




# Sexual Risk Behavior Among Adolescents in a State Senior High School in East Java, Indonesia

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**Abstract.** Some adolescents engage in sexually risky behavior. Sexual risk behavior is unprotected sexual contact with partners who are possible HIV and AIDS carriers. This study aimed to examine sexual risk behavior among high school students. This study was a cross-sectional study. Respondents of this study were 81 adolescence who were chosen by a simple random sampling technique. The variable of this study was sexual risk behavior, age, gender, experience with health reproductive information, sources of information, sexual experience, relations status, and knowledge. Data were collected by questionnaire and analyzed using percentage description of the proportion and correlational test. The result of this study was 17.3% of the respondents had sexual risk behavior. All of them were sexually active, 28% had sexual intercourse, 28% had anal sex, and 75% do not use condoms. Gender, Information, and source information were significantly associated with sexual risk behavior. Schools have to work with health workers to plan the provision of health education to students to prevent risky sexual behavior and also about sexually transmitted diseases.

**Keywords:** adolescent · reproductive health · sexual behavior · HIV · AIDS

## 1 Introduction

Adolescence is a time of both physical and mental maturity, as well as sexual maturation. Adolescents who cultivate a sense of curiosity about sexual matters are more likely to engage in healthy relationships with those of the opposite sex. In addition, issues related to sexual and reproductive health, such as HIV/AIDS, become more prevalent during adolescence. Opportunistic infections and some types of cancer can manifest in people with AIDS because their immune systems have been compromised by HIV infection (HIV).

Acquired immune deficiency syndrome (AIDS) is a significant global health concern. In 2021, approximately 1.71 million (1.24 million–2.21 million) adolescents aged 10 to 19 were HIV-positive worldwide. Approximately 5% of all people living with HIV and 11% of all new adult HIV infections are adolescents [1].

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In Indonesia, there are about 4.5% of boys and 0.7% of girls aged 15–19 years claim to have had premarital sex. In 2015, the cross-sectional “Global School-Based Student Health Survey (GSHS)” of 24,423 adolescents (mean age: 14.1 years, standard deviation: 1.7) from Indonesia, Laos, Thailand, and Timor-Leste revealed that 5.3% of students in Indonesia (11% of males and 6.3% of females) had ever engaged in sexual activity. 73.9 percent of sexually active individuals had their first sexual encounter before the age of 14, and 63.4 percent had several sexual partners [2].

Sexual risk behavior is defined as unprotected sexual intercourse with partners who are potential carriers of sexually transmitted diseases, especially HIV and AIDS [3].

Adolescents who can control themselves by suppressing the emergence of sexual urges can be influenced by having good knowledge about sexual reproductive health and also thinking about the risks that will be obtained if they engage in sexual behavior. If adolescents cannot change these sexual behavior habits, there are several impacts, including causing teenage pregnancy before marriage which leads to abortion, and an increased risk of HIV/AIDS transmission.

Considering the vulnerability of young people to HIV infection and the national effect of the disease, it is crucial to have an understanding of the difficulties associated with HIV infection among young people. The discovery of effective medications to battle the illness depends on solving issues like how teens understand their risk of HIV infection and how this understanding drives their sexual risk behavior [4].

Many adolescents from various primary schools join secondary schools and increase their peer networks, which may affect their sexual behavior either positively or badly. The majority of high school students are at a stage of sexual socialization, experimentation, and identity formation; therefore, identifying sexual risk behavior and associated characteristics among school youth is essential for designing a need-based intervention for youth at school [5].

This study intends to analyze sexual risk behavior among high school students at a state senior high school in Sidoarjo City, East Java, Indonesia, by simultaneously evaluating factors in several dimensions and employing potential sexual practices as a measure of overall sexual risk behavior.

## 2 Method

### 2.1 Study Design, Area, Period

This study used a cross-sectional quantitative design. Students in a state senior high school in Sidoarjo city, East Java, Indonesia, participated in this study during the month of April 2021. Students in their 15s and 17s who attend a regular daytime 11th-grade class participated in the study.

### 2.2 Sample Size

The Population of this study was 432 students of a state senior high school in Sidoarjo city, East Java, Indonesia. Respondents of this study were 81 students who met inclusion criteria such as those aged 15–17 years old, and willing to be respondents.

### **2.3 Sampling Technique**

To recruit participants for the study, a multistage sampling procedure was used. This school's first six classes were picked using a basic random selection procedure. The sample size was then distributed to each class utilizing the proportional-to-size allocation method. Finally, sections that could handle the assigned sample for each class were chosen using the lottery approach, and all eligible students in the chosen sections were utilized for data collection. Using consent forms, all students in the selected classrooms were invited to engage willingly in the survey study (ascent forms).

