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Factors that Influence School Adolescents' Exposure to HIV/AIDS at Hosanna Governmental High Schools; Hadiya Zone

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Abstract

Background: The adolescent years are a time when kids become adults. A teenager is defined by the World Health Organization (WHO) as a person who is between the ages of 10 and 19. Teenage sexual conduct endangers this group's physical, psychological, and social well-being and even claims lives. Therefore, in order to determine the trend of HIV/AIDS among this susceptible group and to conduct preventative and control measures, sexual behavior is a crucial indicator. The primary goal of the research is to evaluate the variables that affect high school students' exposure to HIV/AIDS at Hosanna High School.

Methods: An institution based cross-sectional study was conducted from September to October 2018. A systematic random sampling technique will be used and the participant was selected by lottery method.

Result: The survey included 394 teenagers in all, yielding a 100% response rate overall. Of the participants, 35.1% are literate, with 57% being Protestant and 54.34% being Hadiya. 53.8% of the kids were in grade 9, while 65.1% of the residents lived in rural areas. In this survey, 45% of participants said they had engaged in sexual activity. Of those who had ever engaged in sexual activity, 39.1% cited personal desire as the catalyst for their first sexual experience, while 23.3% cited peer pressure. 47.7% said they had previously dated more than one person. Just 19.4% of them regularly use condoms during sexual encounters, and 58.1% have never used one. The majority of students 98% knew of HIV/AIDS and other diseases that can be contracted through sexual activity, and 88.9% had heard of such illnesses.

Conclusion and Recommendation: Teenagers at school engage in high-risk behaviors that put them at danger of contracting HIV/AIDS. The risky habits include unprotected sex, several sexual partners, early sexual entrance, and sex with risky groups. IEC should be regularly provided by health facilities, voluntarily HIV positive individuals, opinion leaders, religious leaders, and members of school anti-AIDS clubs.

Keywords: High school; Adolescents; HIV/AIDS; Hosanna

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Introduction

Adolescents are especially susceptible to HIV and other sexually transmitted illnesses because of the physical, psychological, and social characteristics of puberty [1]. Premarital pregnancy and Sexually Transmitted Infections (STD) rates among teenagers aged 15 to 19 give insight into the level of unprotected sexual activity and the risk of HIV/AIDS among this age group [2]. At least 111 million of the 333 million new STD cases that are thought to emerge worldwide each year affect young persons under the age of 25 [3]. Ethiopia's Demographic and Health Survey 2000 found that reporting STDs or related symptoms was more common among young men between the ages of 15 and 19 [4].

Additionally, due to their social standing, unequal life opportunities, inflexible and traditional gender roles, and limited access to health and educational resources, young people may be more susceptible to HIV [5]. Access to reproductive health care that cater to the unique requirements of teenagers is restricted for young people. Reproductive health education and services are not readily available to young people due to cultural pressures, a lack of understanding about sexual behavior

among adolescents, and insufficient implementation ability [6].

Young people hold the key to the future of the HIV epidemic. For decades to come, the ways in which people adjust behaviors today and continue to do so throughout their sexual lives will define how the epidemic develops. Although young people will still learn from one another, how they behave will primarily depend on the knowledge, abilities, and resources that parents in the present generation choose to provide for their offspring [7], HIV propagates exponentially in the information-deficient environment that many youths inhabit [8]. Thus, expanding educational opportunities in particular ought to encourage more people to adopt new HIV-prevention habits [9].

Since youth prevention programs are crucial to national HIV prevention initiatives, the 2002 global HIV report placed special emphasis on their implementation in schools.

Furthermore, it makes clear that comprehensive preventive health education is necessary, offering an age-appropriate mix of information on sexual health and reproduction, life skills development, and attitudes and values. The Ethiopian government has stated in its HIV/AIDS strategy that youth should receive sufficient attention as a top priority when it comes to HIV/AIDS-related health promotion. In addition, the Ministry of Health has accepted responsibility for the Ministry of Education's need for technical support in order to guarantee the development and implementation of suitable curricula and teaching materials for HIV/AIDS/STDs in school health education at all levels [10]. Therefore, the purpose of this study is to evaluate the factors that expose teenagers to risky sexual activity and the level of illness awareness in high schools located in Hosaina town, Hadiya Zone. It is hoped that the study will yield useful information to organizations that focus on the health, education, and well-being of adolescents, as well as to school policy makers who may use it to address issues that school-aged children face in the study area and other similar regions of the nation.

