Relationship Attitudes, Role of Parents, and The Community Environment With Knowledge About HIV/AIDS in Adolescent Class XI
In SMK Muhammadiyah Serang

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Abstract

Cases of STIs (Sexually Transmitted Infections) and HIV / AIDS are quite common among adolescents. Various types of STIs and HIV / AIDS are very influential on a person's health level in general and reproductive health conditions in particular because in general, various STI and HIV / AIDS infections are directly related to the human reproductive system. Even HIV / AIDS can have an impact on death. The purpose of this study was to determine the factors related to knowledge about HIV/AIDS in XI grade adolescents at SMK Muhammadiyah Serang in 2019. This research is an analytical survey research in which the research will be conducted using a cross sectional research method (cross-sectional). because in this study the independent and dependent variables will be observed at the same time. Based on the results of the study, it can be concluded that the distribution of adolescent knowledge about HIV/AIDS in XI grade adolescents at SMK Muhammadiyah Serang in 2019 was poor as many as 56 respondents (59.8%) and good as many as 37 respondents (40.2%). The distribution of adolescent knowledge about HIV / AIDS based on the sex of women was 47 respondents (51.1%) and male respondents were 45 respondents (48.9%), based on the role of parents as many as 60 respondents (65.2%) and those who played a role 32 respondents (34.8%), based on the attitudes of students who have negative attitudes as many as 45 respondents (48.9%) and positive ones as many as 47 respondents (51.1%), based on the living environment as many as 24 respondents (26.1%) and those who supported 68 respondents (73.9%), based on information technology as many as 30 respondents (32.6%) and 62 respondents (67.4%) who used it.

Keywords: Attitudes, Role of Parents, Community Environment, Knowledge of HIV/AIDS, Adolescents

Preliminary

Mortality and morbidity is a big problem for developing countries like Indonesia today. In the 4th paragraph of the 1945 Constitution, which reads the government of the Indonesian state that protects the entire Indonesian nation and all Indonesian bloodshed and to promote public welfare, educate the nation's life. In this case it can be interpreted that Indonesia expects prosperity from various aspects of life, one of which is from the health aspect so that a healthy nation can be created.

Cases of STIs (Sexually Transmitted Infections) and HIV/AIDS are quite common among adolescents. Various types of STIs and HIV / AIDS are very influential on a person's health level in general and reproductive health conditions in particular because in general, various STI and HIV /
AIDS infections are directly related to the human reproductive system. Even HIV/AIDS can have an impact on death. In many discussions and seminars on HIV/AIDS, experts often mention the iceberg phenomenon in the midst of the HIV pandemic, meaning that from all the data that can be revealed, a much bigger problem is hidden. For example, if we reveal 100 data on HIV sufferers, it is possible that the real number could reach 100 or up to 1000 times. Very few young people have adequate knowledge and the right attitude about STIs, including HIV/AIDS, even though this knowledge is needed to avoid the risk of transmission and not to discriminate against people with AIDS.

UNAIDS Executive Director, Michel Sidibe in his annual report shows the increasing number of people living with HIV / AIDS in the world. In 2019 HIV / AIDS sufferers are estimated to be around 35.6 million, this number is up from 2012 which totaled 34.2 million and in 2011, which totaled 33 million.

A report from the UN agency that deals with children, UNICEF states that around 71,000 adolescents between the ages of 10 and 19 died from the HIV virus in 2005. That number increased to 110,000 in 2012. Every day nearly 7,000 people contract HIV or nearly 300 people. every hour and more than 5,000 people living with HIV and AIDS, aged 15-24 years.

In many regions of the world, newly infected HIV patients are concentrated in young adults (15-24 years). In Asia the number of people living with HIV has increased by more than 150%. Indonesia is the Asian country in the world with the fastest growing HIV epidemic.

The UN agency on HIV / AIDS, UNAIDS, said the epidemic level in developing countries was stable. From 2009 to 2012 the prevalence rate in Bangladesh, Nepal and Thailand decreased by more than 25 percent, while in India, Indonesia and the Philippines, the prevalence rate increased by more than 25 percent. In 2010 in India there were about 5.1 million people whose lives were haunted by death due to HIV positive at the age of 15-21 years.

