

Impact of Knowledge, Attitude, and Beliefs about AIDS on Sexual Behavioral Change Among
College Students in Nigeria: The Case of the University of Nigeria Nsukka

Emmanuel Uwalaka, Ph.D.
Department of Political Science
Saint Louis University

Hisako Matsuo, Ph.D.
Department of Research Methodology
Saint Louis University

ABSTRACT

Africa continues to record the greatest number of HIV infections and deaths. An estimated 34.3 million people in the world have AIDS, 24.5 million of them in Sub-Saharan Africa (United Nations 2000). Of the 2.8 million who died of AIDS in 1999, 2.2 million (85%) were in Africa. Currently, about one-third of the population in Africa has contracted AIDS. This study focuses on college students in one of the premier universities of Nigeria, and explores the degree of sexual behavioral change because of the AIDS epidemic and the factors that impact such behavioral change. Data were collected from 505 college students at the University of Nigeria between 1997 and 1998. OLS regression analyses find that besides sex, marital status, and whether or not one is tested positive for HIV, knowledge and attitude about AIDS in addition to confidence in sexual practice have positive impact on college students' sexual behavioral change.

Key Words: AIDS, sexual behavioral change, knowledge, beliefs, attitude, college students in Nigeria

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More than two decades after the HIV/AIDS epidemic took root, Africa continues to record the greatest number of HIV infections and deaths. The United Nations estimates that 34.3 million people in the world have AIDS, more than 50% higher than what the World Health Organization's Global Program projected in 1991, with 24.5 million of them in Sub-Saharan Africa (United Nations 2000). Of the 2.8 million who died of AIDS in 1999, 2.2 million or 85 % of them were in Africa. In spite of this alarming statistic, the HIV/AIDS epidemic on the African continent is still spreading rapidly. Although the governments in Africa are searching ways of dealing with the HIV/AIDS epidemic, political leaders in many countries have failed to demonstrate the leadership needed to raise AIDS awareness among their people. Heterosexual relationships became one of the major means in the spread of AIDS amidst the decline in its transmission from blood and blood products (Taylor, 1990; Wahdan, 1995). Individual behavioral change, particularly sexual behavioral change, appears to be the most effective means to prevent further AIDS/HIV spread under the current circumstance in Africa.

Several recent studies have examined the AIDS knowledge level of adolescents and adults. Many researchers have found moderate to high levels of knowledge about AIDS across cultures (Al-Owaish et al., 1999, Asuzu, 1994, Buysse, 1996, Carducci et al., 1995, Chavis & Norman, 1995, Gray & Saracino, 1989, Katz et al., 1995, Lindan et al., 1991, Morrison et al., 1994, Sachdev, 1998, Slonim-Nevo et al., 1991, Swart-Kruger & Richter, 1997; Villarruel et al., 1998). However, Roscoe and Kruger (1990) studied junior and senior college students and found that while 90% of the participants answered two-thirds of the questions correctly, an item concerning the cause of AIDS was the only question answered incorrectly by less than 50% of the participants. Other studies also show low levels of AIDS knowledge among college students, reporting that a large proportion of their samples do not have accurate knowledge of the causes

and prevention of AIDS transmission (Fantahum & Chala et al., 1996, Katz et al., 1995, Konde-Lule et al., 1989; Vogels et al., 1999).

A number of studies show high engagement in unsafe sexual behaviors such as a high average number of partners, sex with unknown persons, as well as less than positive views about condom use, and a low rate of behavior change even after learning about AIDS (Al-Owaish, 1999, Buysse, 1996, Gray & Saracino, 1989, Konde-Lule et al., 1989, Lindan et al., 1991; Morrison et al., 1994). Serovich and Greene (1997) found that more than 40% of participants were engaging in risky sexual behavior. This suggests that a moderate to high knowledge level of AIDS may not be a predictor of safe sexual behavior practices (see Gray & Saracino, 1989). On the other hand, studies of American and Nigerian adolescents suggest that, as a result of the threat of AIDS, adolescents intend to or have made changes in their sexual behaviors and report lower engagement in unsafe sexual behavior (Asuzu, 1994, Roscoe & Kruger, 1990; Villarruel et al., 1998).

