



Attitude and Knowledge of First Year University Students towards Sexually Transmitted Infections and Human Immunodeficiency Virus (STI/HIV) in Ogun State, Nigeria

Olujide A. Adekeye (PhD)

Department of Psychology, Covenant University, Ota, Nigeria,
jide.adekeye@covenantuniversity.edu.ng

Abstract: Sexually transmitted infections (STIs) and Human immunodeficiency virus and acquired immune-deficiency syndrome (HIV/AIDS) are global problems and currently over 100 million STIs occur each year in people within the 15-24 age bracket. Young people between ages 15 and 24 also account for more than fifty (50) percent of all HIV infections throughout the world. A survey research questionnaire made up of three trajectories including sexual behaviour scale, attitude towards STI/HIV/AIDS scale and knowledge of STI/HIV/AIDS scale was used in this study (n= 226, mean=18.3years). The study made use of frequency counts, percentage and regression analysis. The study indicates a fairly high knowledge level of STI/HIV (89.4%) with more males (87%) and younger participants (88%) possessing good knowledge of STI/HIV. Majority of the participants are sexually active (63.3%) and of this are more males (61.3%) and younger participants (15-19 years, 60%). Findings show that age ($\beta = 0.025$; $t = 0.04$; $p > 0.05$) was not a predictor of attitude towards STI/ HIV. However, knowledge of STI/HIV ($\beta = 0.459$; $t = 5.032$; $p < 0.05$) and sexual behaviour ($\beta = 0.341$; $t = 4.278$; $p < 0.05$) were strong predictors of attitude towards STI/HIV. This study shows the need for strong advocacy, enlightenment and community mobilization for improved awareness of STI/HIV. Local, community and religious leaders, including youth leaders should be incorporated into the drive to increase awareness and knowledge of STI/HIV/AIDS among young people in Nigeria.

Keywords: STI/HIV knowledge and attitude, sexual behaviour, students

Introduction

For over a decade, compared to older adults, adolescents (15- to 19-years-old) and young adults (20- to 24-years-old) have been disproportionately affected by the STI epidemic (Center for Disease Control, 2007). The striking rate of sexually transmitted infections (STI) among adolescents often begs two questions: 1) Why are STI rates so high among this population? and

2) What can we do to prevent HIV/STI in adolescents? Here we provide a brief overview of adolescent sexual behaviours and the current status of STI and HIV rates in adolescents, some potential explanations for why STI rates are so high in the adolescent population, and a summary of what works in terms of HIV/STI prevention programs for young people.

Many adolescents and young adults engage in sexual intercourse, often times with multiple sex partners and without using condoms. In 2007, 47.8% of high school students in the U.S. reported having had sexual intercourse (Eaton, Kann, Kinchen (2008), with 7.1% reporting having had sexual intercourse for the first time before age 13. Although most adolescents do not have concurrent sex partners at any given point in time, the number of sex partners accumulates over time. Specifically, among high school seniors in 2007, approximately 22.4% reported having had sex with at least four different sex partners (Eaton *et al.*, 2008). Moreover, among sexually active adolescents, only 61.5% reported using a condom the last time they had sexual intercourse (Eaton *et al.*, 2008). In spite of the fact that many adolescents have used condoms at some time during an episode of sexual intercourse, comparatively few report using them every time they have sex (Moore, Driscoll, Lindberg, 1998). Thus, adolescents engage in sexual behaviours that place them at risk for acquiring STIs, including HIV.

Significant progress has been made in the fight against HIV and AIDS since the "United Nations declaration of Universal Access" in 2005. The population of persons living with HIV (PLWHIV) has levelled off at 33million people with about 4million receiving antiretroviral therapy (ART) globally. Nigeria remains one of the

most burdened nations with about 3 million people living with the disease. Despite mounting a vigorous and sustained response, the HIV/AIDS epidemic has remained a major challenge and obstacle to the attainment of national development goals including the sustainable development goals (SDGs) and the vision 20/20/20. These realities compel the need for the regular review of the national response and the strategies in order to achieve a more effective control of HIV. Sexually transmitted infections constitute a major risk factor for sexual transmission of HIV infection.

Literature Review

Many behaviours put young people at risk of HIV/STI. Many young people are sexually active and a large percentage of sexually active young people fail to use condoms consistently and correctly (CDC, 1998). Young people have high rates of STI. Males between ages 20 to 24 reported the highest incidence of STI (CDC, 1997). A small minority of young people also inject drugs, and report using alcohol and/or non-injection drugs which can inhibit their judgment (Kann & Kinchen, 1998). In fact, drug and alcohol use is among a cluster of risk behaviors, including unprotected sexual intercourse, that young people frequently report (Alford, 1996).

