



The Effect of Peer Group Discussion on Increasing Awareness in Preventing Sexual Risk of HIV/AIDS in Students at SMA Negeri 1 Gorontalo

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ABSTRACT

Human Immunodeficiency Virus (HIV) is a virus that attacks white blood cells and weakens the human immune system, while acquired immunodeficiency syndrome (AIDS) is a set of symptoms that arise as a result of HIV infection that has weakened the immune system. This study aims to analyze the influence of peer group discussion on increasing awareness in preventing HIV/AIDS risky sexual behavior in students of SMA Negeri 1 Gorontalo. The method used is quantitative research with a pre-experimental design using a one-group pre-test and post-test approach. The sample totaled 20 students who were selected through purposive sampling technique. The results showed that before the intervention, the majority of students (80%) were in the category of moderate consciousness, 15% in high consciousness, and 5% in low consciousness. After the intervention, there was a significant improvement, with 95% of students in the high awareness category and only 5% still in the medium category. A statistical test using a paired t-test showed a significance value of 0.000 ($p < 0.05$), which means that there is a significant effect of peer group discussion on increasing awareness. The discussion activity which was carried out three times with a duration of 60 minutes was proven to be able to increase knowledge, form positive attitudes, and encourage changes in student behavior in preventing risky sexual behavior related to HIV/AIDS.

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INTRODUCTION

Human Immunodeficiency Virus or HIV is a type of virus that weakens human immunity and people affected by this virus will become susceptible to infection and cancer. Acquired immune deficiency syndrome or better known as AIDS is a set of symptoms or infections that arise due to the damage to the human immune system due to viral infections. Although existing treatments can slow down the rate of development of the virus, this disease cannot be completely cured (Hamzah, 2023).

Based on data from the Joint United Nations Programme on HIV and AIDS or UNAIDS, the population with the highest HIV infection in the world is the African continent, with a total of 26.0 million people. Furthermore, the United States is second with 4.0 million people, followed by Southeast Asia also with 4.0 million people. Therefore, Indonesia needs to remain vigilant against the spread and transmission of the HIV virus, considering the high number of infections in the Southeast Asian region. Globally, AIDS is the second leading cause of death in adolescents aged 10-19 years. The number of AIDS deaths among 15-19 years old is almost 100,000 deaths each year (UNAIDS, 2023).

The number of HIV/AIDS cases in Indonesia fluctuates every year. According to the HIV AIDS INFORMATION SYSTEM (SIHA), in January-March 2023, there were 13,279 cases of new HIV infection, as well as 4,188 new AIDS patients. From data from the WHO (World Health Organization), it is reported that there are 120,000 Indonesian children infected with HIV.

Data from the KPA (AIDS Control Commission) Gorontalo until September 2023, people with HIV/AIDS in Gorontalo increased from 2021 which reached 839 people. If broken down by region, Gorontalo Regency is the highest with 284 people. Gorontalo City 281 people, Pohuwato Regency 125 people and Bone Bolango 120 people. For Boalemo Regency and North Gorontalo Regency, there are 98 and 83 people, respectively.

Meanwhile, data from the Gorontalo KPA (AIDS Control Commission) until September 2023, people with HIV/AIDS in Gorontalo increased from 2021 which reached 839 people. If broken down by region, Gorontalo Regency is the highest with 284 people. Gorontalo City 281 people, Pohuwato Regency 125 people and Bone Bolango 120 people. For Boalemo Regency and North Gorontalo Regency, there are 98 and 83 people, respectively.

Based on data from the Gorontalo Provincial Health Office, the number of HIV/AIDS cases in the age group of 15-24 years, there were 150 cases of HIV and 158 cases of AIDS, while among students/students were diagnosed with 67 cases of HIV and 48 cases of AIDS during 2001-2023.

HIV/AIDS is caused by several factors, such as risky sexual intercourse, direct contact with infected blood, use of non-sterile syringes, contaminated blood transfusions, and transmission from pregnant women to their babies. Meanwhile, the Directorate General of P2P (Directorate General of Disease Prevention and Control) in 2020 stated that adolescents are the most vulnerable to HIV/AIDS due to environmental influences, physical, biological, and psychosocial changes they experience during the transition period to adulthood (Herlinda et al., 2023).

