

Overview of Knowledge and Attitudes Towards Symptoms of Sexually Transmitted Infections (STIs) at SMAN 8 Jambi City

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Abstract

Background: Sexually transmitted infections (STIs) are a common reproductive health problem among adolescents due to risky behavior and a lack of knowledge and attitudes regarding prevention. Adolescents' knowledge and attitudes play a very important role in efforts to reduce the risk of STI transmission. **Objective:** This study aims to determine the characteristics of students, their level of knowledge, attitudes, and the incidence of STIs among students at SMAN 8 Kota Jambi. In addition, this study also aims to determine the relationship between knowledge and attitudes towards the signs and symptoms of STIs among students at SMAN 8 Kota Jambi. **Methods:** This study was an analytical study using a cross-sectional approach. The study population consisted of all 11th grade students at SMAN 8 Jambi City, with a sample size of 90 respondents selected using proportional stratified random sampling. The research instrument was a questionnaire that had been tested for validity and reliability. **Results:** The results showed that most respondents had good knowledge (86.7%) and positive attitudes (96.7%). STI symptoms were mostly in the low-risk category. **Conclusion:** The better the students' knowledge and attitudes, the lower the risk of STI symptoms. It is hoped that schools and health workers will continue to improve education about STIs to prevent transmission from an early age.

Keywords: Adolescents; Attitude; Knowledge; Sexually Transmitted Infections.

Introduction

Sexually transmitted infections (STIs) are diseases transmitted through sexual intercourse, whether vaginal, oral, or anal, and are caused by bacteria, viruses, or parasites. According to the WHO (2022), more than 1 million people worldwide are infected with STIs every day, with 374 million new cases each year(1). In Indonesia, the Ministry of Health (2023) recorded more than 11,000 cases of STIs with an increase in the adolescent age group(2).

Adolescence is a transitional phase in the process of preparing oneself to leave childhood and enter adulthood. During this period, many changes occur in adolescents, covering various dimensions, namely physical, cognitive, psychological, and moral dimensions. This is a very sensitive phase due to physical, intellectual, emotional, social, moral, and religious adjustments to change. Adolescents are males and females aged 10-24

years who are not yet married(3).

Adolescents are one of the groups at risk of contracting sexually transmitted infections (STIs). This can occur because their lifestyle deviates from the prevailing norms, leading to negative behavior. Adolescent sexual behavior causes many problems. These problems usually begin with premarital sexual behavior, leading to pregnancy and abortion(4).

Adolescents are a vulnerable group due to their lack of knowledge and attitudes towards STI prevention. The level of public knowledge is known to correlate with the high incidence of STIs in the community, especially among adolescents. Increasing knowledge by disseminating information, such as through educational activities about STIs and their complications, is one of the important efforts that must be made to reduce the incidence of STIs in the community. Lack of education, media influence, and minimal communication between parents and children are the main causes. Good knowledge and attitudes play an important role in preventing risky sexual behavior that can lead to STIs(5).

Attitude is a person's closed response to a stimulus or object, whether internal or external, so that its manifestation cannot be seen directly, but can only be interpreted from the closed behavior. Attitude is a person's closed reaction or response to a stimulus or object. Attitudes are also a willingness or reluctance to act and are also a willingness or reluctance to act and are also the implementation of certain motives(6).

SMA 8 Kota Jambi was chosen as the research location because it has the largest student population. In addition, after conducting preliminary data observation on four schools, it was found that 7 out of 10 respondents from SMAN 8 Kota Jambi had insufficient knowledge about the signs and symptoms of STIs.

This study aims to determine the knowledge and attitudes toward STI symptoms among students at SMAN 8 Kota Jambi, so that it can be used as a basis for reproductive health education interventions in schools.

Methods

This study is a quantitative study using a descriptive cross-sectional approach conducted at SMAN 8 Kota Jambi in June 2025. The study population consisted of 90 respondents from grades X and XI at SMAN 8 Kota Jambi, selected using probability sampling with a focus on proportional stratified random sampling. Data were collected

using three questionnaires, namely a knowledge questionnaire to assess students' knowledge of the signs and symptoms of sexually transmitted infections, an attitude questionnaire to assess students' attitudes toward the signs and symptoms of sexually transmitted infections, and a signs and symptoms questionnaire. Data were analyzed univariately to describe the characteristics of the respondents. Data processing was performed using statistical software.

Results

Univariate Analysis

Table 1. Characteristics of respondents based on gender and age

Variable	<i>f</i>	(%)
Gender		
Male	33	36,7
Female	57	63,3
Total	90	100.0
Age		
15 years old	21	23,3
16 years old	55	61,1
17 years old	14	15,6
18 years old	0	0
Total	90	100.0

Based on Table 4.1, it is known that the characteristics of the 90 respondents with the highest gender were 57 respondents with a percentage (63.3%) in the female category. Meanwhile, the respondents with the lowest gender were 33 respondents (36.7%) in the male category. It is known that the characteristics of respondents with the highest age group are 55 respondents with a percentage of 61.1% in the 16-year-old category, while respondents with the lowest age group are 14 respondents (15.6%) in the 17-year-old category.

