

## The Relationship between Knowledge and Attitudes of Adolescents and Perceptions of HIV/AIDS Transmission at State Senior High School 06 Mandau, Bengkalis Regency, Riau Province in 2024

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### ABSTRACT

HIV/AIDS is a disease that has received significant attention from various parties. Indonesia is one of the countries experiencing a significant increase in cases. However, Indonesia is still lagging behind in achieving the global target of HIV control, namely 95-95-95. As of December 2022, the first 95 percent achievement is still at 81%; for the second 95 percent, the achievement is still less than half (41%) who are still on ARV treatment; the third 95 percent achievement is only 19% of PLHIV on ARV treatment whose viruses are suppressed. This study was conducted to determine the relationship between knowledge and attitudes of adolescents at SMA Negeri 06 Mandau regarding HIV/AIDS in 2024. This study was conducted cross-sectionally by administering questionnaires to students of SMA Negeri 06 Mandau from May to September 2024. The sample was taken by total sampling from the population at SMA Negeri 06 Mandau. Of the 55 students who were respondents in this study, 5 people (9.1%) had good knowledge, 24 people (43.6%) had sufficient knowledge, and 26 people (47.3%) had insufficient knowledge. Based on the results of the chi square test of the relationship between adolescent knowledge and HIV/AIDS transmission in SMA Negeri 06 Mandau in 2024, with a degree of significance ( $\alpha$ ) = 0.1 and  $df = 1$ , the calculation results were obtained based on a significance value  $<0.05$ , then  $H_0$  was rejected and if the significance value  $> 0.05$ , then  $H_0$  was accepted because the significance value  $<0.05$  ( $0.000 < 0.05$ ) then  $H_0$  was rejected, meaning there was a relationship between adolescent knowledge and HIV/AIDS transmission in SMA Negeri 06 Mandau, Bengkalis Regency, Riau Province in 2024. The conclusion of this study is to increase knowledge and information among adolescents about the perception of HIV/AIDS transmission in SMA Negeri 06 Mandau, Bengkalis Regency, Riau Province.

**Keywords:** Knowledge and Attitudes, Adolescents Regarding Perception, HIV/AIDS Transmission

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## 1. INTRODUCTION

*Human Immunodeficiency Virus* (HIV) is a virus that causes cytopathic virus, (Acquired Immunodeficiency Syndrome) AIDS, which is a global health problem in both developed and developing countries. There are more than 45 million people with HIV/AIDS sufferers with more than 25 million deaths since the disease was first reported in 1981. Sub-Saharan Africa, South Asia and Southeast Asia are the worst regions infected with HIV. In Indonesia until March 2008 there were 6,130 HIV infection sufferers and 11,868 AIDS sufferers, with 2,486 deaths (Soedarto, 2009).

(Acquired Immune Deficiency Syndrome) AIDS is a collection of symptoms of immune system damage, not a congenital disease but acquired through infection. This disease can be caused by HIV (Human Immune Deficiency Virus). This disease has become an international problem because in a relatively short time there

has been an increase in the number of patients and is increasingly affecting many countries. To date, no vaccine or relatively effective drug has been found for AIDS, causing concern worldwide (James, 2006).

In Indonesia, HIV was first reported in Bali in April 1987 (in a Dutch person). In 1999, there were 635 new cases of HIV and 183 new cases of AIDS. From 2000 to 2005, there was a significant increase in HIV and AIDS cases in Indonesia. In 2000, 255 cases of AIDS were recorded, increasing to 316 in 2003, and increasing rapidly to 2,638 in 2005. Based on these data, DKI Jakarta had the largest number of sufferers, followed by East Java, Papua, West Java, and Bali. This increase was mainly due to the improving system of recording and reporting cases and the increasing number of diagnostic service facilities for cases with Voluntary Counseling and Testing (VCT) clinics (Widoyono, 2011).

In Indonesia, the first AIDS sufferer discovered was a male foreign tourist who died in Bali, April 1987. The second AIDS sufferer was in Bali, June 1988. Until 1991, a total of 21 cases of AIDS and HIV infection were recorded.

The spread of HIV in Indonesia increased after 1995. By June 1996, the Ministry of Health had recorded 407 cases of HIV/AIDS infection. The number of HIV/AIDS infections in the community is estimated to be much higher. Since 1999, a new phenomenon in the spread of HIV/AIDS has emerged: HIV infections have begun to appear in injecting drug users (IDUs) (Ummu 2009).

Although the media coverage of AIDS has decreased significantly compared to the 1980s and 1990s, HIV/AIDS cases in Indonesia must be taken seriously, as the number of sufferers continues to increase year after year. As of September 30, 2010, the cumulative number of reported AIDS cases was 22,726, with the largest number in 32 provinces. The highest number of cases was in the proactive age group, namely 20-29 years old (47.8%), followed by the 30-39 age group (30.9%), and the 40-49 age group (9.1%). Of that number, 4,250 cases or (18.7%) of them died. Meanwhile, the most cases were reported from the province of DKI Jakarta, followed by West Java, East Java, Papua, Bali, West Kalimantan, Central Java, South Sulawesi, North Sumatra, and Riau.

