Description of Knowledge, Attitude, and Behavior at Risk of HIV Transmission in "X" SMK Students

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Abstract

HIV is a severe health problem. Pangandaran is a West Java tourist spot with a high risk of HIV transmission among adolescents. Knowledge about HIV, attitudes towards HIV transmission behavior, and HIV risk behaviors are essential for every individual because adolescents are a vulnerable population. This study aims to identify knowledge, attitudes, and risk behaviors for HIV transmission. This descriptive research with the research population is teenagers class XI and XII in SMK "X" Pangandaran, as many as 915 people. Data collection using proportionate stratified random sampling technique with a sample of 278 students online. Data collection was carried out within one month and distributed using Google Form using a modified Knowledge, Attitudes, and Risk Behavior related to HIV (PSP-HIV) questionnaire, which had been tested for validity and reliability. Data were analyzed using univariate in the form of frequency distribution for knowledge and attitudes. Risk behavior is grouped based on the frequency and percentage of respondents' answers to each statement. The results of this study found that (71.6%) of adolescents had less knowledge about HIV. A total of (54.7%) of adolescents have a terrible attitude toward HIV transmission behavior. The three risk behaviors for HIV transmission with the highest scores among students in this study were: 1) using protection or condoms during sexual intercourse as much as 5.4%; 2) having sex with girlfriends as much as 5%; 3) having sex with friends as much as 3.2%. Adolescents must be provided with accurate and complete information so that they do not become a vulnerable group to suffer from HIV.

Keywords: Attitude, HIV, knowledge, risk behavior.

Introduction

Developing cases of Human Immunodeficiency Virus (HIV) is one of the severe health problems in Indonesia. West Java Province ranks third with the highest number of HIV infections in Indonesia after DKI Jakarta and East Java, with an average age group of 20-24 years (Kemenkes RI, 2018). Based on risk groups, cases of HIV/AIDS in Indonesia occurred in the heterosexual group 61.5%, injection drug users (IDU) 15.5%, homosexuals 2.4%, and 17.1% due to unknown risk factors (Ministry of Health RI, 2014). Thus the development of HIV cases can be prevented as early as possible.

Adolescence is a period of a tendency to behave at risk of HIV transmission and other sexual diseases because of the many influences from friends or social media who are familiar with teenagers. Adolescents aged 15-19 years first date aged 15-17 in girls with 33.3% while in boys aged 15-19 years starting dating at less than 15 years with a percentage of 34.5% (Ministry of Health RI, 2007). Adolescents are a risk group that can be infected with HIV. These risk groups include free sex, a significant problem among teenagers.

Risk behavior can be interrelated with other risk behavior problems, including during adolescence experiencing changes that make adolescents shock themselves. Behavior in adolescents can cause health, socio-cultural and security problems, including fights between students and unwanted pregnancies (Maisya & Susilowati, 2013). The study found that knowledge and premarital sexual behavior did not have a significant relationship. Students engage in premarital sexual behavior even though they have good reproductive health knowledge (Hidayah (2015). Apart from sexual behavior, adolescents must also avoid drug abuse and use, which is a risk of HIV transmission. Drugs are chemical substances that one of the uses can be through needle injections and pose a risk of HIV transmission.

Knowledge about HIV must be instilled as early as possible, especially in adolescents. Increasing knowledge about HIV in adolescents can have a good impact, including improving adolescent behavior (Hidayah, Sari, & Susanti, 2018). In addition, knowledge can increase one's awareness and understanding which can influence adolescent decision-making (Suominen, Pernu, Kylma, Houtsonen, & Valimaki, 2011).

Attitude is one of the factors of predisposing behavior. Attitude and behavior toward HIV transmission can be influenced by group norms, roles, and culture; it can be stated that attitudes will vary from time to time and from other situations (Hardani, 2013). Through the learning process, attitudes can be grown and developed to receive information about HIV that can affect HIV behavior (Irsyad, Setiyadi, & Wijayanti, 2015).

