

ORIGINAL RESEARCH ARTICLE

Changes in Knowledge and Attitudes among Junior Secondary Students Exposed to the Family Life and HIV Education Curriculum in Lagos State, Nigeria

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ABSTRACT

To address the needs of young people in Lagos State, Nigeria, for information about family life and HIV, the Lagos State Ministry of Education, in collaboration with Action Health Incorporated, began to offer the *Family Life and HIV Education Curriculum* in government junior secondary schools in 2003. Knowledge and attitudes were measured in a sample of 1,366 students in Lagos State, Nigeria, in November 2004, at the beginning of the school year, and again in July 2005 after receiving a year of the *Family Life and HIV Education Curriculum*. Students exposed to the curriculum significantly increased knowledge of sexuality and HIV, support for abstinence, and gender role equality (*Afr J Reprod Health 2009; 13[3]:37-46*).

RÉSUMÉ

Modifications par rapport à la connaissance et aux attitudes chez les étudiants du collège qui sont exposés au programme de la Vie Familiale et l'Éducation sur le VIH dans l'État de Lagos, Nigéria. Afin de s'occuper des besoins des jeunes gens dans l'État de Lagos, Nigéria, pour l'information sur la vie familiale et le VIH, le ministère de l'éducation de l'État de Lagos, en collaboration avec Action Health Incorporated a commencé à assurer, dès 2003, le programme de la Vie Familiale et du VIH dans les collèges appartenant au gouvernement. A partir d'un échantillon de 1366 étudiants à Lagos on a mesuré la connaissance et les attitudes au mois de novembre 2004 au commencement de l'année scolaire et encore en juillet 2005 après avoir eu du programme de l'Éducation sur la Vie Familiale et le VIH. La connaissance par rapport à la sexualité au VIH, l'appui pour l'abstinence et la qualité du rôle des sexes chez les étudiants qui ont été exposés au programme a augmenté de manière significative (*Afr J Reprod Health 2009; 13[3]:37-46*).

KEYWORDS: Education, Youth, Nigeria

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Introduction

Estimates of sexual activity among adolescent secondary school students in Nigeria suggest that between 26% and 40% have experienced sexual intercourse.^{1, 2, 3, 4, 5} The rate of sexual activity among adolescents not in school is probably higher.

Among these sexually active teens, contraceptive use is low. The percentage of sexually experienced in-school adolescents reporting use of contraceptives varies from 12% to 24%.^{1,2,4,5} As a result, adolescents are susceptible to pregnancies and sexually transmitted diseases, including HIV/AIDS. Approximately a quarter of the sexually experienced girls who are in school report they have been pregnant.^{6,7}

Every two years the Nigerian Federal Ministry of Health conducts a survey to determine the number of adults infected with HIV. In 2003, an estimated 3,300,000 people between the ages of 15 and 49 were estimated to have HIV/AIDS. Only South Africa and India have greater numbers of infected people.⁸

Lack of knowledge and inappropriate attitudes are often cited as causes of adolescent pregnancies and infections in Nigeria.^{1,3,5,9,10,11,12} Educational interventions have been shown to increase knowledge and reduce risky behavior.¹³

To address the needs of young people for information, the Lagos State Ministry of Education, in collaboration with Action Health Incorporated, began to offer the *Family Life and HIV Education Curriculum* in government junior secondary schools in Lagos State,

Nigeria, in 2003. The *Family Life and HIV Education Curriculum* is a multi-year curriculum taught in the integrated science and social studies classes beginning in the first year of junior secondary school (JSS1). The data reported here reflect changes in the knowledge and attitudes of JSS1 students who began receiving the curriculum during the second year of the program. By this time, a large percentage of teachers (over a thousand) had been trained in its use, and materials to support the curriculum were becoming available.

Methods

JSS1 students (1,366) were surveyed in November 2004, at the beginning of the school year, and again in July 2005 after receiving a year of the *Family Life and HIV Education Curriculum*. The students came from 17 randomly selected schools spread across the three senatorial districts of the state.

Knowledge and attitude questions were developed to match the content and message of each module of the curriculum. Whenever possible, questions were included that had already been tested with similarly aged young people. Personnel from Action Health Incorporated and Dr. Prosper Okonkwo of Management Strategies for Africa LTD reviewed each question for cultural appropriateness and readability. The questionnaires were pilot tested among a group of Nigerian young people between the ages of 11 and 13.

