THE GENDERED KNOWLEDGE OF HIV/AIDS AMONG URBAN UNIVERSITY STUDENTS IN SOUTHERN ETHIOPIA

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Abstract:
The HIV/AIDS epidemic continues to claim millions of lives worldwide. Africa alone represents the majority of HIV/AIDS cases, where the young aged 16-30, are at greatest risk. The research suggests a gender dichotomy in HIV/AIDS knowledge levels between male and female students in Ethiopia. The purpose of this research is to explore the gendered knowledge of HIV/AIDS among a group of Ethiopian male and female post-secondary students. An observational study was conducted among 126 female and 101 male college and university students. The HIV Knowledge Questionnaire was used to measure participants' knowledge. The statistical t-test demonstrated no difference between male and female HIV knowledge scores ($t=0.6$, $df=225$, $p=0.4$). The study findings demonstrate the call to address the knowledge gap in HIV sexual transmission among a vulnerable population. Future research is needed such that HIV/AIDS awareness campaigns can be specifically tailored to the student population within the Ethiopian context.

Key Words: HIV/AIDS, Ethiopia, students, gender, and knowledge

Background: HIV/AIDS and Ethiopian Students

The Ethiopian government recently stated the urgency in addressing HIV/AIDS as it targets Ethiopia's young working force (Lifson et al., 2012). Urban youths are increasingly susceptible to HIV transmission due to earlier sexual onset, an increase in multiple sexual partners and decreased condom use (Buseh, Glass, McElmurry, Mkhabela, & Sukati, 2001). A study conducted in Eastern Africa reported younger adults were 60% less likely to use a condom in comparison to their older counterparts (Hladik, Shabbir, Jelaludin, Woldu, Tsehaynesh, & Tadesse, 2006). The correlation between high-risk behavior and HIV/AIDS knowledge are strongly related in the literature (De Visser & Smith, 2001; Taffa, Klepp, Sundby, & Bjune, 2002; Ukwuani, Tsui & Suchindran, 2003). Recent studies among Ethiopian high school and university students highlight decreased usage of condoms and the lack of HIV transmission knowledge (Alene, Wheeler, & Grosskurth, 2004; Yerdaw, Nedi, & Enquoselassie, 2002). A cross-sectional study among high school students revealed that only 41% of female students and 44% of male students were educated on the various modes of HIV transmission (Alene et al., 2004). Correspondingly, the national survey of Ethiopia reported a similar trend, whereby 28.7% of young men and only 15.8% of young women were knowledgeable on the varied modes of horizontal HIV transmission (HIV/AIDS Prevention Control Office [HAPCO], 2008).

Several factors such as lower literacy rates, contextual gender roles, and lower school enrollment have been linked to the lower HIV/AIDS knowledge among young women in relation to young men in Ethiopia (UNICEF 2006; Ukwunai et al., 2003). Researchers have attributed differing HIV/AIDS knowledge levels due to delineated gender roles between men and women in the societal roles of labor, power and relationships (Berhane et al., 2001; Hadley et al., 2007; Ukwunai et al., 2003). Within Ethiopia there are clearly defined gender roles, which socially separate men and women in the division of labor and society. For example, in the rural regions of Ethiopia, men are typically responsible for raising livestock and trading agriculture commodities, while women stay local and tend to the domestic duties (Berhane et al., 2001). As such, it is customary for men to assume leadership roles socially and commercially, while women assume more subservient domestic

duties and often play a minimal role in major decision-making (Hadley, Lindstrom, Tessema, & Belachew, 2007). Hadley et al. (2007) reinforce this statement by demonstrating an increased school enrolment rate among male students opposed to females. Over time, these trends have resulted in a 50% literacy rate among males in comparison to only a 26% literacy rate among females (World Health Organization [WHO], 2009).

