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Research Article

## Attitude and Knowledge Relationship with Sexual Behavior at Risk of Sexually Transmitted Infection (STI) in Male Adolescents in Indonesia (IDHS Data Analysis 2017)

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### ABSTRACT

**Introduction:** Indonesia Population Demographic Survey in 2017 recorded that 8% of teenage boys and 2% of teenage girls admitted to having sexual intercourse. This certainly worries all of us who hope today's youth will be a demographic bonus. Sexual behavior is at risk of impacting the issue of Unwanted Pregnancy (KTD), abortion, Sexually Transmitted Infections (STIs), and the ongoing incidence of HIV and AIDS. **Objective:** to confirm the relationship of attitudes and knowledge with risky sexual behavior in adolescent boys in Indonesia. **Methods:** This type of research is quantitative analytics using a cross-sectional design and sourced from secondary data of the Indonesian Health Demographic Survey 2017. The population in this study was 13,079 adolescent men aged 15-24, sampling 10,710 with saturated sampling techniques. Bivariate data analysis using the chi-square test (0.05). **Results:** were obtained by adolescents with a positive attitude of 52.1%, knowledgeable 77.8%, and 13.1% risky sexual behavior. Test results showed there was an attitude relationship with risky sexual behavior with p-value = 0.000 and there was a knowledge relationship with risky sexual behavior with p-value = 0.000. **Conclusions:** This study are expected to be used as input for the creation of risky sexual behavior prevention programs in adolescents and form the basis for the creation of an educational model related to adolescent reproductive health for parents and educational institutions.

**Keywords:** *adolescents, adolescent reproductive health, attitudes, knowledge, risky sexual behavior*

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## **Background**

Adolescence is the time of a child into adulthood. Today's youth face challenges that are not easy, they are expected to be a demographic bonus, a quality human resource that can be realized by being highly educated so that marriage should be postponed. Law No. 16 of 2019 [1] states that marriage is only permitted if the man and woman have reached the age of 19 years. Even the National Population and Family Planning Agency recommends an ideal marriage age should be made at the ripe age of 21 years for women and 25 years for men, while reproductive and sexual development in adolescence goes into maturation and turmoil so that many adolescents who exhibit sexual behavior are at risk resulting in unwanted pregnancy, abortion, Sexually Transmitted Infections (STI) and the increasing incidence of HIV and AIDS. Sexually Transmitted Infections (STI) are one of the health problems experienced by developing and developed countries. According to the World Health Organization (WHO), more than 1 million people are diagnosed with sexually transmitted infections each day. Sexually Transmitted Infection is one of the entrances or signs of HIV [2].

Indonesian Demographic and Health Survey (IDHS) 2017 [3] shows that adolescents who have sexual intercourse make up 8% in male adolescents and 2% of teenage girls. According to WHO data, research conducted in several developing countries found that as many as 40% of 18-year-olds have had intercourse outside of marriage and about 12% have been positively exposed to Sexually Transmitted Infections [4]. Surveys show that 45% of teenage girls and teenage boys start dating when they are 15-17 years old. Most teenage girls and teenage boys claim to have a physical activity such as handrails (64% female and 75% male), cuddling (17% female and 33% male), kissing (30% female and 50% male), and groping/groping (5% female and 22% male). Among teenage girls and adolescent men who have had premarital sexual intercourse 59% of teenage girls and 74% of teenage boys admitted to first starting sexual intercourse at the age of 15-19 [3].

According to Green theory [5] factors that can influence human behavior three factors are

driving factors (predisposition) among others values, beliefs, attitudes, knowledge, education as well as being the basis of a person's motivation in doing something, Enabling factor is a factor that allows to provide facilities, facilities, work safety and physical environment for the community to be able to conduct healthy life, Strengthening factor is a factor in strengthening the behavior of a person because of the attitude of the nearest person Community.

IDHS data for 2017 shows that 15-19-year-olds know about syphilis as much as 83%, 33% of men know Gonorrhoea, 12% know Genital Herpes while knowledge of other STIs such as Condylomata, Chancroid, Chlamydia, and Candida is still low below 5% while male adolescents aged 20-24 know about syphilis as much as 89%, 32% of men know Gonorrhoea, 13% know Genital Herpes while knowledge of other STIs such as Condylomata, Chancroid, Chlamydia, and Candida are still low below 5% [3]. This condition provides a very worrying level of knowledge, attitudes, and sexual behavior in adolescents. Based on the above problems, the researchers made the following research questions:

1. How is the description of sexual attitudes, knowledge, and behaviors at risk in Indonesian teenagers?
2. Is there a link between attitudes and risky sexual behavior in Indonesian teenagers?
3. Is there a link between knowledge and risky sexual behavior in Indonesian adolescents?