Problems in adolescents that are often faced by adolescents are promiscuity that can trigger promiscuous sexual behavior, such as associating with injecting narcotics addicts, sex workers, or the same sex (gay/lesbian), as well as courtship relationships that can cause the urge to have sex. The causes of this promiscuous behavior vary, especially among students, but they are generally rooted in a lack of life control, awareness, knowledge, and appropriate attitudes and behaviors related to sexually transmitted diseases. Based on data, 34% of adolescents have not been able to demonstrate HIV/AIDS knowledge accurately, and only 26% of the adolescent population knows how HIV/AIDS is transmitted (WHO, 2019).

Knowledge, attitudes, and behaviors are closely linked in efforts to raise awareness, especially in the prevention of risky behaviors. Knowledge becomes the initial basis that provides individuals with an understanding of the risks, impacts, and preventive measures that must be taken. Adequate knowledge then shapes attitudes, which are the way a person assesses or responds to an issue, where a positive attitude reflects support for preventive actions. This good attitude is further manifested in real behavior as an implementation of the consciousness that has been formed. Behavior reflects the extent to which knowledge and attitudes are applied in daily life, for example by avoiding risky actions. Thus, knowledge, attitudes, and behaviors form a series of processes that support each other and contribute to the continuous increase of consciousness (Sari & Sari, 2023).

Peers (Peer Group) can have an influence on the formation of adolescent behavior and attitudes. Teens are often more open and easily influenced by peers their age than adults or teachers. This is due to the desire to be accepted and be part of the group. Peers can be role models, provide social support, and shape social norms that influence adolescents' decisions and actions. Therefore, through Peer Group Discussion Being able to reach out and actively engage students is essential (Laursen & Veenstra, 2021).

Peer group discussion or peer group discussions provide a forum for adolescents to share information, experiences, and perspectives on sexual health issues. Through these interactions, they can learn from each other and build a better understanding of the consequences of risky sexual behaviors. In a supportive and non-judgmental environment, adolescents are more likely to openly discuss their concerns, as well as seek solutions together to prevent HIV infection. This creates a safe space where they can get accurate and relevant information (Arivia, 2021).

In line with research Dwi Retno (2023), showing that there was an increase in knowledge in students before and after the intervention Peer Group Discussion in the prevention of free sexual behavior. Peer group discussion effectively increase adolescent knowledge significantly. And it is necessary to implement health education for students by applying the Peer Group Discussion as a form of follow-up to the health education program and for adolescents in increasing their knowledge related to the prevention of promiscuous and risky sexual behaviors.

After conducting initial observations at SMA Negeri 1 Gorontalo, researchers took 10 people in interviews. The results of interviews with the students were obtained by 7 students who did not know what HIV/AIDS is and the causes of HIV/AIDS. They said that HIV/AIDS was obtained from premarital sex, another thing they also said was that HIV/AIDS was not transmitted through repeated syringes. Meanwhile, 3 other students said that they knew that HIV/AIDS transmission was caused by changing partners. The students also said that they had received education about HIV/AIDS when they entered MPLS (School Environment Introduction Period) but for now they have forgotten about HIV/AIDS. The results of interviews were also obtained from several students who said that when they gathered with their peers, they had discussed the dangers of having HIV/AIDS risk, and heard that their peers had had risky sex but their

friends had never encouraged them to try or engage in risky sex. And all respondents said that they had never previously participated in peer group discussions or peer group discussions on increasing awareness in preventing sexual risk of HIV/AIDS.

Based on the above background, the author is interested in conducting research on the influence of peer group discussion on increasing awareness in preventing sexual risk of HIV/AIDS in students at SMA Negeri 1 Gorontalo.

RESEARCH METHODS

This research was conducted at SMA Negeri 1 Gorontalo on January 20-24, 2025. This study is a quantitative research with a pre-experimental research design and a pre-test and post-test one group approach. The number of samples in this study was 20 people by sampling using the purposive sampling technique.

