

# KNOWLEDGE AND ATTITUDES OF ADOLESCENTS ABOUT HIV/AIDS DISEASE AMONG THE KARANG TARUNA YOUTH IN MOJO SUB-DISTRICT, SURABAYA

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**Abstract.** HIV/AIDS is a sexually transmitted disease that can result in death. Adolescents who are sexually active and often lack basic information about reproductive health are vulnerable to reproductive health issues like HIV/AIDS. The purpose of this research is to assess the knowledge and attitudes of adolescents about HIV/AIDS disease among the Karang Taruna youth in Mojo Sub-District, Surabaya. This research is a quantitative descriptive study with a cross-sectional approach. The sample size used was 101 Karang Taruna youth residing in the Mojo Sub-district, Surabaya, selected using purposive sampling technique. The research was conducted from April to May 2023. Data were collected through a Google Form questionnaire and analyzed using descriptive analysis. The results of this research that adolescents have good knowledge in the indicators of understanding HIV/AIDS (79%), sufficient knowledge about the causes of HIV/AIDS (39%) and its transmission (47%), but their knowledge is lacking in recognizing signs and symptoms (64%) and prevention methods (35.7%). Meanwhile, adolescents with positive attitudes are found in the indicators of understanding HIV/AIDS (70%), its transmission (60%), and prevention methods (54%). Adolescents with negative attitudes are found in the indicator related to the causes of HIV/AIDS (53%), then the signs and symptoms indicators obtained the same results (50%). Based on the results of this study it is hoped that adolescents with limited knowledge can improve their understanding, and those with negative attitudes can receive education regarding the impact of HIV/AIDS. This is expected to help shape positive attitudes in efforts to prevent HIV/AIDS.

**Keywords:** Knowledge, Attitude, HIV/AIDS, Adolescents

## 1 INTRODUCTION

HIV is a virus that can weaken the immune system in humans. AIDS, on the other hand, is a collection of symptoms and infections caused by damage to the human immune system due to the HIV virus. HIV/AIDS is a sexually transmitted disease that can result in death. Since it became an epidemic up to the present day, its spread has been very rapid worldwide (Samy, 2016; Richard et al., 2020). The HIV/AIDS epidemic is also a significant issue in Indonesia, which ranks fifth among the countries in Asia at the highest risk of HIV/AIDS (Ministry of Health of the Republic of Indonesia, 2021). The incidence and mortality rates due to HIV/AIDS are also increasing, primarily because of the lack of understanding about HIV/AIDS, especially among adolescents.

According to the Indonesian Health Profile data for the year 2021, the number of HIV-positive individuals in Indonesia in 2020 was 41,987, with 8,639 AIDS cases and 30,137 deaths attributed to HIV/AIDS. In 2021, there were 36,902 HIV cases and 5,750 AIDS cases reported in Indonesia. Most of these cases are concentrated in the

productive age group of 15-49 years old (Ministry of Health of the Republic of Indonesia, 2021).

The spread of HIV/AIDS in East Java continues to see an increase in cases each year, with Surabaya city ranking highest among the regions. In 2019, there were 334 AIDS cases reported in Surabaya. When accumulated since the first discovery, Surabaya has had a total of 4,967 AIDS cases. In 2020, the number of HIV cases was 626, and in the same year, there were 160 new AIDS cases, bringing the cumulative total of AIDS cases to 5,127 (Surabaya City Health Office, 2020).

Factors contributing to the high transmission rate of HIV/AIDS include engaging in risky behaviors such as having multiple sexual partners, premarital sex, drug abuse, and body piercing and tattooing. Adolescence is closely linked to psychological development during the puberty period, accompanied by sexual development. Adolescents also go through changes involving physical and emotional developments, which are reflected in their attitudes and behaviors, making them vulnerable to risky behaviors related to HIV/AIDS transmission (Suhud, 2015; H.N Do et al., 2020). Lifestyles like these can jeopardize reproductive health, particularly the risk of contracting sexually transmitted diseases, including HIV/AIDS (Kusuma, 2018). Adolescents are highly vulnerable to HIV/AIDS because their knowledge and attitudes about the dangers of HIV/AIDS are often not well understood. However, this knowledge is crucial for avoiding HIV/AIDS and its transmission. Increasing adolescents' understanding of HIV/AIDS is a preventive measure that should be taken to enhance their knowledge and attitudes toward the dangers of HIV/AIDS.