Due to societal norms young girls in Ethiopia are more susceptible to HIV/AIDS than boys due in part to early onset of sexual debut, early marriage customs and sexual abuse (Berhane et al. (2001). A cross-sectional survey reported older men marrying young girls in efforts to secure a virgin bride (Molla, Berhane, & Lindtjorn, 2008). Molla et al. also found men were twice as likely to have multiple sexual encounters in comparison to their female counterparts.

Theoretical Framework

The Social Theory of Gender and Power helps us understand the relationships of labor, power and cathexis and their influences on gender. According to Connell (1987) the main assumptions of this theory consider gender to be socially constructed. The theory comprises three interrelated dimensions; labor; power; and; cathexis. All three interact to further elucidate gender relations in any institutional or societal context (Maharaj, 1995). According to Wingood and DiClemente (2000) the three theoretical dimensions are seen as both overlapping and independent from each other. The theoretical dimension of labor considers the dichotomous relationship between employment practices of men and women within particular societies. The second dimension of power illustrates the gendered differences regarding authority and control, which can arise at a societal and institutional level. Lastly, the dimension of cathexis explains the affective and sexual relationship between men and women and the social norms that surround them (Connell, 1987). The Social Theory of Gender and Power was utilized to elucidate the results of the study and to further understand the students' gendered knowledge towards HIV/AIDS.

The goal of this study was to identify the levels of knowledge towards HIV/AIDS between young male and female Ethiopian students. Based on the literature, the main hypothesis generated states a significant difference between the mean scores of HIV knowledge between the male and female students.

Methods

An observational study design was used in order to measure the knowledge towards HIV transmission among male and female post-secondary students. Ethics approval was obtained from both Canadian and Ethiopian institutions. Consent forms were translated in Amharic (Ethiopia's official language). Language experts in both English and Amharic validated the content of the consent form. The consent forms outlined the complete anonymity of the questionnaires and the right of every participant to withdraw at anytime during the study.

The study took place in a college and university setting in a southern city in Ethiopia. All participants provided a written and informed consent. The sampling method was based on non-probabilistic sampling (Levin, 2006). Student outreach volunteers were chosen to help recruit participants to take part in this study. All participants and volunteers received a gift of remuneration for their time. The significance level of the independent t-test result was set at the 0.05 level. Data were analyzed using SSPS version 17 statistical software.

Data Collection Process and Instruments

In order to mitigate or diffuse potential power imbalances between students and professors, the study procedures and questionnaires were described in the absence of professors. This procedure facilitated students to leave the classroom at any point in time without the presence of school authority figures (Visser, 2008). Due to the sexual content and sensitive nature of HIV/AIDS, two separate classrooms were provided for the male and female students to fill out the questionnaires.

The HIV knowledge questionnaire (HIV-KQ-18) formulated by Carey and Schroder (2002) was utilized to measure knowledge of HIV transmission. It is an 18-item, self-administered questionnaire, which measures the general knowledge of transmission, prevention and treatment of HIV/AIDS. Respondents were asked to indicate whether the statements were true or false. See Table 1 for the questionnaire and correct answers. The HIV-KQ-18 is internally consistent (a=0.91) and a achieved satisfactory test-retest reliability among a pilot control group after one week (r=0.83) (Carey

& Schroder, 2002). All questionnaires were translated from English to Amharic. The questionnaires were translated back to English in order to ensure consistency from the original English version of the questionnaire (Sobel & Kugler 2007). The study questionnaires were administered to one male volunteer and one female volunteer to ensure face validity (Haynes, Richard & Kubany, 1995). All parties agreed on the scales' appropriate comprehension and proper use of the Amharic language.

Results

A total of 227 participants, 101 males and 126 females completed the questionnaires. The students at both sites were similar in age, culture and geographic background as measured by a demographic questionnaire. All participants were between the ages of 18 and 30 years and spoke Amharic and English. The mean age among females was 20.0 (SD=2.2), while male participants were slightly older with a mean age of 20.4 (SD=2.3). As illustrated in Table 2, 78.2% of the male participants were between the ages of 18-21 and 84.9% of female students were between the ages 18-21. All participants stated Amharic as their first language of choice. Oromo was the second language and English was the third most spoken language (males 15.0% and females 10.0%). Male students reported a higher frequency of speaking English in comparison to female students (37.6% and 23.0%). Similarly, more male students stated speaking two or more languages (55.4%) in comparison to females (29.4%).

