

## Relationship Between Knowledge and Attitudes about HIV / AIDS with Prevention Actions in Adolescents in The Jandi Village, Juhar District, Karo Regency in 2019

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### ABSTRACT

Human Immunodeficiency Virus (HIV) is a virus that attacks the human immune system, while Acquired Immunodeficiency Syndrome (AIDS) is an immune syndrome caused by HIV infection. The spread of HIV into the body turns out not only from having sex but can also be spread through needles that are used simultaneously by drug addicts, tattoo needles and can also be spread from blood transfusions, because HIV is transmitted through blood, sperm, and vaginal fluids. . This study aims to determine the relationship between knowledge and attitudes about HIV / AIDS and preventive measures in adolescents in Jandi Village, Juhar District, Karo District in 2019. As for the independent variables, namely the knowledge and attitudes of adolescents about HIV / AIDS and the dependent variable is preventive action in teenager. This type of research used analytic observational with cross sectional approach method. Where the population is teenagers as many as 30 people and the sample is 30 people. The data used are primary data taken directly from respondents using a checklist sheet, and secondary data obtained from the Village Head of Jandi. The statistical test used was the Chi-Square test  $\alpha = 0.05$ . The results of the analysis showed that out of 30 adolescents, the majority were 12 people (40%) had less knowledge and 7 people had good knowledge of the minority (23%). Youth attitudes about HIV / AIDS were positive as many as 20 people (66%) and 10 people (34%) had a negative attitude. The majority of adolescent preventive measures against HIV / AIDS took appropriate actions as 20 (66%) and 10 (34%) did not take preventive measures.

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## 1. Introduction

Adolescence is a period that becomes part of human life in which it is full of dynamics. The dynamics of adolescent life will greatly influence the formation of adolescents themselves. Adolescence can be characterized by a lot of curiosity in a person in various ways, including in the field of sex (Suratmaja, 2013).

One of the health problems due to changes in world order and an important issue with the world community is the infectious disease Acquired Immunodeficiency Syndrome (AIDS) which is caused by the Human Immunodeficiency Virus (HIV) (Katiandago, 2015).

*Human Immunodeficiency Virus* (HIV) is a virus that attacks the human immune system, while Acquired Immunodeficiency Syndrome (AIDS) is an immune syndrome due to HIV infection. The progression of this disease is slow, the symptoms of AIDS on average only appear 10 years after infection occurs, even longer again. The virus enters the human body mainly through blood, semen and vaginal secretions. Most (75%) of transmission occurs through sexual contact (Noviana, 2013).

When viewed by sex, AIDS cases were reported to be mostly male, namely 74.5%, while 25% were female. This can occur because unsafe sex, the use of unsterile needles and alternating transfusions of HIV-infected blood, and the transmission of an HIV-infected mother to a child whose womb is a risk factor that can transmit HIV from one person to another (Noviana), 2013).

Efforts to prevent HIV / AIDS by providing health education in schools and in the community must emphasize that having multiple sex partners can increase the risk of getting HIV infection. The only way not to become infected is to not have sex or only have sex with one person who is not known to have the infection. Increasing treatment facilities for drug addicts will reduce HIV transmission. To provide HIV counseling, it is advisable for every pregnant woman to have an HIV test from the beginning of pregnancy (Katiandagho, 2015)

After conducting an initial survey in Jandi Village, Juhar District, Karo District, out of 5 teenagers who were asked about HIV / AIDS, it turned out that only 2 people knew about HIV / AIDS.

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## 2. Theoretical Review

### 2.1 Knowledge

Knowledge (knowledge) is the result of knowing from humans, which simply answers the question "what", for example what is water, what is human, what is nature, and so on (Notoatmodjo, 2012).

### 2.2 Attitude

Attitude is the most important concept in social psychology that discusses elements of attitude both as individuals and as groups (Wawan, 2015).

