

The Relationship between Knowledge of HIV/AIDS and Engagement in Preventive Behaviours among Undergraduate Students

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Abstract

Human Immunodeficiency Virus (HIV) and Acquired Immunodeficiency Syndrome (AIDS) continue to pose significant public health challenges worldwide despite the consistent effort to reduce the spread. The aim of this study was to examine the relationship between knowledge/awareness of HIV/AIDS and engagement in preventive behaviours among undergraduate students. The study deployed 154 undergraduate students from Nnamdi Azikiwe University Awka using purposive sampling technique. The study utilized a correlational design, employing a structured questionnaire to collect data from a sample of undergraduate students. The findings revealed a significant positive correlation between knowledge of HIV/AIDS and engagement in preventive behaviours. The study also indicated a significant positive relationship between awareness of effects and consequences of HIV/AIDS and engagement in preventive behaviours. Based on the findings, the study concluded that there is a significant positive relationship between knowledge/awareness of HIV/AIDS and engagement in preventive behaviours. The implications of these findings suggest the importance of targeted educational interventions to enhance HIV/AIDS knowledge and promote prevention strategies among undergraduate students.

Keywords: HIV/AIDS, knowledge/awareness, preventive behaviours, undergraduate students
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Introduction

The global prevalence of HIV/AIDS among young individuals aged 15-24 is a significant concern, with an estimated 12 million affected worldwide (UNAIDS, 2018). Among the regions most affected by the HIV epidemic in young populations, Sub-Saharan Africa, including Nigeria, stands out (Mavhandu-Mudzusi & Asgedom, 2015). Various factors contribute to the vulnerability of young people in this region, such as early marriage, harmful traditional practices, rape, and a lack of knowledge and awareness regarding HIV/AIDS (Mavhandu-Mudzusi & Asgedom, 2015). Alarming increases in sexually transmitted diseases (STDs), particularly HIV/AIDS, among young individuals have been observed (PHAC, 2017). Targeted interventions aimed at prevention and awareness are critical in addressing the spread of HIV/AIDS, with undergraduate students representing a key population due to their increased sexual activity and risk-taking behaviours during this stage of life.

The World Health Organization (WHO, 2019) emphasizes the persistent and recurring public health issue of sexually transmitted infections (STIs), with over one million new cases reported daily. These infections have far-reaching impacts on sexual and reproductive health, affecting individuals across borders, age groups, and genders. Young adults, including university students, are particularly at risk due to engaging in risky sexual practices (Mavhandu-Mudzusi & Asgedom, 2015). Factors such as psychological and emotional problems, sexual exploitations, and early sexual engagement with multiple partners contribute to their involvement in risky sexual behaviour (Amare et al., 2019). Although some STIs, including HIV, can be transmitted from mother to child during pregnancy and childbirth, and through blood products and tissue transfer, the primary mode of transmission is through unprotected sexual contact with an infected person (WHO, 2011).

The consequences of risky sexual behaviour among young individuals and adults are reflected in the increased prevalence of HIV/AIDS infections, resulting in high mortality rates among the economically active age group. Adolescents, both globally and in many developing countries, face life-threatening

health risks due to inadequate information, knowledge, and guidance on sexual and reproductive health before reaching adolescence (UNAIDS, 2010; WHO, 2018). This lack of support and guidance from parents or communities regarding proper sexual behaviour and risk prevention contributes to the vulnerability of young individuals.

One influential factor contributing to the high transmission rates of STIs is the lack of awareness regarding the nature of STIs and their modes of transmission (WHO, 2018). Limited health literacy and knowledge among youth and young adults regarding STIs have been observed, despite earlier engagement in sexual activity (Zoboli et al., 2017). Consequently, a significant number of young individuals are at risk due to their engagement in risky or unsafe sexual behaviours, including multiple and high-risk sexual partners, and low condom use (Amare et al., 2019; Bedassa, 2015). Upreti et al. (2009) conducted a study assessing young people's knowledge, attitudes, and behaviours related to STIs/HIV/AIDS in the context of Nepal. The findings revealed variations in knowledge levels concerning STIs and HIV/AIDS based on education, gender, and area of residence. Additionally, the practice of correct and consistent condom use in premarital and extramarital sexual relations with non-regular partners was found to be low. Overall, unsafe sexual behaviour among young people was noted. The study concluded that addressing young people's sexual and reproductive health issues is crucial to promote safer and responsible sexual behaviour.