Adolescents are the most physically and psychologically vulnerable group to HIV infection, making them the focus of all strategies to combat the spread of the HIV/AIDS virus. It has been proven that disseminating information about HIV/AIDS is effective in preventing risky behaviors among adolescents that could lead to HIV/AIDS infection (Sawaki, 2017; B.X. Tran et al., 2020). Efforts to prevent the spread of HIV/AIDS include campaigns such as "Aku Bangga Aku Tahu" (ABAT). Additionally, harm reduction programs target injectable drug users and provide condoms to prevent transmission through sexual contact with HIV positive partners. Furthermore, there are 420 HIV diagnosis facilities in the form of Voluntary Counseling and Testing (VCT) services and Methadone Maintenance Treatment (MMT) programs in all health centers in East Java (East Java Health Office, 2015). If the issues related to HIV/AIDS cases among adolescents are not promptly addressed, it will lead to a higher incidence of HIV/AIDS and the loss of productive years for those affected, ultimately resulting in a loss of productive workforce in Indonesia (East Java Health Office, 2021). Based on these observations, the author is interested in conducting research on " Knowledge And Attitudes Of Adolescents About HIV/AIDS Disease Among The Karang Taruna Youth In Mojo Sub-District, Surabaya", given that the majority of HIV/AIDS cases occur among adolescents, and Surabaya is the region with the highest HIV/AIDS cases in East Java.

## 2 METHOD

This research is a quantitative descriptive study with a cross sectional approach. The sample criteria used in this research are members of the Karang Taruna aged 13-45 years old and residing in the Karangmenjangan area, RW 07, Mojo Sub-District, Surabaya. The sampling technique employed is non-probability sampling with purposive sampling technique. The research instrument used a questionnaire which contained general data on adolescents, adolescent knowledge about HIV/AIDS and adolescent attitudes towards HIV/AIDS which consisted of several indicators. Data collection in this research is carried out by filling out the questionnaire sheets through a Google Form link which was distributed via WhatsApp. Research participants are requested to choose the appropriate option by checking a checklist (✓) or selecting the available options in the true or false columns in the Google Form.

This research was conducted from April to May 2023 among Karang Taruna Youth in Mojo Sub-District, Surabaya. All eligible adolescents were asked to complete a self-administered questionnaire including demographic information, and answer the questionnaire in Indonesian by providing a check list (✓) for the answers that the respondent thought were correct. Prior to data collection, researchers explained the purpose of the study and ensured that written consent was obtained and that patient participation was voluntary. The data analysis used in this research is frequency distribution and percentage. Ethical Approval was obtained from the Ethics Institute of the Surabaya Ministry of Health Poltekkes No. EA/1582/KEPK-Poltekkes\_Sby/V/2023. Administrative approval from Investment Agency and PTSP, Gubeng District and Mojo Sub-District obtained prior to research data collection.

## 3 RESULTS

The research data presented in this study are data on the characteristics, knowledge and attitudes of adolescents regarding HIV/AIDS.

**Table 1.** Frequency Distribution of General Data on Karang Taruna adolescents in Mojo Sub-district

Characteristic	Category	Frequency	Presentated%
Age	12-15 years	4	4
	15-18 years	18	18
	18-22 years	79	78
<b>Total</b>		101	100
Gender	Male	34	34
	Female	67	66
<b>Total</b>		101	100
Education	Elementary School	4	4
	Junior High School	22	22
	Senior High School	65	64

	University	10	10
<b>Total</b>		101	100
Marital Status	Married	0	0
	Unmarried	101	100
<b>Total</b>		101	100
Casual Sex	Have done	0	0
	Have not done	101	100
<b>Total</b>		101	100
Tattooed	Yes	0	0
	No	101	100
<b>Total</b>		101	100
Pierced (Male)	Yes	0	0
	No	34	100
<b>Total</b>		34	100
Pierced more than one pair (Female)	Yes	0	0
	No	67	100
<b>Total</b>		67	100
Alcohol	Yes	0	0
	No	101	100
<b>Total</b>		101	100
Smoking	Yes	15	14,8
	No	86	85,2
<b>Total</b>		101	100
Free or casual socializing	Yes	0	0
	No	101	100
<b>Total</b>		101	100

Table 1. Result showed the age of adolescents shows that the majority are in the 18-22 age group totaling 79 adolescents (78%), while a small number of adolescents are aged 12-15 years. In terms of gender, the majority are female with 67 adolescents (66%), and nearly half are male totaling 34 adolescents (34%) Regarding their highest education level, most have completed their Senior High School totaling 65 adolescents (64%). As for marital status, casual sex, tattoos, body piercings, alcohol consumption, and involvement in free socializing, none of the adolescents reported experiencing any of these. However, in the case of smoking, the majority, which is 86 adolescents (86%) do not smoke, while a small percentage of 15 adolescents (14.8%) do smoke.