### **2.4 Data Collection Tool and Procedure**

Data was collected using a structured self-administered questionnaire. The Questionnaire was adopted from Anggarini's questionnaire. The questionnaire contains demographic status such as age, gender, ethnicity, information about reproductive health, source of information about health reproduction, knowledge about HIV/AIDS, sexual experience, relationship status, and sexual risk behavior. This questionnaire was modified from Anggarini's which was used for measuring sexual risk behavior in youth students in Indonesia. The questionnaire contains 4 components about sexual risk behavior such as deep kissing, oral sex, anal sex, and sexual intercourse, but in this study, we only analyze 3 components that affected HIV transmission (oral sex, anal sex, and sexual intercourse). The questionnaire was reliability and validity tested. Data was collected online using Google Forms.

### **2.5 Data Analysis and Quality Management**

The data were imported into SPSS for analysis (SPSS version 22.0). Age, gender, ethnicity, experience with reproductive health information, information source, relationship status, HIV/AIDS knowledge, and sexual behavior were among the categorical variables for which we sought frequencies and percentages, and among the continuous variables for which we sought means (Standard Deviation).

In multivariate studies, researchers examined the link between demographic status, knowledge, and sexual risk-taking by correlational statistics. All sociodemographic factors that showed a statistically significant link with sexual risk behavior in bivariate research ( $p < 0.05$ ) were included in the multivariate analysis.

### **2.6 Ethical Considerations**

This research adhered to the established ethical standards and was authorized by the Catholic Health Sciences of St. Vincent of Paul's Ethical Commission (1229/Stikes Vinc/KEPK/IV/2021). All information supplied by participants was kept anonymous and confidential, and participants completed an informed consent form.

**Table 1.** Distribution of respondents by demographic status, knowledge, and sexual risk behavior

Variable	n	%
<b>Age</b>		
15 years old	2	2.4
16 years old	16	19.8
17 years old	63	77.8
<b>Gender</b>		
Male	31	38.3
Female	50	61.7
<b>Ethnic</b>		
Jawa	80	98.8
Bugis	1	1.2
<b>Source of information about reproductive health</b>		
Parents	10	15.9
Peer	14	22.2
Teacher	19	30.2
Social media	20	31.7
<b>Experience information about reproductive health</b>		
Yes	63	77.8
No	18	22.2
<b>Relationship status</b>		
In relationship	14	17.3
No	67	82.7
<b>Knowledge about HIV/AIDS</b>		
Good	67	82.7
Poor	14	17.3
<b>Sexual behavior</b>		
Risk of HIV/AIDS	14	17.3
No risk of HIV/AIDS	67	82.7

### 3 Results

(Table 1) Females made up the majority of participants (61.7%), and the median age was 17 (77.8%) among those who answered the survey. The majority of respondents (82.7%) were found to have sufficient awareness of HIV/AIDS levels, according to the study's findings on the degree of knowledge. The vast majority (77.8%) of respondents reported being knowledgeable about sexually transmitted diseases and other aspects of

**Table 2.** Sexual risk behavior among adolescent respondents

Variable	n	%
<b>Being sexually active</b>		
No	67	82.7
Yes	14	17.3
<b>Sexually behavior</b>		
Oral sex	6	7.4
Intercourse	4	4.9
Anal sex	4	4.9
<b>Used condom at last sexual intercourse</b>		
No	6	75.0
Yes	2	25.0
<b>Status of relationship</b>		
Marital	0	0.0
No marital	14	100.0

reproductive health. The most common way people heard about it was through social media (31.7%).

(Table 2) The results of this study showed that 82.7% of respondents had no sexual risky behavior. Only 17.3% had sexual risky behavior. All of them were sexually active (do sexual activity once or more for 6 months when the study was done), and 7.4% of respondents do oral sex. Regarding condom use during the last sexual intercourse or anal sex 75% do not use condoms. All of the respondents had no marital status.

The results of the multivariate test analysis in Table 3 show that statistically significant variables are reproductive health, source of information, and relationship status with a p-value < 0,05.

## 4 Discussion

High school students in Sidoarjo, Indonesia, were surveyed to determine the prevalence of sexual risk behavior and associated factors. Overall, 17.3% of the participants in this research engaged in sexually risky conduct. This conclusion is in line with the findings of Rizkianti et al. (2020), who used data from the 2015 Global School-based Health Survey to examine the prevalence and correlates of sexual intercourse among junior secondary and high school students in Indonesia (GSHS) [6]. 5.3% of the students in this survey reported having sex at least once, while almost 60% reported having several sexual partners. Rahman's findings, which found that 5.9% of teenagers participated in sexually hazardous conduct regarding unplanned pregnancy (KTD) and HIV/AIDS, are likewise compatible with these findings [7]. This result, however, is greater than what the Global School-based Health Survey found for Indonesian middle and high school