When students were asked if they were sexually active, 51.2% of males reported yes, whereas only 21.7% of females stated they were sexually active. A large percentage of both male and female students reported their relationship status as single (males 82.2%, females 60.3%). Only 13.9% of male students stated they were in a relationship, whereas 31.0% of female students stated they were in a dating relationship.

The HIV-KQ-18 results were listed in order of highest correct responses, reflecting the correct knowledge of HIV transmission between male and female students. Question five (Q5), "Showering, or washing one's genitals/private parts, after sex keeps a person from getting HIV" (False), had the highest percentage of correct answers among male students (91.1%). Similarly, males scored high (90.1%) for both Q2, "A person can get HIV by sharing a glass of water with someone who has HIV" (False) and Q8, "There is a vaccine that can stop adults from getting HIV"(False) (see Table 2). Female students' high mean score was also achieved on Q5 (92.1%) and Q8 (90.5%). However in contrast to the male students, females achieved the second highest (91.3%) on Q14, "Having sex with more than one partner can increase a person's chance of being infected with HIV" (True). Females scored higher on Q1, "Coughing and sneezing do not spread HIV" (True) (90.5%) in comparison to male students (81.2%).

The HIV-KQ-18 results were illustrated by lowest incorrect responses, outlying the specific differences in scores between male and female students. The male students scored the lowest (13.9%) on Q4 "A women can get HIV if she has anal sex with a man" (False). Likewise, the male students scored lower (27.7%) on Q12 "A natural skin condom works better against HIV than does a latex condom" (False) and on Q9 (39.6%), "People are likely to get HIV by deep kissing putting their tongue in their partner's mouth, if their partner has HIV" (False). Similarly, females scored the lowest on Q4 (5.6%). Females also scored lower on Q12 in comparison to male students (27.0%). The third lowest score among females was on Q18 "Using Vaseline or baby oil with condoms lowers the chance of getting HIV" (False) (37.3%). Females also scored comparably low on Q9 (41.3%). Both male and female groups scored lower on sexual transmission knowledge of HIV. As noted above both groups scored low on Q1, Q3 and Q4. Notably, both groups scored lower on Q17 "a person can get HIV from oral sex" (True). Only 41.6% of males and 40.5% of females answered correctly on Q17 (see Table 2).

The independent t-test for the difference in total mean HIV-KQ-18 scores in male and female students did not reveal a statistically significant difference ($t=0.6$, $df=225$, $p=0.4$). Therefore, we cannot accept our initial hypothesis.

Discussion

The demographic data revealed a gender dichotomy regarding English literacy among male and female students. The male students' responses indicated that they were almost twice as likely to utilize English as a working language in comparison to female students. This result corresponds with

recent literature, which found higher rates of English literacy among male high school students in comparison to their female counterparts (Rose, 2003). Researchers have denoted higher rates of media exposure as a potential predictor in English literacy among male Ethiopians (Bahta & Utsumi; 2004; Geldof, 2007). Further studies are needed to empirically assess the interaction between HIV knowledge and the utilization of media devices among young male and female Ethiopians.

