



THE RELATIONSHIP BETWEEN THE LEVEL OF REPRODUCTIVE HEALTH KNOWLEDGE AND THE PREVENTION BEHAVIOR OF SEXUALLY TRANSMITTED INFECTIONS AMONG ADOLESCENTS IN STATE SENIOR HIGH SCHOOL 12, BEKASI CITY, WEST BEKASI DISTRICT, BEKASI CITY IN 2025

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Abstract

Adolescents are a strategic age group in the national development process, yet they are also among the most vulnerable to various reproductive health issues. Adolescence is characterized by rapid biological, psychological, and social changes, often unmatched by an adequate understanding of reproductive responsibilities. This significant proportion demands serious attention to improving the quality of adolescent health, particularly in reproductive health. A lack of accurate and reliable information has the potential to encourage risky sexual behavior, including premarital relations, which ultimately increases the likelihood of sexually transmitted infections (STIs). Adolescents with high self-confidence and open communication with their parents are generally better able to make healthy decisions regarding sexual activity. However, the cultural taboo surrounding discussing sexuality in Indonesia often hinders such communication. This study aims to provide insight into the influence of psychosocial factors on preventive behavior among students at SMA Negeri 12 Bekasi. Objective to determine the relationship between knowledge levels about reproductive health and STI prevention behavior among adolescents at SMA Negeri 12 Bekasi. Metho: this study uses a descriptive analytical approach with a cross-sectional method using the Chi-square test. The study sample consisted of 80 students from SMAN 12 Bekasi City, selected using random sampling. Results the study showed a significant relationship between reproductive health knowledge and sexually transmitted infection prevention behavior among adolescents at SMAN 12 Bekasi City in 2025. Conclusions and recommendations there is a significant relationship between reproductive health knowledge and sexually transmitted infection prevention behavior among adolescents at SMAN 12 Bekasi City in 2025. Health institutions can improve adolescents' understanding of sexuality through seminars or outreach programs organized by schools in collaboration with local community health centers. Furthermore, parents need to be involved in this process by attending seminars and communicating openly with their children. Furthermore, health services should be easily accessible to adolescents at schools and local community health centers..

Keywords: *Students' Knowledge and Attitudes, IMS, Adolescents*

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INTRODUCTION

Adolescents are a strategic age group in the national development process, yet they are also among the most vulnerable to various reproductive health issues. Adolescence is characterized by rapid biological, psychological, and social changes, often unmatched by an adequate understanding of reproductive responsibilities. This significant proportion demands serious attention to improving the quality of adolescent health, particularly in reproductive health. A lack of accurate and reliable information has the potential to encourage risky sexual behavior, including premarital relations, which ultimately increases the likelihood of sexually transmitted infections (STIs). Therefore, adequate knowledge about reproductive health is a crucial foundation for developing positive preventive behaviors among adolescents. Sexually transmitted infections remain a global public health issue that has not been fully addressed. Data from the World Health Organization (WHO, 2023) indicates that there are more than one million new cases of STIs every day worldwide, with the majority occurring in individuals aged 15–24. In Indonesia, a 2023 report from the Ministry of Health noted an 18% increase in STI cases in the past five years, particularly in urban areas. This fact illustrates that despite increasingly easy access to information, knowledge and awareness of STI prevention efforts remain low. Knowledge about reproductive health encompasses not only an understanding of the function of reproductive organs but also an awareness of the moral and social responsibilities of maintaining personal health. (Setiawati et al., 2025) in the Indonesian Journal of Reproductive Health found that adolescents with high levels of knowledge were more likely to adopt STI prevention behaviors, such as the use of personal protective equipment and delaying sexual intercourse. However, the study also highlighted a gap between knowledge and actual practice, as behavior is often influenced by social and cultural pressures. Therefore, a participatory and contextualized educational approach is essential to ensure that the knowledge acquired by adolescents can be effectively implemented.

