

AIDS-RELATED KNOWLEDGE, ATTITUDE, AND BEHAVIOR AMONG ADOLESCENTS IN ZAMBIA

This paper presents the results of focus group discussions with three groups of adolescents: eighth grade boys, seventh grade girls, and female adolescent sex workers who are not in school. We asked participants to discuss topics such as the use of contraceptives, traditional methods to prevent HIV infection, sexual abuse by family members, and the use of health services.

The results indicate that sexuality in youth in Zambia is often combined with ignorance, poverty, misinformation, secrecy, inexperience, myths, traditions, peer pressure, adventurousness, and experimentation. Therefore, any effective HIV/AIDS intervention strategies would need to address these stumbling blocks. (*Ethn Dis.* 2006;16:488–494)

Key Words: HIV/AIDS, Sub-Saharan Africa, Zambia, Adolescents, Sex Workers

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INTRODUCTION

More than 70% of the world's HIV-infected population live in sub-Saharan Africa, where Zambia is located. This fact is particularly alarming considering that only 10% of the world's population live in sub-Saharan Africa.¹ Moreover, in this region, 12% of all children are orphans, and most of them were orphaned because of AIDS.² The first AIDS case in Zambia was diagnosed and reported in 1985, and ever since, the number of reported AIDS cases has increased exponentially.³ By the end of 2002, the prevalence rate of HIV/AIDS infection in Zambia among persons age 15–49 years was 21.5%. The rate of infection among young women is particularly alarming; in 1999, the prevalence of HIV infection among urban women age 15–24 years was 24.1%, and among rural women it was 12.2%.⁴

The population in Zambia is young; 48% of the total population is below the age of 15, and most are below age 21.⁵ Therefore, adolescents' engagements in unprotected sex as well as other high-risk activities are likely to contribute to the country's high HIV/AIDS incidence. Indeed, data show that the adolescents age 15–19 years accounted for most new HIV infections.⁶ Therefore, we must know what Zambian adolescents know, think, and do about preventing HIV infection.

Knowledge

Almost all Zambian adolescents know about the main modes of HIV transmission.^{5,7–9} However, many misconceptions still exist.^{9,10} For example, in the last national survey,⁵ 30% of adolescent boys (age 15–19) and 32% of adolescent girls said that AIDS could not

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be avoided, 30% of adolescent boys and 24% of adolescent girls thought that AIDS could be transmitted by mosquitoes, and 14% of adolescent boys and 22% of adolescent girls believed that AIDS could be transmitted by witchcraft. Other surveys also reported false notions such as having sex with a woman who had an abortion, bed bugs, coughing, shaking hands, saliva, and sharing plates.^{8,11}

Attitudes

A study that examined AIDS-related knowledge, attitude, and behaviors among 89 youths residing in Lusaka showed that most participants tended to endorse AIDS-preventive activities, such as the use of condoms and avoiding sex with prostitutes. Moreover, they perceived themselves as capable of engaging in AIDS-preventive behaviors.¹² Yet, adolescents in Zambia are less likely to believe that a woman can negotiate sexual behavior if her husband had a sexually transmitted infection; only 38% of adolescent boys and 44% of adolescent girls thought that such a negotiation is possible.⁵

Behavior

Adolescents in Zambia are at risk of infection primarily from sexual activity. The most common sexual behavior among adolescents is vaginal inter-

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course. Oral and anal sex are reported less frequently.^{13,14} Though young Zambians live in a society where premarital sex is frowned upon, especially for females,¹⁵ adolescent sexual activity levels are high, and few report using condoms on a regular basis. In the last national survey, 44% of the adolescent boys, age 15–19, and 56% of girls said they had had sex in the last year. But only 38% of sexually active boys and 36% of sexually active girls reported condom use at their last sexual act. Moreover, only 13% of boys and 6% of girls had used a condom at their last sexual act with a non-regular partner.⁵

Many Zambian boys are sexually active with one or more partners.^{16,17} For example, in the last national survey, 12% of adolescent boys and 2% of adolescent girls reported having more than one partner in the last year.⁵

Rural adolescents appear to be at a high risk of HIV infection: condom use among urban adolescent boys (49%) and urban adolescent girls (48%) was much higher than among rural adolescents (32% among boys and 28% among girls).⁵

Adolescents who are out of school are at higher risk of contracting AIDS because they are significantly more likely to engage in unprotected intercourse and to use the services of female prostitutes.^{12,18} Feldman,¹³ in a sample of 60 out-of-school girls in Lusaka, found that a substantial percentage of them engaged in high-risk sexual behavior, including unprotected anal intercourse. These adolescents had sex primarily with middle-aged Zambian men (“sugar daddy” syndrome), who were much more likely to be HIV positive than adolescent boys and more likely to involve the girls in risky sexual behavior.