In line with the recommendation mentioned above, having adequate knowledge is essential in dispelling misconceptions about sexually transmitted diseases like HIV and promoting healthy sexual behaviours among adolescents and young adults. However, it is important to note that accurate knowledge alone is insufficient to produce changes in attitudes and behaviors, as highlighted by Baker and Rosenthal (2002). Despite having a general understanding of the existence of STDs, infection rates among young individuals remain high (Morris & Rushwan, 2015). Merely possessing knowledge about STDs does not consistently motivate individuals to avoid risky behaviours (Napper et al., 2012). Furthermore, knowledge does not always translate into safer sexual practices or reduced risk behaviours (Akinsulure-Smith, 2014). Unprotected heterosexual activities are primarily associated with HIV risk behaviours. While many participants are knowledgeable about HIV transmission and risk factors, nearly half of the youth reported not using protection during sexual activities in the previous six months (Akinsulure-Smith, 2014).

Despite Nigeria being the most populous country in Africa and having the third-largest number of people living with HIV globally, there is a dearth of research studies examining the relationship between knowledge of HIV/AIDS and preventive behaviours (Akokuwebe et al., 2015). Existing studies mainly focus on the prevalence and knowledge of HIV/AIDS. Therefore, it is crucial to determine if there is a positive relationship between knowledge/awareness of the consequences of HIV/AIDS and preventive behaviour. This will help clarify the contradictory positions and opinions of some scholars who argue that knowledge and awareness alone are insufficient to curb risky sexual behaviour and prevent HIV among young individuals (Napper et al., 2012; Akinsulure-Smith, 2014; Morris & Rushwan, 2015).

Hypotheses

1. There will be a significant positive relationship between knowledge of HIV/AIDS and engagement in preventive behaviours among undergraduate students.
2. There will be a significant positive relationship between awareness of the effects and consequences of HIV/AIDS and engagement in preventive behaviours among undergraduate students.

Theoretical Framework

This study is theoretically grounded in Bandura's Social Learning Theory (1971) due to its ability to relate the two independent variables of knowledge, awareness, and the dependent variable of preventive behaviours. Social Learning Theory emphasizes the role of cognition and the active involvement of individuals in their own development and social learning. Learning primarily occurs through the observation of others, with reciprocal determinism between the individual and the social environment. Perceptual and cognitive factors mediate the association between social variables and future behaviour,

as stimuli must be perceived before being encoded into memory as cognition (Bandura, 2001; Walters, 2015). Several cognitive and emotional factors mediate the relationship between parenting practices and delinquency.

Methods

Participants

The study included 154 regular students from the Department of Psychology at Nnamdi Azikiwe University, Awka. The participants were randomly selected using simple random sampling. Among the participants, there were 66 males and 88 females, age ranging from 18 to 30 years, with a mean age of 22.00 and a standard deviation of 1.749. All participants identified as Christians and were drawn from various academic levels, from 100 to 400 levels, ensuring representation from different stages of undergraduate education.

Instrument

A well-structured single questionnaire titled Awareness/Attitude to AIDS Scale (AAS) by Omoluabi (1995) was used for the study. It is a fifty-item scale with four subscale that measures knowledge, infection, awareness of effect and consequences of AIDS and preventive behaviours. It is scored using Likert response pattern of 1 to 5, where 1 = strongly disagree, 2 = disagree, 3= Not sure, 4 = Agree, and 5 = Strongly Agree. The four sections are scored separately. Each item shaded to obtain the score for each client. It is a five point likert point with both direct and indirect scoring pattern. The score equal or Higher indicates or represents the client has accurate knowledge, information, awareness of effect and consequences and preventive attitude to AIDS. Omoluabi (1995) reported Cronbach's alpha coefficient of .96 for knowledge, .91 for information, .82for Effect, and .77 for prevention. He also reported a good validity coefficient of AAS sub-scale with Osgood Semantics Differential Scale (OSDS). Aside having been used in Nigeria, a pilot test was carried out employing (80) participants students of Chukwuemeka Oumegwu Ojukwu University. Anambra State. to obtain reliability coefficients for this study's instruments. The Cronbach alpha reliability coefficient obtained for this was. 85.

Procedure

Ethical considerations were carefully followed throughout the study. Prior to data collection, the researchers obtained ethical approval from the relevant institutional review board. Informed consent was obtained from all participants, emphasizing their voluntary participation and their right to withdraw from the study at any time without facing any negative consequences. Confidentiality and anonymity were maintained throughout the research process by assigning unique identification codes to each participant instead of using their personal information. The participants were selected using probabilistic sampling technique. Firstly, one faculty was selected from fourteen faculties of the institution. Therefore one department was selected from one (1) faculty. The research instruments (questionnaires) were administered to the participants individually. They were instructed on how to fill the questionnaires and were encouraged to do so honestly. After the participants responded to the instrument, the questionnaires were collected back immediately.