Table 2. Knowledge about Sexually Transmitted Infections

Knowledge about Sexually Transmitted Infections	<i>f</i>	(%)
Good knowledge	78	86,7
Adequate knowledge	12	13,3
Poor knowledge	0	0
Total	90	100.0

Based on table 2 it is known that of the 90 respondents who had the highest knowledge, 78 respondents (86.7%) were in the good knowledge category. Meanwhile, the lowest respondents, 12 respondents (13.3%), were in the sufficient knowledge category.

Table 3. Attitudes Toward Signs and Symptoms of Sexually Transmitted Infections

Attitudes toward Symptoms of Sexually Transmitted Infections	<i>f</i>	(%)
Positive attitude	87	96,7
Neutral attitude	3	3,3
Negative attitude	0	0
Total	90	100.0

Based on table 3, it is known that of the 90 respondents who had the highest attitude, 87 respondents (96.7%) were in the good attitude category. Meanwhile, the lowest respondents were 3 respondents (3.3%) in the sufficient attitude category.

Table 4. Signs and Symptoms of Sexually Transmitted Infections

Sexually Transmitted Infections	<i>f</i>	(%)
Low Risk	87	96,7
Moderate Risk	3	3,3
High Risk	0	0
Total	90	100.0

Based on Table 4, it is known that of the 90 respondents who had the highest incidence of STIs, 3 respondents (3.3%) were in the moderate risk category. Meanwhile, the lowest number of respondents, 87 respondents (96.7%), were in the low risk category.

Discussion

Respondent Characteristics

The results of the study show that there were more female respondents than male respondents. There were 57 female respondents (63.3%) and 33 male respondents (36.7%). Based on the age characteristics of the respondents, the study consisted of respondents aged 15-18 years. In this study, it was found that the highest number of respondents, 55 (61.1%), were in the 16-year-old age category. In terms of age characteristics, the respondents fell into the mid-adolescent category (15-18 years).

Overview of Knowledge among Students at SMAN 8 Kota Jambi

Based on the knowledge in this study, it is categorized into 3 categories, namely good, sufficient, and poor. The results show that most respondents have good knowledge, with 78 respondents (86.7%), adequate knowledge with 12 respondents (13.3%), and no respondents with poor knowledge. From the results of this study, SMAN 8 Kota Jambi students in 2025 have a good level of knowledge, with 78 respondents (86.7%).

Notoatmodjo (2015) states that knowledge is the result of human perception, or the result of a person's knowledge of an object through their senses (eyes, nose, ears, etc.) (7). Bloom, referring to taxonomy for educational purposes, has classified knowledge into six categories of cognitive processes, namely knowledge, comprehension, application, analysis, synthesis, and evaluation (8).

These findings are in line with Cindy's research, which shows that most adolescents have a high level of knowledge about sexually transmitted infections, with 77.9% of respondents reporting this. These findings reinforce that good knowledge plays an important role in shaping adolescents' positive attitudes towards reproductive health, particularly in efforts to prevent risky behavior related to STIs (9).

Overview of Attitudes among Students at SMAN 8 Kota Jambi

Based on the results of this study, attitudes were categorized into three types: good, fairly good, and poor. The results show that the majority of respondents had good attitudes (87 respondents, or 96.7%), while 3 respondents (3.3%) had fairly good attitudes.

Attitude is a reaction or response in the form of an assessment that arises from an individual towards an object. Attitude can also be said to be a manifestation of awareness of one's environment. "Attitude is defined as a reaction or response that arises from an individual towards an object, which then gives rise to the individual's behavior towards that object in certain ways (10).

The results of this study are in line with the findings of Rizqa Haerani Saenong et al., which show that most students have a positive attitude towards sexually transmitted infections, namely 90.5% of respondents. This finding reinforces that a positive attitude towards reproductive health issues, particularly in terms of preventing sexually transmitted infections, plays an important role in shaping healthy behavior among adolescents, as well as supporting their emotional resilience and psychological well-being in facing sexual health risks (11).

Overview of Sexually Transmitted Infection Symptoms in Students at SMAN 8 Kota Jambi

The results of the study show that SMAN 8 Kota Jambi students have a low risk level of 87 respondents (96.7%) for STI symptoms, while 3 respondents (3.3%) have a moderate risk level. The results show that there were 3 students who had some signs and symptoms and 87 students who did not have any signs or symptoms.

This study is also in line with the findings of a study conducted by Gischa Vatrissy et al., which shows that sexually transmitted infections (STIs) are still a serious health problem among adolescents in Indonesia. The prevalence of STIs is quite high, especially in the 15-24 age group. These findings reinforce that adolescents are a population that is highly vulnerable to STIs due to their high-risk sexual behavior. This condition highlights the importance of improving education, counseling, and access to comprehensive reproductive health services as an effort to protect adolescents from the long-term effects of STIs and to support the reproductive health quality of Indonesia's younger generation (12).

Conclusion

This study indicates that most students in grades X and XI at SMAN 8 Kota Jambi have good knowledge and positive attitudes toward reproductive health and are categorized as having a low risk of sexually transmitted infections. These findings highlight the important role of nurses, particularly community and school nurses, in promoting and preventing adolescent reproductive health problems through continuous, school-based reproductive health education

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