Russian Science Teachers' Knowledge of HIV/AIDS: Implications for Teacher Training

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Abstract

The Russian Federation has one of the fastest growing HIV epidemics in the world. Prevention efforts are still in the early stage, and to this date do not include a comprehensive, national HIV prevention education approach for direct application via the educational system. This study examined HIV/AIDS related knowledge of science teachers residing in an urban setting in Russia. Seventy-two teachers completed the HIV/AIDS Knowledge and Attitude Scale for Teachers as well as items related to demographics. Results indicated an overall low level of knowledge related to HIV/AIDS. Specifically, knowledge scores related to HIV transmission indicated teachers better understand how HIV is transmitted than how it is not. Results indicated a need for a comprehensive teacher-training curriculum emphasizing knowledge, and particularly knowledge of transmission.

Key Words: *HIV/AIDS, Prevention Education, Russian, Teachers, Knowledge*

Introduction

Vital to the success of HIV prevention programs are informed teachers. As the purveyors of knowledge, teachers' preparedness directly impacts program effectiveness. In order to meet the ultimate goal of improving the knowledge, attitudes, and behaviors of their students, teachers must be prepared. According to Basch, "Teachers cannot be expected to adapt well to new roles without adequate training and time for practice and reflection, which too often is not available".[1(p296)] This is exemplified in a report from the United Nations Population Fund (UNFPA) examining school-based AIDS prevention programs in Colombia, Malawi, Botswana, and Uganda. Teachers were often found lacking in preparedness to present the curriculum and/or discuss sexuality.[2] In Russia there is a lack of trained teachers in the area of sexuality education and HIV prevention.[3]

Schools are an optimal setting for HIV prevention education. According to a report released by The World Bank, education in schools offers the "…delivery of HIV/AIDS prevention efforts to large numbers of the uninfected population—schoolchildren—as well as youth who are in many countries the age group most at risk. As such, HIV prevention education affords a crucial opportunity to scale up successful approaches, vital in view of the wide and rapid reach of the epidemic".[4(p5)] With an already established infrastructure designed for the great majority of the world's one billion-plus adolescents, ideally schools have the capacity to provide consistent and timely HIV prevention curriculum with minimal expenditure and maximal effect.

Until 1994, few cases of HIV were reported in Russia, however during the following period, from 1995-2001, HIV infections doubled every 6-12 months, representing one of the fastest growing HIV epidemics in the world .[4,5] Estimates of the number of people living with Human Immunodeficiency Virus (HIV) in the Russian Federation range from 600,000 to 1.5 million.

Beliefs regarding protection from sexually transmitted infections (STIs) and pregnancy among Russian youth compound the situation. Several studies suggested common misconceptions among Russian youth regarding risky behaviors. The youth tended to believe that there was a reduced risk of HIV transmission with a well-known partner and that condoms retained effectiveness when washed and reused. Moreover, Russian youth had misconceptions regarding which groups or subgroups of the population more commonly contract HIV, i.e. sex workers, homosexuals and intravenous drug users (IDUs). Although the youth perceived an increase in risk for those who have multiple partners, they believed those who have one primary partner and occasional sex with others are relatively safe.[6-10]

In Russia, HIV is most common among IDUs and commercial sex workers (CSW), with strong indications of the virus bridging to the general population.[6, 10-13] Russian IDUs tend to be younger than their international counterparts. It is estimated that one third of IDUs in St. Petersburg are under the age of twenty [10] and Burrows suggested anecdotal evidence of IDUs as young as 9-10 years of age.[11] Due to a large number of Russian IDUs are young, the HIV epidemic in Russian drug injectors is occurring primarily among adolescents and young adults.[14]

Furthermore, condom use is low among Russian youth. Among IDUs, 70% reported engaging in vaginal intercourse without condoms.[10] Similarly, in a study involving 1,090 Muscovite youth aged 12-18, 59% reported not using a condom during recent sexual episodes.[15] In Russia, "proportionally larger increases in rates of new cases of syphilis occurred in the younger age strata, with a 99-fold increase between 1988 and 1996 among 18-19 year olds, and a 90-fold increase among those aged 15-17 years"(p. 211).[16] With a lack of access to contraception and accurate information, it is not surprising that alarmingly high prevalence rates of syphilis and gonorrhea have occurred among Russian youth.[6, 13, 17,18]

