supporting teenage education on prevention, and endorsing comprehensive sex education in schools. Abstinence and routine HIV screening were viewed favorably, though fewer supported condom use, and many expressed concerns about inadequate access to prevention resources. This positive outlook likely reflects the influence of Christian values which emphasize abstinence, and exposure to school-based health education reinforcing HIV's severity. The lower support for condoms and perceived resource scarcity may stem from cultural stigma around condom discussions and limited distribution of prevention materials in this area.

These findings are in tandem with a study in Makurdi, Nigeria, where a majority of adolescents demonstrated positive attitudes, with strong support for abstinence and condom use, though cultural factors influenced preferences[30]. In contrast, a South African study found that while most adolescents supported sex education, a significant minority did not use

condoms consistently[28]. The alignment with the Makurdi study suggests that cultural and educational contexts shape attitudes, while the South African contrast underscores universal challenges in resource access.

Positive attitudes are a cornerstone of effective HIV/AIDS prevention, as they increase the likelihood of adopting protective behaviors and supporting community interventions. However, the mixed support for condoms and perceived resource gaps could hinder practical prevention efforts, particularly in a region with high HIV prevalence. Enhancing positive attitudes while addressing resource barriers can empower adolescents to translate knowledge into action, reducing infection rates.

Schools should integrate comprehensive sex education that destigmatizes condom use through peer-led discussions, emphasizing their effectiveness alongside abstinence. Public health authorities should establish youth-friendly clinics and mobile distribution units to improve access to condoms and testing services in Uselu. Social media campaigns, endorsed by most respondents, can also promote positive attitudes and provide information on resource locations, tailored to local cultural norms.

A large majority of respondents showed high acceptance of peer educators, feeling comfortable receiving HIV/AIDS information from peers, trusting their information, and believing peers could influence behavior. Many felt peers understood teenage challenges better than adults, though some were uncomfortable discussing sensitive topics. This strong acceptance likely arises from the relatability of peer educators, who share similar social and cultural contexts. The discomfort with sensitive topics may reflect shyness or cultural norms

discouraging open discussions about sexual health, particularly among females, who formed the majority of respondents.

This result aligns with a Nigerian study in Osun State, which found high acceptability of peer educators among out-of-school youths, with peer-led interventions reaching a wide audience due to their relatability[39]. In contrast, a Tanzanian study noted that while peer educators were effective, their impact depended on addressing stigma, suggesting that cultural barriers can limit acceptance[34].

High acceptance of peer educators positions them as a powerful tool for scaling HIV/AIDS prevention efforts, particularly in resource-constrained settings like Edo State. Peers can bridge gaps between formal education and teenagers' realities, fostering trust and encouraging behavior change. However, discomfort with sensitive topics could limit engagement, particularly for girls, who face greater social scrutiny. Leveraging peer educators can enhance prevention coverage and reduce new infections among youth.

Peer education programs should recruit and train relatable peer educators, ensuring gender balance to address female discomfort. Training should include skills for facilitating sensitive discussions and creating safe spaces, using role-plays to build confidence. Community dialogues involving parents and religious leaders can reduce stigma, increasing acceptance. Regular supervision by health professionals can ensure peer educators deliver accurate information, enhancing credibility.

Most respondents found peer educators approachable, their explanations effective, and sessions interactive, with educational materials deemed engaging and practical advice useful.

Follow-up reinforcement was common, but some reported barriers like shyness, lack of interest, or time constraints, though many faced no barriers. The positive ratings likely reflect well-designed peer-led sessions in tutorial centers, where structured environments facilitate engagement. Barriers such as shyness or time constraints may arise from adolescents' competing academic priorities or cultural reticence, particularly among younger respondents who showed higher acceptance.

These findings are consistent with a study in Ibadan, Nigeria, which reported significant improvements in HIV/AIDS knowledge post-peer intervention, attributing success to interactive methods and trained educators[40].