Many adolescents lack information about health, pregnancy prevention, HIV / AIDS and infections caused by casual sex. The threat of the world's young generation by HIV / AIDS has also threatened Indonesia's younger generation. As it is realized that the total population of Indonesia in 2014 will reach 250 million people, which is called teenagers, approximately 28% and around 15-20% of school-age adolescents in Indonesia have had sexual relations outside of marriage and 15 million girls aged 15-19 give birth every year. AIDS cases were first discovered in Indonesia in April 1987 in a Dutch tourist, incidentally a Gay, who finally died in a hospital in Denpasar Bali.

Based on data from the Ministry of Health, there was an increase in the number of HIV / AIDS cases in Indonesia in 2005, the number of AIDS cases reported was 5,184 people, 2006 (3,665 people), 2007 (4,655 people), 2008 (5,114 people), 2009 (6,073 people), 2010 (6,907 people) and 2011 (7,312 people), 2012 (8,747 people), 2019 (6,266 people) and 2014 (1,876 people). The cumulative number of AIDS from 1987 to September 2014 was 55,799 people. The highest number of AIDS cases were reported from Papua (10,184 people), East Java (8,976 people), DKI Jakarta (7,477 people), Bali (4,261 people), West Java (4,191 people), Central Java (3,767 people), West Papua (1,734 people), South Sulawesi (1,703 people), West Kalimantan (1,699 people) and North Sumatra (1,573 people).

In DKI Jakarta, HIV / AIDS disease has increased quite sharply from year to year. In 2009 there were 9,801 HIV cases and 2,828 AIDS cases, in 2010 there were 14,987 HIV cases and 3,995 AIDS cases, in 2011 there were 18,999 HIV cases and 5,117 AIDS cases, in 2012 there were 20,775 HIV cases and 5,118 AIDS cases and in 2019 there were 24,807 cases HIV cases and 6,973 AIDS cases.
In South Jakarta in 2011 the number of HIV sufferers was 1,380 people and AIDS sufferers were 134, an increase in 2012 the number of HIV sufferers 2,300 people and the number of AIDS sufferers by 562 and an increase in 2019 the number of HIV sufferers was 3,112 and the number of people with AIDS was 768 inhabitants. So that this makes South Jakarta ranked 2nd in the region that has the number of HIV / AIDS sufferers in DKI Jakarta.

Based on the results of the initial research that the author has done by asking 10 questions about HIV / AIDS knowledge, from 30 adolescents who were given questionnaire sheets, 40% (12 people) of them could only answer 7-9 questions and 60% (18 people).) can answer 4-6 questions only. The reason they do not know is because they have never received information from the correct source, are ashamed to ask their family, do not use the internet or cellphones to find information about HIV / AIDS because they think it is more interesting to use it for chatting, Facebook and online games than looking for information about HIV-AIDS. And there are no special places or services for youth where they can ask about such things.

The highest percentage of HIV risk factors were heterosexual (49.8%) risky sex, the use of non-sterile needles for IDU (10.4%), and MSM (men sex with men) (9.7%), while the percentage of AIDS cases according to risk factors, cumulatively, the most risk factors for HIV transmission were heterosexuals (58.7%); Injecting drug users (IDU) as much as 17.5%; perinatal transmission in 2.7% and homosexual as much as 2.3%. Other data, the percentage of knowledge about HIV / AIDS in the 15-24 year age group was still low at 21.28%.

The large number of adolescents with HIV / AIDS is thought to be due to limited access to information, an unsupportive environment and health services for adolescents which have an impact on the low knowledge of true and comprehensive HIV / AIDS among adolescents aged 15-24 years.

The cause of the high number of HIV / AIDS sufferers in Indonesia, namely the low level of public knowledge regarding the dangers of free sex, the dangers of HIV / AIDS, the lack of funding causes local governments to not do much, unhealthy sexual behavior, high users of illegal drugs through needles, many men who have sexual relations with fellow men and the many places of entertainment that lead to negative.

To prevent and reduce the percentage of cases of HIV / AIDS transmission among adolescents, Indonesia, assisted by UNICEF, has taken an important step by providing a Life Skills Education program and the Peer Education movement written on safe sex behavior and the use of condoms among at-risk groups. In addition, the government and UNICEF also held a Mother and Child Transmission Prevention program that targets women of reproductive age and their partners.