Prevention is an effort to suppress cases of HIV. HIV prevention efforts also face challenges with stigma and discrimination against HIV. HIV is an infectious disease that cannot be cured, but one of the critical roles in treating this disease is medical personnel, especially nurses (Laras & Resdasari, 2016). The role of nurses in HIV prevention is in the form of education by providing counseling about HIV transmission to adolescents in schools.

One concept theory that describes knowledge, attitudes, and behavior is Green's theory. According to Green Theory, behavior is influenced by three factors, namely predisposing factors (knowledge, attitudes, beliefs, values), enabling factors (Puskesmas, School Health Units, Counseling Guidance rooms), reinforcing factors (health workers, family support, social support). (Green, Ottoson, García, & Hiatt, 2009). The enabling factor is the availability of supporting facilities and infrastructure or health facilities for adolescents, for example, Counseling Guidance rooms and health service facilities (Puskesmas, School Health Units) (Notoatmodjo, 2012b; Green, 1980). Reinforcing factors consist of attitudes and behavior of health workers, family support, and social support (Notoatmodjo, 2012b; Green, 1980). Parents' and friends' permission is one of the reinforcing factors in adolescents.

SMK "X" is among the best schools in the Pangandaran Regency. The development of adolescents currently in vocational school is undergoing changes from within, such

as psychological and emotional that must be controlled. Pangandaran Regency is a new regency that was inaugurated in 2013. With beach tourism and other natural sites, Pangandaran has an attraction for domestic and foreign tourists. In addition, there are night entertainment stalls (a kind of discotheque) that are identical to tourist attractions so that they can affect the behavior of teenagers. Prevention is crucial to overcoming HIV cases, especially for adolescents. For an HIV prevention program to be well designed and implemented, it is necessary to identify the knowledge, attitudes, and behaviors at risk of HIV among adolescents. So, research is required to determine knowledge, attitudes, and behaviors at risk of HIV transmission in students at SMK "X" in Pangandaran Regency.

Research methods

Types of research
This research method uses descriptive-quantitative research. The population in this study were eleventh (XI) and twelfth (XII) students of SMK "X" Pangandaran Regency.

Population and Sample
The number of samples was calculated using the Slovin formula from 915 students with a 95% confidence level. The required number of pieces was 278 students. The sampling technique used was proportionate stratified random sampling from grades eleven (XI) and twelve (XII) because they were late teens and not new students at school.

Instruments
Data were collected using the Knowledge, Attitudes, and Risk Behavior (PSP-HIV) instrument, which was adapted from Ayuningtias (2012) and Saputra (2008). The PSP-HIV instrument has been tested for validity and reliability with a score of validity test results for knowledge in the range 0.112-0.669, attitudes in the field (-0.013)-0.848, and risky behavior in the range 0-0.969. The reliability test results on 30 students for knowledge were 0.87, 0.47 for attitudes, and behavior were 0.83.

The PSP-HIV instrument consists of 45 statements composed of 23 items of knowledge statements using the Guttman scale, which are categorized into good knowledge (if the score is 75%), and sufficient knowledge (if the score is 56-74%). Knowledge is lacking (if the score is 55%). The attitude statement consists of 14 items using a Likert scale, categorized into favorable (good) attitudes (if T value 50) and unfavorable (less good) attitudes (if $T < 50$). Finally, risk behavior consists of 8 statement items using a Likert scale based on the average value of the respondents' answers to each statement.

The researcher collected the data online within one month by asking for class X and XI data from the Guidance Counseling teacher after obtaining research permission from the school. The data collection was carried out online, and the questionnaire was filled out via a Google form at their respective homes. Researchers provide a Google form link to teachers and students. The questionnaire used consisted of informed consent, student willingness sheets to become respondents, demographic data, knowledge statement sheets, attitude statement sheets, and risk behavior question sheets. The Google Form link was shared by the researcher assisted by the homeroom teacher through the WhatsApp group of each class and was only given to randomly selected students.