Contrasting with the Soviet period--a time of little open communication regarding sexuality--liberal attitudes regarding sexuality among Russian youth prevail today. Dangerously missing from this change in attitudes towards sexual behavior is fundamental sexual education to support youth with accurate information and access to prevention methods. As in many countries, conflicting issues arise around sexuality education. These conflicts do not, however, lessen the degree of need to implement such strategies.[19,20] According to a survey of students in 16 Russian schools, approximately 68% of students wanted sexuality education as do similar percents of parents (60% men-65% women) and teachers (65% men-48% women). Furthermore, schools hold an important position within Russian communities. Multi-layered relationships often develop between student, teacher, and family, providing a potentially safe avenue for the dissemination of information and building of communication. Russian students often have the same teacher for several years, allowing for a close relationship to build among student-teacher-

family. Nevertheless, HIV prevention education is not yet mandated in Russia.[19]

The objective of this study is to measure the HIV/AIDS knowledge level of Russian science teachers, to identify gaps in the knowledge base of Russian science teachers and to determine the degree of relationships between knowledge and age, religion, experience, and attitude. Russian schools do not typically provide health or sexuality education; however, when sexuality education does occur it takes place in the context of a science course. To date, no prior literature examining these factors exists. A limited amount of literature exists examining what occurs in HIV prevention education in Russia, with an overview of local and national programming provided by Popova and a more specific glimpse into classes provided by Rivkin-Fish, however assessments of teachers' knowledge and attitudes with respect to HIV/AIDS are not yet available in the literature.[3,21]

Methods

Design

This article is a correlational study in which demographics, attitudes, and experience are examined as factors correlating with Russian teachers' knowledge of HIV/AIDS. The Institutional Review Board of Teacher College, Columbia University approved the instruments and procedures of this study.

Participants

A nonprobability (convenience) sample of 72 teachers was recruited for the study. The teachers were attending the science classes of an institution for teacher training, one of several institutions in the region for practicing teachers meeting continuing education requirements. The institution used for this study was chosen because it has a liaison who is affiliated with the authors' institution. Even so, with the geographic barriers and the institutional regulations, receiving clearance to conduct this study was cumbersome and time consuming, and led to the decision to limit this study to one institution. Teachers attended the institution one day a week for the school year. Participants from three courses, biology (n=27), ecology (n=17), and physics (n=28) were recruited.

Procedure

An arrangement with an institution for teacher training was made in order to access study participants. Permission was gained from the institution to recruit teacher-students from three classrooms. The teachers were recruited during class time by the first author and her translator who read an explanation of the study to the teachers and invited their participation. Participation was voluntary. Teachers were informed that they were free to participate or not, both verbally and by means of a cover letter which was attached to the front of the questionnaire.

In each of the three courses the investigator's translator read a written statement in which the purpose of the study was described and anonymity was ensured, questions were addressed and the investigator distributed and supervised the questionnaire administration during the class periods allowing enough time for participants to complete it (up to 25 minutes), at which point the investigator collected the questionnaires.

Instruments

Two scales were adapted to measure knowledge and attitude. Each scale was designed to be self-administered. The HIV/AIDS Knowledge Scale for Teachers and the HIV/AIDS Attitudes Scale for Teachers[22] were adapted for use with this study using backward translation design methods suggested by Hambleton, Patsula and Van de Vijver.[22-24] Backward translation design requires an instrument be translated from the source language into the target language by one translator and then back-translated again into the source language by a different translator. As recommended by Hambleton & Patsula, comparison of the original instrument with the back-translated instrument was carried out and discrepancies between the two versions were addressed with two translators.[23] Issues arose surrounding specific words that were difficult to translate, such as "dental dam" and "attitude." With the assistance of the translators, the issues were generally resolved, however, based upon item analyses, two of the items with difficult translations from the knowledge scale were removed after administration.

HIV/AIDS Knowledge Scale for Teachers

Developed for use with pre-service and practicing teachers, the HIV/AIDS Knowledge Scale for Teachers measures knowledge level regarding HIV, and was published in the Handbook of Sexuality-

Related Measures.[22,25] According to Koch Barthalow and Singer, it is a two-part scale. Part 1 includes 18 items in all, with 14 true-false-not sure items measuring general knowledge and 4 true-false-not sure items involving classroom issues. Part 2, measuring the Likelihood of Transmission, includes 17 examples of modes of HIV transmission with the six options ranging from very likely, somewhat likely, somewhat unlikely, very unlikely, definitely not possible and don't know.[22] Although no formal content validation was performed on the original scale, items were adapted and formatted from three other scales and the input of three HIV/AIDS experts. Items and answers were reviewed for relevancy and accuracy.