Attitudes towards AIDS and/or those persons with AIDS may also help predict behavior change, however the existing literature is inconclusive. Several studies find high levels of empathy, tolerance, acceptance, and positive attitudes towards AIDS or persons with AIDS (Serovich & Greene, 1997; Villarruel et al. 1998). However, other findings show neutral, unfavorable, or unsympathetic attitudes towards AIDS or those persons with AIDS (Carducci et al., 1995; Katz et al., 1995; Konde-Lule et al., 1989). For example, Al-Owaish et al. (1999) report that 80% of Kuwaiti participants felt that persons with AIDS should not be left to live freely in the community. A possible explanation for the variance in findings among studies is demographic characteristics such as nationality, age, sex, religion, ethnicity, and marital status. Knowledge level is another possible predictor of attitude, indicating that increasing knowledge

levels of AIDS may produce more positive attitudes towards individuals with AIDS (Carducci et al., 1995).

In addition to knowledge and attitudes about AIDS, previous literature on health behaviors has focused on the role of individuals' perceived susceptibility to AIDS as a motivator of behavioral change (Aiken, Gerend, Jackson, 2001; Fishbein, Triandis, Kanfer, Becker, Middlestadt & Eichler, 2001). The Health Belief Model (HBM; Becker & Maiman, 1975; Rosenstock, 1966), an extensively studied model of health behavior change, posits that individuals must perceive themselves to be at risk of the health threat before they will take actions to reduce risky behaviors or to engage in healthy alternative behaviors (for a review of the role of perceived susceptibility on behavior change see Aiken et al., 2001).

Research focusing on the effects of beliefs of susceptibility to AIDS indicates that adolescents and adults who report high perceived risk for AIDS practice safer sexual behaviors, whereas those who perceive low risk for contracting AIDS report practicing unsafe sexual behaviors (Gray & Saracino, 1989; Villarruel et al., 1998). However, in a study of health behavior in Kenya, perceived susceptibility to AIDS was not a significant predictor of condom use (Volk & Koopman, 2001). According to the authors of this study, the failure of perceived susceptibility to predict behavior most likely resulted from participants' misconceptions about the origins and transmission of AIDS. For example, some participants reported the belief that anal sex was a safe alternative to vaginal sex (Volk & Koopman, 2001). For these individuals, misconceptions, or lack of accurate knowledge about AIDS, resulted in inaccurate assessments of susceptibility. In this way, it seems that perceived susceptibility must be coupled with accurate knowledge in order to bring about behavioral change.

An additional factor of the Health Belief Model addressed in this study is the role of self-efficacy in predicting individuals' implementation of safer sexual practices. According to the HBM, even when individuals perceive themselves to be susceptible to a health threat, such as AIDS, they will not change their behavior unless they feel confident in their ability to change their risky behaviors (Rosenstock, Strecher & Becker, 1994). In this way, an assessment of individuals' confidence in performing safe sexual practices is a critical element in determining whether or not individuals will actually change their behavior.

Thus, this study aims at exploring the degree of sexual behavioral change resulting from the threat of AIDS, and the factors which impact behavioral change among college students in Nigeria. AIDS-related knowledge, attitudes, beliefs of susceptibility, and self-efficacy regarding performance of safe sexual practices of college students will provide valuable information for assessing the level of AIDS risk in the college age population and targeting particular behaviors for prevention.