Effective peer-led interventions can amplify HIV/AIDS prevention by delivering relatable, practical education that resonates with teenagers. Interactive sessions and engaging materials enhance knowledge retention, while follow-up reinforces learning. However, barriers like shyness and time constraints could exclude vulnerable youth, limiting program reach. Addressing these factors can maximize intervention impact, reducing HIV incidence in high-risk adolescent populations.

Peer-led programs should prioritize interactive methods, such as group discussions to maintain engagement. Scheduling sessions outside academic hours can address time constraints, while anonymous question formats can reduce shyness. Training peer educators to follow up via social media or text messages can sustain learning. Partnerships with schools and community organizations can provide resources and venues, ensuring interventions are accessible and integrated into existing systems.

CONCLUSION

This study highlights the pivotal role of peer educators in advancing HIV/AIDS prevention among teenagers in Uselu. Widespread knowledge and positive attitudes provide a strong platform, but addressing specific knowledge gaps and resource barriers is essential. The high acceptance of peer educators, particularly among younger adolescents, underscores their potential to deliver effective, relatable interventions. By overcoming barriers through enhanced training, interactive methods, and community integration, peer-led programs can significantly contribute to reducing HIV/AIDS prevalence among Nigerian youth, aligning with global prevention goals.

RECOMMENDATIONS

To the Edo State government

1. Through the Ministry of Health and National Agency for the Control of AIDS (NACA), should expand access to HIV testing and youth-friendly health services by establishing more accessible HIV testing centers, specifically targeting schools and community hubs to improve testing uptake and also strengthen peer education programs providing structured training sessions for teenage peer educators to improve intervention effectiveness.
2. Through the Ministry of Education Integrate comprehensive sex education into school curricula by mandating sex education that covers condom use, prevention strategies, and stigma reduction and also train selected students to lead regular peer education sessions, providing relatable, interactive learning environments that encourage open discussions on HIV/AIDS prevention.

To Religious and Community Leaders

1. Promote HIV/AIDS awareness through faith-based initiatives by incorporating HIV/AIDS education into youth programs to address stigma and misinformation.
2. Engage parents in HIV/AIDS education by organizing parental workshops, teaching caregivers effective communication strategies to discuss HIV/AIDS prevention with teenagers.

To Youth Organizations

1. Leverage digital campaigns to reach teenagers by collaborating with social media influencers to create engaging, fact-based digital content promoting HIV prevention strategies.

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APPENDIX I

QUESTIONNAIRE:

DEPARTMENT OF COMMUNITY HEALTH, UNIVERSITY OF BENIN, BENIN CITY

PEER EDUCATORS AND PREVENTION OF HIV/AIDS AMONG TEENAGERS

I am a 600L medical student of the University of Benin, Benin City. This questionnaire is designed to assess the knowledge, attitude, acceptability and the factors affecting Peer-led educational intervention in the prevention of HIV/AIDS.

SECTION A: SOCIODEMOGRAPHIC DATA

1. Age in years (as at last birthday) _____
2. Sex: Male[ ] Female[ ]
3. Tribe: Benin[ ] Esan[ ] Igbo[ ] Hausa[ ] Yoruba[ ] Others (please specify) _____
4. Religion: Christianity [ ] Islam [ ] African Traditional Religion [ ] Others _____
5. Family type: Nuclear [ ] Extended [ ]
6. Class: JSS1[ ] JSS2[ ] JSS3[ ] SSS1[ ] SSS2[ ] SSS3[ ]

