

Prevention of HIV & AIDs: Knowledge and Attitude Among Secondary School Students in Kampala, Uganda

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ABSTRACT

Background: HIV continues to spread rapidly, mainly due to lack of knowledge and practices about HIV/AIDS in the general population. Sub Saharan Africa especially, is severely affected by the burden of HIV with 70% of the world's HIV infected living in this area.

Objectives: To assess HIV prevention related knowledge and attitude of high school student. **Methods:** A cross sectional survey was conducted.

Results: A total of 75 students completed the questionnaire. The majority of the students (89%) knew that having unprotected sex with an infected person is the main source of transmission of HIV/AIDS. The majority agreed that the disease can be prevented by using condoms (89%), by abstaining from sexual intercourse (85%), and by avoid sharing razor blades (87%). Some misconceptions were present with 23% of the students being uncertain if HIV can spread by bathing in same basin, 15% not knowing if mosquitoes spread HIV, and 16% being unsure if you can get HIV by eating together with an HIV infected. A favourable attitude towards people living with HIV was present.

Conclusion: The awareness about methods of prevention of HIV/AIDS was generally good, although some misconceptions were present. There is a continuous need to educate and raise awareness

Keywords: HIV/AIDS, HIV prevention, Sub Saharan Africa

INTRODUCTION

HIV, the virus, that causes AIDS, is one of the world's most serious health and developmental challenges. It can be spread through sexual contact with an infected person, blood transfusion, and sharing sharp object with an infected person.

The disease has spread at an alarming rate since the first cases were reported in the early 1980s. Industrialized countries have achieved significant result in the prevention of the disease mainly

through behavioural changes. However, in the developing countries, and in Sub Saharan Africa especially, HIV remains a severe burden, with Uganda among the most affected countries. In 2016 alone an estimated 1.8 million new individuals worldwide was infected with HIV(1). Sub-Saharan Africa is the most affected region with approximately 70% of all HIV infected living in this area. Additionally Sub-Saharan Africa accounts for two-thirds of the global total of new HIV infections. In Uganda alone 1.4 million lives with HIV(2).

Uganda is classified as a high burden country with a large number of persons living with HIV. These numbers have continued to increase as a result of continuing spread of HIV, and increased longevity among persons living with HIV. These new HIV infections could show that people in the communities are either not receiving the message about the dangers of HIV, or are unable or unwilling to act on it(3). Many people are dangerously ignorant about the virus as suggested by a recent survey finding, where one third of teenagers thought there was a cure for AIDS(4). Initially, the focus of HIV/AIDS interventions was on specific traditionally risk-laden population groups, such as sex workers, truck drivers, and pregnant women. More recently, this approach has shifted to include prevention efforts targeted at larger community groups (5) and in particular at children and young adults as they may not yet be sexually active and are still developing attitudes and behavioural patterns and are therefore open to preventive ideas and concepts. One of most direct ways of reaching this large target group is through the school system. This study aimed at investigating HIV prevention related knowledge, attitude, and practice of high school students in Kampala, Uganda.

Methodology

The study was conducted in God's Way High School in Kampala, Uganda, using a structured questionnaire. The questionnaire was developed by the researcher based on a literature review on related research. Eligible for the study were secondary school students from senior two to senior six.

The questionnaires were transferred from paper format into excel and the answers made numerical for the analysis. Chi-square tests were used to compare the answers based on gender. The analysis was done using Stata version 12 and Microsoft excel.

Results

The socio-demographic characteristics are presented in table 1. The total number of student was 75, with 26 (35%) being boys and 49 (65%) being girls. The mean age was 17.1 years. Most were Christians (79%), the remainder Muslims (21%).

The great majority of both boys and girls reported to have heard about HIV/AIDS (96% in both groups). The main sources of information was television (35% of the boys and 45% of the girls), school (19% of the boys and 33% of the girls), and radio (19% of the boys and 6% of the girls).

Knowledge on transmission of HIV/AIDS is presented in table 2. The majority of both boys and girls (100% and 84%, respectively) stated that the disease is transmitted by having unprotected sex with infected person, by sharing needle (85% of boys and 78% of girls), and by receiving blood transfusion that has not been screened for HIV (85% of boys and 63%). Some misconceptions were present with 23% of the students being uncertain if HIV can spread by bathing in same basin, 15% not knowing if mosquitoes spread HIV, and 16% being unsure if you can get HIV by eating together with an HIV infected. There were no statistical difference among the boys and girls regarding knowledge on transmission of HIV/AIDS.

Table 3 present information regarding knowledge on prevention of HIV/AIDS. The most common ways to prevent HIV being identified by the students were abstaining from sexual intercourse (92% of the boys and 84% of the girls), use of condom during sex (92% of the boys and 88% of the girls), avoid sharing razor blade (89% of the boys and 86% of the girls), and avoiding untested blood (77% of the boys and 80% of the girls). Many also mentioned avoiding sex with prostitute (77% of the boys and 55% of the girls) and avoiding sex with person having multiple partners (73% of the boys and 67% of girls). Neither of these results was significantly different by gender. However more girls than boys (59% vs 42%, p-value 0.04) stated that being faithful to uninfected partner was a way to prevent HIV. Some misconceptions were present with 27% of the boys and 29% of the girls agreeing that avoiding sex with younger girls can prevent HIV/AIDS, and 31% of the boys and 29% of the girls agreeing that avoiding kissing can prevent HIV/AIDS.