The demographic data demonstrated variance in the sexual status between male and female students. For instance, the majority of male students stated they were sexually active in comparison to females. A larger proportion of male students stated they were single in comparison to female students. In contrast, female students reported a higher incidence of being in a dating relationship compared to male students. Theses results corroborate with the current literature, which states that gender differences exist in reported sexual behavior among post-secondary students residing in urban settings (Adamu, Mulatu, & Haile, 2003; Astatke, Black & Serpell, 2000; Molla, Berhane, & Lindtjørn, 2008; Mulatu, Adamu, & Haile, 2000; Wouhabe, 2007). To that end, these reports align with our theoretical framework, the Social Theory of Gender and Power. In particular, Connell's theoretical dimension of cathexis outlines the power disparity in gendered relationships. Similarly, the cathexis role among young Ethiopians continues to denote risky sexual behavior among male Ethiopians, which may adversely affect the HIV rates among female Ethiopians (Adamu et al., 2003; Astatke et al., 2000; Molla et al., 2008). These findings corroborate the demographic data, which found male students to have higher rates of sexual activity and being single in comparison to female students.

Although the study did not find a statistically significant difference in HIV knowledge scores between male and female students these results contradict the initial literature review and hypothesis generated. The majority of the literature review demonstrated a gender dichotomy in the HIV knowledge levels among young Ethiopians. However, when examined closely, the literature focused on the rural context of HIV knowledge rather than an urban perspective. The selected studies and governmental statistics from the review were largely based on the agrarian populations of Ethiopia (Alene et al., 2004; HAPCO, 2008). According to Berhane et al. (2001), the rural population starkly differs on various social and health indicators in comparison to the urbanized centers of Ethiopia. A recent demographic survey demonstrated a 100% gross enrollment rate (GER) for young boys and girls residing in urban dwellings (Rose, 2003). Rose also reports a sizable gender difference in enrollment rate between rural areas in comparison to urbanized cities. This difference in education may help explain the differences in HIV/AIDS knowledge between genders in rural versus urban settings.

The initial literature review suggested lower HIV knowledge levels among rural Ethiopian females in comparison to their male counterparts (Alene et al., 2004; HAPCO, 2008). In contrast, the study results demonstrated no significant difference in HIV knowledge levels among the male and female tertiary students. These conflicting results could be associated with the contextual differences in socioeconomic status among rural populations and the specific population of college and university students. Several studies have compared HIV knowledge levels among urban youths and found similar results (Harding, Anadu, Gray, & Champeau, 1999; Nachega, Lehman, Hlatshwayo, Mothopeng, Chaisson, & Karstaedt, 2005; Tavoosi et al., 2004).

The results from the HIV-KQ-18 questionnaire demonstrated a low average knowledge score for male and female students. Particularly, both male and female students answered considerably lower on items regarding the specific modes of HIV transmission. The majority of male and female students believed HIV is transmitted by deep kissing (Q9). Similarly, a large percentage of students also scored low on vertical transmission items. For instance, the majority of both male and female students agreed that HIV is not transmitted by oral or anal sex (Q4 and Q17). These study results correspond with the current literature, which demonstrates a gap in knowledge among Ethiopian youth regarding the varied modes of HIV transmission (Alemu et al., 2004; Cheri, Mitkie, Ismail, & Berhane, 2005; Yerdaw et al., 2002).

Limitations

The study design denoted certain study limitations. The sampling strategy employed a non-probabilistic sampling frame, by recruiting participants as a convenient sample. This form of sampling frame introduces a volunteer bias among participants (Hulley et al., 2001). The

questionnaires were self-administered; therefore, social desirability cannot be excluded in the systematic biases of the study. There also exist limitations in the study design. An observational study cannot determine cause or effect, rather associations or correlations of inferences (Benson & Hartz, 2000). Although, the current study results yield important cues as to the HIV/AIDS knowledge of tertiary students, the intent is not to generalize, as the sample was not representative among the Ethiopian student population.

Implications and Conclusion

These findings illustrate the need to have further observational studies that assess the specific gendered knowledge of HIV/AIDS among urban post-secondary students. Future studies directed towards an urban student population would help compare and contrast the findings from this study and highlight specific areas of potential research.