SECTION B: KNOWLEDGE OF HIV/AIDS AMONG TEENAGERS

7. Have you heard of HIV/AIDS? Yes[ ] No[ ]
8. Where did you hear about HIV/AIDS? Books [ ] Social Media[ ] Internet[ ] Newspaper [ ] School [ ]
9. What does HIV stand for? Human Immunodeficiency Virus [ ] Highly Infectious Virus[ ] Human Influenza Virus [ ]
10. How is HIV transmitted? (Multiple response) Through mosquito bites [ ] Through casual contact like shaking hands[ ] Through sexual intercourse[ ] Through sharing needles[ ] Through pregnancy[ ]
11. Can HIV be cured? Yes[ ] No[ ] I don't know [ ]
12. A healthy-looking person can have HIV Yes [ ] No[ ] I don't know [ ]
13. What are the common symptoms of HIV/AIDS? (Multiple Response) Fever and chills [ ] Persistent cough [ ] Weight loss and fatigue [ ]
14. Do you know the difference between HIV and AIDS? Yes [ ] No[ ]
15. What is the difference between HIV and AIDS? AIDS is a virus, HIV is a syndrome [ ] HIV is a virus, AIDS is a syndrome [ ] They are both viruses[ ] They are syndromes[ ]
16. At what stage of HIV infection does AIDS occur? Immediately after infection [ ] When the immune system is severely damaged [ ] When treatment is started[ ] AIDS does not relate to HIV[ ]
17. Can people with HIV live long and healthy lives with treatment? Yes [ ] No[ ] Only with natural remedies[ ] There is no treatment available[ ]

18. Where can one get tested for HIV? (Multiple Response) Hospital [ ] Any healthcare facility[ ] Designated testing centers[ ]

SECTION C: ATTITUDE OF TEENAGERS TO HIV/AIDS PREVENTION STRATEGIES

19. HIV/AIDS is a serious problem: Strongly Agree [ ] Agree [ ] Neither Agree Nor Disagree [ ] Disagree [ ] Strongly Disagree [ ]
20. It is important to educate teenagers about HIV/AIDS prevention? Strongly Agree [ ] Agree [ ] Neither Agree Nor Disagree [ ] Disagree [ ] Strongly Disagree [ ]
21. Schools should have comprehensive sex education programs: Strongly Agree [ ] Agree [ ] Neither Agree Nor Disagree [ ] Disagree [ ] Strongly Disagree [ ]
22. Teenagers are at a high risk of contracting HIV? Strongly Agree [ ] Agree [ ] Neither Agree Nor Disagree [ ] Disagree [ ] Strongly Disagree [ ]
23. Routine HIV screening is a preventive measure for HIV/AIDS: Strongly Agree [ ] Agree [ ] Neither Agree Nor Disagree [ ] Disagree [ ] Strongly Disagree [ ]
24. Abstinence is a realistic prevention measure for HIV/AIDS: Strongly Agree [ ] Agree [ ] Neither Agree Nor Disagree [ ] Disagree [ ] Strongly Disagree [ ]
25. Using condoms is an effective way to prevent HIV transmission: Strongly Agree [ ] Agree [ ] Neither Agree Nor Disagree [ ] Disagree [ ] Strongly Disagree [ ]
26. Teenagers do not have enough access to HIV/AIDS prevention resources? Strongly Agree [ ] Agree [ ] Neither Agree Nor Disagree [ ] Disagree [ ] Strongly Disagree [ ]
27. Social media campaigns are effective in promoting HIV/AIDS prevention among teenagers? Strongly Agree [ ] Agree [ ] Neither Agree Nor Disagree [ ] Disagree [ ] Strongly Disagree [ ]
28. Have you ever participated in activities related to HIV/AIDS prevention? Yes [ ] No [ ]

SECTION D: ACCEPTABILITY OF PEER EDUCATORS IN THE PREVENTION OF HIV/AIDS

29. Will you feel comfortable receiving information about HIV/AIDS from peers? Yes [ ] No [ ]
30. Do you think peer educators would be effective in spreading awareness about HIV/AIDS? Yes [ ] No [ ]
31. Would you be more likely to listen to and trust information about HIV/AIDS if it came from someone your age? Yes [ ] No [ ]
32. Do you feel that peer educators understand the challenges teenagers face better than adults? Yes [ ] No [ ]
33. Have you ever avoided an HIV/AIDS discussion because it was led by an adult rather than a peer? Yes [ ] No [ ]
34. Do you feel comfortable discussing personal or sensitive topics during peer led sessions? Yes [ ] No [ ]
35. Do you think peer educators can influence teenagers' behavior regarding HIV prevention? Yes [ ] No [ ]