Previous research by (Aprilia et al., 2025) in the Indonesian Journal of Health Promotion showed that students with high reproductive health knowledge were twice as likely to adopt

STI prevention behaviors compared to students with low knowledge. However, this study was conducted in rural areas with different social characteristics than urban areas. Therefore, further research is needed in urban areas such as Bekasi to obtain a more comprehensive and contextualized picture. Furthermore, (Lestari et al., 2025) in the Community Nursing Journal reported that increased knowledge through counseling is not always followed by significant changes in preventive behavior. These results confirm that behavior is not only determined by knowledge but also influenced by socio-psychological factors such as attitudes, subjective norms, and risk perception. In the context of adolescents, peer factors and social media exposure have a significant influence on sexual behavior decisions. Therefore, research in Bekasi City is expected to be able to identify the relationship between these factors in more depth. Most previous studies have focused only on measuring knowledge levels without analyzing how this knowledge influences actual behavior. This study seeks to fill this gap by using a quantitative approach to examine the relationship between knowledge levels and STI prevention behavior. With this approach, the research results are expected to provide analytical and empirical insights that can be used as a basis for evidence-based policies and interventions. Urban social environments such as Bekasi also pose unique challenges in the dissemination of reproductive health information. Widespread digital media exposure facilitates access to information, but also opens up opportunities for disinformation (Salsabila, 2025). Teenagers often receive misinformation from social media or peers without verifying its accuracy. This underscores the importance of research to assess the effectiveness of formal knowledge acquired in school in shaping correct behavior in real life. In addition to cognitive factors, emotional and psychosocial aspects also influence STI prevention behavior. Teenagers with high self-confidence and open communication with their parents are generally better able to make healthy decisions regarding sexual activity. However, cultural taboos around discussing sexuality in Indonesia often hinder such communication. This study is expected to provide an overview of the influence of psychosocial factors on preventive behavior among students at SMA Negeri 12 Bekasi.

METHODS

This type of research uses a descriptive analytical approach with a cross sectional method. By using the Chi-square test, it is used to collect data concerning independent variables, namely risk,

and dependent variables, namely risk, and risk, which are carried out at the same time. The research location is at SMAN 12 Bekasi City. This research was conducted during September 2025 to January 2026 with a total of 80 respondents.

RESULT AND DISCUSSION

Respondent characteristics

Respondent characteristics		Frekueces	Percent
Age	15 years old	15	18,8%
	16 years old	25	31,3%
	17 years old	30	37,5%
	18 years old	10	12,5%
	Total	80	100%
Gender	Man	34	42,5%
	Woman	46	57,5%
	Total	80	100%
Information sources	Teman	14	17,5%
	Social Media	39	48,8%
	Teachers	21	26,3%
	Parents	6	7,5%
	Total	80	100%

Based on the table above, it can be seen that of the 80 respondents, the majority were 17 years old, as many as 30 people (37.5%), the gender characteristics were mostly female, as many as 46

people (57.5%), and the majority of information sources were through social media, as many as 39 people (48.8%).

Frequency Distribution of Knowledge and Behavior

Respondent characteristics		Frekueces	Percent
Knowledge	Good	41	51,3%
	Mid	30	37,5%
	Bad	9	11,3%
	Total	80	100%
Behavior	Good	31	38,8%
	Mid	37	46,3%
	Bad	12	15%

Total	80	100%
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Based on table 5.2, it can be seen that of the 80 respondents, the majority had good knowledge, as many as 41 people (51.3%), and

the behavioral data showed that the majority had sufficient behavior, as many as 37 people (46.3%).

Bivariate Analysis Results of Knowledge and Behavior on Preventing Sexually Transmitted Infections in Adolescents at SMAN 12 Bekasi City in 2025

<i>Knowledge</i>	<i>Behavior</i>			<i>Total</i>	<i>Asym. Sig</i>
	Bad	Mid	Good		
Bad	3	6	0	9	
Mid	4	14	12	30	
Good	5	17	19	41	0,027
Total	12	37	31	80	

The results of the cross tabulation between the variables of Knowledge and Behavior of Preventing Sexually Transmitted Infections in Adolescents at SMAN 12 Bekasi City showed that the results of the Chi-Square statistical test obtained a P value of 0.027 (P.Value <0.05) which means that there is a significant relationship between Knowledge of Reproductive Health and Behavior of Preventing Sexually Transmitted Infections in Adolescents at SMAN 12 Bekasi City in 2025.

Discussion

From the table above, it is known that the age of respondents with the age of 15 years is 15 people (18.8%), then respondents with the age of 16 years are 25 people (31.3%). Meanwhile, respondents with the age of 17 years are 30 people (37.5%), and the age of 18 years is 10 people (12.5). for age (Putri Indaman & Trismiyana, 2025) is one of the factors that influence students in their knowledge. In the study, it was stated that adolescents who are in the middle age, namely 15-19 years, are more at risk of negative behavior towards reproductive health and middle-aged adolescents (15-19 years) and early adolescents (10-15 years) do not fully understand reproductive health knowledge compared to late (21-24 years) which shows that there is a relationship between reproductive health behavior and adolescent characteristics. Meanwhile, according to (Adnin

& Zesika Intan, 2024) said that Age is the age of an individual calculated from birth to birthday. Age affects a person's comprehension and mindset. As an individual ages, their comprehension and thought patterns develop, thus enhancing their knowledge. Based on the data, researchers hypothesize that during middle adolescence, adolescents tend to desire relationships with the opposite sex and often make mistakes that can cause anxiety, particularly regarding reproductive health. Meanwhile, during early adolescence, adolescents are still developing their behaviors, while late adolescence is more knowledgeable and has a broader knowledge base.