AIDS IN NIGERIA

Nigeria, like many other countries in Sub-Saharan Africa, has not recognized the HIV/AIDS epidemic as a number one health problem. AIDS was first reported in Nigeria in 1986, four years after the disease was first identified in Africa. However, studies at that time showed the virus was not widespread, which “played into the hands of those who denied the existence or gravity of AIDS, because almost nobody was dying” (Schoofs, 1999). The death of the renowned Afro-Beat star Fela Ransome-Kuti of AIDS was to be the beginning of HIV/AIDS awareness in Nigeria. The country remains gripped by what Schoofs terms a “schizophrenic attitude” toward AIDS; because of the shame and stigma attached to the disease, carriers and partners remain in denial about the scourge of HIV/AIDS

METHODS

THE STUDY SAMPLE

Data were collected from a disproportionate stratified sample of 505 undergraduate students enrolled at the Nsukka campus of the University of Nigeria, October 1997 to January 1998. Four Faculties (colleges)—the Faculty of Education, Biological Sciences, Social Sciences, and Physical Sciences were chosen through a stratified random method. Through the help of the respective Deans for each of the Faculties, a list was compiled of all the courses offered in the semester. A total of nine courses were randomly selected. One of the authors, with the help of the professor responsible for each of the classes, administered the questionnaire to the students at the beginning of each class. The questionnaire consisted of multiple yes/no and Likert-type questions, focusing on knowledge, attitudes, beliefs about susceptibility to AIDS, confidence in sexual practice (self-efficacy), demographic characteristics, and some other items which asked a subject's sexual behavioral change. All 505 students completed the questionnaire.

SCALES

We developed scales that measure several constructs, such as Sexual Behavioral Change, Knowledge, Attitude, Beliefs, and Confidence in Sexual Practice, by combining theoretically meaningful items from the questionnaire for each of the constructs. These scales range between 0 and the maximum 16. Table 1 shows the reliability of each scale and what higher scores indicate. Higher scores indicate more behavioral change, more accurate knowledge about AIDS, more liberal attitude toward AIDS patients, more confidence in sexual practice ("very confident" to put a condom on myself or my partner), and more optimistic beliefs ("very unlikely" to get AIDS during lifetime). Chronbach's Alphas indicate acceptable reliability.

“Sexual behavioral change” indicates a moderate behavioral change (mean=7.88) with a maximum possible score of 12. The construct, “knowledge” indicates a reasonably accurate knowledge about AIDS (mean=8.13) with a maximum possible score of 11. “Attitude toward AIDS patients” indicates very liberal attitude (mean=14.40) with a maximum possible score of 15. “Beliefs,” which measures the respondent’s certainty about not getting AIDS, indicates rather optimistic beliefs (mean=9.22) with a maximum possible score of 12. “Confidence in safe sexual practice” indicates that the respondents are very confident in practicing safe sex (mean=14.23) with a maximum possible score of 16.

DATA ANALYSIS

A total of 425 cases were usable for data analysis after deleting some missing cases. The study used a t-test in order to compare differences in means of major constructs (sexual behavioral change, knowledge, attitude, and belief about AIDS, and confidence in sexual practice) according to various demographic characteristics (sex, marital status, whether one is currently sexually active or not, whether one is younger than 26 or not, and whether one personally knows someone who has been tested positive for AIDS, has contracted AIDS, or has died from AIDS). The study also used a correlation analysis among these constructs and demographic characteristics and a regression analysis in order to explore the factors that impact sexual behavioral change.

FINDINGS

DEMOGRAPHIC CHARACTERISTICS

The sample consists of 246 males (49.1%) and 255 females (50.9%), with a mean age 23.47 and a standard deviation 3.84. Sixty-two people (12.6%) are married, 21 people (4.3%) are separated or divorced, and 410 people (83.2%) never married. The majority of the respondents,

279 people (57.4%), are Catholic and 181 people (37.2%) are Protestant. In this sample, 425 people (85.7%) report that they attend religious services once a week or more, which indicates the high degree of these respondents' religiosity. Surprisingly, 266 people (55%) personally know someone who has tested positive for AIDS, has contracted AIDS, or has died from AIDS. Furthermore, 53 people (10.9%) have had a sexually transmitted disease, and 66 people (13.3%) have tested positive for AIDS. Mean number of sexual partners in lifetime of this sample is 4.26 with a standard deviation 8.68. Seventy-nine people (16.4%) have had sexual intercourse with someone they did not know in the past, and 143 people (34.5%) think that they have already been exposed to HIV.