### 2.3 HIV / AIDS

HIV is a disease that attacks the immune system (Katiandagho, 2015)

AIDS (acquired immune deficiency) is a collection of symptoms caused by a decreased immune system by a virus called the HIV virus (Nugroho, 2014)

HIV / AIDS is a part of venereal disease because it can be transmitted through sexual contact (genital), but it is not always transmitted through sexual contact (genital) (Kusmiran, 2012).

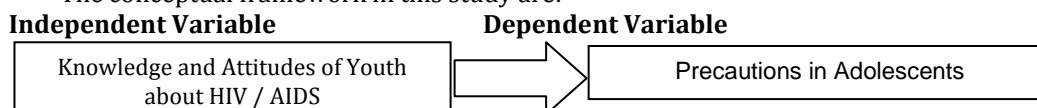
### 2.4 Youth

Adolescents come from the Latin "adolescere" which means growing towards maturity (Kumalasari, 2012).

Adolescence is a stage between childhood and adulthood, this period undergoes many changes such as physical changes, concerning growth and maturity of the reproductive organs (Waryana, 2015).

### 2.5 Conceptual framework

The conceptual framework in this study are:



The independent variable (free) knowledge and attitudes about HIV / AIDS, while the dependent variable (dependent) is the precautionary action in adolescents.

## 3. Research methods

### 3.1 Types of research

The type of research used is an observational study with a cross sectional approach method, namely the measurement of the independent and dependent variables will be carried out at the same time (Notoatmodjo, 2012).

### 3.2 Location and Time of Research

This research was conducted in Jandi Village, Juhar District, Karo District Based on the initial survey that had been conducted, it was found that the knowledge and attitudes of adolescents about HIV / AIDS with precautionary measures in adolescents were still low.

The research time required to complete this research is starting from months May to September 2019

### 3.3 Population and Sample

The population in this study were 30 adolescents in Jandi Village, Juhar District, Karo Regency in 2019. Samples in this study were 30 adolescents.

### 3.4 Data analysis

#### a) Univariate Analysis

Univariate analysis aims to explain to describe the characteristics of each research variable. The results in the univariate analysis are the frequency distribution and percentage of each variable.

#### b) Bivariate Analysis

If the univariate analysis above has been carried out, the results will be known about the characteristics or distribution of each variable, and the bivariate analysis can be continued. Variety analysis was carried out on two variables that were thought to be related and correlated (Notoatmodjo, 2012).

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Data testing was performed using the Chi-square statistical test ( $\alpha = 0.05$ ) if the value of  $\chi^2$  count  $>$   $\chi^2$  table shows that the alternative hypothesis ( $H_a$ ) is accepted, it means that there is a significant relationship. Meanwhile, if  $\chi^2$  count  $<$   $\chi^2$  table. This shows that the null hypothesis ( $H_0$ ) is accepted, it means that there is no significant relationship.

The chi-square formula used is as follows

$$\chi^2 = \left[ \frac{\sum (f_o - f_e)^2}{f_e} \right]$$

Information:

$\chi^2$ : kolerasichi-square

$f_0$ : expected frequency

$f_e$ : frequency obtained / observed

## 4. Results and Discussion

### 4.1 Research result

After conducting research on adolescents in Jandi Village, Juhar District, Karo District in 2019 regarding "The relationship between knowledge and attitudes about HIV / AIDS and preventive measures in adolescents in Jandi Village, Juhar District, Karo District in 2019", the results of this study are:

#### a) Univariate Data Analysis

##### 1) Distribution of Respondents Based on Characteristics

After conducting research on 30 adolescents in Jandi Village, Juhar District, Karo District in 2019, the authors obtained results that describe the characteristics of adolescents, namely age, education level, and information sources. To see the characteristics of respondents can be seen in the following table:

**Table 1**  
Distribution of Youth Characteristics in Jandi Village, Juhar District, Karo District, 2019

Characteristics	Category	Number of people	Percentage (%)
Age	13 years old	6	20
	14 years	6	20
	15 years	5	17
	17 years	6	20
	18 years	7	23
Total		30	100
Education	Junior High	17	57
	SMA / SMK	13	43
Total		30	100
Resources	Family	8	27
	Health power	6	20
	Mass media	16	53
Total		30	100

From table 1 above shows the characteristics of the majority of respondents are at the age of 18 years 7 people (23%), have junior high school education, namely 17 people (57%) and from the majority of information sources from the mass media 16 people (53%).