Street Children

Poverty and harsh conditions may push street children to work in the sex industry, which may lead to AIDS infection, sickness, and death. In Zambian cities, as many as 35,000 street

children and an additional 350,000 vulnerable children are potential candidates to become homeless.^{19,20} According to Chela’s study of street adolescents in Lusaka age 15–19 years,²¹ only a small number of respondents had moderate knowledge about AIDS. Most of them had no access to health education materials, and very few had been given health education about AIDS. Indeed, most street children practiced unsafe sex. Though they were aware of free condom distribution in their areas, many said that they do not use this service because condoms interfere with sexual pleasure. Approximately 20% of respondents had a history of sexually transmitted diseases (STDs).²¹

Women Working in the Sex Industry

The prevalence of HIV among sex workers in Africa is particularly high, and they may spread the infection to the general population.²² For example, among sex workers in Ethiopia, HIV prevalence was 73.7%²³; in Kenya and the Ivory Coast, HIV prevalence among sex workers reached 70%, higher than any other group in the country^{24,25}; and in Tanzania, HIV prevalence reached 68%.²⁶ These high figures are related to the tendency of sex workers to have multiple partners, not to use condoms on a regular basis, and to be infected with other STDs.^{23,26–28}

However, studies suggest that prevention programs may work. Surveys that were conducted in Cote d’Ivoire during 1991, 1993, 1995, and 1997 show an increase in condom use among female sex workers over these years.²⁹ The researchers relate this positive trend to the prevention campaign that was implemented in this country for female sex workers. Other researchers emphasize that high level of condom use among sex workers is likely to slow the spread of HIV infection in sub-Saharan Africa from sex workers to the general population.³⁰ Other researchers suggest that regularly screening and treating sex

workers for STDs can increase condom use and reduce STDs and HIV prevalence.^{29,31,32}

One of the main barriers for condom use is women’s inability to negotiate safe sex.¹⁵ In a study among sex workers in Ethiopia,²³ 73% reported not using condoms on a regular basis because of clients’ refusal; 43% because of clients’ brutality; 33% because of higher payment from a client; and 7% because of instructions given by the owner of the establishment where they worked. This barrier is particularly relevant to women who make their living in the sex industry and therefore might not be able to sacrifice income to prevent infection.³³ Indeed, some researchers³⁴ who interviewed female sex workers in Uganda found that those who were more financially independent could negotiate safer sex.

In sum, large surveys in Zambia have addressed the entire population,^{5,15,35} but only adolescents above the age of 15 years have been included. While this information is valuable, we must also conduct qualitative studies among at-risk groups of adolescents in Zambia to investigate topics that are often not covered in surveys. In particular, we must include adolescents in the commercial sex industry because this group is at high risk for HIV and other STD infections.

This paper presents the results of focus group discussions with three groups of adolescents: boys in school, girls in school, sex workers who are no longer in school. Specifically, we asked participants to discuss topics such as the use of contraceptives, traditional methods to prevent HIV infection, sexual abuse by family members, and the use of health services.

METHODS

Sample

The youths in the focus group discussions came from the two urban

provinces in the country: Lusaka and Copperbelt. The two-hour discussions took place in Lusaka (the capital city of Zambia) and Kitwe (the copper mining center of the country). The groups were divided according to sex (boys and girls), age (11–14 and 15–19 years), and whether they were out-of-school (ie, female sex workers). The data in this paper relate to three groups: female sex workers in Lusaka ($n=15$, age 15–19 years), eighth grade boys in Kitwe ($n=18$, age 12–15 years), and seventh grade girls in Kitwe ($n=20$, age 11–14 years). The division of the participants into groups according to age, sex, and occupation was conducted in accordance with the literature on how to implement focus group research.³⁶

Data Collection

Data were collected in 1998. Two trained students from the University of Zambia facilitated the meetings. One group leader facilitated the discussion (eg, asked questions, encouraged an open expression of ideas, moderated speaking turns), and the other recorded the adolescents' answers word by word. The facilitators directed participants to focus on several topics with prepared guiding questions: knowledge about HIV/AIDS, past experience with AIDS prevention programs, use of contraceptives, use of condoms, attitudes and experience with sex within the family, use of health services, and use of local medicine. These topics were selected because they are often not covered in questionnaires used in survey studies.