DIFFERENCES IN KNOWLEDGE, ATTITUDE, AND BELIEFS ABOUT AIDS AND SEXUAL BEHAVIORAL CHANGE

Table 2 shows the results of the t-tests, which compare differences in means of sexual behavioral change, knowledge, attitude, confidence in sexual practice, and beliefs about susceptibility to AIDS, according to sex, marital status, whether one is sexually active or not, whether one is younger than 26 or not, and whether one personally knows someone who has tested positive for AIDS, has contracted AIDS, or has died from AIDS. The results indicate some mean differences according to various attributes. Men are more likely than women to have changed their sexual behaviors toward safer practices ($p < 0.05$) and they have more confidence in sexual practices (< 0.01). Here, safer sexual practices include changing one's dating behaviors, using condoms, and abstaining from sex or having one sexual partner.

Those males and females who are not married are more likely than the married to have changed their sexual behaviors ($p < 0.01$), and they have more confidence in sexual practice ($p < 0.01$). Those males and females who did not have sex in the last 12 months are more likely

than those who are sexually active to have changed their sexual behaviors ($p < 0.05$), and they have more optimistic beliefs with regards to contracting AIDS ($p < 0.01$). However those who are sexually active have more confidence in sexual practice than those who are not sexually active ($p < .01$). Those younger than 26 have more liberal attitude ($p < 0.01$) and more confidence in sexual practice than those over 26 ($p < 0.05$). T-tests do not indicate significant differences in these major AIDS related concepts according to whether one personally knows someone who has tested positive for AIDS, has contacted AIDS, or has died from AIDS.

IMPACT OF KNOWLEDGE, ATTITUDE, AND BELIEFS ABOUT AIDS ON SEXUAL BEHAVIORAL CHANGE

Table 3 shows some meaningful correlations among the variables used in the current analysis. Knowledge about AIDS has positive correlations with confidence in sexual practice ($r = 0.226$, $p < 0.01$) and sexual behavioral change ($r = 0.274$, $p < 0.001$), suggesting that those who have more knowledge have more confidence in sexual practice, and have also changed sexual behaviors. Attitude has a positive correlation with beliefs of susceptibility to AIDS ($r = 0.141$, $p < 0.05$), but negative correlations with confidence in sexual practice ($r = -0.124$, $p < 0.05$) and sexual behavioral change ($r = -0.153$, $p < 0.05$), suggesting that those who have liberal attitudes toward AIDS patients have higher beliefs that they will not contract AIDS. Confidence in sexual practice has a positive correlation with sexual behavioral change ($r = 0.380$, $p < 0.001$), suggesting that those who have confidence in sexual practice are more likely to have changed their sexual behaviors to safer practices. Although the magnitude of these correlations are moderate, the findings provide some meaningful implications in order to develop preventative measures.

Table 4 shows the results of two OLS regression analyses, using sexual behavioral change as a dependent variable. Model 1 uses only demographic characteristics as independent

variables, and Model 2 uses demographic characteristics and knowledge, attitude, confidence in sexual practice, and belief as independent variables. Model 1 ($R^2 = 0.185$) indicates that sex (coded male=1, female=0), marital status (coded married=1, not married=0), and whether or not tested for HIV (coded yes=1, no=0) have significant impacts on sexual behavioral change. In fact, the variable “whether or not tested for HIV” is most significant ($B=0.205$, $p<0.001$). The results suggest that males and singles are more likely to change their sexual behaviors. Furthermore, those tested for HIV are more likely to change their sexual behaviors.

Model 2 shows a great improvement in the goodness-of-fit ($R^2=0.507$). The same variables as in Model 1, sex, marital status, whether or not tested for HIV, have significant impacts on sexual behavioral change. All AIDS-related constructs, except for belief, also have significant impacts on sexual behavioral change. In this model, confidence in sexual practice ($B=0.297$, $p<0.001$) and knowledge ($B=0.199$, $p<0.001$) explain the largest variation of sexual behavioral change, and they have positive impacts on such behavioral change. However, attitude shows a negative impact on sexual behavioral change, indicating that those who have conservative attitude toward AIDS patient are more likely to change their behaviors.