The Indonesian Ministry of Health has also suppressed the development of HIV / AIDS by making various efforts, namely through 2 main things, among others: 1) Through prevention efforts, namely increasing comprehensive knowledge about HIV-AIDS through the ABAT campaign, implementing prevention programs from parent to child transmission (PPIA), carry out prevention of HIV transmission through sexual transmission and implementation of harm prevention programs due to drugs through methadone services and sterile syringe services; 2) Through treatment by improving STI services, especially in Hot Spot areas and increasing access to testing and access to ART treatment.

In addition, the Ministry of Health has also emphasized its dissemination, by compiling and distributing various IEC media for various target groups, developing guidelines and training modules for health workers and program managers related to HIV-AIDS, training for health workers and program managers related to HIV-AIDS, setup of HIV-AIDS services in hospitals and health centers, provision of HIV testing.
reagents, ARV drugs, STI and STI drugs, medical devices for monitoring treatment (CD4 and VL), coordination with cross-sectoral and cross related programs, with NGOs, communities and the private sector, activate sexually transmitted infection detection and treatment services, and integrate reproductive health into UKS and Scout activities.

The Ministry of Health has also made approaches to men who have sex with men (MSM), which in principle are health services for both STIs and HIV, without differentiating each key population, and have services that are GWL friendly.

In addition, the Ministry of Health has also collaborated with private clinics in providing health services for both STI and HIV for MSM, such as in Jakarta and in Denpasar. Collaborating with the GWL-INA community organization in disseminating information to its members and also providing referrals and outreach to MSM. The Ministry of Health also uses social media and applications on smartphones to socialize HIV / AIDS.

Various efforts have been taken, but have not been able to stem the increase in cases that have occurred. This problem is undeniably related to the rapidly increasing population morbidity accompanied by an increase in unsafe sexual behavior and the increasing number of injecting drug users.

The general objective of this study was to determine the factors related to knowledge of HIV / AIDS in XI grade adolescents at SMK Muhammadiyah Serang in 2019.

Method
This research is an analytical survey research in which the research will be conducted is a research using cross sectional research method (cross-cutting) because in this study the independent and dependent variables will be observed at the same time. This study design aims to explain the factors related to adolescent knowledge about HIV / AIDS at SMK Muhammadiyah Serang in 2019 such as gender, attitudes, parental education, environment, sources of information.

The population in this study were 120 students of class XI SMK Muhammadiyah Serang in 2019. The sample criteria are divided into two, namely inclusion criteria and exclusion criteria. The inclusion criteria in this study were part of the population of class XI students of SMK Muhammadiyah Serang in 2019. The exclusion criteria for this study were class XI students of SMK Muhammadiyah Serang who were unable to attend when the study was conducted.

The sampling technique in this study used a simple random sampling method. The essence of simple random sampling is that every member or unit of the population has an equal chance of being selected as a sample.

Result
Univariate Analysis
Dependent Variable

| No. | Knowledge | Frequency | %   |
|-----|-----------|-----------|-----|
| 1.  | Not Good  | 55        | 59.8% |
| 2.  | Good      | 37        | 40.2% |
|     | Amount    | 92        | 100%  |

Based on table 1 it can be analyzed that from 92 respondents, it was found that most of the respondents had poor knowledge of HIV/AIDS, namely 55 respondents (59.8%), while respondents who had good knowledge about HIV/AIDS were 37 respondents (40.2%).

Independent Variable
Gender

| No. | Gender | Frequency | %   |
|-----|--------|-----------|-----|
| 1.  | Woman | 47        | 51.1% |
| 2.  | Man   | 45        | 48.9% |
|     | Amount| 92        | 100%  |

Based on table 2 it can be analyzed, knowledge about HIV/AIDS in class XI adolescents based on gender, the number of women is 46 respondents (50%), and the number of men is 46 respondents (50%).
Attitude

Table 3 Distribution of Knowledge About HIV/AIDS in Class XI Adolescents Based on Attitudes at SMK Muhammadiyah Serang in 2019

| No. | Attitude | Frequency | %  |
|-----|----------|-----------|----|
| 1.  | Not Good | 45        | 48.9%|
| 2.  | Good     | 47        | 51.1%|
|     | Amount   | 92        | 100% |

Based on Table 3, it can be analyzed that knowledge about HIV/AIDS in Class XI adolescents according to negative attitudes was 45 respondents (48.9%), and the number of positive ones was 47 respondents (51.1%).