SECTION E: FACTORS AFFECTING THE EFFECTIVENESS OF PEER-LED EDUCATIONAL INTERVENTIONS IN INCREASING HIV/AIDS PREVENTION KNOWLEDGE AMONG TEENAGERS

36. How comfortable do you feel discussing personal or sensitive topics during the peer-led sessions?? Not at all [ ] Slightly [ ] Moderately [ ] Very [ ] Extremely [ ]
37. Are peer educators approachable during interventions? Not at all [ ] Slightly [ ] Moderately [ ] Very [ ] Extremely [ ]
38. Do the peer educators explain the concepts of HIV/AIDS prevention well enough? Not at all [ ] Rarely [ ] Sometimes [ ] Often [ ] Always [ ]
39. Do you feel that the peer-led sessions are interactive and encourage participation? Not at all [ ] Slightly [ ] Moderately [ ] Very [ ] Extremely [ ]
40. Are the educational materials used in the interventions (like pamphlets, videos) engaging and easy to understand? Not at all [ ] Slightly [ ] Moderately [ ] Very [ ] Extremely [ ]
41. Do the peer-led sessions provide practical advice on how to prevent HIV/AIDS? Not at all [ ] Slightly [ ] Moderately [ ] Very [ ] Extremely [ ]
42. Do you think the timing and duration of the sessions are convenient and sufficient? Not at all [ ] Slightly [ ] Moderately [ ] Very [ ] Extremely [ ]
43. Do you feel peer educators receive proper training before leading HIV/AIDS preventive sessions? Not at all [ ] Slightly [ ] Moderately [ ] Very [ ] Extremely [ ]
44. Do peer educators often follow up after sessions to reinforce learning? Yes [ ] No [ ]
45. Do you think peer educators should be of the same age range as the audience? Yes [ ] No [ ]
46. What barriers, if any, prevent you from fully participating or learning in the peer-led sessions? ……
    ……
    ……
    ……(Open-ended)

APPENDIX II

INFORMED CONSENT FORM

TITLE OF RESEARCH: PEER EDUCATION AND THE PREVENTION OF HIV/AIDS AMONG TEENAGERS IN EGOR LOCAL GOVERNMENT AREA, BENIN CITY, EDO STATE

NAME AND AFFILIATION OF INVESTIGATOR:

Nomamidobo Fitzgerald Ogiemwonyi,

Department of Public Health and Community Medicine,

University of Benin Teaching Hospital,

PMB 111,

Benin City,

Edo State.

Email: geraldogiemwonyi@gmail.com

PURPOSE OF RESEARCH: The purpose of this study is to assess the role of peer educators in enhancing the prevention of HIV/AIDS among teenagers in Egor LGA, Edo State, with a view to enhancing current preventive efforts and contributing to the global goal of ending the HIV/AIDS epidemic.

PROCEDURES INVOLVED IN THE STUDY: In this study, questions will be asked regarding the knowledge, attitude, acceptability and the factors affecting Peer-led educational intervention in the prevention of HIV/AIDS**.**

CONFIDENTIALITY: All data collected will be treated with utmost confidentiality. All those handling data will not at any time reveal participants' identity.

FINANCIAL COMPENSATION: There shall be no monetary compensation for participation in this study.

VOLUNTARY PARTICIPATION: Your participation in this study is entirely voluntary. If you desire to withdraw from this study at any time, no punitive measures will be meted against you for your withdrawal. Your refusal to participate or withdraw from the study will not involve any negative consequences or loss of benefits to which you are otherwise entitled.

