



The Relationship Between HIV/AIDS Knowledge Levels and Teen Attitudes Towards Premarital Sex

Andreas Rantepadang^{1*}, Brendsy Nesy Federika Pangau²

¹ Faculty of Nursing, Klabat University, Manado, Indonesia

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Corresponding Author:

Andreas Rantepadang

rantepadang@unklab.ac.id

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Abstract: Adolescence is a stage characterized by rapid changes and challenges that can be difficult to face due to limited knowledge, particularly about HIV/AIDS. Knowledge plays a crucial role in shaping attitudes, which can influence changes in perceptions of premarital sex. The aim of this study is to examine the relationship between HIV/AIDS knowledge levels and teen attitudes towards premarital sex. The research employs a descriptive correlational method with a cross-sectional approach, involving 208 respondents selected through proportional stratified random sampling. Data collection was conducted using a questionnaire. The results revealed that 100 respondents (48.1%) fell into the adequate knowledge category, 90 (43.3%) were in the good knowledge category, and 18 (8.7%) were categorized as having poor knowledge. Regarding attitudes towards premarital sex, 198 respondents (95.2%) exhibited a positive attitude, while 10 (4.8%) displayed a negative attitude. The Spearman rank correlation test yielded a p-value of 0.05, indicating a significant relationship between knowledge and attitudes, with a very weak correlation in a positive direction. This means that as adolescents' understanding of HIV/AIDS increases, their attitudes become more positive. The study recommends adding resources about HIV/AIDS and premarital sex in schools and suggests that future research should focus on selecting appropriate educational methods for HIV/AIDS prevention.

Keywords: AIDS; HIV; Knowledge; Sex; Attitude

Introduction

Human Immunodeficiency Virus (HIV) is a type of virus known as a retrovirus that causes a decrease in the immune system, potentially leading to Acquired Immune Deficiency Syndrome (AIDS), the final stage marked by the failure and dysfunction of the immune system due to opportunistic infections, which can be life-threatening (Setiarto et al., 2021). Data from the World Health Organization (WHO) in 2021 reported that there are 680,000 adolescents worldwide living with HIV/AIDS. According to the Ministry of Health in 2021, Indonesia had 3.1% of HIV patients aged 15-19 years and 2% of AIDS cases in those aged 15 and below (Kemenkes, 2022). Data from the Health Office of North

Sulawesi in 2018 indicated there were 2,444 cases of HIV/AIDS (Dinkes, 2019). Similarly, a study in Manado in 2018 found 9 adolescents with HIV/AIDS, with numbers expected to continue rising (Dinkes, 2018). The increase in HIV/AIDS cases is particularly dangerous for adults and poses risks for adolescents (Takainginan et al., 2016).

Adolescence is a transitional period from childhood to adulthood. According to BKKBN, the vulnerable age for adolescents is 10-19 years. During this period, adolescents experience many changes, both physical and psychological, such as uncontrolled emotions and often poor decision-making, influenced by hormones, peer pressure, and limited knowledge (Diananda, 2018).

Knowledge significantly impacts the formation of an individual's attitudes. It turns out that attitudes based

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on knowledge are generally better than those without a knowledge basis. Given that adolescents often have minimal knowledge, their attitudes may lean towards less favorable ones (Martilova, 2020). Attitude is defined as a person's reaction in responding to an object, involving acceptance, response, appreciation, and responsibility (Rajaratenam et al., 2014). Teen attitudes towards premarital sex are influenced by their knowledge and surrounding environment, such as peers, which can lead them to perceive premarital sex as common and frequent (Mangando et al., 2014).

Premarital sex among adolescents has become a global issue. This is evidenced by the World Health Organization (WHO), which states that 25% of adolescents aged 15-19 in developed countries like the United States, the United Kingdom, and Australia have engaged in premarital sex (WHO, 2013). The 2017 Indonesia Demographic and Health Survey (SDKI) reported that around 2% of female adolescents aged 15-24 and 8% of male adolescents in the same age group admitted to having sexual relations before marriage (Kemenkopmkri, 2020). According to BKKBN (2014), based on gender, male adolescents in North Sulawesi have a premarital sex rate of 28%, while female adolescents stand at 9%.

Based on the preliminary study conducted on August 19, 2022, at a high school, the researchers found that ten respondents exhibited a low level of knowledge about HIV/AIDS, believing that HIV/AIDS could be transmitted through saliva, direct contact, blood, and injections. When interviewed about premarital sex, five respondents agreed that premarital sex is acceptable for every teenager, while the others disagreed with it.

On November 25, 2022, the researchers interviewed four teachers at the high school, including two biology and physical education teachers, who stated that students receive material about HIV/AIDS and sex in grades X, XI, and XII during the even semester. On December 8, 2022, the researchers conducted a follow-up preliminary study using a questionnaire with ten student respondents representing grades X, XI, and XII. The results showed that the knowledge level about HIV/AIDS was adequate and that the students had a positive attitude.