The role of parents

Table 4 Distribution of Knowledge About HIV/AIDS in Class XI Adolescents Based on the Role of Parents at SMK Muhammadiyah Serang in 2019

| No. | The Role of Parents | Frequency | %  |
|-----|---------------------|-----------|----|
| 1.  | Doesn’t play a role | 60        | 65.2%|
| 2.  | Play a role         | 32        | 34.8%|
|     | Amount              | 92        | 100% |

Based on Table 4, it can be analyzed that knowledge about HIV/AIDS in Class XI adolescents according to the role of parents, the number of people who did not play a role was 60 respondents (65.2%), and 32 respondents (34.8%) had a role.

Living Environment

Table 5 Distribution of Knowledge About HIV/AIDS in Class XI Adolescents Based on Living Environment at SMK PutraSatria Jakarta in 2019

| No. | Living Environment | Frequency | %  |
|-----|--------------------|-----------|----|
| 1.  | Doesn’t support    | 24        | 26.1%|
| 2.  | support            | 68        | 73.9%|
|     | Amount             | 92        | 100% |

Based on Table 5, it can be analyzed that knowledge about HIV/AIDS in Class XI adolescents according to their neighborhood, the number of unsupportive people was 24 respondents (26.1%), and the number who supported was 68 respondents (73.9%).

Information Technology

Table 6 Distribution of Knowledge About HIV/AIDS in Class XI Adolescents Based on Don’t Use Information Technology at SMK Muhammadiyah Serang in 2019

| No. | Information Technology | Frequency | %  |
|-----|------------------------|-----------|----|
| 1.  | Don’t Make use of      | 30        | 32.6%|
| 2.  | Make use of            | 62        | 67.4%|
|     | Amount                 | 92        | 100% |

Based on Table 6, it can be analyzed that knowledge about HIV/AIDS in Class XI adolescents according to information technology, the number of those who did not utilize it was 31 respondents (33.7%), and the number who utilized it was 61 respondents (66.3%).

Bivariate Analysis

Gender

Table 7 Relationship Between Gender and Knowledge of HIV/AIDS in Class XI Adolescents at SMK Muhammadiyah Serang in 2019

| No. | Gender | Knowledge | ∑  | %  | P-Value | OR 95% CI |
|-----|--------|-----------|----|----|---------|-----------|
|     |        | Not Good  | %  |    |         |           |
| 1.  | Woman  | 33        | 70.2%| 14 | 29.8%   | 0.019     | 3.022 CI=1.272–7.178 |
| 2.  | Man    | 22        | 48.8%| 23 | 51.2%   | 0.019     | 3.022 CI=1.272–7.178 |
|     | Total  | 55        | 59.8%| 37 | 40.2%   | 0.019     | 3.022 CI=1.272–7.178 |

Based on Table 7, knowledge about HIV/AIDS in Class XI adolescents based on sex with 47 women who have poor knowledge of 33 respondents (70.2%) and good knowledge of 14 respondents (29.8%), while the number of Male respondents who had good knowledge were 23 respondents (51.2%) and less good were 22 respondents (48.8%).

The results of the chi square statistical test with continuity correction obtained p-value <α (p-value = 0.019 and α = 0.05), this indicates that there is a significant relationship between gender and knowledge of HIV/AIDS in Class XI adolescents at SMK Muhammadiyah Serang in 2019. Analysis of the closeness of the relationship between 2 variables obtained OR = 3.022 (95% CI: 1.272–7178). This means that respondents who are female have 3 times less knowledge than those who are male.

Attitude
Based on Table 8, knowledge about HIV/AIDS in Class XI adolescents based on the number of good attitudes as many as 47 respondents who have good knowledge are 27 respondents (57.4%) and those who are not good as many as 20 respondents (42.6%), while the number of poor attitudes good as many as 45 respondents who have poor knowledge as many as 35 respondents (77.8%) and good knowledge as many as 10 respondents (22.2%).