RISK: It is not expected that any harm will come to you because of your participation in this study. The study does not entail any activity that would harm you.

BENEFIT: The study will help assess the knowledge, acceptability and the factors affecting effectiveness of peer-led educational intervention in the prevention of HIV/AIDS.

FINANCIAL SPONSORSHIP: This study will be sponsored by the principal investigator. The investigator may be contacted in case you have any clarifications to make.

The under-listed may be contacted in case you have any clarifications to make.

Nomamidobo Fitzgerald Ogiemwonyi,

Department of Public Health and Community Medicine,

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Nigeria.

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OR

Ethics and Research Committee,

University of Benin Teaching Hospital

Phone Number: +234 802 352 1840

APPENDIX III

List of Secondary Schools in Egor LGA, Edo State

1. Asoro Grammar School II, Egor, Benin City, Upper Ekenwan Road, Benin City

2. Government Science Technical College, Benin City, Benin Technical College Road, Egor

3. Iyoba Girls Secondary School, Egor, BTC Road, Benin City

4. Egor Secondary School, Oni Street, Egor

5. Asoro Grammar School Senior, Upper Ekenwan Road, Benin City

6. Ohonre Grammar School Boys College, Egor, Honre Road off Adolo College Road, Ohonre, Benin City

7. Use Secondary School Senior, Egor, Use Secondary School Road, Benin City

8. Federal Government Girls College, Egor, P.O. Box 1161, Egor

9. Evbotubu Grammar School, Upper Erhunmwunse Street, Evbotubu, Benin City

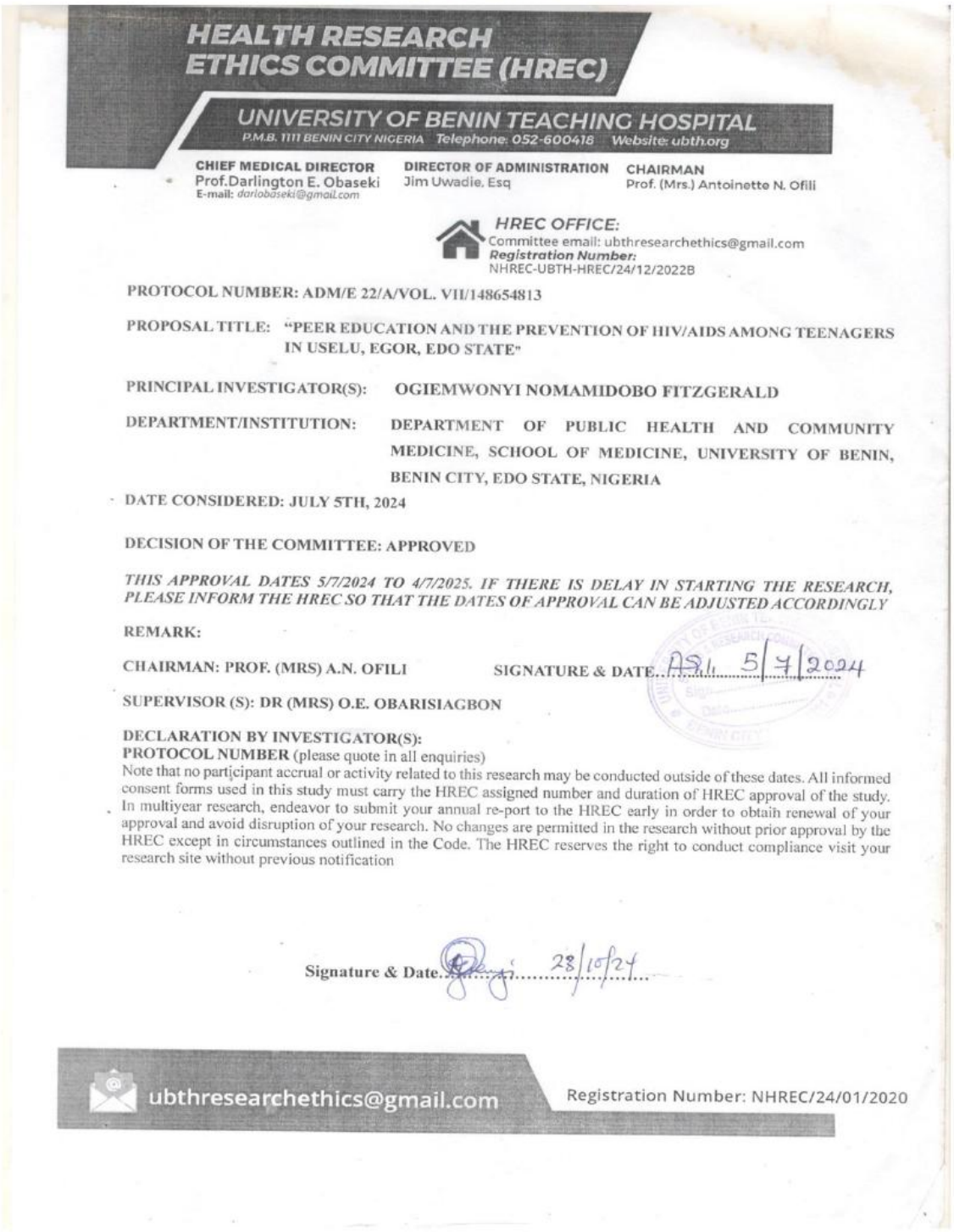
10. Evbareke Secondary School, Off Uselu Lagos Road, Opposite Anigboro Street