All the participants and the facilitators were English speakers, and all discussions were held in English. The facilitators directed participants to follow the prepared questions; however, they were free to answer as they wished.

The in-school participants were recruited during class time. All male students in the eighth grade class and all female students in the seventh grade class were asked to participate in the discussion. In most cases, all students agreed,

and the participation rate among school-children was high (98%). Discussions took place in a closed area and lasted for one and a half to two hours. Teachers or other school authorities were not present during the meeting.

Female sex workers were mostly found in bars and nightclubs. The facilitators visited bars in Lusaka until they were able to identify and convince a group of female sex workers to participate. Discussions took place in a quiet and closed area around the bar. Police were not present during the meeting. The anonymity of the women was secured. Therefore, only the participant's age and educational level was obtained. All sex workers were between the ages of 15–19, out of school, and had only a few years of formal education.

Various problems that may occur in focus group research³⁶ were encountered in the data collection process:

1. Some respondents segmented themselves into peer groups (ie, those who play together, those who come from the same neighborhood, etc), and members of each segment rarely contradicted one another.
2. Some respondents were shy about discussing sexuality. This phenomenon was most noticeable among female participants.
3. Some respondents bragged or exaggerated to make themselves appear more knowledgeable on the subject than their friends.
4. Some respondents were embarrassed. This phenomenon was most noticeable among sex workers.
5. In some groups, the tendency was to sidetrack and talk about subjects not relevant to the issue.

Data Analysis

Analyses were conducted separately for each of the three groups. In the first stage, the research team read the typed notes to find common themes and patterns of responses that repeated themselves among the participants.^{37,38}

A theme or a pattern of response was selected only if it was repeated by at least three participants in the group. In the second stage, data were again compared to one another. Differences and similarities between the responses were described and elucidated, until the differences and similarities could be organized into categories.³⁹

Researchers analyzed data in a group setting. To ensure validity and reliability of the findings, data should have been first analyzed separately by each of the researchers and then compared. Therefore, the validity and the reliability of these results are limited.

FINDINGS

Female Sex Workers in Lusaka

Girls were between the ages of 15 and 19; most (75%) became sexually active at the age of 15. The main reason for becoming sex workers was economic, especially when financial support from parents was no longer available.

Use of Contraceptives and Condoms

Participants reported using condoms and traditional medicine (eg, tying an object around the waist for contraceptives). Girls also used painkillers such as "Cafenol" and "Panadol" that were "cheap and easy to get." The participants stated that only a few clients agree to use condoms, claiming that condoms cause cancer, are not nice, break during intercourse, lead to infertility, and reduce sexual satisfaction. For example, an adolescent woman stated: "Men don't like to use condoms; they said that if they use it they will get cancer." Or: "they say it is like having sex with a dead body." Those clients who agreed to use a condom did so because they believed that condoms protect against STDs and HIV/AIDS.

Although these adolescent sex workers were knowledgeable about the advantages of condoms, economic pressure usually prevailed over health con-

siderations. For example, one woman said, "I am willing to have sex without a condom, as long as the client paid above the usual rate." Another problem was that although condoms were available in their neighborhoods, they could not afford to buy them: "I know I should use them, but I do not have the money to buy them." Only a few participants refused to have sex without a condom: "I said to the clients, if you want to have sex you must put it on you." They also ignored the expiration dates on condoms, primarily because of low literacy levels. For example, one participant said that "I am able to know if a condom had expired if it feels soft or torn when water is inside it."

Sexual Relationships with Relatives

More than 75% of participants did not approve of having sex with relatives. However, several participants said they had had sex with their relatives, mainly cousins. For example, one woman reported, "I don't think that you should have sex in the family, but it happened to me with my cousin."

Use of Health Services

All participants indicated that they go to the hospital when they feel sick: "We go to the hospital in Lusaka." However, they mentioned that if they have STDs, they prefer to go to traditional healers who do not demand the presence of the sexual partner: "You can go to him by yourself and he doesn't ask you to bring the man like they do in the hospital. The health providers at the hospital insist that the partners be treated as well, which deters sex workers from treatment: "I cannot bring the men with me, so what am I suppose to do?"