Methods and Materials

Hosaina town the capital city of Hadiya zone, which is located 230 km away from Addis Ababa, capital city and 194 km from the regional capital town, Hawassa. The town comprises of three high schools (Yekatit, Bobicho and Heto High Schools) with a total students of 5,254 (2996 females and 2651 males). The town is more of Woina-Dega weather condition.

Study design

Institution based cross sectional study will be conducted using a structured questionnaire.

Population

Source population: All government high school adolescent in Hosaina town.

Study population: Sampled government high school adolescent in Hosaina town.

Sample size determination and sampling technique

Sample size determination: The sample size was determined using single population proportion formula, by taking 50% prevalence, 95% confidence interval (1.96) and 0.05 precision. Since the source population is less than 10,000 (N=5254), correction formula was used, a 10% non-response rate was considered, the total sample size was 394 students. The study participants were selected based on the inclusion and exclusion criteria by using simple random sampling method.

Sampling technique: First the sample was proportionally allocated to both classes based on the population size. A systematic random sampling technique was used. K will be calculated as N/*nf* =5254/394=13. By using students list from classes of each school as a sampling frame and the first student was selected by lottery methods and every 13th student was interviewed to collect data.

Variables

Dependent variable: Factors that influences adolescent exposure to HIV/AIDS

Independent variables: Age, income of the family, ethnicity, religion, grade contraceptive practice, occupation of the family

Operational definition

Adolescent: The concept of adolescence is difficult to define across different socio-cultural setting and profession; for the purposes of this study adolescence is defined as age group 13 to 19 years.

In school adolescents: are those adolescents aged 13 to 19 attending day time regular high school education during the time of the survey.

Out of school adolescents: are those aged 13 to 19 not attending school during the day time, excluding, commercial sex workers and those employed informal sectors.

Residents of kebele: are those who lived in the selected kebeles for more than six months.

Ever use contraceptive: use of any method of contraceptive at least once during the sexual life.

Data collection instrument

Data was gathered using a structured questionnaire that was adopted. The purpose of the questionnaire was to gather information on sociodemographic factors (family income, age, ethnicity, religion, grade, use of contraception, and occupation of the family) and factors that affect the exposure of government high school adolescents in Hosaina town to HIV/AIDS.

Data collection method

Following the completion of study materials and authorization, data collectors were chosen and trained. There will be four health extension workers who will gather data. The data collectors received orientation on how to gather data based on each variable. Teenagers in Hosaina Town's Government High School, from which a sample was drawn, provided the data. The data collection was overseen by the primary investigator. The supervisor ensured that all questionnaire responses were complete and consistent before they were analyzed.

Pre-test

The questionnaire will be pretested on 5% of Morsito High School students of Misha woreda so that the necessary modification will be made.

Data processing and analysis

A scientific calculator was used for the manual analysis of the gathered data. Ultimately, the results were compared with both national and international numbers and were displayed using tables, graphs, and charts. A discussion, conclusion, and recommendation were made in light of the findings.

Data quality assurance

Training was given to the data collectors and questionnaire was pretested and consistent supervision of data collectors was carried out.

Ethical consideration

The Hosaina town administration education office and responsive school administration shall receive a permission letter from Wachemo University's college of medicine and health science, research, and community service coordinating office prior to the data collecting. We will get the respondents' informed consent. The questionnaire will not contain the respondent's name, and the results will only be used for research purposes.

Dissemination of the finding

The final result of the study will be disseminated to Hosaina town administration education office, each school administration and all stallholders.

Results

Sociodemographic characteristics

The survey included 394 teenagers in all, yielding a 100% response rate overall. The age range of the majority of responders (73.3%) was 11 to 19 years old, with a mean age of 17.1 years. The ratio of men to women is 48.3% to 51.7%, and 97.84% of the participants were unmarried. According to the respondent's father's educational status, 35.1% of them could read and write, while 25.4% couldn't.

The majority of participants – 57% of whom identified as protestant and 54.34% of whom identified as Hadiya. The majority of responders– 65.1% –reside in rural areas, and more over half of the participants– 65% –have parents whose monthly family income is less than 2000 ETB. Of the respondents, a greater percentage– 63.7% –live with their parents, whereas 41.0% of adolescents had a mother who did not complete formal education, and 37.3% are limited to reading and writing. Of the kids, 53.8% were in grade 9, while the remaining students were in grade 10 (Table 1).

Sexual behavior of the study subjects

Sexual history: 177 respondents in this research, or 55% of the total, said they had engaged in sexual activity.