##### 2) Distribution of Respondents Based on Knowledge

The knowledge of adolescents in Jandi Village, Juhar District, Karo District in 2019 can be seen in the following table:

**Table 2**  
Distribution of Youth Knowledge About HIV / AIDS in Jandi Village, Juhar District, Karo District, 2019

Knowledge	Number of people	Percentage (%)
Good	7	23
Enough	11	37
Less	12	40
Total	30	100

Based on Table 2 shows that out of 30 adolescents the majority have less knowledge of 12 people (40%) about HIV / AIDS.

### 3) Distribution of Respondents by Attitude

Adolescent attitudes about HIV / AIDS in Jandi Village, Juhar District, Karo Regency in 2019

**Table 3**

Distribution of Youth Attitudes About HIV / AIDS in Jandi Village, Juhar District, Karo District, 2019

Attitude	Number of people)	Percentage (%)
Positive	20	66
Negative	10	34
Total	30	100

Based on table 3 above, it can be seen that of the 30 teenagers the majority were categorized as having positive attitudes as many as 20 people (66%) and 10 people (34%) who had a negative attitude.

### 4) Distribution of Respondents Based on Preventive Measures

Preventive measures for adolescents in Jandi Village, Juhar District, Karo District, 2019 can be seen in the table below:

**Table 4**

Distribution of Preventive Measures to Adolescents in Jandi Village, Juhar District, Karo District, 2019

Preventive measure	Number of people)	Percentage (%)
Yes	20	66
Not	10	34
Total	30	100

Based on table 4 above, it can be seen that of the 30 adolescents the majority were categorized as taking preventive action, namely 20 people (66%). And those who did not take preventive action were 10 people (34%).

### b) Bivariate Data Analysis

Bivariate data analysis was used to see the significance of the relationship between the independent variable and the dependent variable, which was carried out by using the chi-square statistical test ( $\chi^2$ )

From the research conducted, data on the relationship between knowledge and attitudes about HIV / AIDS and precautionary measures in adolescents can be obtained as follows:

**Table 5**

Cross tabulation of Adolescent Knowledge Relationship with Preventive Action in Jandi Village, Juhar District, Karo District in 2019

Knowledge	Preventive measure				Total	Chi Square test
	Yes		Not			
	N	%	N	%	N	%
Good	7	23	0	0	7	23
Enough	10	33	2	7	12	40
Less	3	10	8	27	11	37
Total	20	66	10	34	30	100

Based on table 5 above, it can be seen that of the 30 respondents who had sufficient knowledge, the majority took HIV / AIDS prevention measures as many as 10 people (33%) and the minority had the attitude not to take HIV / AIDS prevention actions as many as 2 people (7%).

The results of the Chi-Square statistical test obtained p value = 0.000. This means that the p value is smaller than  $\alpha$  (0.05) and thus H0 is rejected and Ha is accepted, which means there is the relationship between adolescent knowledge and preventive measures.

**Table 6**

Cross Tabulation of the Relationship between Youth Attitudes and Preventive Measures in Jandi Village, Juhar District, Karo District, 2019

Attitude	Preventive measure				Total	Chi Square test
	Yes		Not			
	N	%	N	%	N	%
Positive	15	50	5	25	20	66
Negative	5	25	5	25	10	34
Total	20	75	10	50	30	100

Based on table 6 above, it can be seen that of the 30 adolescents who had a positive attitude, the majority took preventive actions, 20 people (66%).

**4.2 Discussion****a) Youth knowledge about HIV / AIDS**

The analysis showed that of the 30 respondents the majority had less knowledge of HIV / AIDS as many as 12 (40%), 11 respondents who had sufficient knowledge about HIV / AIDS, and respondents who had good knowledge of HIV / AIDS 7 people (23%).