Use of Cultural Techniques and Traditional Methods

Approximately 50% of participants used traditional leaves and stones to tighten their vaginas in order to attract men. Some claimed they pulled the labia of the vagina just before labor so

that vaginal muscles could expand and relax for easy child delivery; others did not recognize this practice. Respondents believed they can treat STD by using traditional medicines and resorted to these practices because they were available and cheap: "It is easier to get medicine in the neighborhood than to go to the hospital."

Pregnancy and Abortion

Participants often became pregnant but had abortions. Only one respondent had a child. Only when complications presented did girls seek help from a hospital; otherwise, traditional healers performed abortions because the cost was much less: "Like we said before, it is easier to get help outside of the hospital and much cheaper."

Knowledge and Education about HIV/AIDS

Disparities were found regarding knowledge of HIV/AIDS. For example, while some stated they used condoms to avoid AIDS, others merely tied a soft, plastic object around the man's penis. Some participants were taught to stay with one partner or avoid sexual relationships until marriage. All participants stressed that their churches did not teach them about the use of condoms.

Eighth Grade Boys in Kitwe

The ages of the participants ranged from 12 to 15 years. Most of them disapproved of sexual intercourse because they thought that: ". . . we are not old enough to have sex."

Use of Contraceptives and Condoms

These boys were familiar with roots (traditional medicine), contraceptives pills, and condoms. They supported the use of condoms to prevent HIV/AIDS, although they thought that: ". . . condoms cannot fit well; they interfere with sexual satisfaction and cause a waste of sperm." And even: "It is like having sex with a plastic doll," or "Eating a sweet with a wrapper on." They knew how to

use condoms and how to tell whether a condom had expired by checking the expiration date or checking for powder or fluid in the condom. They knew how much condoms cost and where to get them for free. Most of the boys had no objection to using condoms; however, others felt: ". . . it shows a lack of trust."

Sexual Behavior

Participants were aware of prostitutes who worked in their neighborhood. Adolescents who had been circumcised were usually sexually active because they believed that circumcision prevents STDs. Most participants confessed that if they were accused of impregnating a girl, they would deny it because they feared being expelled from school. But they also stated that they would take responsibility for the pregnancy if they were older.

Sexual Relationships with Relatives

Some adolescents said that: ". . . having sex with a distant cousin is permissible sometimes and we had heard of such cases before, but we had not heard of cases of brother and sister having sexual intercourse." Thus, sexual relations among cousins were accepted as part of some local traditions but not among first-degree relatives.

Use of Health Services

Some participants believed that girls could induce abortion by taking an overdose of painkillers or other medicine; therefore they did not feel that they needed to seek help from official services if they impregnated a girl. However, others said that if they were infected with an STD, they would turn to traditional healers or medical care providers.

Knowledge and Education About Sex and HIV/AIDS

Overall, adolescents seemed to have received no detailed sexual education, though they were taught about AIDS. They learned from the church that: "boys and girls should abstain from sex

until marriage and not use condoms because the use of condoms encourages having sex."

Participants indicated that they had difficulty discussing sexual matters with their parents, who considered them too young: "I cannot talk about this with my mother and my father; they think that I am still young." However, some participants expressed an interest in learning about sex from their parents: "But I think it will be good to be able to talk to my mother about pregnancy and everything."

Seventh Grade Girls in Kitwe

Sexual Behavior

The age of participants ranged from 11 to 14 years. More than 50% thought that sex at their age was not proper because of pregnancy and AIDS. However, a few participants considered themselves mature enough to have sex and saw it as a way to support them: "It is a way we can buy things, books, even food." The girls said that prostitution is very common in their area due to high rate of poverty.

According to participants, girls rarely chased boys after initiation because they were taught to act maturely. Pregnancy was suspected when a girl started to hide and act embarrassed or ashamed: "We know that she is pregnant if she is ashamed and hides herself from others." Rarely was pregnancy welcome, since it meant dropping out of school: ". . . but it is not a good sign (hiding because of pregnancy) because she will not continue with her studies."

Use of Contraceptives and Condoms

Participants believed that condoms were not 100% safe: "You cannot really trust them, they break." They knew where to buy condoms but did not know how to use them. Some thought that burning or flushing them down the toilet would dispose of them. Most participants feared STDs and pregnan-

cy: "The worst that can happen to a girl is if she becomes pregnant or sick." Therefore, some of them expressed no reservation about asking their partners to use condoms. Others, however, said that: "Sometimes women do not request a condom, because they are afraid of rejection."