## **Methods**

This research is quantitative analytical research with a cross-sectional design. The population in this study was the population data found in IDHS in 2017 of 13,079 unmarried male adolescents aged 15-24, who had been dating or who had boyfriends. The samples were taken from population data with saturated sampling techniques and which had complete data on 10,710 young men. Respondents' knowledge included birth control, reproductive health, puberty, courtship and sexual behavior, STI, and HIV-AIDS knowledge.

The data used in this study is secondary data based on raw data of the IDHS 2017 with questionnaire instruments tailored based on

IDHS Data 2017. At risky sexual behavior variables, STIs are said to be at risk of sexual intercourse or intercourse and are not at risk if they do not have sexual intercourse or intercourse. Attitude variables are measured by 10 statements using Guttman scales. Positive statements were given a score of 0 for no answers and scored 1 for yes answers while negative statements were given 1 for no answers and given a score of 0 for yes answers. Negative, if the score < 8, Positive, if the score ≥ 8. On fewer knowledge variables, if the score ≤ 6 knowledge is good if the score > 6. Quantitative data is analyzed using the univariate analysis to describe the data characteristics of each variable studied. This analysis resulted in the

distribution of frequencies and percentages of the variables studied including independent variables (knowledge, adolescent attitudes to STI risky sexual behavior), dependent variables (risky sexual behavior) and bivariate analysis in this study was to use the chi-square test by looking at the relationship between independent categorical variables and dependent categorical variables with a degree of trust of 0.05.

**Result**

From the results of research that has been done, it is known the results of the distribution of STI risky sexual behavior in Young Men in Indonesia which can be seen from the Table 1.

Table 1. Frequency distribution of respondents based on STI risky sexual behavior in male adolescents in Indonesia in 2017

No.	Category	Frequency	Percentage (%)
1.	STI Risky Sexual Behavior	1400	13,1
2.	Sexual Behavior Is Not Risky STI	9309	86,9
	Amount	10.709	100

**Men's Adolescent Attitudes Towards STI Risky Sexual Behavior**

The results of the study were divided into negative attitudes and positive attitudes. From the results of the research that has been done,

it is known the results of the distribution of men's youth attitudes in Indonesia in 2017 to STI risky sexual behaviors that can be seen from the Table 2.

Table 2. Frequency distribution of respondents based on attitudes towards STI risky sexual behavior in male adolescents in Indonesia in 2017

No.	Category	Frequency	Percentage (%)
1.	Negative	5125	47,9
2.	Positive	5584	52,1
	Amount	10.709	100

**Young Men's Knowledge of STI Risky Sexual Behavior**

The results of the study are divided into less knowledge and good knowledge. From the results of the research that has been done, it is

known the results of the distribution of young men's knowledge about STI risky sexual behavior in Indonesia which can be seen from the Table 3.

Table 3. Frequency distribution of respondents based on knowledge of STI risky sexual behavior in male adolescents in Indonesia in 2017

No.	Category	Frequency	Percentage
1.	Lack of knowledge	8331	77,8%
2.	Good knowledge	2379	22,2%
	Amount	10.710	100%

The results of the univariate analysis above showed that adolescents who behaved sexually risked STIs as much as 13.1% and who behaved sexually were not at risk of STIs as much as 86.9% and had negative attitudes 47.9% and positive attitudes 52.1% and adolescents who had less knowledge 77.8% and good knowledge 22.2%.

**Bivariate Analysis**

The bivariate analysis aims to find out the relationship between attitudes and knowledge and the incidence of STI risky sexual behavior in male adolescents in Indonesia in 2017 (Table 4).

Table 4. Knowledge of STI risky sexual behavior with the incidence of STI risky sexual behavior in male adolescents in Indonesia year 2017

Variable attitude	Risk STI		No Risk STI		n	OR		P value
	n	%	n	%		%		
Less	955	11,5	7359	88,5	8314	77,8	0,59	0,000
Good	442	18,6	1937	81,4	2379	22,2		
Total	1397	13,1	9296	86,9	10.693	100		

From the table above it is known that male adolescents with less knowledge and sexual behavior are at risk of STIs as much as 11.5% and sexual behaving is not at risk of STIs as much as 88.5% while in adolescent men with good knowledge and sexually behaved at risk of STIs as much as 18.6% more than adolescent men with less knowledge and sexual behavior are not at risk of STIs as much as 81.4% fewer adolescents with less knowledge. Based on the chi-square test obtained a p-value value of 0.001 at a confidence level of 5%. Can be seen in the table above obtained a value of p-value = 0.000 less than 0.005 which means there is a

relationship between the level of adolescent knowledge about STI risky sexual behavior and the incidence of STI risky sexual behavior in teenage boys in Indonesia in 2017. While the OR result was 0.569 (95% CI 0.503-643) which means teenage boys with knowledge are less likely 0.569 times to behave sexually risky than adolescents with good knowledge.