Data analysis
Data were analyzed using descriptive statistics and presented in frequency and percentage.

Research Ethics
This research has received ethical approval with the number: 807/UN6.KEP/EC/2020 from the Ethics Committee of Padjadjaran University.

Results
The study results are displayed in the form of a frequency distribution table. The table contains data obtained during the research process by filling out a questionnaire in the form of a Google Form, which is then interpreted and discussed for each sub-variable.

Characteristics of Respondents

Respondents obtained data on their characteristics and their dating status of respondents. Respondents in this study consisted of 278 students of SMK "X" Pangandaran Regency. Demographic data include age, gender, class, ethnicity, religion, sources of information obtained related to HIV, and dating status..

Respondents (N=278)

Table 1. Demographic Characteristics of Respondents (N=278)

Characteristic	Frequency (f)	Percentage (%)
Age (Year)		
15	4	1.4
16	67	24.1
17	122	43.9
18	82	29.5
19	3	1.1
Gender		
Male	133	47.8
Female	145	52.2
Class		
XI	138	49.6
XII	140	50.4
Ethnic Group		
Sunda	250	89.9
Jawa	23	8.3
Jawa-Sunda	4	1.4
Betawi	1	0.4
Religion		
Islam	278	100

Based on the data in Table 1, most respondents are 17 years old (43.9%). Almost all respondents were female, namely 145 people (52.2%), while the male respondents were 133 people (47.8%). The highest number of respondents was in class XII, with as many as 140 (50.4). In this study, 250 people (89.9%) came from the Sundanese ethnic group, and all respondents were Muslim (100%).

Table 2. Frequency Distribution of Respondents Receiving Information Sources on HIV and Dating Status (N=278)

Variable	Frequency (f)	Percentage (%)
Experience getting HIV information		
Yes	233	83.8
No	45	16.2
Source of information received		
Mass media	164	59.0
Counseling	73	26.3
Other	19	6.8
Never	22	7.9

Variable	Frequency (f)	Percentage (%)
Have you ever been in a relationship or have a current girlfriend?		
Yes	143	51.4
No	135	48.6

Table 2 shows that some respondents (83.8%) have received information about HIV. On average, 164 people (59.0) had seen information about HIV in the mass media, while 73 people (26.3%) received HIV information from counseling. Respondents also received other information, including from seminars, youtube, television, the internet, news, teachers, natural science lessons, extracurricular members, relatives, and friends who had been exposed to HIV. A total of 143 respondents (51.4%) have been in a relationship or have a girlfriend/ boyfriend.
Knowledge about HIV in SMK "X" students in Pangandaran Regency (N=278)
The description of knowledge of HIV transmission in SMK "X" Pangandaran Regency students was analyzed using a frequency distribution table. Here is the distribution table:

Table 3. Respondents Knowledge Level about HIV (N=278)

Knowledge	Frequency (f)	Percentage (%)
Good	23	8.3
Fair	56	20.1
Bad	199	71.6

Based on the data in Table 3, it can be seen that 199 respondents (71.6%) or almost all respondents have less knowledge, and 56 respondents (20.1%) have sufficient knowledge. As many as 23 (8.3%) respondents know good things about HIV.