The data distribution reveals that female respondents were more dominant, representing 46 respondents (57.5%), while male respondents were fewer, representing 34 respondents (42.5%). Several studies have shown differences in knowledge levels based on gender. For example, research by Kasim et al. (2025) suggests that gender plays a role in determining reproductive health knowledge. Women tend to have higher levels of knowledge because they receive more education from their family, school, and the media. Meanwhile, men may receive less information or be less interested in seeking information related to reproductive health. Gender is related to adolescents' level of knowledge about reproductive health. Gender differences can shape different perceptions, thus affecting the level of

knowledge between men and women. Meanwhile, according to (Putri Indaman & Trismiyana, 2025) stated that women have a higher level of knowledge than men. This is due to differences in respondents' interests in obtaining information, in addition to the existence of gender-based program inequality that contributes to sexual knowledge. According to the researcher's assumption, gender is one of the factors that influences adolescent reproductive health knowledge in men and women. Differences in knowledge levels between men and women occur because in general women are more sensitive and willing to accept good input, especially health issues, so that they give rise to motivation to maintain cleanliness, personal health, and their environment better than men.

The data above indicates that respondents predominantly obtained information through social media, followed by teachers, followed by friends, and finally, parents. This suggests that sources and access to valid reproductive health information include the ability to seek and utilize accurate sources, such as health workers, educational media, and official health platforms. Research conducted by (Silvia Mareti, 2022) found that information about reproductive and sexual health is usually obtained from peers. Some people hear it from media such as magazines, television, or the internet, while others obtain information from teachers or parents. Information about adolescent reproductive health, such as reproductive health or attitudes about sexually transmitted infections, was more often obtained by respondents through books and the internet. Meanwhile, research conducted by (Tucunan et al., 2022) found that information sources from the media were significantly related to adolescents' knowledge of reproductive health. Of the many factors influencing adolescent behavior, one factor driving adolescents to engage in risky reproductive health behavior is inadequate information about reproductive health. According to researchers, it's important to note that books and the internet are only a few examples of the various sources of reproductive health information accessible to adolescents. Almost all children whose parents are not millennials receive no reproductive health education outside of school. Therefore, most adolescents obtain information related to this topic through the internet, often receiving negative information. As a result, many

adolescents experience misunderstandings about sex.

The frequency distribution of student knowledge and behavior at SMAN 12 Bekasi City showed a predominance of good knowledge, followed by sufficient knowledge, and then poor knowledge. Research by Kasim et al. (2025) demonstrated that knowledge about reproductive and sexual health significantly influences adolescent attitudes. This knowledge is acquired through sex education, which provides clear and accurate information about human sexuality. This information covers the processes of conception, pregnancy, childbirth, sexual intercourse, sexual behavior, as well as aspects of health, mental health, and social worthiness (Adnin & Zesika Intan, 2024). If adolescents do not properly understand sex education, they are likely to engage in risky sexual behavior, such as unprotected sex. Furthermore, it is assumed that there is a significant relationship between adolescents' reproductive health knowledge and premarital sexual attitudes. This means that the higher the level of knowledge, the more positive their attitudes toward something, while the lower the knowledge, the more negative their attitudes. According to the researchers' assumptions, developing a resilient young generation requires physical strength, new understanding, and high creativity. Without the role of adolescents, a nation will struggle to develop. Adolescence is a time when the body, mind, and thinking skills develop rapidly. Sex education should be provided to adolescents who are beginning to mature through formal channels.

Behavior data shows that respondents with sufficient attitudes outnumbered good and bad attitudes regarding sexually transmitted infections. This requires a strategy to address the various sexual and reproductive health issues frequently experienced by adolescents, such as sexually transmitted infections, unwanted pregnancies, dating relationships, and sexual violence. More innovative and effective approaches are needed. This approach prioritizes the formation of healthy relationships and implements new methods that can improve adolescents' understanding and sexual and reproductive health. Research (Adnin & Zesika Intan, 2024) found that adolescents who understand reproductive health better typically have a better understanding of dating and other options for fulfilling sexual desires in a healthy

and responsible manner. This knowledge of sexuality also helps them understand risky dating behaviors. By being aware of the impact of this knowledge, students can be more alert and cautious in their relationships.