These results are insightful in directing the content and delivery of HIV/AIDS educational resources. Because both genders scored similarly on the HIV knowledge questionnaire, the actual content of the materials for male and female students could be the same. For instance, the educational content regarding the various sexual modes of HIV transmission could be the same regardless of the student group. The methods of delivery, however, could be reflective of cultural and social norms: separate sessions could be conducted with men and women to encourage open discussion. Program evaluation and cost-analysis research could then explore the cost-effectiveness of providing the same educational content for both male and female post-secondary students. The implications for nursing practice should focus on public health campaigns, particularly on the various modes of HIV transmission (anal and oral). These initiatives should target the specific population of post-secondary students and the various misconceptions of HIV sexual transmission.

References:

Adamu, R., Mulatu M.S., & Haile, S.I. (2003). Patterns and correlates of sexual initiation, sexual risk behaviors, and condom use among secondary school students in Ethiopia. *Ethiopian Medical Journal, 41*(2), 163-77.

Alemu, S., Abseno, N., Degu, G., Wondmikun, Y., & Amsalu, S. (2004). Knowledge and attitude towards voluntary counseling and testing for HIV: A community based study in northwest Ethiopia. *Ethiopian Journal of Health Development, 18*(2), 82-90.

Alene, G. D., Wheeler, J. G., Grosskurth, H. (2004). Adolescent reproductive health and awareness of HIV among rural high school students, North Western Ethiopia. *AIDS Care, 16*(1), 57-68.

Benson, K., & Hartz, A. J. (2000). A comparison of observational studies and randomized, controlled trials. *The New England Journal of Medicine, 342*, 1878-1886.

Berhane, Y., Gossayea, Emmelinb, M., & Hogbergb, C. (2001). Women's health in a rural setting in societal transition in Ethiopia. *Social Science & Medicine, 53*(11), 1525-1539.

Bahta, A., & Utsumi, H. (2004). *Gender studies and internet portal in the universities: Lessons for developing countries.* Retrieved from http://www.ictes2004-gstit.edu.et/

Buseh, A. G., Glass, L., McElmurry, J., Mkhabela, M., & Sukati, N., A. (2001). Primary and preferred sources of HIV/AIDS and sexual risk behavior information among adolescents in Swaziland, Southern Africa. *International Journal of Nursing Studies, 39*, 525-538.

Carey, M. P., & Schroder, K. E. E. (2002). Development and psychometric evaluation of the brief HIV knowledge questionnaire. *AIDS Education Prevention, 14*(2), 172-182.

Connell, R. W. (1987). *Gender and Power.* Cambridge: Polity Press.

De Visser, R., & Smith, A. (2001). Relationship between sexual partners influences rates and correlates condom use. *AIDS Education and Prevention, 13*, 413-427.

Geldof, M. (2007). ICT for low-literate youth in Ethiopia: The usability challenge. *Lecture Notes in Computer Science, 4560*, 67-76. doi: 10.1007/978-3-540-73289-1_8

Hadley, G., Lindstrom, D., Tessema, F., & Belachew, T. (2007). Gender bias in the food insecurity experience of Ethiopian adolescents. *Social Science & Medicine, 66*(2008), 427-438.

Harding, A. K., Anadu, E. C., Gray, L. A., & Champeau, D. A. (1999). Nigerian university students' knowledge, perceptions, and behaviours about HIV/AIDS: Are these students at risk? *The Journal of the Royal Society of the Promotion of Health, 119,* 23-31.