The participants were asked about treatment of HIV/AIDS and significantly more boys (81%) than girls (49%, p=0.03) said that HIV is not curable (table 4). Most students (69% of the boys and 76% of the girls) said that HIV can be treated while the remainder deny any treatment of HIV/AIDS. When asked who can treat HIV/AIDS the majority in both groups (77% of the boys and 84% of the girls) said that a qualified doctor can treat HIV /AIDS. Fewer responded that HIV can be treated by a nurse (8% of the boys and 4% of the girls), or by a traditional doctor (4% of the boys and 6% of the girls).

The majority, 73% of the boys and 82% of the girls, agreed that HIV/AIDS can be transmitted from mother to child during child birth (table 5). Likewise most (77% of the boys and 74% of the girls) said that HIV/AIDS can be transmitted during breath feeding. Fewer responded that the disease can be transmitted during pregnancy (46% of the boys and 47% of the girls). There was no statistical difference among the responses by gender.

The attitude of the students toward person living with HIV/AIDS is presented in table 6 and 7. The majority of both boys and girls (85% and 86%, respectively) have sympathy with people living with HIV/AIDS. Almost all (89% and 94% of the boys and the girls, respectively) said that they can behave normally around them, and only 12% of the boys and 8% of the girls said that

they hate people living with HIV/AIDS. 15% of the boys and just 2% of girls agree that the disease is a curse ($p=0.03$). Moreover 92% and 100% of the boys and the girls, respectively are willing to stay with a relative who are HIV positive and become ill and most (85% of the boys and 84% of the girls) are willing to continue their friendship with HIV positive friends and would continue buying food from a HIV positive shopkeeper (81% of the boys and 63% of the girls). However 53% of the girls do not think that a HIV positive student should continue her/his studies. None of the boys agreed with that ($p<0.001$).

Discussion

Valid knowledge, attitude, and practices about HIV/AIDS are important in light of the increasing epidemic. The students included in the present study were found to have good knowledge and a favourable attitude towards HIV/AIDS, although some misconceptions were present. Most had their information from television, school, or radio.

The great majority correctly stated that transmission of HIV/AIDS happens by having unprotected sex, sharing needles, or receiving unscreened blood. This is similar to studies from Ethiopia and Cameroon that also found an overall good knowledge of modes of transmission of HIV(6)(7). However despite the good knowledge some misconceptions were present. Almost one third of the students agreed that avoiding sex with younger girls can prevent HIV/AIDS or that avoiding kissing can prevent HIV/AIDS. Also a fair number were unsure if HIV can be transmitted by mosquito bites or by sharing a meal with an infected person. Knowledge on HIV/AIDS transmission from mother to child seems to be lower than the general knowledge about HIV/AIDS with less than half the students knowing that HIV can transmit from mother to child during pregnancy.

The students had an overall favourable attitude towards HIV/AIDS. This should be encouraged as the involvement and attitude of youths especially students are a very important component of the society that could create behavioural change to prevent stigmatization of HIV/AIDS in the community. It was noted that students' positive attitude towards HIV/AIDS were combined with their willingness to live in a school with HIV positive students. Surprisingly however, more than half of the girls did not think that an HIV positive student should continue his/her studies. It is unclear why the girls responded in this way as they otherwise have a favourable attitude. This could be interesting to explore in further studies.

The present study is subject to a number of biases; the study is based on self-reported information by participants, which could lead to socially desirable responses, given the nature of the subject under study. The participants might also underreport their sexually activities and biases toward HIV- positive persons. Assurance of confidentiality of respondents' answers and the anonymity of the questionnaire was ensured to minimize these issues.

Conclusion

From the findings of the present study it was concluded that awareness about transmission and prevention of HIV/AIDS was good. However misconceptions were present and a continuous need to educate and increase awareness is present. While the study show that the students has favourable attitude and are willing to stay with people living with HIV/AIDS, the school and the community should continue educating the students to accept and give care to the people living with HIV/AIDS.