Design and statistics

The study made use of Correlational design and Descriptive statistics and Pearson product moment correlational coefficient was used to manage the data. At the end, the data from questionnaires were subjected to data analysis using statistical package for social science version 20.0 (SPSS)

Results

Table 1: Summary table of Correlations among Knowledge of HIV/AIDS and Awareness of Effects and Consequences of HIV/AIDS

	Correlates	Preventive Behaviours
Knowledge Pearson Correlation	1	.737
Sig (2 tailed)		.000
N	154	154
Awareness of Effect Pearson Correlation	1	.627
Sig (2 tailed)		.000
N	154	154

$p < .05$

Table 1 above revealed a significant positive relationship between knowledge of HIV/AIDS and engagement in preventive behaviours among students, $r, 1, 154 = .737, p < .05$. **Also**, a significant positive relationship was also found between awareness of effect and consequences of HIV/AIDS and engagement in preventive behaviours, $r, 1, 154 = .627, p < .05$.

Discussion and Conclusion

The study included a total of 154 undergraduate students, with a balanced representation of gender and academic class levels. The results indicated a positive correlation between knowledge of AIDS ($r, 1, 154 = .737, p < .05$), awareness of effects of HIV/AIDS ($r, 1, 154 = .627, p < .05$), and engagement in preventive behaviours. The result indicated that students who demonstrated higher levels of knowledge/awareness were more likely to adopt preventive measures, such as consistent condom use, regular HIV testing, and reduced sexual risk-taking behaviours.

The findings of this study contradicted the positions and opinions of some scholars who argue that knowledge and awareness alone are insufficient to curb risky sexual behaviour and prevent HIV among young individuals (Napper et al., 2012; Akinsulure-Smith, 2014; Morris & Rushwan, 2015). The study supported the notion that knowledge/awareness of HIV/AIDS plays a critical role in promoting preventive behaviours among undergraduate students. By increasing their understanding of the disease, its modes of transmission, and prevention strategies, students are more likely to adopt healthier behaviours and reduce their risk of contracting HIV. The positive correlation observed suggests that targeted educational interventions should be implemented to enhance HIV/AIDS knowledge among undergraduate students. These interventions can encompass a combination of classroom-based education, peer-led discussions, online resources, and access to support services.

In conclusion, this study underscored the importance of addressing knowledge gaps and increasing awareness of HIV/AIDS among undergraduate students. By promoting accurate and comprehensive information, educational initiatives can empower students to make informed decisions and engage in effective prevention measures. Universities and colleges should collaborate with healthcare providers, community organizations, and government agencies to develop and implement evidence-based interventions tailored to the specific needs and concerns of undergraduate students. Continued research and evaluation of such interventions will contribute to the overall goal of reducing the incidence of HIV/AIDS among this vulnerable population.

Limitations of Study

The major limitation in the present study was the sample size and the study participants. For instance, the study focused on mainly undergraduate students in just one university. This can affect the generalization of such result.

Recommendations

The researchers recommend that more studies should be carried out on knowledge of HIV and its awareness and prevention from other higher institutions with different socio-cultural setting. This is because culture and environment are good determinants of behaviour.