HIV/AIDS Prevention Control Office (2008). *Report on progress towards implementation of the UN declaration of commitment on HIV/AIDS.* Retrieved on February 12th, 2010 from UNAIDS.org
Hladik, W., Shabbir, I., Jelaludin, A., Woldu, A., Tsehaynesh, M., & Tadesse, W. (2006). HIV/AIDS in Ethiopia: Where is the epidemic heading? *Sexually Transmitted Infections, 82,* 32-35.
Hulley, S. B., Cummings, S. R., Browner, W, S., Grady, D. B., & Newman, T. B. (2001). *Designing clinical research*. (3rd ed). Philadelphia, PA: Lippincott Williams & Wilkins
Lifson, A. R., Demissie, W., Tadesse, A., Ketema, K., May, R., Yakob, B.,
Metekia, M. et al. (2012). HIV/AIDS stigma-associated attitudes in a rural Ethiopian community: Characteristics, correlation with HIV knowledge and other factors, and implications for community intervention. *International Health and Human Rights, 12*(6), 1-8.
Levin, K. A. (2006). Study design III: Cross-sectional studies. *Evidence-Based Dentistry, 7*, 24-25.
Maharaj, Z. (1995). A social theory of gender: Connell's "gender and power". *Feminist Review, 49,* 50-65.
Molla, M., Berhane, Y., & Lindtjørn, B. (2008). Traditional values of virginity and sexual behaviour in rural Ethiopian youth: results from a cross-sectional study. *BMC Public Health, 8*(9), 1-10. doi:10.1186/1471-2458-8-9
Molyneux, S., & Geissler, W., P. (2008). Ethics and the ethnography of medical research in Africa. *Social Science & Medicine, 67*(2008), 685-695.
Mulatu, M. S., Adamu, R., & Haile, S. I. (2000). Psychosocial and contextual determinants of past and intended condom use among Ethiopian secondary school students. *Northeast African Studies, 7*(1), 85-108.
Nachega, J. B., Lehman, D. A., Hlatshwayo, D., Mothopeng, R., Chaisson, R. E., & Karstaedt, A. (2005). HIV/AIDS and antiretroviral treatment knowledge, attitudes, beliefs, and practices in HIV-infected adults in Soweto, South Africa. *Journal of Acquired Immune Deficiency Syndrome, 38(*2), 196-201.
Rose, P. (2003). *Can gender equality in education be attained? Evidence from Ethiopia.* Background paper prepared for the Education for All Global Monitoring Report 2003/4. Retrieved from www.worldbank.org
Statistical Package for Social Science. (2009). *SPSS base 17.0 for Macintosh user's guide.* SPSS Inc., Chicago.
Taffa, N., Klepp, K. I., Sundby, J., & Bjune, G. (2002). Psychosocial determinants of sexual activity and condom use intention among youth in Addis Ababa, Ethiopia. *International Journal of STD & AIDS*, 13, 714-719.
Tavoosi, A., Zaferani, A., Enzevaei, A., Tajik, P., & Ahmadinezhad, Z. (2004). Knowledge and attitude towards HIV/AIDS among Iranian students. *BMC Public Health, 4*(17), 1-16
Ukwuani, F. A., Tsui, A., & Suchindran, C. M. (2003). Condom Use for Preventing HIV Infection/AIDS in Sub-Saharan Africa: A Comparative Multilevel Analysis of Uganda and Tanzania. *Journal of Acquired Immune Deficiency Syndromes, 34*(2), 203-213.
Wingood, G. M., DiClemente, R. J. (2000). Application of the theory of gender and power to examine HIV-related exposures, risk factors and effective interventions for women. *Health Education & Behavior, 27(*5), 539-565.
World Health Organization. (2009). *Country cooperative strategy at a glance*. Retrieved August 15th, 2010 from http://www.who.in/countries/eth/en/
Wouhabe, M. (2007). Sexual behavior, knowledge and awareness of related reproductive health issues among single youth in Ethiopia. *African Journal of Reproductive Health, 11*(1), 14-21.
Yerdaw, M., Nedi, T., Wheeler, B., & Grosskurth, H. (2004). Assessment of awareness of HIV/AIDS among selected target groups in and around Addis Ababa, Ethiopia. *African Journal of Reproductive Health, 6*(2), 30-38.
Yizengaw. T. (2007). Implementation of cost sharing in the Ethiopian higher education landscape: Critical assessment and the way forward. *Higher Education Quarterly, 61*(2), 171-196.