Overview of Attitudes towards HIV Transmission Behavior in SMK "X" students in Pangandaran Regency (N=278)

Based on the data obtained and shown in Table 4, 152 respondents (54.7%) had an unfavorable attitude towards HIV transmission behavior, while the other 126 respondents (45.3%) had a favorable attitude towards HIV transmission behavior.
Overview of HIV Transmission Risk Behavior in SMK "X" students in Pangandaran Regency (N=278)

Table 4. Frequency Distribution of Attitudes to HIV Transmission Behavior in SMK "X" Students in Pangandaran Regency (N=278)

Atittude	Frequency (f)	Percentage (%)
Favourable	126	45.3
Unfavourable	152	54.7

Table 5 explains that nine respondents (3.2%) had sexual intercourse with a friend and 14 respondents (5%) had sexual intercourse with a boyfriend. In addition, four respondents (1.4%) had sexual intercourse with a commercial sex worker, three respondents (1.1%) had sexual intercourse with the same sex, and 15 respondents (5.4%) had used condoms during sexual intercourse.
Discussion
Knowledge about HIV
Knowledge can be interpreted as the

Table 5. Frequency Distribution of Behavioral Risks for HIV Transmission in SMK "X" students in Pangandaran Regency (N=278)

Statement	Always		Often		Sometimes		Seldom		Never		Total
	f	%	f	%	f	%	f	%	f	%	
Having sex with friends	1	0.4	3	1.1	4	1.4	1	0.4	269	96.8	278
Having sex with boyfriend/ girlfriends	2	0.7	2	0.7	4	1.4	6	2.2	264	95.0	278
Having sex with a Commercial Sex Worker	2	0.7	2	0.7	0	0	0	0	274	98.6	278
Having sex with the same sex	0	0	1	0.4	2	0.7	0	0	275	98.9	278
Use protection or condoms when having sex	6	2.2	2	0.7	5	1.8	2	0.7	263	94.6	278
Using injection drugs	0	0	1	0.4	1	0.4	0	0	276	99.3	278
Using unsterile tattoo needles	0	0	1	0.4	1	0.4	0	0	276	99.3	278
Having sex with a partner who is suspected or known to be HIV positive	0	0	3	1.1	1	0.4	0	0	274	98.6	278

information that is constantly needed to understand experience (Potter, Perry, Stockert, & Hall, 2016). In this study, knowledge is everything that is known by respondents, namely students of SMK "X" Pangandaran Regency about HIV.

The results showed that most respondents (71.6%) had less knowledge about HIV. A person's grasping power and mindset will improve with age so that the knowledge gained will improve (Ar-Rasily & Dewi, 2016). Good benefits will be obtained if one gets the proper expertise and knowledge about HIV. This study is in line with Sudikno, Simanungkalit, and Siswanto (2011), which state that knowledge about HIV in Indonesia is still low. 54% in urban areas and 46.6% in rural areas. Another survey conducted on adolescents in Pangandaran found exciting results, including sound knowledge about people at risk for HIV and how HIV is transmitted (Yani, 2017). Specifically, adolescents have good knowledge about the causes, symptoms, and modes of transmission of HIV.

People with less knowledge about HIV will influence that person's attitudes and behavior, such as avoiding or discriminating against people with HIV, even assuming that the disease is not dangerous. Meanwhile, people with sufficient knowledge about HIV will be more receptive to the presence of people with HIV/AIDS in their environment (Nurwati & Rusyidi, 2019). Therefore, ways to eliminate or minimize risky behavior is a significant actions. It can be tackled especially by the school, one of which is by providing appropriate health education and making a particular schedule of counseling for student problems which is very important to prevent and control risky behavior of HIV transmission. Unfortunately, the description above means that students of SMK "X" Pangandaran Regency have less knowledge about HIV transmission, which can be a potential increase in the incidence of HIV in adolescents in Indonesia.

Attitudes towards HIV Contagious Behavior

Attitude is a reaction from within a person to something positive or negative (Sofa, 2015). In this study, attitudes have a response or adolescent responses to HIV transmission behavior in SMK "X" Pangandaran Regency. This study found that most of the 152 respondents (54.7%) had an unfavorable attitude towards HIV transmission in SMK "X" Pangandaran Regency. The number of respondents who have a negative attitude towards HIV transmission can be seen from the knowledge of respondents dealing with

HIV transmission, the majority of which have less knowledge. It is in line with research by Asfar & Asnaniar (2018), which states that good knowledge can also respond to attitudes that lead to good behavior. The effect of health education on attitudes and knowledge of HIV/AIDS showed an increase in adolescent attitudes about HIV before and after counseling. Sumartini and Maretha (2020), regarding the effectiveness of providing peer education in HIV prevention on teenage attitudes and knowledge, it was found that there was an increase in adolescent attitudes towards attitudes in preventing HIV before and after being given peer education which was influenced by knowledge.