Thirty-one (30.8%) of the individuals who had engaged in sexual activity were younger than seventeen years old. Among those who had ever engaged in sexual activity, the most common reasons given for starting a first sexual encounter were: Personal desire in 154 cases (39.1%); peer pressure in 92 cases (23.3%); alcohol influence in 54 cases (13.6%); and chewing khat in 49 cases (12.4%) of the respondents. Out of the students who reported engaging in sexual activity, 172 (43.6%) reported engaging in sexual activity within the 12 months before to the data collection period, with 120 (30.5%) of them being male (Figure 1).

Risky Sexual behavior: 148 students (36.7%) who identified as sexually active admitted to having had multiple partners in the past. Of the individuals who disclosed having had several sexual relationships, 122 (or 31%) stated that their primary motivation for engaging in sexual activity with their partners stemmed from their appearance of health. 132 people (33.7%) who had started having sex in the previous year practiced with a causal partner, and 138 people (34.9%) practiced with a partner who had several sexual partners. Of the respondents who had engaged in sexual activity, 101 (25.6%) had exchanged cash, gifts, or favors for having sex with a business partner within the previous 12 months.

Of the students who are sexually active, 152 (38.6%) have a regular partner. Forty-five (35.5%) of them said they had stayed with

Table 1: Sociodemographic characteristics of school adolescents' exposure to HIV/AIDS at hosanna governmental high schools; Hadiya zone; 2018.

S.N.	Variables	Category	Frequency	%
1	Age group	11-19	290	73.7
		19-24	83	21.1
		>24	21	5.2
2	Sex	Male	190	48.3
		Female	204	51.7
3	Marital Status	Single	385	97.84
		Married	9	2.16
		Widowed	0	0
		Divorced	0	0
4	Educational status of the mother	Illiterate	162	41
		Read and write	146	37
		1-8	47	12
		9-12	27	7
		Diploma and above	12	3
5	Educational status of the father	Illiterate	100	25.4
		Read and write	138	35.1
		1-8	86	21.9
		9-12	38	9.5
		Diploma and above	32	8.1
6	Religion	Protestant	225	57
		Orthodox	125	31.8
		Muslim	23	5.8
		Catholic	13	3.4
		Others	7	1.8
7	Ethnicity	Hadiya	214	54.34
		Kambata	73	18.47
		Guragie	45	12.3
		Silte	42	10
		Others	20	5
8	Occupation of the respondent's father	Farmer	147	37
		Merchant	130	33
		Govt employer	99	25.1
		Others	19	4.9
8	Residence	Urban	138	34.9
		Rural	256	65.1
9	With whom you are living	With parents	251	63.7
		Separate from parents	143	36.3
10	Monthly income of the family	<2000	209	53.1
		2000-4000	121	30.6
		>4000	64	16.4
11	Class	9th	212	53.8
		10th	182	46.2

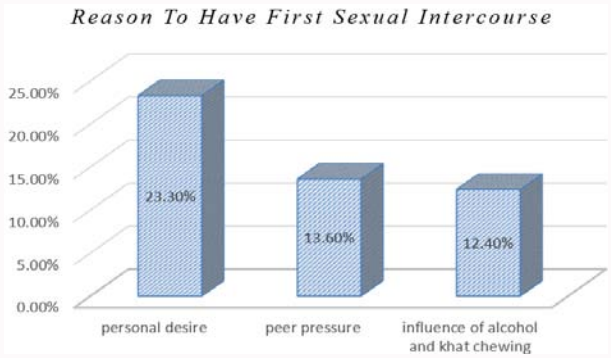

Figure 1: Reason to have first sexual intercourse encountered school adolescents' exposure to HIV/AIDS at hosanna governmental high schools; Hadiya zone.

their regular partner for less than a year. Of the students who had ever engaged in sexual activity, 41 (5.9%) had experienced rape at the hands of a someone they did not know beforehand. Only 76 (19.4%) of them regularly used condoms throughout their sexual encounters, compared to the majority of 111 (28.1%) who had never used one.

The majority of people who had sex with a regular partner– 165 (41.8%) –did not use condoms. The primary reasons for this were that they didn't trust condoms as they spread HIV 99 (25.2%), disliked condoms 91 (23.1%), and trusted a partner 100 (25.5%). Of the research participants, 115 (29.1%) have engaged in unsafe sexual conduct. 79 (20.1%), 68 (17.2%), and 14 (3.6%) of the study participants used alcohol, khat, and cigarette, varying from infrequently (2-3 times per month) to everyday (Table 2).