Table 1: Demographic Results among Male and Female Students

Variable	Total (n, %)	Male, n (%)	Female, n (%)
Sex	227(100.0)	101 (44.5)	126 (55.5)
Age Cohort (yrs)			
18-21	186 (82.0)	79 (78.2)	107 (84.9)
22-25	33 (14.5)	17 (16.8)	16 (12.7)
26-30	8 (3.5)	5 (5.0)	3 (2.4)
***Total**	227	101	126
Religion			
Orthodox	114 (53.0)	42 (42.8)	72 (61.5)
Protestant	74 (34.4)	38 (38.8)	36 (30.8)
Muslim	22 (10.2)	18 (18.4)	4 (3.4)
Catholic	5 (2.3)	0 (0.0)	5 (4.3)
Total	215	98	117
Education			
University	107 (47.1)	48 (47.5)	59 (53.2)
College	120 (52.9)	53 (52.5)	67 (46.8)
Total	227	101	126
Sexually Active			
Yes	61 (36.5)	43 (51.2)	18 (21.7)
No	106 (63.5)	41 (48.8)	65 (78.3)
Total	167	84	83
Relationship			
Single	159 (70.0)	83 (82.2)	76 (60.3)
Dating	53 (23.3)	14 (13.9)	39 (31)
Married	9 (4.0)	0 (0.0)	9 (7.1)
Divorced	2 (0.8)	0 (0.0)	2 (1.6)
Separated	4 (1.8)	4 (4.0)	0 (0.0)
Total	227	101	126
Number of Languages Spoken			
1	134 (59.0)	89 (70.6)	45 (44.6)
2	56 (24.7)	24 (19.0)	32 (31.7)
>3	37 (16.3)	13 (10.3)	24 (23.8)
Total	227	126	101

* Totals are different due to missing variables.

Table 2: Number and Percentages of Correct Answers in HIV Knowledge Items (HIV-KQ-18) among Male and Female Students

HIV Knowledge Scores Correct Answers: n(%)	**Male n=101**	**Female n=126**
1. Coughing and sneezing do not spread HIV. **(T)***	82(81.2)	114(90.5)
2. A person can get HIV by sharing a glass of water with someone who has HIV. **(F)***	91(90.1)	110(87.3)
3. Pulling out the penis before a man climaxes keeps a woman from getting HIV during sex. **(F)**	71(70.3)	82(65.1)
4. A woman can get HIV if she has anal sex with a man. **(T)**	14(13.9)	7(5.6)
5. Showering, or washing one's genitals/private parts, after sex keeps a person from getting HIV. **(F)**	92(91.1)	116(92.1)
6. All pregnant women infected with HIV will have babies born with AIDS. **(F)**	78(77.2)	104(82.5)
7. People who have been infected with HIV quickly show serious signs of being infected. **(F)**	83(82.2)	108(85.7)
8. There is a vaccine that can stop adults from getting HIV. **(F)**	91(90.1)	114(90.5)
9. People are likely to get HIV by deep kissing, putting their tongue in their partner's mouth, if their partner has HIV. **(F)**	40(39.6)	52(41.3)
10. A woman cannot get HIV if she has sex during her period. **(F)**	86(85.1)	97(77.0)
11. There is a female condom that can help decrease a woman's chance of getting HIV. **(T)**	86(85.1)	104(82.5)
12. A natural skin condom works better against HIV than does a latex condom. **(F)**	28(27.7)	34(27.0)
13. A person will not get HIV if she or he is taking antibiotics. **(F)**	81(80.2)	96(76.2)
14. Having sex with more than one partner can increase a person's chance of being infected with HIV. **(F)**	88(87.1)	115(91.3)
15. Taking a test for HIV one week after having sex will tell a person if she or he has HIV. **(F)**	72(72.3)	102(81.0)
16. A person can get HIV by sitting in a hot tub or a swimming pool with a person who has HIV. **(F)**	70(69.3)	90(71.4)