Respondents have less knowledge because the majority of adolescents with primary education (SMP) 17 people (57%).

This is not in accordance with Notoatmodjo's (2012) theory that every teenager has different knowledge according to the experiences he gets in everyday life.

This research is in line with Singale's research, Lastianti, entitled the relationship between knowledge and attitudes about HIV / AIDS and its preventive measures. The results showed that the respondents' knowledge about HIV / AIDS was that most of the respondents had sufficient knowledge of 84.9% and 15.1% of respondents had poor knowledge. The results of this study were in accordance with the theory of Singale, Lastianti.

**b) Attitudes of Youth About HIV / AIDS**

The results of the analysis showed that of the 30 respondents who had a positive attitude, the majority took preventive actions, 20 people (66%). people where the adolescent understands quite well about HIV / AIDS.

Attitude is a reaction or response from someone who is still closed to a stimulus or object. Meanwhile, attitudes can be in the form of positive and negative attitudes. A positive attitude is the tendency for action to approach, like, expect certain objects. A negative attitude has a tendency to stay away, avoid, hate, dislike certain objects. Attitudes can be interpreted Attitudes can change, therefore attitudes can be learned and attitudes can change in people if there are certain circumstances and conditions that facilitate attitudes towards others (Wawan, 2014)

This is in accordance with Wawan's theory Attitudes are not carried from birth but are formed or learned throughout the development in relation to their objects. This characteristic distinguishes it from the nature of biogenic motives such as hunger, thirst, the need for rest. Attitude does not stand alone, but always has a certain relationship to an object in other words, that attitude is formed, studied or changed always with respect to a certain object that can be clearly formulated. The object of that attitude is a certain thing but can also be a collection of things. -that matter. Attitudes have aspects of motivation and aspects of feeling, a natural quality that differentiates people's attitudes and abilities or knowledge.

This study is in line with the research of Oktivane Tulung, Ricky C. Sondaks, Christian R. Tilaar, entitled the relationship between knowledge and attitudes with HIV / AIDS prevention measures for students of SMK N 1 Tomohon. 66 people (73.3%) and there were a small proportion of 24 people (26.7%). The attitude of the research conducted shows that the attitudes of students are more in the category of positive attitudes, namely 63 people (70%) and negative attitudes 27 people (30%).

**c) Preventive measure**

The analysis showed that of the 30 respondents, the majority of adolescents took preventive measures, namely 20 people (66%). Meanwhile, it was found that 10 people (34%) did not take preventive measures. Adolescents who have good knowledge are 7 people (23%), have sufficient knowledge, namely 10 people (33%), and have less knowledge of 3 people (10%). Adolescents have a positive attitude towards HIV / AIDS prevention measures, namely 20 people (66%) and teenagers who have negative attitudes towards HIV / AIDS prevention measures, namely 10 people (34%). Preventive action is the best thing that is done by teenagers. If adolescents know the precautionary measures about HIV / AIDS, adolescents will not be susceptible to HIV / AIDS in contrast to adolescents who do not prevent HIV / AIDS will be more susceptible to HIV / AIDS.

The majority of respondents also took preventive action as many as 20 people (66%). This shows that the delivery of information about HIV / AIDS is good so that the respondent sufficiently understands how to prevent HIV / AIDS. And those who did not take HIV / AIDS prevention measures were 10 (34%) because some of them did not understand how to take HIV / AIDS prevention measures.

This research is in line with Oktivane Tulung's research, Ricky C Sondaks R Tilaar, entitled the relationship between knowledge and attitudes with HIV / AIDS prevention measures in

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students of SMK N 1 Tomohon, which shows that HIV / AIDS prevention measures are more many were in the good category, namely 51 people (56.7%), and 39 people (43.3%) not good. Based on the results of statistical analysis using chi-square with the help of the statistical program program for social science (SPSS) 22 with a significance level of 95% and alpha ( $\alpha$ ) or an error rate of 0.05 where the probability obtained is  $p = 0.01$  smaller than the value.  $\alpha = 0.05$  ( $p < 0.05$ ). So  $H_0$  is rejected or there is a relationship between HIV / AIDS knowledge and preventive measures.