DISCUSSION

This is the first study that has explored the causal relationships among AIDS-related concepts, targeting Nigerian college students. Having accurate knowledge about AIDS is important “to counter myths, to reduce associated fear and anxiety, to change behavior that puts them at risk, and to create a more humane and compassionate response to individuals with the disease” (Shrum et al., 1980). AIDS-related knowledge, attitude, beliefs about susceptibility, and concerns of college students will provide valuable information for assessing the level of AIDS risk in the college-age population and in targeting particular behaviors for prevention.

This is important because, in spite of the dawn of western education, many Nigerians in general and the Igbos in particular, cannot shake off the cultural belief of disease causation as an act of a higher being angry at them for what they have done wrong. If it is not a higher being, it is a neighbor who has gone to a “juju” priest for help to poison them. In search for an understanding and answers, people go to native doctors and prayer houses. The bottom line according to Cohen and Trusell (1996:3) is that “the societal context within which people are born and raised, are initiated to sexuality, and lead their lives strongly influences their perceptions of risk and their sexual behavior.” Our results indicate baseline information regarding sexual behavioral change among these college students. Although the subjects’ knowledge level is relatively high, they do not demonstrate a perfect knowledge about AIDS transmission. Similar findings have been reported by other studies in the past decade (Al-Owaish et al., 1999; Konde-Lule et al., 1989), which calls for attention to provide accurate knowledge to college students.

The subjects in this sample reported positive attitudes towards AIDS patients, and beliefs of low susceptibility of getting AIDS. However, there is no correlation between attitude and beliefs and knowledge, suggesting that having accurate knowledge influences neither people’s attitude toward AIDS and AIDS patients nor beliefs about susceptibility of getting AIDS. This finding is contradictory from a previous study conducted in Kuwait by Al-Owaish et al. (1999). However, the lack of a significant correlation between knowledge, beliefs, and attitude of AIDS is not surprising since the literature in this area has been mixed. It could be that people are aware of the AIDS epidemic, but do not care about AIDS patients. It could also be that people believe in their own invulnerability to AIDS, which unlike other life-threatening diseases, “AIDS-defining illness occur, on average, 10 years after initial HIV infection” (Bachetti & Moss, 1989). The low-level beliefs in ones susceptibility to AIDS can be explained by what Schoepf (1988)

and Caldwell et al (1993) have identified as a surprising “underreaction” to AIDS in Africa. Explanations for such an “underreaction,” according to Schoepf (1988) and Caldwell et al. (1993), include “denial, shame, misunderstanding of the true risk of the disease, and a desire for silence because of the disease’s association with illicit sexual behavior.” These individual factors, when coupled with larger societal and governmental factors, such as failure to raise AIDS awareness on the part of African governments and the slow response by the rich nations of the world to the UN’s global fund to fight AIDS, help shed light on the lack of causal relationship among knowledge of AIDS, beliefs about susceptibility, and behavioral change.

In terms of sexual behavioral change and confidence in safe sexual practice, the results indicate that males are more likely to have changed sexual behaviors and to have more confidence in performing safer sexual practice. This finding implies that males dominate sexual relationships with regards to the performance of safe sexual practices. This male dominance norm in sexual relationships should be changed to one where both sexes perceive the acceptability of safer sex practices (condom use or other safe sex behaviors) as important in reducing the risk of HIV/AIDS infections. Education through civil society and community-level AIDS prevention strategies are important in redefining social norms that see the man as the dominant factor in sexual relationships.