Knowledge on HIV/AIDS

The majority of the students– 386 (98%) and 350 (88.9%) –knew about HIV and AIDS, as well as illnesses that can be contracted through sex. The primary means of HIV transmission that the students were aware of were contaminated injection needles (260) and sexual contact (342; 86.9%). The biggest myths that the students reported included eating raw chicken that had ingested a used condom (17.9%) and getting bitten by a mosquito (30).

Of the students surveyed, 121 (30.8%) and 120 (30.5%) said they were unsure if eating raw chicken that had ingested a condom or being bitten by a mosquito spreads HIV. Similarly, 126 (32.1%) research participants said they were unaware that an HIV-positive individual who appears healthy can potentially spread the virus, while 99 (25.1%) participants said that HIV cannot infect a healthy individual.

Risk perception

According to 357 (90.5%) of the study participants, AIDS poses a major threat to the community. While still not a significant percentage, 26 (6.7%) of them said that AIDS is not a threat, while 11 (2.9%) said they were unsure. Regarding their own perception of HIV, 229 (58.1%) students who were sexually active stated that they either have little or no danger of contracting the virus. However, 92 students (23.3%) believed that their chances of contracting the virus are moderate to high. Of the responders, 73 (18.6%) are unaware of their risk of contracting the HIV virus.

The explanations given by the students for their perception of no or low chance were: Abstaining from sexual relations 76 (19.3%), 97 (24.7%), and 160 (40.7%) for trusting a sexual partner. The students'

Table 2: Shows risky sexual behavior school adolescents' exposure to HIV/AIDS at hosanna governmental high schools; Hadiya zone.

S.N.	Variables	Response	Frequency	Percent
1	More than one partner in the past	Yes	148	37.7
		No	246	62.3
2	The main reason to have sex with more than one partner	Trusting their partners	100	25.5
		For enjoying	91	23.1
		For money	47	12
3	Do you have regular partner	Yes	152	38.6
		No	242	61.4
4	Have sexual intercourse with their regular partner in the last twelve months	Yes	133	33.7
		No	261	66.3
5	Reason to have a regular partner	To protect from HIV infection	74	18.8
		Faith full	86	21.9
6	Used condom during any sexual intercourse episode	Yes	76	19.4
		No	283	71.8
7	Main reasons for not using condom	Trusted a partner	100	25.5
		Disliking condoms	91	23.1
		Not trusting condom as they transmit HIV	99	25.2
9	Use any substance abuse	Yes	175	44.4
		No	219	55.6
10	Which substance	Alcohol	79	20.1
		Khat	68	17.2
		Cigarette	14	3.6

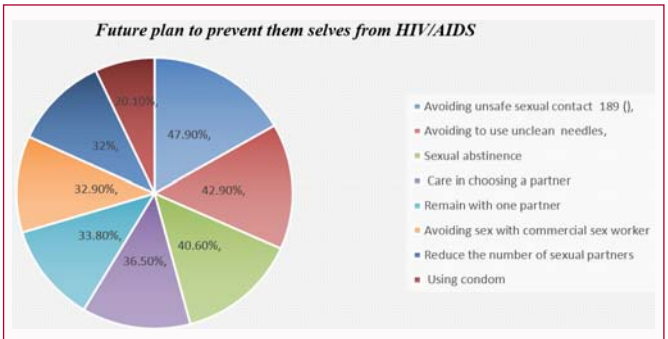

Figure 2: Future plan to prevent from HIV/AIDS infection of school adolescents of hosanna governmental high schools; Hadiya zone; 2018.

primary justifications for classifying themselves as moderate to high risk were: having several partners (85, 21.7%), having sexual contact with HIV-positive individuals (72, 18.3%), and having sexual contact without the use of a condom (151, 38.3%). The majority of responders (282, 71.6%) believe that behavior changes can prevent an individual from becoming AIDS.

The students listed the following changes in their future plans to protect themselves from HIV/AIDS infection: 189 (47.9%) avoided unsafe sexual contact; 169 (42.9%) avoided using dirty needles or instruments; 160 (40.6%) sexual abstinence; 144 (36.5%) took great care when selecting a partner; 133 (33.8%) stuck with one partner; 126 (32%) fewer sexual partners; and only 79 (20.1%) of the students who were sexually active reported using a condom during every sexual encounter (Figure 2).

Discussion

HIV/AIDS is the most debilitating disease a person has ever encountered since it strikes the most productive segment of society, posing a social and economic burden in addition to physical issues. The disease's primary method of transmission through sexual relationships made prevention and control challenging, and as a result, it quickly spread throughout the world. According to UNAIDS estimates, five young men and women contract HIV for the first time every minute of the day. Young adults between the ages of 19 and 25 account for over half of all new HIV infections worldwide, and in the most severely impacted nations, this percentage can reach 60% in certain cases [11-15]. Early sexual initiation is a common phenomenon in sub-Saharan Africa, where the HIV/AIDS epidemic is still rife. During adolescence, people lack the experience-based judgment to recognize the negative consequences of their actions, so they engage in sexual activity during this time [16-20].