For reasons of relevancy to Russians, two items from the general knowledge scale were omitted, namely question 16: "Less than one-half of the states have mandated that AIDS education be included in their schools' curricula" and 17: "There is a federal law that protects children with HIV or AIDS from educational discrimination".[22] Reliability, as assessed by Kuder-Richardson-20 (K-R-20) for the knowledge scale as it was administered in this study, was .704, with two questions ("Receiving a blood transfusion" and "Performing oral sex on an HIV-Infected woman using a dental dam") omitted due to difficulty with translations. K-R-20 values for each of the knowledge subscales were .615 for general knowledge and .622 for knowledge of transmission. The instrument was scored by giving one point for each correct answer, items answered not sure, or not answered, were considered incorrect.[22] The highest possible score for the combined scales was 31, 16 for general knowledge and 15 for transmission.

The HIV/AIDS Attitudes Scale for Teachers

Using a five-point Likert scale, the HIV/AIDS Attitudes Scale for Teachers (Table 1) measures attitudes of pre-service teachers and teachers towards HIV/AIDS and HIV/AIDS education.[22] Originally designed with 25 items using responses ranging from strongly agree, agree, uncertain, disagree, strongly disagree, the items address specifically persons with HIV/AIDS, educational issues and HIV/AIDS and HIV/AIDS in general. Although no formal content validation was performed on the original scale, items were adapted and formatted from three other scales and the input of three HIV/AIDS experts. Items and answers were reviewed for relevancy and accuracy.

For this study, a total of 22 items were administered of the original 25. One item was altered in order to address the predominant mode of transmission in Russia. Originally stating "Male homosexuality is obscene and vulgar", male homosexuality was changed to "Intravenous drug use is reckless". In addition, 3 items were omitted from the scale due to ambiguity and did not contribute to the reliability of the scale.

Three participants had three or more unanswered items in this scale and were dropped from the regression analysis. Otherwise, there were no missing items. Cronbach's alpha for the remaining 20 items in the attitude scale was .759. Including these adaptations, the possible scores ranged from 20 (most unsupportive) to 100 (most supportive).

Demographics The demographic questionnaire asked gender, religion, number of years teaching, experience teaching HIV prevention or sexuality education, city of residence, setting of school (urban, rural, suburban), grade level and subjects taught and support of HIV prevention in the schools.

Pilot Test for Cultural Sensitivity

Due to the highly sensitive material presented in the questionnaires, a pilot study was administered to five current Russian teachers residing in Moscow. Along with the questionnaire, an additional set of questions such as "Do you believe this questionnaire is too explicit?", "Is there anything you believe should be excluded from, or added to the questionnaire in order to ensure participants will complete it?" were added in order to evaluate the cultural sensitivity of the content of the questionnaire. Based on the overall supportive responses to these questions, no items were reformatted.

Results

Table 2 presents the demographic data of participants' age, religion, dwelling, years teaching and main teaching content area. Scores on the HIV/AIDS Knowledge Scale for Teachers ranged from two to 21 (M=13.14, SD=4.02) out of a possible 31 items (mean of 44% correct). This low average shows a lack of HIV-related knowledge among this sample of Russian science teachers. Table 3 presents each item in the knowledge scale in ascending order of percent correct. When compared to Dawson's study which used the same scale to measure elementary school teachers' HIV-related knowledge, a significant difference of the proportion of correct responses (M=20.77, z = -2.3, p =.023) demonstrates that Russian science teachers' HIV-related knowledge is significantly less than American

elementary school teachers.[26] It is important to note that Russian students receive their lessons from teachers in each respective discipline. Thus, where an American elementary school student may learn science from the same teacher who instructs them in math and social studies, in Russia the science teacher instructs exclusively science.