Furthermore, people who are not married are more likely to have changed sexual behaviors, which is a positive sign in preventing further AIDS transmission. Bivariate analysis indicates that those who have accurate knowledge about AIDS are more likely to have changed sexual behaviors and to have confidence in sexual practice, suggesting the importance of knowledge in changing people’s sexual behaviors. The finding that knowledge about AIDS is correlated with confidence in safe sexual practice and sexual behavioral change is important for

AIDS prevention efforts in Nigeria. Unfortunately, a national response to such efforts by the political leadership has been slow in coming. This is witnessed by the fact that as of October 2001 the Nigerian president sent a letter to the Nigerian Senate stating his intention to establish “an agency for the prevention and control of HIV/AIDS, tuberculosis and other related diseases” (UN Integrated Regional Information Network, 2001). One approach to prevent the spread of AIDS is through educational efforts targeted to those individuals practicing high-risk behavior, particularly college students. For this reason, AIDS education should be incorporated as one of the compulsory general study courses for all colleges and universities in Nigeria. This is important, since the students come from different parts of the country, they can equally be educators in their respective communities working in collaboration with age-groups, other members of civil-society and leaders-of-thought to disseminate information about HIV/AIDS. Colleges and universities should ensure that posters containing educational information about HIV/AIDS are conspicuously displayed at strategic places on campuses.

It is meaningful that knowledge, a key theoretical factor in sexual behavior, has a significant positive impact on behavioral change. However, knowledge, in this regard, is not enough. Larger societal contexts, which would include such factors as “the pattern of sex roles and expectations within society, inequities in gender roles and power,” (Cohen & Trussell, 1996) and the cultural context of disease causation should be taken into account. Also, perceived susceptibility seems to have a negative impact on behavioral change, although the coefficient is not significant. Further study is necessary to test a causal relationship among these variables in order to explore the paths that lead to sexual behavioral change. Such study requires urgency, considering that about one-third of the population has contracted AIDS in Africa.

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TABLE 1
Scales of Behavioral Change, Knowledge, Attitude,
Confidence in Sexual Practice, and Beliefs

Constructs and Items	Mean	Standard Deviation
Sexual Behavioral Change (Alpha = 0.73) Range: 0-12, higher score indicates more behavioral change Have you changed your own dating behavior as a result of concerns about AIDS? Have you been sexually active in the last twelve months? Have you ever practice safer sex? Have you had unprotected vaginal sex in the past three months? Have you ever had sexual intercourse with someone you did not know? How often do you practice safer sex? (Likert scale)	7.88	2.33
Knowledge (Alpha = 0.71) Range: 0-11, higher score indicates more accurate knowledge Using a condom can lower your chance of being infected with HIV. Having safe sex with more than one partner increases you chance of getting AIDS. You can always tell if someone has AIDS by looking at them. There is a cure for AIDS. Have you heard any public service announcements about AIDS on the radio in the past three months? Have you seen any public service announcements about AIDS on the television in the past three months? Have you read any brochures or pamphlets about AIDS? How much have you heard or read about AIDS? (Likert scale)	8.13	1.75
Attitude (Alpha = 0.67) Range: 0-15, higher score indicates more liberal attitude Being around someone with AIDS would not put my health in danger. (Likert scale) Only disgusting people get AIDS. People get AIDS by performing unnatural sexual acts.	14.40	2.76
Confidence in Sexual Practice (Alpha = 0.84) Range: 0-16, higher score indicates more confidence in sexual practice I feel confident in my ability to put a condom on myself or my partner(s). I feel confident in my ability to persuade a partner to accept using a condom whenever we have intercourse. How likely is it that you will be practicing safer sex in the future?	14.23	2.35
Beliefs (Alpha = 0.74) Range: 0-12, higher score indicates more optimistic beliefs What is the likelihood that taking the proper precautions would reduce your changes of getting AIDS? (Likert scales) What is the likelihood that you could contract AIDS, even if you took all the proper precautions? How likely is it that you have already been exposed to HIV? How likely is it that you will contract AIDS sometime during your life?	9.22	2.19

TABLE 2

**Difference in Means of Knowledge, Attitude, Beliefs about AIDS,
Sexual Behavioral Change, and Confidence in Sexual Practice**