According to the CDC (2019), HIV is only transmitted through the exchange of bodily fluids from sufferers, such as blood, breast milk, semen, and vagina. High knowledge is significantly associated with more attitudes toward people living with HIV in Lebanon (Youssef, Hallit, Sacre, Salameh, Cherfan, et al., 2021). A good attitude because of good knowledge about HIV will minimize the negative stigma of someone with HIV. Various factors cause stigma, discriminatory attitudes, and behavior in HIV due to lack of knowledge about HIV, lack of training on HIV stigma, misconceptions about HIV transmission, and fear of being infected with HIV when interacting with people with HIV (Fauk, Ward, Hawke, & Mwanri, 2021). According to Sofa (2015), adolescents' unfavorable attitudes towards HIV transmission behavior can occur because they are influenced by factors that shape these attitudes, such as personal experiences experienced directly by adolescents. This study can overcome this by providing complete information through counseling, counseling, and socialization about HIV in adolescents.

HIV Transmission Risk Behavior

Health risk behavior can increase the vulnerability of disease risk to health status (Sari Hidayangsih, 2014). Some respondents had risky behavior toward HIV transmission. Eight statements regarding HIV risk behavior were submitted to respondents in this study; from the 8 statement items, some respondents had HIV transmission risk behaviors in each report.

Nine respondents (3.2%) had sexual relations with friends, 14 respondents (5%) had sexual relations with their partners, and four respondents (1.4%) had sexual relations with commercial sex workers. Different results were found in a survey conducted on adolescents in Pangandaran; 100% had never had sexual intercourse and stated that they would do so after marriage.

This research is supported by Sari Hidayangsih (2014), which states that one-fifth of the population in Indonesia are teenagers who have the opportunity to behave at risk without being aware of the long-term consequences of this behavior. Teenagers get these risky behaviors from unhealthy and undirected associations and information, one of which is from the field of technology which is very difficult to stem access to information such as pornography and free sex life that can damage the personality of teenagers. In addition, predictors for someone not to engage in risky behaviors such as parental monitoring and friend religiosity. The predictor that increases the likelihood of students engaging in adolescent sexual behavior is that adolescents imitate the behavior of their friends who engage in adolescent sexual behavior (Busse, Fishbein, Bleakley, & Hennessy, 2010).

Risky behaviors that can lead to HIV transmission include having sex without protective equipment or condoms, having sex with injecting drug users using syringes simultaneously, and having sex with people suffering from sexually transmitted infections (Suominen et al., 2011).

Conclusion

Based on research conducted on 278 respondents at SMK "X" Pangandaran Regency, the researchers concluded that with the result that 71.6% of respondents had less knowledge about HIV. Then 54.7% of respondents have an unfavorable attitude towards HIV transmission behavior. In the category of risky behavior, some respondents (5.4%) have used safety precautions or condoms during sexual intercourse. A small proportion of respondents (5%) had sexual intercourse with a boyfriend. A total of (3.2%) had sexual intercourse with a friend. Only a

small proportion of respondents (1.4%) have had sexual relations with commercial sex workers and sexual relations with partners suspected or known to be HIV positive. Some respondents (1.1%) had sexual intercourse with the same sex. A total of (0.7%) had used injecting drugs and unsterile tattoo needles. This research is expected to be additional information for nursing education related to HIV transmission to improve knowledge, attitudes, and risk behavior towards HIV in adolescents in Pangandaran Regency.

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