Sexual Relationships with Relatives

Although they had heard of such cases before, participants felt that incest was a deviant behavior: "I think it is wrong, although I heard it happens sometimes," or: "Only perverts will do something like that."

Use of Health Services and Traditional Methods

Some participants believed that tea and soda could be used as contraceptives. The only real contraceptives they were familiar with were condoms and birth control pills. Some thought that in order to have an abortion: ". . . a girl should take pills or use traditional medicine." Participants believed that STDs like syphilis, AIDS, and gonorrhea could be treated by traditional healers, relatives, or at health centers: "You can go to your relatives, or to people in the neighborhood who know how to help you, and if you have money you can go to the clinic or the hospital."

Knowledge and Education About Sex and HIV/AIDS

Some parents told their daughters about AIDS while others did not because they felt their daughters were too young. Participants complained of the lack of sex education, "We learned about AIDS but nothing more than that."

DISCUSSION

Data for this study were obtained from focus group discussions with adolescent sex workers and girls and boys in school. The findings are relevant to educators and social practitioners

The findings are relevant to educators and social practitioners who develop and implement programs aimed at preventing HIV infection and AIDS.

who develop and implement programs aimed at preventing HIV infection and AIDS. One such finding was that youths became sexually active earlier than expected. Therefore, AIDS prevention programs must start at a young age and not simply as an addition to advanced science or biology classes.

Adolescents know about condoms, but not many know how to use them properly. Participants compared having sex with a condom to having sex with a plastic doll and eating a sweet with a wrapper on. Not many youths use condoms, and these findings further support the idea that AIDS prevention programs for adolescents in Zambia should focus on condom accessibility and techniques of condom use.

Another alarming finding relates to STD infection and adolescent pregnancy. Adolescents reported using traditional healers for an abortion or treatment because they are afraid of embarrassment at the hospital, too poor to pay, or want to hide their condition from their parents. Safe abortions and STD clinics should be available for Zambian youth in urban and rural settings.

The findings of the focus group discussions suggest that cultural norms and traditions have an impact on the adolescent's sexual practices. When asked about traditional methods of sexual behavior, the older female participants knew that stones were placed in the vagina in order to enhance pleasure. They even indicated that some girls use "Panadol" to retain the size of

the vagina. They consider the act of pulling the labia as a way to ease childbirth and increase pleasure during intercourse. A special concern should be given to adolescents who work in the sex industry because of harsh environmental conditions. Often they do not use condoms because their clients refuse to use them; sometimes they avoid using health clinics because they don't have money or can't bring their sex partners to treatment; they seem to lack the necessary power that is crucial in negotiating safer sex with their partners; and they often use traditional methods of contraceptives. Preventive programs for this population, possibly in combination with the treatment of STDs, should focus on how to obtain clients' agreement to use condoms, free distribution of condoms, screening and treatment of STDs, and safe and accessible health services including abortions.

The limitations of this study should be noted: data were collected in 1998 and thus are from a relatively old, small and unrepresentative sample. Possible peer pressure and influence on responses and cultural inhibitions could have limited the ability of the youths to freely express their minds. Moreover, data were analyzed in a group setting, and researchers may have influenced each another. Therefore, the findings of this study should be cautiously interpreted and should not be generalized to the entire population of youths in Zambia.

In conclusion, focus group discussions revealed that youth sexuality is often combined with ignorance, poverty, misinformation, secrecy, inexperience, myths, traditions, peer pressure, adventurousness, and experimentation. Any effective HIV/AIDS intervention strategies need to address these issues.

Furthermore, the findings of this study reiterate the importance of developing, implementing, and evaluating AIDS prevention programs for in-school and out-of-school Zambian adolescents. Schoolchildren can be lo-

cated in elementary and high schools, and AIDS/HIV preventive programs could and should be part of the curriculum. Out-of-school adolescents can be located in organized training, small businesses, bars, open markets, and the streets. Any preventive programs, however, must distribute free condoms, which is the best way to prevent HIV infection in sexually active adolescents.¹⁵ Trained peers and natural leaders among the out-of-school youths can help educate their friends how to prevent AIDS. Future research should evaluate the effectiveness of such programs on lowering the rate of infection among this high-risk population.

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