The survey was administered by having staff from the Ministry of

Education read the questionnaires to students. The Ministry of Education staff were trained to administer the questionnaires and accompanied in each school by research staff from Philliber Research Associates.

JSS1 students (1,563) were surveyed in November 2004, of which 1,366 (87%) were found and resurveyed in July 2005. More than half of the students (54%) were male. Ages ranged between 10 and 19, averaging 12.1 years old. Male students (12.3), on average, were slightly older than females (11.9).

In July 2005, focus groups were held with teachers and with students in each school. Information obtained during these discussions help to explain the findings in the surveys.

Results

Change in Knowledge

Students were asked 14 questions about physiology, puberty, sexually transmitted diseases (STDs), and HIV/AIDS. Each of these topics is included in the curriculum. An overall knowledge score was created by counting the number of questions students answered correctly.

Table 1: Knowledge of reproductive health among first year junior secondary school students in Lagos State, Nigeria

	No	% Correct	
		Start of Year	End of Year
All students*	1,365	46	54
Male students*	742	48	56
Female students*	623	43	51

*Significantly different between start and end of year ($p < .001$)

After exposure to the curriculum, there was a significant increase, on average, of 8 percentage points in knowledge scores (from 46% to 54%). Although knowledge scores remained low at the end of the year, the average student had moved from knowing less than half of the information to knowing more than half. The largest number of students continued to have difficulty answering questions about women’s physiology and menstruation. It is possible these topics were not as well covered during the year.

At both the beginning and end of the year, male students had greater knowledge than did female students. However, during the year the knowledge scores of both males and females significantly increased.

Table 2: Change in knowledge of reproductive health among first year junior secondary school students in Lagos State, Nigeria

	No	Direction of change (%)		
		Improved	Unchanged	Declined
All students*	1,365	60	10	30
Male students*	742	62	10	28
Female students*	623	58	11	31

*Significantly different between start and end of year ($p < .001$)

Knowledge gains were widespread among the students surveyed. Three-fifths of the students increased their knowledge of sexuality and reproductive health while a third had lower scores at the end of the year. More males than females had higher knowledge scores at the end of the year.

During focus group discussions, teachers suggested a number of reasons why students' knowledge was not increasing even more substantially. Some felt the program suffered because of inadequate teacher training, failure to fully implement the curriculum, and a lack of materials to adequately teach the classes. Other teachers suspect that students' knowledge did not increase more because of the schools' environment, especially large classes that make learning difficult, or because of students' inability to grasp the information. Some said that the information was hard for students to remember or that students could not read.

Students provided similar explanations. Some thought the material was too hard for them to understand and to retain. Others said that some of their peers (young and old) were unable to understand what they were hearing because they lacked adequate English, while others were unable to read. Quite a few students said that it is difficult for them to concentrate on the information in the large classrooms they attend. Students said they are often distracted by the play of disruptive students and find learning in that environment difficult.

There are cultural issues that may make learning about these topics more

difficult. Some students said many of their peers were not taking the Family Life and HIV/AIDS curriculum seriously because they were not convinced that what they were learning was actually true or because they did not believe the information was related to them. A number of students reported being afraid to speak because of the stigma attached with knowing a lot about sex.

Teachers agreed. Several believed that students who show knowledge may be labeled "bad" and that they should be punished. Teachers suspect that a number of the youth learn things about sexuality on the street and from pornographic material.

Some teachers also complain that the things learned in school were not reinforced at home and suggested some of the reasons for this. In some situations, family literacy problems or language barriers make reinforcement at home difficult. In others, youth may not receive adequate attention at home and lack opportunities for reinforcement. Family members who might have time to give youth attention find the topics difficult for them to talk about or they are uncomfortable talking about issues relating to sexual and reproductive health. For others, family economic issues take precedence; that is, children leave school to go to work to contribute to the well being of the family or to fend for themselves. Alternately, ideas promoted in the curriculum may not resonate in the larger society or culture. Teachers say that information learned in school will not take root in the minds of

the students if traditional leaders, elders, and the public do not reinforce them.