**Table 3.** Bivariate analyses assessing factors associated with being sexually active among respondent

Variable	Risk Behaviour		No Risk Behavior		P
	n	%	n	%	
<b>Age</b>					
15 years old	1	50.0	1	50.0	0.223
16 years old	1	6.3	15	93.8	
17 years old	12	19.0	51	81.0	
<b>Gender</b>					
Male	12	38.7	19	61.3	0.01
Female	2	4.0	48	96.0	
<b>Source of information about reproductive health</b>					
Parents	4	40.0	6	60.0	0.035
Peer	8	57.1	6	42.9	
Teacher	3	15.8	16	84.2	
Social media	6	30.0	14	70.0	
<b>Experience information about reproductive health</b>					
Yes	1	1.6	62	98.4	0.00
No	13	72.2	5	27.8	
<b>Relationship status</b>					
In a relationship (no marital)	9	13.4	58	86.6	0.046
No	5	35.7	9	64.3	
<b>Knowledge about HIV/AIDS</b>					
Good	11	16.4	56	83.6	0.657
Poor	3	21.4	11	78.6	

students (GSHS). This could be because of the different periods in which the studies were conducted, or because the area where the respondents live has only one senior high school, giving students in higher grades more opportunities to engage in sexual risk behaviors than their junior high school-aged counterparts.

This study showed that 17.3% were sexually active. 57% percent of them do sexual intercourse and anal intercourse, and 75% of them do not use condoms. All of them were not in marital status so sexual activity might be done with multiple partners. The reason why adolescents begin to carry HIV/AIDS risky behavior while in sexual status is that it is considered to reflect freedom, maintaining relationships, closeness, or love. These facts and theories argue that adolescents who are in sexuality are more at risk for engaging in HIV/AIDS risky behavior because behavior is considered normal if it is carried out in that status. That status in addition to leading to sexual relations, adolescents tend to have a desire and feel more challenged to try new things. This finding is in line

with the result of the study about sexual risk behaviors among youth in Soweto, South Africa during the COVID-19 National Lockdown that showed adolescents 14–18 aged doing sexual activity with dating partners, and most of them didn't use condoms [8].

The percentage of men engaging in sexual risk behavior was 38%. The creature towers over a female human. Female sexual risk-taking was just 4% overall. The results of the statistical test indicated a statistically significant relationship between gender and sexual risk-taking ( $p = 0.01, 0.05$ ). Consistent with research conducted on the topic of teenage behavior and HIV/AIDS prevention in Yogyakarta, Central Java, Indonesia. Female respondents were shown to have the most proactive HIV/AIDS preventive behavior, according to this study [9]. Gender was shown to be correlated with sexual activity among Indonesian teenagers in a 2015 Global School-based Health Survey (GSHS) research examining the frequency and factors that influence sexual activity among middle and high school students [6]. Involvement in sexual behavior was more common among males than among females. A case may be made that puberty and the development of sexuality are distinct for males and girls. While men are more likely to have positive expectations for sexual activity, women tend to be driven by emotional reasons that are largely connected to other wants, such as the need for love, esteem, and self-ascertainment. Men are more inclined to participate in sexually dangerous conduct because of this.

This study also showed that experience information about reproductive health had a significant correlation with sexual risk behavior ( $p = 0.00, p < \alpha$ ). Adolescents who got information about reproductive health had a positive attitude about sexually transmitted diseases. Male adolescents with an agreeable attitude had a higher risk of contracting risky STIs compared to those with a disagreeing attitude [10]. Adolescents who have a good and correct understanding of reproductive health can understand how to encourage sex healthily and responsibly. Based on the facts and theory, the researcher argues that adolescents who have received health information have a small chance of engaging in HIV/AIDS-risk sexual behavior because they already understand very well what diseases can be transmitted from sexual behavior.

Based on the source of information about health reproductive, most of the adolescents who had sexually risky behavior got information from their peers ( $p = 0.035, p < \alpha$ ). Peer friends had a direct effect on the adolescent behavior variable, according to the findings of the study. This research demonstrated that peer friends' influence on adolescents' conduct was a product of their everyday socializing with peers in a school setting. This result was consistent with Rahmatin's findings that peer influence has a strong link with sexually risky conduct [7]. The information which was got from peers is not 100% true. It affected the negative perception of sexual behavior and sexual risky behavior.

The following restrictions should be considered when interpreting some findings: Due to the cross-sectional nature of the study, the results provide just a snapshot of the sexual risk behavior of teenagers. Even though the population sampled for this study was limited to adolescents from a single senior high school, it cannot be stated that this population represents at-risk adolescents in Indonesia.

## 5 Conclusion

The result of this study was seventeen percent (17.3%) of the respondents had sexual risk behavior. All of them were sexually active, 28% of them had sexual intercourse and 28% had anal sex, 67% of respondents had a good knowledge of HIV/AIDS. Gender, Information, and source information were significantly associated with sexual risk behavior, but there was no significant association between sexual risk behavior and knowledge about HIV/AIDS.

The results of this study can be used as a reference for the school to work with health workers to plan the provision of health education to students to prevent risky sexual behavior and also about sexually transmitted diseases so that students get adequate information from the right sources about sexual behavior that is not at risk and also sexually transmitted diseases.

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