**Table 2.** Distribution of knowledge among adolescents about HIV/AIDS disease the Karang Taruna youth in Mojo Sub-District, Surabaya

Adolescent Knowledge About HIV/AIDS	Frequency	Percentage
<b>Definition HIV/AIDS</b>		
Good	80	79

Enough	20	20
Less	1	1
<b>Total</b>	<b>101</b>	<b>100</b>
<b>Causes of HIV/AIDS</b>		
Good	30	30
Enough	39	39
Less	32	32
<b>Total</b>	<b>101</b>	<b>100</b>
<b>Transmission of HIV/AIDS</b>		
Good	25	25
Enough	46	47
Less	30	28
<b>Total</b>	<b>101</b>	<b>100</b>
<b>Signs and symptoms of HIV/AIDS</b>		
Good	3	3
Enough	33	33
Less	65	64
<b>Total</b>	<b>101</b>	<b>100</b>
<b>Prevention of HIV/AIDS</b>		
Good	35	34,6
Enough	30	29,7
Less	36	35,7
<b>Total</b>	<b>101</b>	<b>100</b>

Table 2. Result showed on the indicator of understanding HIV/AIDS almost all adolescents have good knowledge as many as 80 adolescents (79%), on the indicator of the causes of HIV/AIDS almost half 39 adolescents (39%) have sufficient knowledge, on the indicator of transmission of HIV/AIDS almost half 46 adolescents (46.5%) are quite knowledgeable, on indicators of signs and symptoms of HIV/AIDS most adolescents have less knowledge as many as 65 adolescents (64%) and on indicators of Prevention of HIV/AIDS all adolescents are almost half 36 adolescents (35.6%) less knowledgeable.

**Table 3.** Distribution of attitude among adolescents about HIV/AIDS disease the Karang Taruna youth in Mojo Sub-District, Surabaya

<b>Adolescents Attitudes About HIV/AIDS</b>	<b>Frequency</b>	<b>Presentated%</b>
<b>Definition HIV/AIDS</b>		
Positive	71	70
Negative	30	30
<b>Total</b>	<b>101</b>	<b>100</b>
<b>Causes of HIV/AIDS</b>		
Positive	47	47
Negative	54	53
<b>Total</b>	<b>101</b>	<b>100</b>
<b>Transmission of HIV/AIDS</b>		
Positive	61	60
Negative	40	40
<b>Total</b>	<b>101</b>	<b>100</b>

<b>Signs and symptoms of HIV/AIDS</b>		
Positive	51	50
Negative	50	50
<b>Total</b>	101	100
<b>Prevention of HIV/AIDS</b>		
Positive	55	54
Negative	46	46
<b>Total</b>	101	100

Table 3. Result showed that most of the attitudes of adolescents on indicators of understanding HIV/AIDS as many as 71 adolescents (70%) have positive attitudes, on indicators of the causes of HIV/AIDS most of 54 adolescents (53%) have negative attitudes, on indicators of transmission of HIV/AIDS mostly 61 adolescents (60%) had a positive attitude, the indicators for signs and symptoms of HIV/AIDS obtained almost the same results, namely 51 adolescents (50%) had a positive attitude and 50 adolescents (50%) had a negative attitude. In terms of HIV/AIDS prevention indicators, the majority of 55 adolescents (54%) had a positive attitude.

## 4 DISCUSSION

### 4.1 Knowledge Among Adolescents About HIV/AIDS Disease In Karang Taruna Youth In Mojo Sub-District, Surabaya

This research has identified the knowledge and attitudes of adolescents regarding HIV/AIDS based on indicators covering the understanding, causes, transmission methods, signs and symptoms, and prevention methods of HIV/AIDS. Based on the research results it shows that almost all adolescents have good knowledge in the indicator of understanding HIV/AIDS. Nearly half of the adolescents have sufficient knowledge in the indicators related to the causes and transmission methods of HIV/AIDS. A significant portion of adolescents have limited knowledge in the indicators concerning the signs and symptoms of HIV/AIDS. Almost half of the adolescents have limited knowledge in the indicator of HIV/AIDS prevention methods.

According to Notoatmojo (2014), knowledge is the result of knowing and occurs after an individual senses or perceives an object. According to Mubarak (2011), there are seven factors that can influence knowledge, namely education level, occupation, age, interest, experience, environment, and information. Education is an effort to develop an individual's personality and abilities so they can understand things better. The higher a person's education level, the easier it is for them to receive information, and their knowledge base becomes broader. Conversely, a lower level of education can hinder a person's development of attitudes toward newly introduced values (Nursalam, 2011; G.T Nu et al., 2020). Adolescents with higher levels of education will have a broader understanding and thinking about HIV/AIDS, enabling them to make decisions to protect themselves from HIV/AIDS and its transmission risks. Education plays a crucial

role in shaping one's knowledge and attitudes towards various subjects, including health-related issues like HIV/AIDS (Min et al., 2022; Bisallah et al., 2018).