**Attitudes to Risky Sexual Behavior STI**

Attitudes towards STI risky sexual behavior with STI risky sexual behavior in male adolescents in

Table 5. Attitudes to STI risky sexual behavior in male adolescents in Indonesia in 2017

Variable attitude	Risk STI		No Risk STI		n	OR		P value
	n	%	n	%		%		
Negative	1241	24.2	3884	75.8	5125	100	10.092	0.000
Positive	159	2.8	5425	97.2	5584	100		
Total	1400	13.1	9309	86.9	10.709			

The results of the table above found that male adolescents who had negative attitudes towards STI-risky sexual behavior and sexual behavior risked STIs by 24.2% but who behaved less risky STI as much as 75.8% while adolescents who had a positive attitude towards STI-risking sexual behavior and sexually behaved risked STIs as much as 2.8% fewer BMI-risking adolescents than adolescents who had negative attitudes and sexual behaviors were

97.2% more at risk of STIs than men who had negative attitudes and sexual behaviors were 97.2% Can be seen in the table above obtained results p-value = 0,000 which there is a significant relationship between attitudes towards STI risky sexual behavior and the incidence of STI risky sexual behavior in adolescent Men in Indonesia in 2017.

In the bivariate analysis, it was known that some adolescents had poor knowledge and

risky sexual behavior as well as adolescents who had negative attitudes and sexual behaviors at risk of STIs because adolescents lacked education or exposure to information related to risky sexual behaviors. According to Amrillah [6], the higher the knowledge of reproductive health that adolescents have then the lower the pre-nuptial sexual behavior, the lower the knowledge of reproductive health that adolescents have then the higher the pre-nuptial sexual behavior.

In some countries shows that good and correct information can lower reproductive problems in adolescents [7]. Thus it can be said that the higher the level of adolescent knowledge the better the behavior because knowledge or cognitive is a very important domain for the formation of one's actions. Notoatmojo states that knowledge-based behavior will be more lasting than behavior that is not based on knowledge [8].

Sex knowledge for teenagers is very important but there are a lot of problems that occur due to the lack of correct information. Parents are ashamed and reluctant to even consider taboo sex-related issues, parents are less sensitive to physical development and psychic adolescents, parents are less likely to give teens dialogue about sexual problems. The results prove that when parents want to discuss sexuality issues and accept and understand adolescents' attraction to sexuality, then adolescents tend to delay the first sexual intercourse [9]. When a teenager gets sex knowledge from his parents, they will be able to take responsibility for the sex knowledge they get from the parents. This will help adolescents to form healthy sexual behaviors and can avoid performing risky sexual behaviors.

Mahmudah et al. [10] study showed higher-risk sexual behavior in adolescents with negative attitudes (30.9%) compared to adolescents with a positive attitude (15.5%). Statistical test results were obtained at  $p=0.039$ , meaning there is a meaningful relationship between attitudes towards various sexual behaviors and adolescent sexual behavior in Padang City ( $p<0.05$ ). Attitude is a person's closed response to a stimulus or object, both internal and external so that its manifestations cannot be seen directly, but can only be interpreted. The attitude

indicates the suitability of the response to a particular stimulus. So it can be understood that risky sexual behavior is found in many respondents who have negative attitudes towards various adolescent sexual behaviors.

## **Conclusion**

Based on the results of this study, it is concluded that there is a relationship between knowledge levels and attitudes with the incidence of STI risky sexual behavior in teenage boys in Indonesia in 2017, namely:

1. In the results of the study known to young men in Indonesia Year 2017 who claimed to have had sexual intercourse and risked 13.1% STI transmission.
2. Known young men in Indonesia in 2017 who have good knowledge of STI risky sexual behavior with a percentage of 22.2% and male adolescents who have less knowledge is 77.8%.
3. Known Young men in Indonesia in 2017 who had negative attitudes towards STI risky sexual behavior by 47.9% and male adolescents who had a positive attitude 52.1%.
4. There is a relationship between attitudes towards STI risky sexual behavior and the incidence of STI risky sexual behavior in male adolescents in Indonesia year 2017. With  $p$ -value = 0.000 and OR score of 10,092 on attitudes that mean adolescents with negative attitudes are 10,092 times more likely to behave sexually risky than adolescents with positive attitudes.
5. There is a relationship between knowledge of STI risky sexual behavior and the incidence of STI risky sexual behavior in male adolescents in Indonesia year 2017. By obtaining results  $p$ -value = 0.000 and OR 0.569 on the knowledge that has meaning adolescents with less knowledge have a 0.569 times chance of behaving sexually risky compared to adolescents who have good knowledge. The results of the study on knowledge obtained  $p$ -value = 0.000.
6. There is a relationship of attitude and knowledge with the incidence of STI risky sexual behavior in adolescent boys aged 15-24 years in Indonesia.

Based on the results of this study is expected to be used as input for the creation of sexual behavior prevention programs at risk in adolescents and conduct research to create an educational model related to adolescent reproductive health to improve adolescent knowledge.

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