Africa, with just over 10% of the world's population, carries well

above 75% of the burden of this epidemic (UNAIDS, 2004). During the past two decades, researchers have made significant progress in understanding the epidemiology of HIV/AIDS worldwide. Despite this improved understanding, the epidemic in Africa has continued to grow, with disastrous consequences. Nigeria's first two AIDS cases were diagnosed in 1985 in Lagos, the largest city in the country, and reported at the international AIDS conference that took place the following year (Nasidi, Harry & Ajose-Coker, 1986). The reporting of those findings to the Federal Ministry of Health (FMOH) created panic in government circles. That same year the FMOH set up the National Expert Advisory Committee on AIDS (NEACA) and requested the assistance of the World Health Organization (WHO). In 1987, with this assistance, the government established the first of nine HIV testing centers in the country. As work continued, additional AIDS cases were diagnosed, and a small number of apparently healthy blood donors were found to be HIV antibody-positive through routine pre-transfusion screening.

It has been well recognized that STI prevalence rates are generally high in Africa (Piot, Quinn and Taelman, 1984; Kreiss, Koech, Plummer, 1986) and this fact may reflect both casual attitudes toward sex and tendencies toward multiple sex partners in some African

communities, as well as the lack of easily available treatment for STIs. Sex workers are considered important in the transmission of HIV and other STIs in Africa (Obi, Ogbonna & Igumbor, 1993; Harry, Bubbuk, Idrisa & Akoma, 1994; Melbye, Njelesani & Bayley, 1986). In the United States, Acquired immune deficiency syndrome (AIDS) is widespread and affects all sectors of society. Adolescents account for only a small percentage of reported AIDS cases. However, public health professionals believe that young people are at high risk for infection with HIV. Over the last few years the annual number of new HIV infections has risen among youth. Furthermore, because of HIV's long incubation period, most people who have been diagnosed with AIDS while in their twenties may have been infected with HIV when they were teenagers.

HIV infection has no symptoms and represents a covert threat to anyone of any age. However, the ten year incubation period makes HIV's invisibility a particularly serious danger for adolescents. Teens characteristically focus principally on themselves and their peers. When they look around, these youth do not see outward signs of HIV infection among their peers. Nor, for the most part, are their peers sick due to AIDS. Consequently, for many teens, HIV is a danger that is easily ignored or dismissed because it is invisible.

STIs pose a major public health problem as they affect hundreds of millions of people globally with far reaching health, social, and economic consequences. Although the probability of transmitting HIV during a single sexual act can be low, such factors as frequency of intercourse and a multiplicity of partners can increase the risk of infection dramatically. Among those factors is the presence in either partner of an STI, the practice of multiple partner sex, and a high prevalence of STIs among men who have sex with men. Some cultural practices—including female circumcision and infibulation—may influence sexual transmission in Africa (Adesoji & Moronkola, 2003; Futuh-Shandall, 1967).

The level of awareness of STIs and their symptoms in Nigeria is generally high, though it is lower among women (Federal Ministry of Health, 2003; UNAIDS, 2005). The National HIV/AIDS and Reproductive Health Survey (NARHS) showed that STI symptoms were most commonly seen in South South at 10%, while the lowest (2%) was seen in the North-East zone (Federal Ministry of Health, 2003). The 2003 National HIV/AIDS and Reproductive Health Survey (NARHS) found that many Nigerians contract STIs during their sexually active years and engage in multiple-partner sex (Federal Ministry of Health, 2003). Therefore, understanding the

patterns of sexual behavior and partner exchange is important to gauge the forces driving the spread of HIV and other STIs in communities. This information can then be used to determine how intervention strategies may be adopted to curb further spread of HIV and other STIs and to minimize the impact of the HIV epidemic on the individual, the community, and society as a whole.

The sexual behavior determinants of HIV transmission are often difficult to study and identify. For cultural and religious reasons, sex is traditionally a very private subject in Nigeria, as in many other African nations. Discussions about sex with adolescents, particularly girls, are not considered culturally acceptable. Until recently, young people received little or no sexual health education, which has proved a major barrier to behavioral interventions aimed at reducing rates of HIV and other STIs. The lack of accurate information about sexual health has fostered myths and misconceptions, contributing to rising transmission rates, and helped fuel the stigmatization and discrimination of PLWHAs.

Rationale for the Study

Young people by their nature are experimenters and risk takers with some measure of invincibility. In a fact sheet by World Health Organization (WHO n.d), it was reported that by the time young people graduate from high school, almost two thirds have had sex.

Nearly 40 percent of sexually active students did not use a condom the last time they had sex, and one in five drank alcohol or took drugs before their last sexual intercourse. Such risky sexual behaviours can have serious health consequences. It was also noted that approximately 18 percent of all new HIV diagnoses are among young people aged 13–24 years and teens and young adults have the highest rates of sexually transmitted infections (STIs) of any age group. As noted by Dibua (2011), sexually transmitted infections (STIs) have similarly been closely associated with HIV as a result of their similar transmission modes, namely, sexual contact. Hence, STIs of different categories: treatable and untreatable, ulcerative and non-ulcerative, etc., have been known to fuel the transmissibility and/or co-infectivity of HIV by a peculiar paradigm: reduction in immunological functions and subsequent progression to the active disease, AIDS. Sexually transmitted infections are a major global cause of acute illness, infertility, long term disability and death, with severe medical and psychological consequences for millions of men, women and children. The World Health Organization states that: "in developing countries, STIs and their complications are amongst the top five disease categories for which adults seek health care. Research shows that well-designed and well-implemented school-based HIV/

STI prevention programs can significantly reduce sexual risk behaviours among students. A review of 48 studies found that sexual health education programs resulted in a delay in first sexual intercourse, a decrease in the number of sex partners, and an increase in condom or contraceptive use. None increased the likelihood of having sex. Based on this, the present study was set out to explore factors that predict attitude of first year university students towards STI and HIV in Ogun State, Nigeria.