The results of the chi square statistical test with continuity correction obtained p-value <α (p-value = 0.003 and α = 0.05), this indicates that there is a significant relationship between attitudes and knowledge about HIV/AIDS in class XI adolescents at SMK Muhammadiyah Serang in 2019. Analysis of the closeness of the relationship between 2 variables obtained OR = 4.173 (95% CI: 1.709–10.187). This means that respondents who have negative attitudes have 4 times less knowledge than those who have positive attitudes.

### The role of parents

Based on Table 9, knowledge about HIV/AIDS in class XI adolescents based on the role of parents with no role 60 respondents who have poor knowledge as many as 43 respondents (71.7%) and good knowledge are 17 respondents (28.3%), while the number of play a role of 32 respondents who have good knowledge as many as 20 respondents (62.5%) and less good as many as 12 respondents (37.5%).

The results of the chi square statistical test with continuity correction obtained p-value <α (p-value = 0.001 and α = 0.05), this shows that there is a significant relationship between the role of parents and knowledge about HIV/AIDS in adolescents class XI at SMK Muhammadiyah Serang in 2019. Analysis of the closeness of the relationship between 2 variables obtained OR = 4.829 (95% CI: 1.923–12.124). This means that respondents who do not have the role of parents have 5 times less knowledge than respondents who have a role of parents.

### Living Environment

Based on Table 10, knowledge about HIV/AIDS in class XI adolescents based on the environment with a number that did not support 68 respondents who had poor knowledge of 41 respondents (60.3%) and good as many as 27 respondents (39.7%)

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**Table 8** Relationship between Attitudes and Knowledge about HIV/AIDS in Class XI Adolescents at SMK Muhammadiyah Serang in 2019

| No | Attitude | Knowledge | P-Value | OR 95%CI |
|----|----------|-----------|---------|----------|
|    |          | Not Good  | %       |          |          |
|    |          | Good      | %       |          |          |
| 1. | Not Good | 35        | 77.8%   | 45       | 100%     |
|    |          | 10        | 22.2%   |          |          |
| 2. | Good     | 20        | 42.6%   | 47       | 100%     |
|    |          | 27        | 57.4%   |          |          |
| **Total** | 55 | 59.8%   | 37 | 40.2% | 92 | 100% |

**Table 9** The Relationship Between the Role of Parents and Knowledge of HIV/AIDS in Class XI Adolescents at SMK Muhammadiyah Serang in 2019

| No | The role of parents | Knowledge | P-Value | OR 95%CI |
|----|---------------------|-----------|---------|----------|
|    |                     | Not Good  | %       |          |          |
|    |                     | Good      | %       |          |          |
| 1. | Doesn’t play a role | 43        | 71.7%   | 28.3%    | 100%     |
|    |                     | 17        | 28.3%   |          |          |
| 2. | Play a role         | 12        | 37.5%   | 62.5%    | 100%     |
|    |                     | 20        | 62.5%   |          |          |
| **Total** | 55 | 59.8%   | 37 | 40.2% | 92 | 100% |

**Table 10** Relationship Between Living Environment and Knowledge of HIV/AIDS in Class XI Adolescents at SMK Muhammadiyah Serang in 2019

| No | Environment | Knowledge | P-Value | OR 95%CI |
|----|-------------|-----------|---------|----------|
|    |             | Not Good  | %       |          |          |
|    |             | Not Good  | %       |          |          |
| 1. | Does not support | 14        | 58.3%   | 41.7%    | 24       |
|    |             | 10        | 41.7%   |          |          |
| 2. | Support     | 41        | 60.3%   | 39.7%    | 68       |
|    |             | 27        | 39.7%   |          |          |
| **Total** | 55 | 59.8%   | 37 | 40.2% | 92 | 100% |
while the number supported 24 (14 respondents (58.3%) had poor knowledge and 10 (41.7%) had good knowledge.

The results of the chi square statistical test with continuity correction obtained p-value > α (p-value = 0.777 and α = 0.05), this indicates that there is no significant relationship between the neighborhood and knowledge of HIV/AIDS in adolescents class XI at SMK Muhammadiyah Serang in 2019.