In spite of these barriers, knowledge about sexuality and HIV/AIDS significantly improved during the second year of the Family Life and HIV/AIDS Education programme.

Change in Gender-Equitable Attitudes

The survey included four true-false statements about sex role attitudes, specifically asking about what girls have the right to expect in their interactions with boys. Students were asked whether:

- A boy should leave a girl alone when she says no to having sex;
- A boy has the right to expect sex if a girl accepts an invitation from him to go somewhere and he pays;
- Girls have the right to refuse any kind of sexual behavior, and
- Girls have the right to say what they feel even if boys disagree.

Table 3: Gender equitable attitudes among first year junior secondary school students in Lagos State, Nigeria

	Number	% Eligibility	
		Start of Year	End of Year
All students*	1,365	67	74
Male students*	742	65	70
Female students*	623	68	78

*Significantly different between start and end of year ($p < .001$)

At the beginning of the school year, on average 67% of the students expressed gender-equitable attitudes to these

questions. By the end of the year, on average 74% of the students expressed gender-equitable attitudes – a significant increase. More students respected a girl’s right to say no to sex and the right of girls to say what they feel even if boys disagreed. More were supportive of a girls’ right to refuse any kind of sexual behavior. Fewer believed sex should be expected after a boy spends money on a girl.

At the beginning of the year males and females expressed similar attitudes toward gender equality, but during the year females increased attitudes of gender equality more than males did. As a result, by the end of the year females had stronger attitudes about gender equality than males did.

Most of the students in the focus groups attributed these changes in attitudes to the curriculum, although some also credited their families. Many of the girls thought the curriculum was influencing the behavior of boys more than messages from home.

Change in Attitudes toward Sexual Pressure

Boys were asked three questions about their attitudes toward pressuring girls to have sex. They were asked whether:

- It would be okay to try to talk a girl into having sex;
- They would stop trying to have sex if a girl asked them to; and
- They would stop seeing the girl if she refused to have sex.

Most of the boys denied they would try to talk girls into having sex and said they would stop trying to have sex with a girl if she asked him to stop. However, only a minority said they would keep seeing a girl who refused sex. None of these attitudes changed significantly during the year.

Table 4: Attitudes toward sexual pressure among first year junior secondary school students in Lagos State, Nigeria

	Number	% Rejection	
		Start of Year	End of Year
Boys rejecting pressure toward girls to have sex	742	59	60
Girls believing they could say no to boys*	623	82	88

*Significantly different between start and end of year ($p < .001$)

Girls were asked four questions about their perceived ability to say no to boys' sexual advances. They were asked if they felt they could:

- Tell a boy to stop if he wanted to touch their breasts;
- Tell him to stop if he wanted to touch their body below the waist;
- Tell him to stop if he wanted to have sex; and
- Say no to sex if he said he would no longer be her friend.

At the beginning of the year, on average 82% of the girls believed they had the ability to say no to boys and by the end

of the year this percentage had significantly increased. More girls said they could refuse if a boy wanted to touch their breasts; wanted to touch their body below the waist; wanted to have sex with them; and could say no to sex even if a boy threatened to no longer be their friend.

In focus groups, students suggested that exposure to the Family Life and HIV/AIDS curriculum was changing the ways they interacted with young people their age. Among the boys, there were reports that they had begun staying away from girls and were avoiding touching them inappropriately. Other boys said that they are now careful about playing roughly with girls. One male student noted that he learned not to pressure girls for sex and not to talk to them about sex. Girls also said that they were careful while playing with boys, not wanting their play to be misinterpreted.

Change in Attitudes toward Sexual Intercourse

During the year, the percentage of students saying they would have sex with someone they liked significantly decreased from 22% to 17%. The change in willingness was significant among males (from 31% to 25%) and females (12% to 8%). Both students and teachers commented that a strong abstinence message was being given in the classroom, perhaps contributing to this decline. At each survey, significantly greater percentages of males than females indicated that they would have sex with someone they liked.