Research on HIV/AIDS knowledge has been conducted before but only focused on students in grade XI. In this study, the researchers employed a sampling method that included representation from each grade – X, XI, and XII—and added variables related to premarital sex in high school. Therefore, the researchers conducted this study titled "The Relationship Between HIV/AIDS Knowledge Levels and Teen Attitudes Towards Premarital Sex."

Method

The research design used was quantitative with a descriptive correlational approach aimed at describing and studying the relationships between variables to assess the strength and direction of these relationships. The study design employed was a cross-sectional approach, where observation and data collection occurred once at the same time (Kurniawan & Agustini, 2021). In this study, frequency and percentage were used to depict the level of knowledge about HIV/AIDS and premarital sex, while the Spearman rank correlation was used to determine the relationship between HIV/AIDS knowledge levels and attitudes towards premarital sex, as the data were not normally distributed.

Population and Sample

The population in this study consisted of all students at High School X in North Minahasa, totaling 423 individuals across 14 classes. The sampling technique used was proportional stratified random sampling, where all student names from each class were placed in a box and drawn one by one; the drawn names were called to become respondents. To determine the sample size, the researchers used Slovin's formula.

Inclusion criteria included all high school students aged 12-18 years who were willing to participate in the study by filling out informed consent. Exclusion criteria included students who were absent during data collection and those who were unwilling to be respondents.

Data Collection

Data collection was conducted on 208 participants in this study. The researchers adopted and used a questionnaire instrument to assess adolescents' attitudes towards premarital sex, which had a Cronbach's alpha value of 0.836. This questionnaire contained 8 statements divided into three indicators: cognitive, affective, and conative. It included "positive" attitudes (a tendency to avoid premarital sex) and "negative" attitudes (a tendency to approach premarital sex), with a positive attitude indicated by scores between 20-32 and a negative attitude indicated by scores between 8-19. To measure HIV/AIDS knowledge, with a Cronbach's alpha value of 0.920, the researchers adopted a questionnaire consisting of 34 questions divided into categories: understanding, symptoms, transmission, reasons to be cautious, risky and non-risky behaviors, and prevention of HIV and AIDS. Scores on this questionnaire were categorized as follows: good (76-100%), adequate (56-75%), and poor (<56%).

Results and Discussion

This section will specifically discuss the results, findings, limitations of the study, and implications.

Results

Table 1. Overview of HIV/AIDS Knowledge Levels

Knowledge	Frequency	Percentage (%)
Good	18	8.7
Adequate	100	48.1
Poor	90	43.3
Total	208	100

As shown in Table 1, among 208 respondents, 100 (48.1%) fell into the adequate knowledge category, while 90 (43.3%) were categorized as having good knowledge, and 18 (8.7%) had poor knowledge. Thus, the majority of high school students had adequate knowledge about HIV/AIDS.

Table 2. Overview of Attitudes towards Premarital Sex

Attitude	Frequency	Percentage (%)
Positive	198	95.2
Negative	10	4.8
Total	208	100

In Table 2, regarding attitudes towards premarital sex, 198 (95.2%) of the 208 respondents exhibited a positive attitude towards avoiding premarital sex, while 10 (4.8%) had a negative attitude, indicating a tendency to approach premarital sex. Thus, the majority of high school students held a positive attitude towards avoiding premarital sex.

Table 3. Relationship between HIV/AIDS Knowledge and Attitudes towards Premarital Sex

Variable	n	r	p-value
Knowledge	208	0.136	≥ 0.05
Attitude			

Table 3 shows a p-value greater than 0.05, indicating a significant relationship between HIV/AIDS knowledge levels and adolescents' attitudes towards premarital sex in high school. The correlation value of 0.136 suggests that the strength of the relationship between the two variables is very weak, with a positive direction, meaning that as knowledge about HIV/AIDS increases, the positive attitude towards premarital sex also increases. Conversely, as knowledge about HIV/AIDS decreases, the attitude towards premarital sex becomes more negative.

Individual knowledge serves as a foundation for making decisions and determining actions when facing problems. Knowledge is the result of awareness that forms after sensory perception of a specific object. This

perception occurs through the senses of smell, sight, hearing, taste, and touch (Pakpahang et al., 2021).

The findings of this study align with research by Periaстана and Sugiarto (2018), which found that adolescents' knowledge was categorized as adequate, meaning they could further enhance their understanding to be more vigilant and support HIV/AIDS prevention. Similarly, the research by Solihati and Faridah (2020) indicated that adolescents' knowledge was categorized as good, suggesting that they support prevention efforts and work to maintain and increase their awareness of HIV/AIDS.

Based on the researchers' analysis of 34 statements regarding knowledge, three statements were answered correctly by over 94% of students: that changing sexual partners can increase the risk of contracting HIV, which falls under the aspect of HIV/AIDS transmission activities; that individuals infected with HIV and AIDS experience a decrease in immune function, making them more vulnerable to various infections, which pertains to the understanding of HIV/AIDS; and that HIV and AIDS can affect anyone regardless of skin color, gender, age, etc., which relates to the reasons why HIV/AIDS should be taken seriously.