RESEARCH RESULTS

Characteristics of respondents

Distribution of Respondents by Gender

In this study, the distribution of respondents by gender is in the following table.

Table 1 Distribution of respondents by gender

Yes	Age	Sum	%
1	15 Years	11	55
2	16 Years	9	45
	Sum	20	100%

Based on Table 1, it can be seen that the most genders are female and the least are male.

Univariate Analysis

Distribution of respondents based on increased awareness in preventing HIV/AIDS risk before being given a peer group discussion

The univariate analysis of the variable of increasing awareness in preventing sexual risk of HIV/AIDS before being given a peer group discussion is presented in the following table.

Table 2 Distribution of Respondents Based on Increased Awareness in Preventing Sexual Risk of HIV/AIDS Before Being Given Peer Group Discussion

Yes	Gender	Sum	
		n	%
1	Man	7	35
2	Woman	13	65
	Total	20	100%

Based on table 2, it can be seen that the awareness of students or respondents in preventing sexual risk of HIV/AIDS at SMA Negeri 1 Gorontalo before being given peer group discussion was dominated by moderate awareness, which was 80% or as many as 16 students, then high awareness of 15% or 3 students and respondents with low awareness of 5% or 1 student.

Distribution of respondents based on increased awareness in preventing sexual risk of HIV/AIDS after being given a peer group discussion

The univariate analysis of the variable of increasing awareness in preventing sexual risk of HIV/AIDS after being given a peer group discussion is presented in the following table.

Table 3 distribution of respondents based on increased awareness in preventing sexual risk of HIV/AIDS after being given peer group discussion

Yes	Increased Awareness Before Being Given a Peer Group Discussion	Sum	%
1	Tall	3	15
2	Keep	16	80

3	Low	1	5
	Sum	20	100

Based on table 3 it can be seen that the respondents' awareness after being given peer group discussion was dominated by a high increase in awareness, namely as many as 19 students or 95% while moderate awareness was 5% or only 1 student.

Bivariate Analysis

In this study, the effect of peer group discussion on increasing awareness in the table is as follows.

Table 4. The effect of peer group discussion on increasing awareness about preventing HIV/AIDS risk in students at SMA Negeri 1 Gorontalo

Yes	Increased Awareness After Being Given <i>Peer Group Discussion</i>	Sum	%
1	Tall	19	95
2	Keep	1	5
3	Low	-	-
	Sum	20	100

Based on table 4 through the Paired Samples T-Test difference test, it is proven that there is a significant influence before and after peer group discussion on increasing awareness in preventing sexual risk of HIV/AIDS. Posttest data ($M=85.30$; $SD=4.34$) had a greater average than the pretest data ($M=66.13$; $SD=8.76$). With the results of the Paired Samples T-Test, the value of $p = 0.000$ (<0.05) was obtained. Thus, it can be said that there is an influence of peer group discussion on increasing awareness in preventing sexual risk of HIV/AIDS.

DISCUSSION

Increasing Awareness in Preventing Sexual Risk of HIV/AIDS in SMA Negeri 1 Gorontalo Students Before Being Given Peer Group Discussion

The results of the study obtained based on table 4.3 are the awareness of respondents of SMA Negeri 1 Gorontalo before being given peer group discussion is dominated by moderate awareness, which is 80% or as many as 16 students, then high awareness of 15% or 3 students and respondents with low awareness of 5% or 1 student.

Respondents who had high awareness tended to come from a group of students who were actively involved in reproductive health education and HIV/AIDS prevention activities. Being active in the PIK-R organization allows students to get comprehensive information through various programs, such as counseling, group discussions, and health campaigns. This is evidenced by the respondent's answer "I feel happy if I can prevent the transmission of HIV/AIDS, I feel happy if I get counseling about HIV/AIDS prevention and I think HIV/AIDS prevention can be done by anyone".

According to Najallaili and Wardiati (2021), it shows that students who are actively involved in reproductive health education and HIV/AIDS prevention activities tend to have a higher level of awareness. Being active in the organization of the Youth Information and Counseling Center (PIK-R) allows students to get comprehensive information through various programs, such as counseling, group discussions, and health campaigns. This shows that PIK-R is effective in increasing adolescents' knowledge of reproductive health, creating a positive environment, and preventing risky sexual behaviors among adolescents.