## d) Analysis of the Relationship between Adolescent Knowledge and Preventive Action

Judging from the results of research conducted on 30 adolescents who took preventive actions in Jandi Village, Juhar District, Karo District in 2019, out of 12 respondents (40%) who had less knowledge, the majority did not take HIV / AIDS prevention measures, out of 11 respondents (37%) The majority of those who had sufficient knowledge took HIV / AIDS prevention measures, namely 12 people (40%) and of the 12 respondents who had less knowledge the majority did not take HIV / AIDS prevention measures, namely 11 people (37%) and out of 7 respondents who had good knowledge took HIV / AIDS prevention measures as many as 7 people (23%)

Adolescent knowledge about HIV / AIDS affects HIV / AIDS prevention action where the higher the level of knowledge of adolescents so that adolescents know what to prevent. Adolescent knowledge about HIV / AIDS affects adolescent attitudes towards HIV / AIDS prevention action, where adolescents who have sufficient knowledge about HIV / AIDS have positive attitude towards HIV / AIDS prevention action. The results of the Chi-Square test showed that the value = 0.00 was greater than and thus  $H_a$  was accepted and  $H_0$  was rejected.  $p < (0,05)$

## e) Analysis of the Relationship between Youth Attitudes and HIV / AIDS Prevention Measures

From the characteristics of the respondents, it was found that the majority of respondents were at the age of 13 years 20%, age 14 years 20% age 15 years 17%, age 17 20% and age 17 23%. Respondents have good knowledge because because the education level of the majority of respondents is educated (SMP) 53%, where the level of education greatly affects a person's level of knowledge and knowledge also greatly influences someone to act. This shows that the higher a person's level of knowledge, the higher the level of knowledge. From these data, it can be seen that the respondents who have a secondary education level (SMA) are 47%.

Adolescent knowledge about HIV / AIDS affects adolescent attitudes towards HIV / AIDS prevention action, where adolescents who have sufficient knowledge about HIV / AIDS have a positive attitude towards HIV / AIDS prevention action. Chi-Square test results obtained value = 0.02 greater than and thus  $H_a$  is accepted and  $H_0$  is rejected.  $p < (0,05)$

The results of the research by Oktivane Tulung, Ricky C. Sondaks, Christian R. Tilaar, the results showed that more students' knowledge was in the sufficient category, namely 66 people (73.3%) and there were a small proportion of 24 people (26.7%).

Thus it can be concluded that in this study there is a relationship between adolescent knowledge about HIV / AIDS with adolescent attitudes towards HIV / AIDS prevention measures in Jandi Village, Juhar District, Karo District in 2019. So from the results of this study found gaps between the research results and the theory that has been stated above.

## 5. Conclusions and suggestions

### 5.1 Conclusion

- Distribution of adolescent knowledge about HIV / AIDS in Jandi Village, Juhar District, Karo District, 2019
- Distribution of adolescent attitudes about HIV / AIDS in Jandi Village, Juhar District, Karo District, 2019
- Preventive measures for adolescents in Jandi Village, Juhar District, Karo Regency in 2019
- Analysis of the relationship between adolescent knowledge about HIV / AIDS with preventive measures and attitudes in Jandi Village, Juhar District, Karo District, 2019

### 5.2 Suggestion

- It is recommended to adolescents in Jandi Village, Juhar District, Karo Regency in 2019 to take HIV / AIDS prevention measures.

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- b) It is recommended to adolescents in Jandi Village, Juhar District, Karo Regency in 2019 to always seek information about the dangers of HIV / AIDS.
- c) It is advisable for health workers to provide information or counseling to adolescents about HIV / AIDS.
- d) It is recommended that the next researchers investigate HIV / AIDS with different variables.

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