Conversely, three statements were answered incorrectly by more than 91% of students: that HIV (Human Influenza Virus) is a disease that lowers human immune function, which falls under the understanding aspect; that eating or drinking with someone who has HIV or AIDS, or using the same eating and drinking utensils, can transmit HIV and AIDS, which pertains to risky activities; and that the rate of HIV and AIDS transmission is slow, with most transmission occurring through deviant sexual practices, making it easier to manage, which relates to reasons to be cautious about HIV/AIDS. This indicates that the level of knowledge among high school students is primarily in the adequate category, as they receive material on HIV/AIDS and sex in biology classes in grades X and XII during the even semester, as well as in physical education classes covering HIV/AIDS and sex in grades X, XI, and XII.

Attitude is an expression of an individual's feelings interpreting their likes or dislikes towards objects, ideas, situations, and values, whether positive or negative (Pitoewas, 2018). Premarital sex is defined as sexual relations engaged in by adolescents without any legal or religious marriage bonds (Taufik, 2013).

The findings of this study are consistent with research by Mangando et al. (2014), which found that adolescents exhibited positive attitudes, indicating a tendency to avoid certain objects. This positive attitude is beneficial as it reflects a desire to steer clear of premarital sexual activities. Similarly, research by Husna & Ariningtyas (2019) showed that adolescents tended toward negative attitudes; in this context, a

negative attitude indicates a lack of support for premarital sex, which is also a favorable outcome.

From the eight statements measuring attitudes toward premarital sex, the statement regarding "I feel that premarital sex is a basic need for adolescents," which is number four and falls under the affective component (feel), had more than 100 respondents strongly disagreeing. Meanwhile, statement number eight, "In my opinion, adolescents need to know about reproductive health," which falls under the conative component (do), received strong agreement from more than 140 respondents.

In statement number one, which stated, "In my opinion, hugging can stimulate adolescents sexually," classified under the cognitive component (think), 94 respondents disagreed. Similarly, statement number two, "In my opinion, kissing on the forehead, like touching cheeks, is a form of premarital sexual behavior," also classified under the cognitive component (think), saw 87 respondents disagreeing. This reinforces that the majority of high school students hold a positive attitude, meaning they tend to avoid premarital sex.

Knowledge is a primary domain for shaping an individual's actions and attitudes (Takainginan et al., 2016). Knowledge significantly influences the formation of attitudes; it turns out that attitudes based on knowledge are better than those that are not (Martilova, 2020). Similarly, Najmah et al. (2022) found that a person's attitude is closely influenced by knowledge. According to Harwijayanti et al. (2022), factors influencing attitudes include educational institutions, religious institutions, emotional factors, mass media, cultural influences, the perceived importance of others' opinions, and personal experiences.

Based on research by Parangningrum (2021), it was found that adolescents had good knowledge, with attitudes that do not support premarital sex, showing a significant relationship with a p-value of 0.042. Essentially, better knowledge correlates with more favorable attitudes towards premarital sex. Likewise, Hidayat (2017) found that adolescents had adequate knowledge but were largely against premarital sex, and there was a significant relationship with a p-value > 0.05 , indicating that as knowledge about HIV/AIDS improves, the likelihood of engaging in premarital sex decreases.

The strength of the relationship between HIV/AIDS knowledge and attitudes towards premarital sex is very weak, as 8.7% of students have inadequate knowledge about HIV/AIDS. Therefore, health education or outreach on HIV/AIDS and premarital sex is necessary to elevate students' knowledge from an adequate to a good level. The positive direction of the relationship indicates that as individuals' knowledge about HIV/AIDS increases, their attitudes towards

premarital sex also become more positive (Hidayat, 2017; Ali et al., 2024).

Thus, there is a need to enhance knowledge through health education via animated videos about HIV/AIDS (Karama et al., 2024), as health promotion through video media is easier to understand and quickly absorbed (Nasution et al., 2023). An increase in knowledge about HIV/AIDS will foster a strong commitment to HIV/AIDS prevention (Kirana et al., 2023), which will positively impact attitudes.

Conclusion

Based on the findings, the level of knowledge about HIV/AIDS among high school students falls into the adequate category, followed by good and poor categories. The attitudes toward premarital sex among high school students were found to be predominantly positive, with some negative attitudes present. There is a significant relationship between the level of knowledge about HIV/AIDS and adolescents' attitudes toward premarital sex in high school, with a very weak strength of the relationship and a positive direction, meaning that higher knowledge about HIV/AIDS is associated with more positive attitudes toward premarital sex.

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Author Contributions

This research was conducted by all the authors. Andreas Rantepadang was responsible for the research design and the development of the theoretical framework, while Brendsy Nesy Federika Pangau was responsible for data collection, analysis, and writing the initial draft of the manuscript. All authors were involved in the final revisions and approved the published version.

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Conflict of Interest

The authors declare that there are no conflicts of interest related to this research. All authors have no financial or personal relationships that could influence the research outcomes.

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