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Table 1: Socio-demographic characteristics of the participants

	n	%
Gender		
Male	26	35
Female	49	65
Age		
10-14 years	2	3
15-19 years	70	93
20-24 years	3	4
Religion		
Christian	59	79
Muslim	16	21

Table 2: Knowledge on transmission of HIV/AIDS

	Male n(%)	Female n(%)	p-value
A person can become infected with HIV/AIDS by:			
Having unprotected sex with infected person			
True	26 (100)	41(84)	0.09
False	0(0)	2(4)	
Not sure	0(0)	6(12)	
Bathing in the same basin as infected person			
			0.37

True	0(0)	3(6)	
False	21(81)	35(71)	
Not sure	5(19)	12(25)	
Sharing needle			0.58
True	22(85)	38(78)	
False	1(4)	1(2)	
Not sure	3(12)	10(20)	
Receiving blood transfusion that is not screened for HIV			0.13
True	22(85)	31(63)	
False	1(4)	2(4)	
Not sure	3(12)	16(33)	
Getting mosquito bite			0.59
True	0(0)	2(4)	
False	19(73)	39(80)	
Not sure	3(12)	8(16)	
Eating together with infected person			0.35
True	1(4)	2(4)	
False	23(89)	37(76)	
Not sure	2(8)	10(23)	
Sharing razor blades that is not disinfected			0.32
True	15(58)	29(59)	
False	9(35)	11(23)	

Not sure	2(8)	9(11)
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Table 3: Knowledge on prevention of HIV/AIDS

	Male n(%)	Female n(%)	p-value
Abstain from sexual intercourse			0.75
True	23(88)	41(84)	
False	1(4)	1(2)	
Not sure	2(8)	6(12)	
Avoiding sex with prostitute			0.16
True	20(77)	27(55)	
False	2(8)	5(10)	
Not sure	4(15)	17(35)	
Always being faithful to uninfected person			0.04
True	11(42)	29(59)	
False	7(27)	3(6)	
Not sure	8(31)	18(37)	
Always use condom during sex			0.16
True	24(92)	43(88)	
False	0(0)	1(2)	
Not sure	2(8)	5(10)	

Avoid sex with person having multiple partners			0.75
True	19(73)	33(67)	
False	1(4)	4(8)	
Not sure	6(23)	12(25)	
Avoid sex with younger girls			0.54
True	7(27)	14(29)	
False	10(39)	13(27)	
Not sure	9(35)	22(45)	
Avoid kissing			0.04
True	8(31)	14(29)	
False	16(62)	17(35)	
Not sure	2(8)	15(31)	
Avoid sex with homosexual			0.11
True	10(39)	11(23)	
False	8(31)	11(23)	
Not sure	8(31)	28(57)	
Avoid sharing razor blades			0.91
True	23(89)	42(86)	
False	1(4)	3(6)	
Not sure	2(8)	4(8)	
Avoid untested blood			0.59
True	20(77)	39(80)	

False	1(4)	4(8)	
Not sure	5(12)	6(12)	
Avoid sweat, saliva and breast milk from infected person			0.08
True	17(65)	30(61)	
False	7(27)	6(12)	
Not sure	2(8)	13(27)	
Protect sex with condom			0.18
True	20(77)	40(82)	
False	4(15)	2(4)	
Not sure	2(8)	7(14)	

Table 4: Knowledge about treatment of HIV/AIDS

	Male	Female	p-value
	n (%)	n (%)	
HIV is curable			0.03
Yes	2(8)	7(14)	
No	21(81)	24(49)	
Don't know	3(12)	18(37)	
HIV is treatable			0.74

Yes	18(69)	37(76)	
No	7(31)	12(25)	
Who can treat AIDS			0.73
Qualify doctor	20(77)	41(84)	
Nurse	2(8)	2(4)	
Traditional doctor	1(4)	3(6)	
No treatment for it	3(12)	3(60)	

Table 5: Knowledge on HIV/AIDS transmission from mother to child

	Male n(%)	Female n(%)	P-value
During pregnancy			0.95
True	12(46)	23(47)	
False	9(35)	18(37)	
Not sure	5(19)	8(16)	
During child birth			0.10
True	19(73)	40(82)	
False	4(15)	1(2)	
Not sure	4(15)	8(16)	
Through breastfeeding			0.85

True	20(77)	36(74)
False	2(8)	3(6)
Not sure	4(15)	10(20)

Table 6: Attitude towards person living with HIV/AIDS

	Male n(%)	Female n(%)	p-value
I hate them			0.63
Agree	3(12)	4(8)	
Disagree	23(89)	45(92)	
I think it is a curse			0.03
Agree	4(15)	1(2)	
Disagree	22(85)	48(98)	
I have sympathy			0.90
Agree	22(85)	42(86)	
Disagree	4(15)	7(14)	
I behave normally with them			0.41
Agree	23(89)	46(94)	
Disagree	3(11)	3(6)	

Table 7: Attitude towards HIV/AIDS positive person

	Male n(%)	Female n(%)	p-value
If one of your relatives, who is HIV/AIDS positive, become ill will you be willing to help him/her?			
Yes	24(92)	49(100)	0.05
No	2(8)	0(0)	
If your friend is HIV positive would you continue the friendship?			
Yes	22(85)	41(84)	0.40
No	4(15)	4(16)	
If a shopkeeper or foodseller is HIV positive would you continue buying food items from him/her?			
Yes	21(81)	32(63)	0.16
No	5(19)	17(37)	
If a student is positive should he/she be allowed to continue his/her studies?			
Yes	26(100)	23(47)	<0.001
No	0(0)	26(53)	
If a teacher is HIV positive should he/she be allowed to continue her teaching in school?			
Yes	25(96)	45(92)	0.48
No	1(4)	4(8)	