References

- Adeniyi W. O.1,* & Okewole J. O.(2014) The Influence of Knowledge and Awareness of Sexually Transmitted Diseases (STDs) on Change in Sexual Behaviour of Fresh Undergraduates of the Obafemi Awolowo University, Ile-Ife, Nigeria
- Akinsulure-Smith, A. M. (2014). Exploring HIV knowledge, risk and protective factors among West African forced migrants in New York City. *Journal of Immigrant and Minority Health, 16*(3), 481–491. doi:10.1007/s10903-013- 9829-1
- Akokuwebe, M.E, Okunola, R. A, Falayi, O E (2018) Youths and Risky Sexual Behaviour: A Kap Study on Hiv/Aids amongst University of Ibadan Student
- Amare, T., Yeneabat, T., & Amare, Y. (2019). A systematic review and meta- analysis of epidemiology of risky sexual behaviours in college and university students in Ethiopia, 2018. *Journal of Environmental and Public Health*, <https://doi.org/10.1155/2019/4852130>
- Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Engelwood Cliffs, NJ: Prentice Hall.73
- Bandura, A. (1991). A social cognitive approach to the exercise of control over AIDS infection. In R. DiClemente (ed.). *Adolescents and AIDS: A generation in jeopardy* (pp. 1-20). Beverley Hills: Sage.
- Baker J. G., & Rosenthal S. L. (1998). Physiological aspects of sexually transmitted infection acquisition in adolescent girls: a development perspective. *J Dev Behav Pediatr, 19*, 202-208.
- Bizuwork M. G. (2022) Assessment of risky sexual behaviours and associated factors among adolescents in Shewa Robit Town, Northeast, Ethiopia: a cross-sectional study. *Pan African Medical Journal*.
- Ena L, Hurissa BF, Aliyu SA (2016) Knowledge, Attitudes and Practices towards Risky Sexual Behaviors among Adolescents of Jimma University Community High School, South West Ethiopia, 2015. *J Women's Health Care 5*: 292. doi:10.4172/2167-0420.1000292
- International Institute for Population Sciences (IIPS) and ICF (2017). *National Family Health Survey (NFHS-4), 2015-2016*. Mumbai: IIPS; .
- International Institute for Population Sciences (IIPS) and ICF (2017). *National Family Health Survey (NFHS-4), 2015-2016*. Mumbai: IIPS; .
- Morris, J.L., & Rushwan, H. (2015). Adolescent sexual and reproductive health: The global challenges. *The International Journal of Gynaecology and Obstetrics*. 131 Suppl 1: S40-
- Napper, L., Fisher, D., & Reynolds, G. (2012). Development of the perceived risk of HIV scale. *AIDS & Behaviour, 16*(4), 1075-1083.secondary school students in two German cities. *J Community Health* (online publiziert)
- UNAIDS. (2005) AIDS epidemic update: December Geneva: Joint United Nations Programme on HIV/AIDS; 2005.
- UNAIDS. (2018). *UNAIDS/WHO AIDS Epidemic Update: December 2006 – Epidemic Update*. Retrieved May, 22, 2010, from
- UNAIDS. (2017) AIDS Epidemic Update: December 2007. Geneva: Joint United Nations Programme on HIV/AIDS; 2007.
- UNAIDS.(2004) *Report on the Global AIDS Epidemic: 4th Global Report*. Geneva: UNAIDS; 2004.
- Upreti, D., Regmi, P., Pant, P., & Simkhada, P. (2009). Young people's knowledge, attitude, and behaviour on STI/HIV/AIDS in the context of Nepal: A systematic review. *Kathmandu University Medical Journal, 7*(4), 383-391.

- World Health Organisation. (2014). Health topics: HIV/AIDS. Retrieved from http://www.who.int/topics/hiv_aids/en/
- World Health Organization (2018) Sexually transmitted diseases. <http://www.who.int/mediacentre/factsheets/fs110/en/index.html>. Accessed July 11
- World Health Organization (2018) Sexually transmitted diseases. <http://www.who.int/mediacentre/factsheets/fs110/en/index.html>. Accessed July 11, .
- World Health Organization (WHO) (2020) Adolescent and young adult health. Accessed 30th August .
- World Health Organization (WHO), (2010). *Key fact on global HIV epidemic and progress in* Based on progress report 2011: Global HIV/AIDS response. Pp. 1-5.
- World Health Organization. (2011). *The World Medicines Situation 2011*. Geneva: Author.
- World Health Organization. (2013). *Global and regional estimates of violence against women: prevalence and health effects of intimate partner violence and non-partner sexual violence*. Retrieved from: <http://www.who.int/reproductivehealth/publications/violence/978924156462>
- World Health Organization. (2016). *Global health sector strategy on sexually transmitted infections 2016–2021: Towards ending STIs*. Geneva: World Health Organization. Retrieved from <http://apps.who.int/iris/bitstream/10665/246296/1/WHO-RHR-16.09-eng.pdf?ua=1>
- World Health Organization. (2019). *Sexually transmitted infections*. Retrieved from [http://who.int/news-room/fact-sheets/detail/sexually-transmitted-infections-\(stis\)](http://who.int/news-room/fact-sheets/detail/sexually-transmitted-infections-(stis))
- Zeeb H (2012) Awareness and knowledge of sexually transmitted diseases among Zobili, F., Martinelli, D., Di Stefano, M., Fasano, M., Prato, R., Santantonio, T.A., & Fiore, J.R. (2017). Correlation between knowledge on transmission and prevention of HIV/STI and proficiency in condom use among male migrants from Africa and Middle East evaluated by a Condom Use Skills score using a wooden penile model. *BMC Research Notes*, 10(1), 216. <https://doi.org/10.1186/s13104-017-2520-1>