The knowledge scale was written to measure two specific areas, transmission and general knowledge. The 16 general knowledge items address the process of HIV, including causes, symptoms, diagnosis, effects and treatment. The 15 transmission items address possible modes of transmission. Five of the 31 items (two on general knowledge, three on transmission) were answered correctly by 80% or more of the participants. In contrast, 12 of the 31 items (3 on general knowledge, nine on transmission) were answered correctly by 20% of the participants or less. The specific groupings of items on the knowledge scale allowed us to examine how teachers understand HIV to be transmitted and not transmitted. Average correct scores of the 15 transmission items showed a distinct pattern in teachers. Of the 15 items the six with the most correct responses involve how HIV *is* spread. The nine items with the fewest correct responses are related to how HIV *is not* spread. For example, only 10% of the participants knew that it was very improbable that HIV could be transmitted by "Eating in a restaurant where the cook has AIDS." An example of an item, answered correctly by 89% of the participants, demonstrating how it is possible to transmit HIV is "Sharing needles for drug use with someone who has AlDS".

Knowledge correlated with attitude (r=.421, p <.001) suggesting that as knowledge is raised, attitude becomes more positive (attitude M=60.1 SD=8.13, range=40=78, possible range=20-100) (or conversely, as attitudes become more positive knowledge increases). Knowledge inversely correlated with age (r=.-347, p=.003) suggesting younger participants were more knowledgeable about HIV/AIDS. Religion and school location, both items in the demographic section, did not have significant correlations with knowledge. Neither experience with teaching HIV prevention or with teaching sex education, two items which were also incorporated into demographic items, and knowledge did not have significant correlations, which suggests teachers who did present HIV prevention education and/or sexuality education were not any more knowledgeable than their peers.

Discussion

The primary results of this study revealed that HIV/AIDS knowledge, particularly knowledge related to HIV transmission, is low among Russian science teachers. In a study examining stigma and misinformation trends in the US during the 1990's, Herek, Capitanio, and Widaman found a similar pattern and concluded "AIDS educational efforts…have been less successful in convincing the public that AIDS is not spread through casual social contact".[27(p376)] Herek et al's summation, based on the results of this knowledge study alone, could be applied to Russian teachers as well.

Conflicting reports were noted throughout the data collection process. The investigator was informed by the director of the program that the teachers were very up-to-date regarding HIV/AIDS as there had been many presentations throughout the school year on this subject. These presentations, she reported, were provided by outside organizations. It was noted during the data collection, though, that after one participant completed the questionnaire she divulged to the entire class that she had recently lost a friend to AIDS and that she knew nothing about the disease. She was clearly frustrated and asked the investigator for information. Also noted were several participants from each class asking the translator for answers and most of them becoming agitated when she would not give them the correct responses. Finally, the participants were observed discussing their answers, and it was necessary to remind each class to answer their own questionnaire and not to talk while completing it. This anecdotal evidence, along with the overall low knowledge scores, suggests that the director's perceptions of her students' knowledge level were incorrect. It also suggests the approach the outside organizations had taken when presenting the materials to teachers was ineffective in raising their knowledge levels to a large extent. Perhaps, like their students, teachers have a need for more than just information. According to PATH "[C]omprehensive sexuality education activities should enable young people to think about and personalize content".[28(p21)] This statement may apply to teachers as well, and may speak to the lack of knowledge demonstrated despite the educational offerings that were described.

In seeking the most relevant characteristics an informed educator would hold in order to most effectively teach HIV prevention education, demographic factors must be part of the equation. Religion was not a factor in predicting knowledge level or attitude. However, the correlation between HIV/AIDS knowledge and age suggests younger

teachers are more knowledgeable about HIV/AIDS. Strueli, in a poignant essay recounting the 1995 Annual Congress of the Russian Society of Internal Medicine, described the condition of information carried over from the Soviet era.[29] "Apart from the dearth of equipment, Russian physicians today have a scarcity of information about advances in medical knowledge. Few institutes and hospitals can afford to subscribe to the leading medical journals, and the language barrier, which particularly affects the older generation, presents a substantial problem".[29(p930)] While this may not apply to the participants in this study, possibly years of limited information have somehow impacted the older generation of teachers. It is also relevant to note that in a study examining students' and teachers' responses to a sexuality education course, Hamilton and Levenson-Gingiss found that teachers' age had "an indirect influence on students' behavioral responses to the course", [30(p201)] suggesting that younger teachers' were found to be more effective in indirectly influencing their students' behavior related to HIV prevention.