Information Technology

Based on table 11, knowledge about HIV/AIDS in class XI adolescents based on information technology, the number who did not utilize 62 respondents who had good knowledge was 32 respondents (51.7%) and 30 respondents (48.3%) had poor knowledge. exposed to 30 respondents who had poor knowledge of 23 respondents (76.7%) and good knowledge of 7 respondents (23.3%).

The results of the chi square statistical test with continuity correction obtained p-value <α (p-value = 0.017 and α = 0.05), this indicates that there is a significant relationship between information technology and knowledge about HIV/AIDS in class XI adolescents at SMK Muhammadiyah Serang in 2019.

Analysis of the closeness of the relationship between the two variables obtained OR = 3.543 (95% CI: 1.329 - 9.442). This means that respondents who are not exposed have 4 times less good knowledge than respondents who are exposed.

Discussion

Knowledge

From the results of the study of 92 respondents, it was found that those who had poor knowledge of HIV/AIDS were 55 respondents (59.8%) and those who had good knowledge of 37 respondents (40.2%).

Gender

From the univariate research results, it can be seen that the number of women is 47 respondents (51.1%) and male respondents are 45 respondents (48.9%). This is in accordance with the results of research from the Indonesian Adolescent Reproductive Health Survey, which shows the level of knowledge of male adolescents is higher than female adolescents, although it is not too conspicuous.

Based on the results of the bivariate study, it was obtained a p-value of 0.019, this indicates that there is a relationship between gender and knowledge of HIV/AIDS in class XI adolescents. This is in accordance with the results of the study which showed that men had better knowledge than women with a p-value of 0.030.

The role of parents

Based on the results of univariate research, it can be seen that the number of parents who do not play a role is 60 respondents (65.2%) and 32 respondents (34.8%) who play a role. This is in accordance with the results of research which states that parents as educators at home are expected to be able to provide knowledge from one generation to the next and also states that there is a relationship between the role of parents and knowledge in adolescents, with the results of parents who do not play a role, namely 80 respondents (56.2%) and 34 respondents (33.8%) had a role.

The results of the bivariate research on the respondent’s role of parents obtained a p-value of 0.001, indicating that there is a
relationship between the role of parents and knowledge of HIV/AIDS in class XI adolescents. This is consistent with research which shows there is a relationship between the role of parents and adolescent knowledge about HIV/AIDS with a p-value of 0.043.

**Living Environment**

Based on the univariate research results, it can be seen that the number of environments that are not at risk is 68 respondents (73.9%) and those who are at risk are 24 respondents (26.1%). And from the results of the bivariate study of the neighborhood, the p-value of 0.777 showed that there was no relationship between the neighborhood and knowledge of HIV/AIDS in class XI adolescents. This is not in accordance with the research which states that students who are actively seeking information from the surrounding environment tend to have better knowledge about HIV/AIDS where the p-value in the research conducted was 0.000.

**Information Technology**

Based on the results of univariate research, it can be seen that the number of information technology that does not utilize is 30 respondents (32.6%) and those who utilize 62 respondents (67.4%). This is in accordance with the results of research conducted on 100 adolescent respondents showing that there is a relationship between adolescents in reproductive problems, those who do not use the results (72%) and exploit (28%).

Based on the results of the bivariate research on information exposure, the p-value of 0.017 shows that there is a relationship between information technology and knowledge of HIV/AIDS in class XI adolescents.

**Attitude**

The attitude of adolescents about HIV/AIDS at SMK Muhammadiyah Serang was obtained by the results of univariate adolescents who had good attitudes as many as 47 respondents (51.1%) and 45 respondents (48.9%) who were less good. And from the results of the bivariate research on adolescent attitudes, the p-value was 0.003, this indicated that there was a relationship between attitudes and knowledge about HIV/AIDS in class XI adolescents. This is consistent with the results of previous studies which showed there was a relationship between HIV/AIDS knowledge and attitudes in adolescents at SMA Negeri 2 Grobogan with a p-value of 0.000 and a value of α = 0.05.

**Conclusion**

Based on the research results, it has been proven that gender, attitudes, the role of parents, the environment in which they live and information technology show a significant relationship with knowledge of HIV/AIDS.

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