The majority of students are at a moderate level of awareness, This can be due to a not yet fully in-depth understanding of HIV/AIDS, although they have gained basic information through activities at PIK-R. Another influencing factor is the way information is delivered that may not be interactive enough or less critical awareness. In addition, although students have access to information, they may not yet fully understand the urgency of preventing the spread of HIV/AIDS. As evidenced by the respondent's answer "HIV stands for Human Immunization Virus, In my opinion, HIV/AIDS prevention is only the responsibility of health workers and I stay away from and do not associate with HIV/AIDS positive people".

This is reinforced by research conducted by Sari (2022), which concluded that students with a moderate level of knowledge tend to have a misperception of HIV/AIDS and show avoidance of people living with HIV and This is caused by several factors, including a lack of in-depth understanding of the issue. The way of delivering information that is less interactive and does not arouse students' critical awareness is also an important factor. Additionally, even if students have access to information, they may not yet fully understand the urgency of HIV/AIDS prevention. False perceptions and avoidance of people with HIV/AIDS show that the knowledge they have has not been fully internalized into high awareness. Lack of understanding of the comprehensive impact of HIV/AIDS, both individually and socially.

The results of the study also found that there was 1 respondent (5%) with a low level of awareness, namely a female student who was 16 years old, because they were less active in PIK-R activities or had limited access to information. It is evidenced by the answer from the respondent "I will be closed (ignorant) to the problem of HIV/AIDS and do not know the difference between HIV and AIDS". Other factors can be a lack of attention to reproductive health issues, lack of support from the environment, and low motivation of individuals to seek information related to HIV/AIDS.

According to Wahyuni (2020), it shows that the level of participation in educational activities has a significant effect on increasing awareness of reproductive health and HIV/AIDS prevention. This study is in line with the results of the study which showed that respondents who were less active in PIK-R activities tended to have lower awareness.

The Health Belief Model theory (Becker, 1974), explains that individuals who view a disease as a serious threat and have a good understanding of how to prevent it are more likely to take preventive measures. On the contrary, low perception of risk and lack of exposure to information lead to apathy which has an impact on low awareness.

This is in line with the opinion of Sunaryo (2020), who said that a person's awareness is influenced by two factors, namely endogenous factors that come from oneself and exogenous factors that come from the surrounding environment, religion, age, socio-economic and education. Effendi (2020), explained that age is a factor that affects consciousness. Where age is closely related to a person's knowledge and attitude. Age affects the ability to grasp and mindset. The older he gets, the more his catching and mindset will develop, so that the knowledge he gains will get better and his awareness will be better.

Increasing Awareness in Preventing Sexual Risk of HIV/AIDS in SMA Negeri 1 Gorontalo Students After Being Given Peer Group Discussion

The results of the study obtained according to table 4.4 awareness in preventing sexual risk of HIV/AIDS in students of SMA Negeri 1 Gorontalo after being given peer group discussion were dominated by a high increase in awareness of 95% or as many as 19 students and moderate awareness of 5% or only 1 student.

Respondents with a high increase in awareness were obtained by 95% or as many as 19 students. Most students experience an increase in awareness to a high level after participating in peer group discussions. This is due to the discussion method that allows students to share experiences and understandings, thereby strengthening knowledge and changing attitudes to be more positive towards HIV/AIDS prevention. In addition, group discussions create a supportive environment for asking questions and delving into material in depth. Active participation in discussions also increases emotional engagement, which has an impact on more sustainable behavior change.

According to Risma (2019), peer group discussion is a group of peers where they can interact, in this peer group someone will be more open in expressing their problems, and can exchange ideas, experiences and expand views/knowledge.

Although most students experience increased awareness, there is 1 student who is still in the category of moderate awareness or by 5%. Factors influencing this may include low initial comprehension, lack of active participation during discussions, or the influence of a social environment that is less supportive of changes in attitudes and behaviors. Additionally, some students may take longer to process information and integrate it into their mindset.