The most common methods of transmission are through heterosexual intercourse (51.3%), Injection Drug Users or injecting drug users (39.6%), gay men (3.1%), and perinatal or from an infected mother to her baby (2.6%) (Ronald, 2011).

Compared with other Southeast Asian countries, Indonesia's HIV/AIDS case rate is relatively low. The most important reasons are likely weak recording and reporting systems, limited supporting laboratory equipment, and poor diagnostic capabilities.

At the end of the 20th century, the world of health was shocked by the emergence of a new disease that was very dangerous and viciously attacking human life, namely HIV/AIDS. AIDS (Acquired Immune Deficiency Syndrome) is an infectious disease caused by the Human Immunodeficiency Virus (HIV). Its spread was very fast throughout the world. In 1999, 191,000 cases of AIDS were reported to the WHO by 145 countries. By mid-2000, an estimated 30 million people worldwide were infected with HIV, consisting of 24.5 million adults and 5.5 children. By the end of the 20th century, an estimated 40 million people were infected with HIV (Widoyono, 2011).

AIDS was first discovered in the United States in 1981 and then rapidly spread throughout the world. In 1988, the number of AIDS cases in the United States reached 48,1389. In Latin American countries, 7,215 cases of AIDS were reported among young people aged 20-49, most of whom were homosexuals and intravenous drug users (Notoatmojdo 2011).

Sexually transmitted diseases, including HIV/AIDS, can be transmitted in several ways. The first is through unprotected sexual intercourse, whether through the penis, vagina, anus, or oral. This is the most common method (more than 90%). Uteroplacental transmission, from mother to fetus during pregnancy (HIV/AIDS, herpes, syphilis), through the birth canal during delivery (HIV/AIDS, gonorrhea, chlamydia), after birth (HIV/AIDS). Blood transmission, blood transfusions without screening for STIs or direct contact with blood fluids or blood products (HIV/AIDS) and through syringes used together with hepatitis or HIV and AIDS sufferers. Body contact, this condition occurs in stage III syphilis, and finally, poor reproductive hygiene (Andhyanto, Iwan et al. 2012).

According to data from the Ministry of Health (Depkes) for the period July-September 2006, cumulatively, the number of HIV-positive people in Indonesia reached 4,617 and AIDS-positive people reached 6,987 (Media Indonesia, 2006). HIV/AIDS is an incurable disease and no cure has been found to date. Having HIV/AIDS in Indonesia is considered a disgrace, which can cause psychological stress, especially for the sufferer, their family, and the environment around them (Nursalam, 2007).

## 2. RESEARCH METHODS

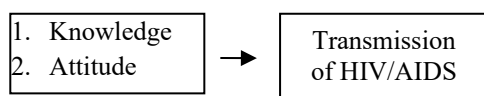
The design of this research is a descriptive analytical survey, namely with a cross-sectional approach which aims to analyze the Relationship between Knowledge and Attitudes of Adolescents with HIV/AIDS Transmission at SMA Negeri 06 Mandau, Bengkalis Regency, Riau Province in 2024.

This research was conducted at State Senior High School 06 Mandau, Bengkalis Regency, Riau Province. The reason for this study was because no research had ever been conducted on adolescents' knowledge of HIV/AIDS transmission at State Senior High School 06 Mandau, Bengkalis Regency, Riau Province in 2024. The research period was from May to September 2024.

The population in this study was all 11th grade students at SMA Negeri 06 Mandau, Bengkalis Regency, Riau Province, totaling 55 people. The sampling technique used was total sampling, where the sample was taken by taking all the population into samples in this study, namely 55 people.

The conceptual framework of the research is explained in the form of a diagram, where the independent variable is the mother's knowledge, and the dependent variable is HIV/AIDS transmission. As follows:

### Independent Variables Dependent Variable



### 2.1. Measurement Aspects

- a. Adolescent knowledge about HIV/AIDS transmission
- b. Adolescent Attitudes About HIV/AIDS Transmission

### 2.2. Data Processing and Data Analysis

According to Notoatmojo (2010), manual data processing is currently rarely done, as it is considered outdated. However, given limited facilities and infrastructure, or if the data is not too extensive, manual data processing is still performed. The steps for data processing are as follows:

- c. *Editing*
- d. *Coding*
- e. *Tabulating*

### 2.3. Data analysis

According to Notoatmojo (2010), data analysis in a study usually includes a step-by-step procedure, including:

- a. Univariate analysis
- b. Bivariate analysis

## 3. RESEARCH RESULTS AND DISCUSSION

### 3.1. Adolescent Knowledge of HIV/AIDS Breast Self-Examination

Based on the results of the study that the majority of knowledge in the sufficient category of 24 respondents (43.6%) with the perception of HIV/AIDS transmission and the minority of female adolescents' knowledge in the good category of 5 respondents (9.1%) with the perception of HIV/AIDS transmission (9.4%). Based on the results of the chi square test of the relationship between adolescent knowledge in SMA Negeri 06 Mandau, Bengkalis Regency, Riau Province in 2024, with a degree of significance ( $\alpha$ ) = 0.1 and  $df = 1$ , the calculation results are  $X^2$  count 40.231a >  $X^2$  table 3.841, based on the significance value <0.05 then  $H_0$  is rejected and if the significance value > 0.05 then  $H_0$  is accepted because the significance value <0.05 (0.000 < 0.05) then  $H_0$  is rejected meaning there is a relationship between adolescent knowledge in SMA Negeri 06 Mandau, Bengkalis Regency, Riau Province in 2024.

### 3.2. Adolescent Attitudes Regarding HIV/AIDS Transmission

Based on the research results, the majority of knowledge was in the sufficient category, amounting to 24 respondents (43.6%) with the perception of HIV/AIDS transmission and the minority of adolescent knowledge was in the good category, amounting to 5 respondents (9.1%).

Based on the results of the chi square test of the relationship between adolescent knowledge and perception of HIV/AIDS transmission in SMA Negeri 06 in 2024, with a degree of significance ( $\alpha$ ) = 0.1 and  $df = 1$ , the calculation results are  $X^2$  count 40.231a >  $X^2$  table 3.841, based on the significance value <0.05 then  $H_0$  is rejected and if the significance value > 0.05 then  $H_0$  is accepted because the significance value <0.05 (0.000

<0.05) then  $H_0$  is rejected meaning there is a relationship between adolescent knowledge and perception of HIV/AIDS transmission in SMA Negeri 06 Mandau, Bengkalis Regency, Riau Province in 2024.

Based on table above, it can be seen that of the 55 respondents, the majority had a positive attitude, namely 20 respondents (36.4%), and a small portion had a negative attitude, namely 35 respondents (63.6%).

#### 4. CONCLUSION

From the results of the study on the relationship between adolescent knowledge and attitudes with the transmission of HIV/AIDS at SMA Negeri 06 Mandau, Bengkalis Regency, Riau Province in 2024, the following conclusions can be drawn: Based on the knowledge of adolescents with HIV/AIDS transmission that the majority of sufficient knowledge as many as 24 respondents (43.6%) with HIV/AIDS transmission in SMA Negeri 06 Mandau, Bengkalis Regency and good knowledge as many as 5 respondents (9.1%) and with less knowledge as many as 26 (47.3%) Based on the results of the chi square test of the relationship between knowledge of female adolescents with HIV/AIDS transmission in SMA Negeri 06 Mandau in 2024, with a degree of significance ( $\alpha$ ) = 0.1 and  $df = 1$  obtained based on a significance value <0.05 then  $H_0$  is rejected and if the significance value > 0.05 then  $H_0$  is accepted because the significance value <0.05 (0.000 <0.05) then  $H_0$  is rejected meaning there is a relationship between adolescent knowledge and HIV/AIDS transmission in SMA Negeri 06 Mandau in 2024. Based on the attitude of adolescents with HIV/AIDS transmission that the majority of respondents who have a positive attitude of 20 respondents (34.5%) with HIV/AIDS transmission and the rest of the respondents have a negative attitude of 35 respondents (63.6%) with HIV/AIDS transmission. Based on the results of the chi square test of the relationship between adolescent knowledge and HIV/AIDS transmission in SMA Negeri 06 Mandau in 2024, with a degree of significance ( $\alpha$ ) = 0.1 and  $df = 1$ , the calculation results are obtained based on a significance value <0.05 then  $H_0$  is rejected and if the significance value > 0.05 then  $H_0$  is accepted because the significance value <0.05 (0.000 <0.05) then  $H_0$  is rejected meaning there is a relationship between adolescent knowledge and HIV/AIDS transmission in SMA Negeri 06 Mandau, Bengkalis Regency, Riau Province in 2024. Based on the age of the teenagers, there are 33 respondents (60.0%) aged 16-17 years and a small number are 22 respondents (40.0%) aged 18 years. Based on the gender of male and female adolescents, there are 20 male respondents (36.3%) and 35 female respondents (63.6%). For schools, especially teenagers, to increase the knowledge and understanding of teenagers about HIV/AIDS transmission by conducting counseling at State Senior High School 06 Mandau, Bengkalis Regency, Riau Province in 2024. For STIKes Helvetia Medan, so that it can be used as input or information and library reference. For further research, the results of this study are expected to be a reference and information for further researchers using other variables that have not been studied.

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