Relationship between Reproductive Health Knowledge Level and Sexually Transmitted Infection Prevention Behavior in Adolescents at SMAN 12 Bekasi City in 2025. The results of the Chi-square statistical test obtained 0.027 (p value < 0.05), so it can also be concluded that H_a is accepted and H_0 is rejected, which means there is a significant relationship between Reproductive Health Knowledge and Sexually Transmitted Infection Prevention Behavior in Adolescents at SMAN 12 Bekasi City in 2025. Reproductive health in adolescents is the level of adolescent understanding of various aspects related to the human reproductive system and function. These aspects include the anatomy and physiology of reproductive organs, the process of puberty and the accompanying physical changes, the mechanism of conception, the use of contraception, transmission and prevention of sexually transmitted infections (STIs), and responsibility in maintaining reproductive health. This definition is commonly used in quantitative research to assess the relationship between knowledge levels and reproductive behavior, such as the use of reproductive health services or safe sexual practices. Reproductive knowledge does not only include the aspect of "knowing the facts" (knowledge that), but also "knowing how" (functional knowledge), namely the ability to apply that knowledge in real action. Examples include understanding how to use condoms correctly, recognizing early symptoms of STIs, and knowing when and where to seek medical help. According to the study "Determinants of Adolescent Reproductive Health Service Utilization by Senior High School Students in Makassar" (BioMed Central), adolescents with high levels of knowledge are almost twice as likely to utilize reproductive health services compared to those with low levels of knowledge. The study (Saenong & Sari, 2021) states that good knowledge about sexually transmitted infections influences positive attitudes toward sexually transmitted infections. This is statistically significant. Based on the statistical results using the chi-square test, the p -value is 0.000, which is < 0.05 , indicating a significant relationship between knowledge about sexually transmitted

infections and attitudes toward sexually transmitted infections. In this regard, health education is crucial for increasing one's knowledge about sexually transmitted infections. This study, for example, shows a significant difference between adolescents' levels of knowledge and attitudes regarding sexually transmitted infections. Then, research conducted by (Lubis et al., 2024) that the results of the chi-square test obtained a p -value of 0.005 smaller than α 0.05, which means there is a significant relationship between the level of knowledge about sexually transmitted infections and premarital sexual behavior in adolescents at SMAN 84 West Jakarta. Understanding sexuality correctly can help someone have healthy and responsible sexual attitudes and actions. Especially for adolescents, a proper and balanced understanding of reproductive health can help them understand healthy and responsible ways to regulate their sexual desires. Thus, having knowledge about sexuality is very important so that someone can understand and make the right decisions regarding adolescent reproductive health. According to the researcher's assumption, a correct understanding of sexually transmitted infections can help adolescents understand which actions are appropriate or inappropriate to avoid the risk of contracting the disease. That way, adolescents can form good behavior, namely refusing to have sex outside of marriage. Adolescent thoughts are the basis for feeling and assessing sexual situations, which ultimately form certain attitudes. Because adolescence is still in an unstable developmental period, they are vulnerable to being influenced by their surroundings and easily involved in free relationships. Therefore, providing knowledge about sexually transmitted infections (STIs) is crucial to preventing adolescents from engaging in promiscuous sex. By understanding reproductive health correctly and in a balanced way, adolescents can choose positive actions and avoid the risk of contracting

CONCLUSION

Based on the results of the study, the results of the analysis of the characteristics of the respondents, the majority of gender is female, in the age characteristic data, the majority are respondents aged 17 years. Then for social media, it is the most frequently used source of information to search for information about sexually transmitted infections in adolescents. Regarding reproductive

health knowledge in students of SMAN 12 Bekasi City, it was concluded that good knowledge is more dominant, then with sufficient knowledge and continued with poor knowledge. Regarding the Behavior of Preventing Sexually Transmitted Infections in Adolescents at SMAN 12 Bekasi City, it was concluded that respondents with sufficient behavior were more than good and bad behavior about sexually transmitted infections. There is a significant relationship between Reproductive Health Knowledge and Behavior of Preventing Sexually Transmitted Infections in Adolescents at SMAN 12 Bekasi City in 2025. Health institutions can increase adolescents' understanding of sexuality through seminars or socialization organized by schools together with local health centers. In addition, parents need to be involved in this process by attending seminars and communicating openly with children. In addition, health services also need to be easily accessible to adolescents at schools and local health centers.

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