In line with Amalia's (2022) research, each individual has a different learning pace, so some students take longer to process and integrate information into their mindset and the lack of support from family or peers, can also hinder a person's increased awareness.

According to researchers, there is an increase in higher awareness in preventing sexual risk of HIV/AIDS after being given peer group discussion, indicating that providing peer group discussion can increase awareness in the form of knowledge, attitudes and individual behaviors to avoid negative impacts on adolescents. Peer group discussion aims to increase understanding, awareness, and positive attitudes through peer discussions and encourage constructive behavior change (Midop, 2022).

This is in line with the theory put forward by Natoatmadjo (2007), which says that actions based on knowledge will be more lasting than without knowledge. This is also stated by the Ministry of Health (2008) which states that the purpose of implementing health education in general is to improve knowledge, change attitudes and behaviors.

This is also supported by research conducted by Alfiah, et al, (2023) entitled The Effect of Peer Group Discussion (PGD)- Based Health Education in the Attitude and Behavior Toward Among Student in Boarding School. Using a one group pretest posttest design, using a questionnaire with a significance level of 0.05 with a probability level of 0.0001, it was shown that there was an influence before and after the peer group discussion intervention. Based on these results, it can be concluded that peer group discussion is able to increase awareness in the form of knowledge, attitudes, and a person's mind.

The Effect of Peer Group Discussion on Increasing Awareness in Preventing Sexual Risk of HIV/AIDS in Students of SMA Negeri 1 Gorontalo

Based on statistical tests using the one group pre-experiment test pre-post test design, awareness data before and after being given a normally distributed peer group discussion using the paired t test obtained a sig (2-tailed) value of 0.000, the significance value is smaller than the alpha value used (0.05) so that H0 is rejected.

The results of the study conducted on 20 respondents, before being given a peer group discussion on sexual prevention at risk of HIV/AIDS, were obtained as many as 80% or as many as 16 respondents had moderate awareness, as many as 3 students had high awareness or 15% and as many as 5% of respondents had low awareness or 1 respondent. Meanwhile, the results obtained after being given an intervention in the form of peer group discussion were obtained with awareness of 95% or as many as 19 respondents with high awareness and moderate awareness as much as 1 respondent or 5%.

Before the peer group discussion was given, the results of the study in table 4.3 showed that only a small percentage of students (15%) had a high level of awareness related to reproductive health and HIV/AIDS prevention. These students are generally active in the PIK-R organization, which provides a variety of educational programs such as counseling, discussions, and health campaigns. Such active participation provides comprehensive understanding, forms positive attitudes, and increases their awareness of the importance of HIV/AIDS prevention. These findings are also in line with the opinion of experts who emphasize that involvement in educational activities greatly affects students' awareness levels.

In contrast, the majority of respondents (80%) were at moderate levels of consciousness and the other 5% showed low consciousness. This is due to a shallow understanding, a less interesting way of conveying information, and low motivation to seek further information. Some students also have a false perception and tend to stay away from people with HIV/AIDS, indicating that the information received has not been processed into deep awareness (Najallaili and Wardiati, 2021). This research emphasizes the importance of educational approaches that are more interactive and touch on emotional aspects to build higher awareness among adolescents.

After the implementation of peer group discussion on the prevention of sexual behavior at risk of HIV/AIDS, the posttest results in table 4.4 showed a significant increase in the level of awareness of SMA Negeri 1 Gorontalo students. As many as 95% of students (19 people) achieved high levels of consciousness, while only 5% (1 student) were at moderate levels of consciousness, and none were at low levels. This shows that the peer group discussion method is very effective in improving knowledge, attitudes, and behaviors on HIV/AIDS prevention. Interactive and participatory discussions provide a space for students to share mutual understanding, strengthen emotional engagement, and form a sustainable positive attitude towards reproductive health issues (Amalia, 2022).