11. Eweka Senior Secondary School, Benin Technical College Road, Ugbowo, Benin City

12. Edo Boys High School, Egor, Adolo College Road, Ugbowo, Benin City.

APPENDIX IV

ETHICAL APPROVAL



HEALTH RESEARCH ETHICS COMMITTEE (HREC)

UNIVERSITY OF BENIN TEACHING HOSPITAL

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CHAIRMAN Prof. (Mrs.) Antoinette N. Ofili

HREC OFFICE:
Committee email: ubthresearchethics@gmail.com
Registration Number:
NHREC-UBTH-HREC/24/12/2022B

PROTOCOL NUMBER: ADM/E 22/A/VOL. VII/148654813

PROPOSAL TITLE: "PEER EDUCATION AND THE PREVENTION OF HIV/AIDS AMONG TEENAGERS IN USELU, EGOR, EDO STATE"

PRINCIPAL INVESTIGATOR(S): OGIEMWONYI NOMAMIDOBO FITZGERALD

DEPARTMENT/INSTITUTION: DEPARTMENT OF PUBLIC HEALTH AND COMMUNITY MEDICINE, SCHOOL OF MEDICINE, UNIVERSITY OF BENIN, BENIN CITY, EDO STATE, NIGERIA

DATE CONSIDERED: JULY 5TH, 2024

DECISION OF THE COMMITTEE: APPROVED

THIS APPROVAL DATES 5/7/2024 TO 4/7/2025. IF THERE IS DELAY IN STARTING THE RESEARCH, PLEASE INFORM THE HREC SO THAT THE DATES OF APPROVAL CAN BE ADJUSTED ACCORDINGLY

REMARK:

CHAIRMAN: PROF. (MRS) A.N. OFILI **SIGNATURE & DATE** 5/7/2024

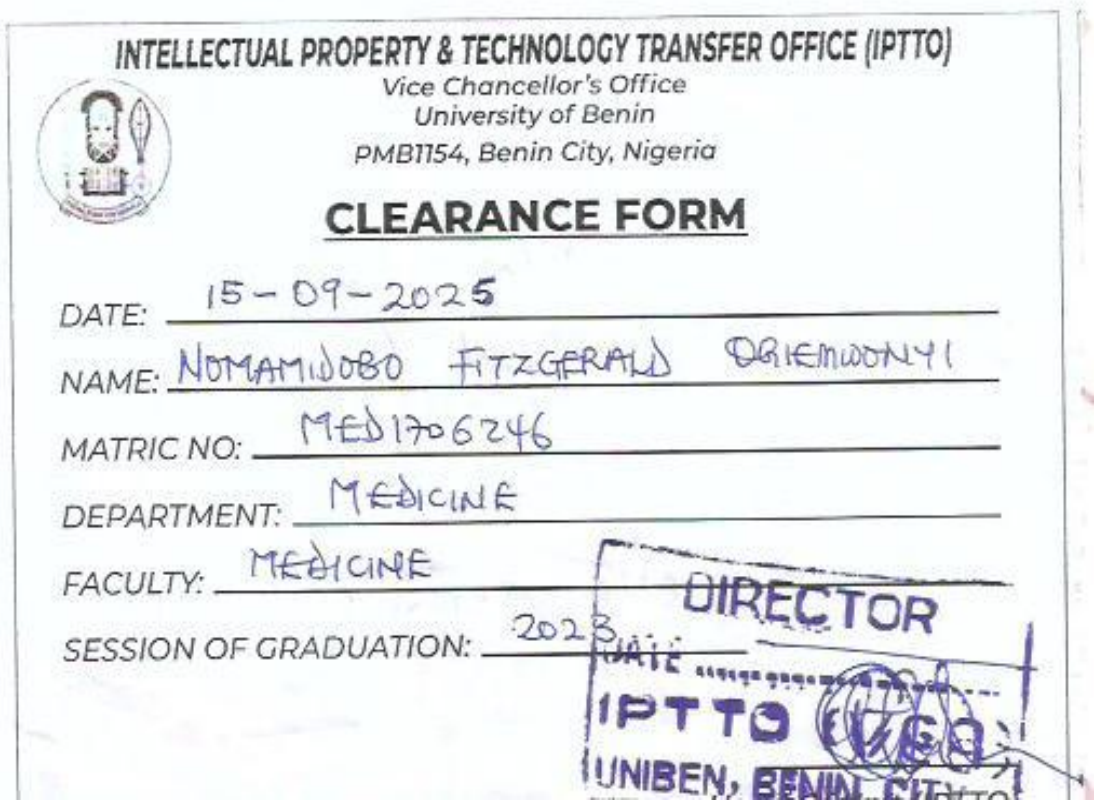
SUPERVISOR (S): DR (MRS) O.E. OBARISIAGBON

DECLARATION BY INVESTIGATOR(S):
PROTOCOL NUMBER (please quote in all enquiries)
Note that no partjcipant accrual or activity related to this research may be conducted outside of these dates. All informed consent forms used in this study must carry the HREC assigned number and duration of HREC approval of the study. In multiyear research, endeavor to submit your annual re-port to the HREC early in order to obtain renewal of your approval and avoid disruption of your research. No changes are permitted in the research without prior approval by the HREC except in circumstances outlined in the Code. The HREC reserves the right to conduct compliance visit your research site without previous notification

Signature & Date 28/10/24

ubthresearchethics@gmail.com Registration Number: NHREC/24/01/2020

APPENDIX V



INTELLECTUAL PROPERTY & TECHNOLOGY TRANSFER OFFICE (IPTTO)

Vice Chancellor's Office
University of Benin
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CLEARANCE FORM

DATE: 15-09-2025

NAME: NOMAMIDOBO FITZGERALD OGIEMOONYI

MATRIC NO: MED1706246

DEPARTMENT: MEDICINE

FACULTY: MEDICINE

SESSION OF GRADUATION: 2023

DIRECTOR
DATE .....
IPTTO
UNIBEN, BENIN CITY