Table 5: Attitudes toward sexual intercourse among first year junior secondary school students in Lagos State, Nigeria

	Number	% who would have sex with someone they liked		% who believe people their age should wait until older	
		Start of Year	End of Year	Start of Year	End of Year
All students	1,365	22	17*	68	81*
Male students	742	31	25*	65	80*
Female students	623	12	8*	71	82*

*Significantly different between *beginning* and *end of year* ($p < .001$)

From the start of the school year, the majority of students agreed that people their age should wait until they are older before they have sex. By the end of the year, those agreeing significantly increased from 68% to 81%. This change was significant among males (from 65% to 80%) and females (from 71% to 83%). On both surveys, female students were more likely than males to endorse waiting for sex. This difference was significant at the beginning of the year, but not at the end.

Discussion

Like young people in most of the world, Nigerian youth are initiating sexual intercourse. That initiation frequently occurs with a lack of knowledge about reproduction and inappropriate attitudes. As a result, early pregnancies and sexually transmitted infections, including HIV, are common. Contraceptives which could prevent both are seldom used.

The first step to reduce early pregnancies and sexually transmitted infections among Nigerian youth is to increase their knowledge of reproduction,

contraception, and the spread of sexually transmitted infections. To address the needs of young people in Lagos State, Nigeria, for information about family life and HIV, the Lagos State Ministry of Education, in collaboration with Action Health Incorporated, began to offer the *Family Life and HIV Education Curriculum* in government junior secondary schools in 2003. The findings in this study demonstrate that students who received the first year of the curriculum increased their levels of knowledge and improved their attitudes about sexual responsibility.

While this study has demonstrated that changes in knowledge and attitudes occurred, whether these changes lead to delays in the initiation of intercourse, and fewer pregnancies remains to be seen. Knowledge is not behavior and the young people of Nigeria face barriers. Unless the attitudes implanted through this curriculum are reinforced among peers, family, and responsible adults, the young people may fail to act upon the knowledge they now have. When demonstration of that knowledge leads others to question the morality of the

individual, individuals may even choose to act as if they lack knowledge. It may seem preferable to be seen as innocent than to act on knowledge that one possesses.

On the other hand, the *Family Life and HIV Education Curriculum* is a three-year program in the government junior secondary schools of Lagos State. There are two advantages to this. First, the young people are being reached before they have initiated sexual intercourse. One of the objectives of the program is to delay the initiation of sexual intercourse. In order to do this, young people must be reached before they become sexually active. It is easier to prevent young people from initiating sexual intercourse than it is to convince them to stop once they have started.

Second, the multi-year curriculum reinforces knowledge and messages about sexual responsibility throughout a student's years in junior secondary school. If the information was delivered only once much would be lost by the time the student moved on. Spreading the program over three years increases the likelihood that young people will remember what they have been taught and act upon it.

Third, the curriculum is integrated into what students are taught in both science and social studies. It is not a stand alone curriculum. This makes the curriculum more important to the student. It is not seen as something extra – it is science and it is social studies. Perhaps the more important the information is seen by the students, the greater the likelihood it will influence their behavior.

Conclusions

This report documents changes in knowledge and attitudes among students who had completed one year of the *Family Life and HIV Education Curriculum* in Lagos State, Nigeria. In the second year of implementation of the curriculum, 1,366 Junior Secondary School Level 1 students were surveyed at the beginning and end of the school year.

Students significantly increased their knowledge of sexuality and HIV/AIDS. Students exposed to the curriculum made significant increases in knowledge about physiology, sexually transmitted diseases, and HIV/AIDS and they particularly seemed to improve their knowledge of some of the key concepts of sexuality. Overall, three-fifths of the students demonstrated higher knowledge at the end of the school year. The greatest improvement was among young men.

There were significant positive changes in attitudes toward gender equality and rejection of sexual pressure among both male and female students. More students respected a girl's right to say no, to say what they feel even if boys disagree, supported the right of a girl to refuse any kind of sexual behavior, and did not believe sex should be expected after a boy spends money on a girl. Female students felt stronger about their ability to resist unwanted advances, but males were not less likely to pressure girls to have sex.

Support for abstinence increased. At the end of the year, students were less likely to say they would have sex with someone they liked and more likely to

say people their age should wait to have sex.

There are differences between the knowledge and attitudes of boys and girls. Boys were more knowledgeable than girls, but girls expressed more gender-equitable attitudes. Females more than males thought people their age should wait until they were older before having sex.

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