Changes in values and before and after peer group discussion were shown by respondents who initially had low awareness of high increase in awareness, also respondents who initially did not prevent HIV/AIDS transmission now take preventive measures and respondents who initially agreed with the invitation to have sex are at risk of not accepting invitations that cause disease in the future. Based on results The researcher assumes that there are different results shown by the respondents, in addition to being influenced by knowledge, attitudes and behaviors through peer group discussion, they are also influenced by internal factors and external factors because endogenous and exogenous factors are an inseparable unit in changing the awareness of each respondent about HIV/AIDS prevention.

However, in general, there is a change in awareness for the better shown by students regarding refusing when their friends or girlfriends invite them to have sexual intercourse is a positive value for increasing student awareness so that peer group discussion is one of the interventions that can have a positive impact on increasing awareness in the form of knowledge, attitudes and behaviors in students. This is supported by the theory put forward by septiana (2022), that health programs should be more aimed at behavior change.

This research is in line with research conducted by Putri (2022), that health education facilitated by peer group discussion is very suitable for the psyche of adolescents who are beginning to feel curious about many things but are still reluctant to ask questions directly. In peer groups, they don't feel embarrassed to share their experiences with their friends.

The peer group discussion method using slides supports adolescents to better understand the material transfer process so that the learning process can take place optimally. This method can make students more comfortable with their peers.

Research by Rismana (2019), concluded that the attitude possessed by a person can be used to predict the behavior he or she does. The knowledge that has been understood by respondents is able to produce a positive attitude by taking care of their body health.

Alfiah and Syukrowardi (2023), stated that health education is an effort to help individuals, families, and communities in increasing awareness in the form of knowledge, attitudes, and actions or behaviors to achieve optimal healthy living. The provision of information is intended to achieve a healthy life so that an

unwanted disease does not occur. The increase in respondents' understanding is the beginning of increasing knowledge about the prevention of sexual risk of HIV/AIDS and how it is transmitted.

The existence of peer group discussions about HIV/AIDS prevention in respondents, precisely in PIK-R students at SMA Negeri 1 Gorontalo can increase respondents' knowledge, where respondents' knowledge can produce a positive attitude to do good behavior as well. So that a young generation is formed who are concerned about the danger of diseases that will be caused by sexually at risk of HIV/AIDS with many adolescents who can potentially engage in risky sexual activity around school and it is hoped that the research respondents can also explain to their peers about the dangers of sexual risk of HIV/AIDS, in order to realize a healthy life and reduce the number of diseases caused by risky sexual behavior and deviant behavior among adolescents.

CONCLUSION

Based on the data obtained, it shows that the age of the most respondents in this study is 15 years old, the most respondents are 11 students (55%), the gender of the most respondents is female, the highest number of respondents is 13 respondents (65%).

Before being given a peer group discussion on increasing awareness in preventing sexual risk of HIV/AIDS in students of SMA Negeri 1 Gorontalo, the results of respondents were dominated by moderate awareness by 80%, respondents with high awareness by 15%, while low awareness by 5%.

After being given a peer group discussion on increasing awareness in preventing sexual risk of HIV/AIDS in students of SMA Negeri 1 Gorontalo, the results were obtained that the respondents were dominated by high awareness by 95% and moderate awareness by 5%.

There was a significant influence before and after peer group discussion on increasing awareness in preventing sexual risk of HIV/AIDS in students of SMA Negeri 1 Gorontalo with the results obtained namely $p = 0.000 < \alpha = 0.05$.

SUGGESTION

This research can be information for health service providers and serve as a basis for the implementation of education to increase knowledge and awareness in preventing sexual risk of HIV/AIDS. Benefits for health, especially nursing, can be a reference and used to make follow-ups within the school scope.

This research can be an input to further improve UKS as a medium to improve health promotion in the school environment, especially about the prevention of sexual risk of HIV/AIDS. And it can be used as basic data for further research or consideration to evaluate HIV/AIDS for adolescents, especially students.

It can increase researchers' understanding of the prevention of sexual risk of HIV/AIDS in adolescents, especially students, and increase the knowledge of researchers and can provide information about knowledge and increase awareness in preventing sexual risk of HIV/AIDS.

This research is expected to be used as a reference for researchers to develop research that will be carried out next.

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