Hypothesis

Age, knowledge of STI/ HIV and sexual behavior do not significantly predict attitude of young people towards STI/ HIV

Methods

This section discusses the research design, participants, setting and study instrument including the procedure for data collection and analyses. The survey method was employed as the research design for this study. The survey was conducted in a Private University in Ota, Ogun State, Nigeria. Two hundred and twenty six (226) students were selected through stratified random sampling to cater for factors such as gender and age. A survey research questionnaire made up of three trajectories including sexual behavior scale, attitude towards STI/HIV/AIDS scale and knowledge of STI/HIV/AIDS scale was used in this study (n = 226, mean =

18.3years). The questionnaire forms were administered to the respondents with the aid of trained research assistants. The study made use of frequency counts, percentages and regression analysis. The SPSS software was used to analyze the data

Pilot Study

The instrument has content validity and in order to ascertain the reliability of this instrument, an internal consistency using the split half method was conducted by administering the questionnaire to 20 freshmen students of Crawford

University. The correlation yielded a coefficient of 0.87. This was considered fair enough for the conduct of the study.

Ethical Consideration

Prior to administering the questionnaire, the purpose of the study was explained to the participants. Participation was voluntary and there was no incentive given for participation. Those who agreed to participate were made to sign a consent form. Anonymity was assured by asking participants not to write their names on the questionnaire forms.

Results

Table 1: Age and Sex of Participants

Age of Participants	Frequency	Percent
15-19 years	128	57
20+ years	98	43
Sex of Participants	Frequency	Percent
Male	137	61
Female	89	39

Table 1 reveals that more than half of the respondents were males (61%). Majority of the respondents were between the ages of 15 and 19 years (57%).

Table 2: Contributions of the independent variables to the Prediction of attitude of young people towards STI/ HIV

R = .431 R Square = .186 Adj R Square = .175 Std. Error = 4.6711						
Model		SS	df	Mean Square	F	Sig.
1	Regression	1103.894	3	367.965	16.864	.000 ^a
	Residual	4843.822	222	21.819		
	Total	5947.717	225			

- a. Predictors: (Constant), Know of HIV/STI, Age of Participants, Sexual Behaviour
- b. Dependent Variable: STI/ HIV

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	7.013	2.560		2.740	.007
Age of Participants	.025	.636	.002	.040	.968
Sexual Behavior	.341	.080	.262	4.278	.000
Know of HIV/STI	.459	.091	.308	5.032	.000

a. **Dependent Variable: STI/ HIV**

The result show that having prior knowledge of HIV and STI ($\beta = 0.459$; $t = 5.032$; $p < 0.05$) was the best predictor followed by sexual behavior ($\beta = 0.341$; $t = 4.278$; $p < 0.05$). Age did not significantly predict the attitude of first year university students towards STI/HIV.

Discussion

In this study, it was found that general HIV/STI knowledge level of the first year university students was high. As a consequence of level of education, majority of the respondents displayed a very good knowledge of STI/HIV. Though the study indicates a fairly high knowledge level of STI/HIV (89.4%), the distribution shows that there were more males (87%) and younger participants (88%) possessing good knowledge of STI/HIV. To further give credence to this study, data on sexual activity of the participants revealed that majority of the participants are sexually active (63.3%) and of this are more males (61.3%) and

younger participants (60%). Findings show that age ($\beta = 0.025$; $t = 0.04$; $p > 0.05$) of the three predictor variables was not a predictor of attitude towards STI/HIV. However, knowledge of STI/HIV ($\beta = 0.459$; $t = 5.032$; $p < 0.05$) and sexual behaviour ($\beta = 0.341$; $t = 4.278$; $p < 0.05$) were strong predictors of attitude towards STI/HIV.

Conclusion

STI and HIV infections in adolescents are at epidemic levels worldwide. As long as adolescents continue to engage in sexual behaviours that place them at risk for STI/HIV (e.g., sex without a condom and with multiple sex partners) they will be vulnerable to these health threats. For reasons outlined above, a few of which are amenable to change, adolescents may be especially susceptible to STI/HIV. It is recommended that past successful prevention efforts should be incorporated into current adolescent STI/HIV prevention programs and that we also continue to search for new ways to protect our youth, as well as teach them to protect themselves, from STI/HIV infections. This study shows the

need for strong advocacy, enlightenment and community mobilization for improved awareness of STI/HIV. Local, community and religious leaders, including youth leaders should be incorporated into the drive to increase awareness and knowledge of STI/HIV/AIDS among young people in Nigeria.

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