The relationship between knowledge and attitude reflects the promise of improving teachers' attitude towards HIV/AIDS as knowledge is increased. Also of importance is the close association between attitude, misinformation regarding transmission and stigma. As in many countries, stigmatization is already a critical issue in Russia as it relates to HIV/AIDS and high risk populations.[5] Herek suggests stigma is a derivative of "misunderstanding the mechanisms of HIV transmission and over-estimating the risks of casual contact".[27(p.376)] If this is the case, as knowledge levels remain low and attitudes are near neutral, issues of stigma may leak into the classroom environment. As Herek describes, this can be dangerous as stigma results in "prejudice, discounting, discrediting, and discrimination directed at people perceived to have AIDS or HIV, and the individuals, groups, and communities with which they are associated".[27(p1106)]

Finally, two important issues arise when teachers are poorly informed. Because participants who report experience presenting HIV and/or sexuality education did not score significantly higher than those who had not taught the participants, and the overall scores are low, the implications are students who received information, quite possibly received misinformation. Secondly, in their study examining teachers Hamilton and Levenson-Gingiss reported teachers found to be more influential by their students were more knowledgeable than teachers found not to be influential.[30] If this is the case with Russian teachers and students, clearly teachers need more effective training that will raise their knowledge so that they may have a positive impact upon their students.

This study is the first to examine Russian teachers' knowledge of HIV/AIDS. Because of this, there is limited information on relationships of variables to actual teaching behavior. Also, the questionnaire, a close-ended questionnaire, may miss some important issues, but the use of previously developed instruments does help to identify issues that have been important in other cultures. Because it is used for the first time with Russian translation, we could not assess its psychometric properties well enough to establish that it yielded equivalent results. The subscale scores of the knowledge scales had reliability coefficients that were lower than is usually seen in established instruments. However, the reliability of the total score was .70 which is generally considered acceptable for new scales. Despite our attempts to make the questionnaires understandable by conducting back-translation and pilot testing, participants' unfamiliarity with surveys could have affected their responses. Lastly, the use of one institution in one setting with all women limits the diversity of the responses and the generalizability of the results. When asked why only women were available for the study, the director explained that women are the secondary wage earners in the family, and because teachers are so poorly paid men are much less likely to teach.

Perhaps the successful completion of this study will encourage others to carry-out similar studies as a first step in curriculum development. Ideally, such a practice would lead to a more informed teacher-curriculum by assessing and addressing the specific needs of teachers. Such steps would not only increase the knowledge level of teachers but also ideally affect more teachers' attitudes, decrease stigma and ultimately positively influence the safer behavior of their students.

The combined trends previously described, namely the low use of condoms among Russian youth, the young age of Russian IDUs and the high rates of STIs in Russia, are the makings of a potentially uncontrollable, and severely devastating epidemic in Russia. HIV prevention education has been found to increase condom use, delay first sexual intercourse, and decrease the number of sexual partners, thus providing protection against HIV, STIs, adolescent pregnancy, and reducing girls' vulnerability.[2,4,31-33]

In recognition of the importance of teacher preparedness, there has been an international call for the need of HIV prevention teacher-training programs.[1,32-34,36] The executive summary of the

UNAIDS Program[me] Coordinating Board of the HIV/AIDS and Education Sector provisional item number six states:

> A fundamental component in school-based AIDS education program[me]s will be improving the capacity of teachers to address both information needs related to AIDS education and to impart the basic skills necessary for young people to protect themselves. Issues surrounding various aspects of adolescent sexuality need to be integrated into teacher-training curricula through the inclusion of sexuality and AIDS education within pre- and in-service capacity-building and preparation programs for teachers.[37]

If Russia responds to this UNAIDS declaration, the findings from this study demonstrate Russian science teachers are not yet prepared to deliver HIV prevention education based on their knowledge scores alone. With a large gap in teachers' overall knowledge of HIV/AIDS, and in particular to address how HIV is not transmitted, the need for teacher-training is apparent.

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Table 1 HIV/AIDS Attitude Scale for Teachers