	Sexual Behavioral Change	Knowledge	Attitude	Confidence in Sexual Practice	Beliefs
(Standard Deviation)					
Sex					
Male	8.16 (2.32) *	8.08 (1.83)	14.64 (4.05)	14.63 (1.77) **	9.20 (2.24)
Female	7.56 (2.31)	8.17 (1.68)	14.12 (3.42)	13.71 (2.86)	9.25 (2.14)
Marital Status					
Married	7.03 (2.50)	7.24 (2.07)	13.93 (3.58)	13.03 (3.02)	9.14 (2.34)
Not married	8.08 (2.25) **	8.26 (1.66) *	14.55 (3.78)	14.46 (2.12) **	9.29 (2.16)
Sexually Active					
Yes	7.65 (2.17)	8.12 (1.70)	14.26 (3.85)	14.62 (1.91) **	8.64 (2.29)
No	8.11 (2.45) *	8.20 (1.81)	14.50 (3.75)	13.91 (2.64)	9.53 (2.04) **
Age					
< 26	7.90 (2.30)	8.09 (1.76)	14.58 (3.55) **	14.35 (2.23) *	9.20 (2.18)
≥ 26	7.86 (2.45)	8.18 (1.82)	13.56 (4.14)	13.84 (2.71)	9.43 (2.25)
Personally know someone with AIDS					
Yes	7.70 (2.35)	8.13 (1.73)	14.45 (3.63)	14.29 (2.26)	9.19 (2.23)
No	8.15 (2.28)	8.13 (1.83)	14.29 (3.92)	14.15 (2.49)	9.25 (2.17)

* p < 0.05

** p < 0.01

TABLE 3

Correlation between Sexual Behavioral Change, Knowledge, Attitude, Confidence in Sexual Practice, Beliefs, and Demographic Characteristics

	2	3	4	5	6	7	8	9	10	11	12
1. Knowledge	0.015	0.070	0.226**	0.274 ***	0.140 **	-0.001	-0.025	0.061	-0.002	-0.013	0.065
2. Attitude		0.141**	-0.124*	-0.153**	0.079	-0.087*	0.069	-0.142**	-0.020	-0.073	-0.017
3. Beliefs			-0.077	-0.028	0.052	0.031	-0.011	-0.130**	0.014	-0.137**	-0.010
4. Confidence in Sexual Practice				0.380***	0.214***	-0.138**	0.193***	0.112**	-0.030	0.046	0.025
5. Sexual Behavioral Change					-0.169***	-0.047	0.129**	0.023	0.094	-0.058	0.199***
6. Marital Status (1=married, 0=not married)						-0.400	0.158	-0.052	0.046	-0.058	-0.062
7. Age							0.107**	0.166***	0.011	0.080*	0.073
8. Sex (1=male, 0=female)								0.197***	0.008	0.168***	0.060
9. Number of sexual partners in lifetime									-0.026	0.195***	0.072
10. Know someone with AIDS (1=yes, 0=no)										-0.010	-0.009
11. Had STD (1=yes, 0=no)											0.062
11. Tested for HIV (1=yes, 0=no)											

* p< 0.05

** p< 0.01

*** p<0.001

TABLE 4**OLS Regression Analysis with Sexual Behavioral Change as Dependent Variable**

(Standardized)	Model 1	Model 2
Sex (male=1, female=0)	0.498 * (0.107)	0.426 * (0.092)
Age	-0.013 (-0.022)	-0.003 (-0.006)
Marital Status (married=1, not married=0)	-0.792 * (-0.133)	-0.313 * (-0.045)
Number of partners	0.004 (0.016)	-0.013 (-0.051)
Know someone with AIDS (yes=1, no=0)	0.415 (0.089)	0.452 (0.097)
Had STD (yes=1, no=0)	-0.646 (-0.086)	-0.717 (-0.097)
Tested for HIV (yes=1, no=0)	1.403 *** (0.205)	1.260 *** (0.184)
Knowledge		0.264 *** (0.199)
Attitude		-0.083 ** (-0.134)
Confidence in Sexual Practice		0.295 *** (0.297)
Belief		-0.196 (-0.018)
Constant	7.318 ***	2.148 ***
R2	0.128	0.257

* p < 0.05

** p < 0.01

*** p < 0.001