In my study, the majority of students knew about HIV/AIDS and 88.9% had heard about diseases that can be contracted through sexual activity. Sexual contact was the primary method of HIV transmission that the students were aware of. The two most common misunderstandings mentioned by the students were 86.9% and 66% regarding tainted injection needles. It was discovered that female students began having sex earlier than male pupils. Men have been found to be more exposed to dangerous sexual conduct, even though women start dating earlier than men. This could imply that teenagers start dating too young, which could expose them to dangerous sexual activity and its repercussions [21-26].

Students living in extended families run the danger of being exposed to risky sexual conduct since there is less parental supervision and potential financial hardship for the family members. In this study, students from families with eleven members or more were found to be exposed to risky sexual conduct that could expose them to HIV/AIDS, even if it was not able to uncover studies that corroborate our findings. Due to the inherent risks of adolescence and their drive to try new things, various factors may pressurize school-aged teenagers to participate in premarital sexual activity.

The majority of young people are extremely sensitive to the opinions of their peers, particularly older teens. Peer perceptions frequently have a bigger impact on sexual and other risk-taking behavior than do parental and other adult attitudes. In the current study, peer pressure (23.3%) and personal desire (391%) were the most common reasons given by the students for initiating a sexual act for the first time. The primary explanations given in the FGD were the beautiful actions of girls who kept themselves occupied and watched pornographic movies [27-30].

This suggests that a variety of factors that encourage adolescents to engage in risky activity have an impact on their sexual behavior. One of the things that makes people more vulnerable to HIV/AIDS is having many sexual partners. Adolescents in schools often have these kinds of relationships because they come from diverse backgrounds and have opportunities to interact and relate to one another [31-34].

According to the mean number of sexual partners in this study, 47.7% of students reported having sex with more than one partner at some point in their lives. This could suggest that school-aged teenagers take more risks than they should, highlighting the need to modify their sexual behavior. Similar to this, research conducted among school-age adolescents in northern and western Ethiopia revealed that, among those who had engaged in sexual activity, there had been roughly two partners overall [35]. One-third of sexually active high school students reported having several sexual partners, according to another survey conducted among high school students in Jimma [36-38].

Despite the fact that the majority of students are aware of multiple transmission modes and preventive measures, they yet hold a misunderstanding that limits their understanding. According to the results of our study, the virus can be spread *via* mosquito bites, raw meat prepared by an HIV-positive person (24.7%), room sharing (21.3%), eating raw chicken that has ingested a condom (17.9%), and sharing a room with an HIV-positive person (7.7%). Also, 26.6% of respondents said that condom use (41.2%), having a single faithful partner (24.9%), and not engaging in sexual activity did not stop HIV transmission. These results would suggest that there is still a behavior and awareness gap among school-aged teenagers, making them more susceptible to HIV/AIDS. Similar elements, though less so than in the current study, were misunderstood by school-age teenagers in the Behavioral Surveillance Ethiopia, Survey 2002 [10]. A survey conducted across 40 nations revealed that over 50% of youth between the ages of 15 and 24 have grave misconceptions regarding the transmission of HIV/AIDS [9]. This finding was also supported by a different study that involved high school students in Northern Ethiopia; it found that 60% of them had intercourse with two or more partners. According to a significant percentage of both men and women in an African study who had sex as teenagers, there is little to no chance of contracting AIDS. The percentage of young men in Tanzania who believe they are at low or no risk varies to 87% in Zambia.

In Zimbabwe, the percentage of young women ranges from 83% to 26% in Mozambique. Similar results from surveys conducted in Mali, Haiti, and Nigeria were also obtained [9]. Only 20% of the young women in a study of schoolgirls in Mozambique believed they were at risk of ever contracting HIV.

Conclusion

Teenagers at school engage in high-risk behaviors that put them at danger of contracting HIV/AIDS. The risky habits include unprotected sex, several sexual partners, early sexual entrance, and sex with risky groups.

Recommendation

To close the knowledge, attitude, and practice gap among students on sexual topics, reproductive health, particularly HIV/AIDS prevention and control, should be integrated into the curriculum starting in primary school. IEC should be regularly provided by health facilities, voluntarily HIV positive individuals, opinion leaders, religious leaders, and members of school anti-AIDS clubs.

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