However, on indicators of signs and symptoms of HIV/AIDS, it was found that most adolescents had insufficient knowledge. This indicates that even adolescents can experience the signs and symptoms of HIV/AIDS but are not aware of it because they have a lack of knowledge. Unconsciousness can increase the risk of spreading HIV/AIDS infection to other people. The results of this study are in line with research conducted by Gita Oktaviani Marola (2018) on teenagers at SMA Negeri 6 Kendari, Kendari City, with a total of 55 teenager. The research showed that there were 38 teenagers (69%) who had good knowledge, 15 teenagers (27%) who had sufficient knowledge and 2 teenagers (4%) who had less knowledge.

Based on the results of research that has been conducted, the majority of t adolescents have at least a high school education. Adolescents with a high school education have a better level of ability to think and receive information compared to teenagers with a junior or elementary school education. The higher a teenager's education, the more experience they gain. Knowledge among adolescents about HIV/AIDS is a very important aspect at this time, which includes the causes of HIV/AIDS, signs and symptoms, how it is transmitted and the prevention efforts taken. Teenagers who have good knowledge regarding healthy living behavior will have a tendency to behave better too. Therefore, to improve healthy living behavior to avoid the dangers and risks of transmission due to HIV/AIDS, it is also necessary to increase knowledge and explore information about health, especially knowledge about the dangers of HIV/AIDS.

#### **4.2 Attitude Among Adolescents About HIV/AIDS Disease In Karang Taruna Youth In Mojo Sub-District, Surabaya**

Based on the results of research on adolescent attitudes towards HIV/AIDS, the majority of adolescents who have a positive attitude are on the indicators of understanding HIV/AIDS, how it is transmitted and how to prevent it, then the majority of adolescents who have a negative attitude, namely on the indicators of the causes of HIV/AIDS, then on the indicators signs and symptoms produce the same results.

Attitude is something that occurs because of factors that influence the formation of that attitude. A person's attitude towards an object can be influenced by several things, including personal experience, social environmental influences, cultural influences, mass media, educational institutions and religious institutions, gender, knowledge and emotional factors (Azwar, 2016; Raberahona et al., 2019; Mura et al., 2019). Attitude is a person's closed response to a particular stimulus or object, which already involves the relevant opinion and emotional factors. Attitude is readiness or willingness to act, and not the implementation of certain motives (Notoatmodjo, 2010; Bromdal et al., 2019; Ekubagewargies et al., 2019).

The results of this research are in line with research conducted by Reichenbach et al., (2019) on teenagers at SMK N 1 Bawen, Semarang Regency with a total of 88

teenagers. This research shows that most of the 51 teenagers (58%) have a positive attitude and almost half, namely 37 teenagers (42%), have a negative attitude. Based on the results of research that has been conducted, adolescents who have the highest frequency are in the positive attitude category. However, regarding indicators of the causes of HIV/AIDS, most have a negative attitude and almost half have a positive attitude. Thus, the majority of youth from Karang Taruna Mojo Sub-District, do not yet have a positive attitude about the causes of HIV/AIDS. This is in accordance with filling out the questionnaire given to respondents who have a score for each question item. The occurrence of negative attitudes can be influenced by personal experience, mass media, the influence of other people, educational institutions and institutions.

Personal experience that can increase the risk of HIV/AIDS is having free sex. A positive attitude is of course also supported by the level of knowledge possessed by adolescents. Adolescents who have positive knowledge and attitudes can become reinforcements in preventing the risk of spreading HIV/AIDS. However, for some teenagers who have negative attitudes, education is still needed about the impacts caused by HIV/AIDS. The influence of mass media and environmental influences play a role in shaping a person's attitude, because from these two factors information about HIV/AIDS and efforts to prevent it will shape and influence a person's attitude. Efforts can be made in the form of education through peers who have positive attitudes and good actions in preventing HIV/AIDS as well as education from health workers with information that is up to date and easy for teenagers to understand. In this way, it is hoped that it can form a positive attitude in prevention efforts to avoid HIV/AIDS and the risk of transmission.

## **5 CONCLUSION**

This research is an investigation that identifies the knowledge and attitudes of adolescents regarding HIV/AIDS based on HIV/AIDS indicators, which include understanding, causes, transmission methods, signs and symptoms, and prevention methods. Adolescents' knowledge about HIV/AIDS is generally good, with most of them having good knowledge about understanding HIV/AIDS indicators. About half of the adolescents have sufficient knowledge about the causes and transmission methods of HIV/AIDS, while most of them have less knowledge about the signs and symptoms indicator, and about half of them have less knowledge about the prevention methods of HIV/AIDS. As for adolescents' attitudes toward HIV/AIDS, it shows that most of them have a positive attitude, especially regarding understanding HIV/AIDS, its transmission methods, and prevention. However, a significant number of adolescents have a negative attitude, particularly concerning the causes of HIV/AIDS, and a similar pattern is observed for the signs and symptoms indicator.



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