1. I worry about possible casual contact with a person with AIDS.
2. Activities that spread HIV, such as some forms of sexual behavior, should be illegal.
3. Persons with AIDS are responsible for getting their illness.
4. Civil rights laws should be enacted/enforced to protect people with AIDS from job and housing discrimination.
5. Intravenous drug use is reckless.
6. HIV antibody blood test results should be confidential to avoid discrimination against people with positive results.
7. I feel disgusted when I consider the state of sinfulness of male homosexuality.
8. I would quite my job before I would work with someone who has AIDS.
9. People should not blame the homosexual community for the spread of AIDS.
10. AIDS is a punishment for immoral behavior.
11. I feel secure that I have reduced all risks of personally contracting HIV.
12. I think all children should be tested for HIV before entering school.
13. In my opinion, parents of all students in the class should be notified if there is a student with HIV or AIDS in the class.
14. I feel that all school personnel who have direct contact with a student with HIV or AIDS should be notified.
15. I think that students with HIV or AIDS should be allowed to fully participate in the day-to-day activities of the regular classroom.
16. A teacher with HIV or AIDS should be allowed to continue teaching.
17. It scares me to think that I may have a student with HIV or AIDS in my classroom.
18. I believe that teachers should have the right to refuse to have students with HIV or AIDS in their classroom.
19. I feel that I could comfortably answer students' questions about HIV/AIDS.
20. I believe HIV/AIDS is a growing problem in Russia.

Table 2 Demographic Data of the Participants.

Demographics	**Frequency**	**Percent**
Mean Age 41.63		
Religion		
Russian Orthodox	31	43
Atheist	1	1
None	40	56
Missing	0	0
Years Teaching		
3 Years or Less	15	21
4-9 Years	22	29
10-19 Years	22	31
20+ Years	13	18
Subject		
Biology	36	50
Sciences	31	43
Other	3	4
Missing	2	3
School Location		
Urban	59	82
Suburban	13	18
Rural	0	0
Missing	0	0
Have you ever taught HIV education?		
Yes	08	11
No	64	89
Missing	0	0
Have you ever taught sexuality education?		
Yes	07	10
No	64	89
Missing	1	1

Table 3 All knowledge items in ascending order of overall percent correct.
Knowledge Scale

Item	Response Correct	Percent Correct
**Donating blood n=71	True	06%
*Donating blood n=71	Not Possible	06%
AIDS breaks down the body's immunity by destroying the B cells in the endocrine system. n=72	False	07%
*Eating in a restaurant where the cook has AIDS n=70	Not Possible	10%
*Sharing plates, forks, or glasses with someone who has AIDS n=71	Not Possible	11%
*Living with a person who has AIDS (without sexual involvement) (Not Possible) n=71	Not Possible	11%
*Having sexual intercourse with an HIV-infected person with using a condom n=71	Very Unlikely	11%
*Kissing someone who has AIDS n=71	Very Unlikely	14%
*Mosquito bites n=71	Not Possible	14%
*Receiving anal intercourse from an HIV-infected person while using a condom n=71	Very Unlikely	14%
*Working near someone with AIDS n=69	Not Possible	15%
AIDS can damage the brain. n=72	True	19%
Latex condoms are not as effective as "lambskin" or natural membrane condoms in preventing the spread of HIV. n=72	False	24%
HIV lives and functions in warm, moist environments for days outside of the body. n=71	False	31%
Two common disorders found in persons with AIDS are pneumocystis carinii pneumonia and Kaposi's sarcoma. n=72	True	36%
The number of HIV-infected persons will be decreasing during the next two years. n=71	False	38%
It is possible to detect HIV antibodies in the bloodstream immediately after becoming infected. n=71	False	44%
In recent years, adolescents are among the groups with the largest increase of HIV infection. n=72	True	51%
There is a vaccine available in Europe that can protect a person from getting AIDS. n=72	False	54%
*Receiving anal intercourse from an HIV-infected person without using a condom n=71	Very Likely	57%
AIDS is an infectious disease caused by bacteria. n=70	False	58%
*HIV-infected mother to baby through nursing n=70	Very Likely	60%
Early symptoms of HIV infection include fatigue, fever; weight loss, and swelling of the lymph nodes. n=72	True	72%
It may be more than 5 years before an HIV-infected person develops AIDS. n=72	True	74%
*Performing oral sex on an HIV-infected man without using a condom n=71	Very Likely	75%
There have been no cases of AIDS spread by students to their teachers or classmates through usual daily contact. n=72	True	76%

Item	Response Correct	Percent Correct
*Having sexual intercourse with an HIV-infected person without using a condom n=71	Very Likely	81%
There is no cure for AIDS at the present time. n=72	True	82%
Drugs can be used to slow down the rate of reproduction of HIV and lengthen the life of an infected person. n=72	True	85%
*Sharing needles for drug use with someone who has AlDS n=71	Very Likely	89%
*HIV-infected mother to baby during pregnancy/birth n=71	Very Likely	98%

n=number of participants

* Item begins with "To what degree do you thin