



## RESEARCH ARTICLE

## The Effect Of Health Education On Hiv/Aids Knowledge In Ypk Betlehem High School Wamena, Papua Pegunungan, Indonesia

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**ABSTRACT**

HIV/AIDS in the era of globalization is one of the deadliest diseases in the world, where the rapid and widespread spread is especially young people. The number of people infected with HIV in the world in 2021 reached approximately 38.4 million. In Indonesia until March 2021, 427,201 people were infected with HIV while AIDS reached 131,147 people. The number of HIV/AIDS cases in Papua until 2022 reached 50,502 cases. Jayawijaya Regency is the third most HIV/AIDS cases in Papua Province with 6,867 cases. This study uses a research design (pre-experimental) with a one-group pretest-posttest design. The research was carried out at YPK Betlehem Wamena High School in June 2024. The population in this study is grade XI students of YPK Betlehem Wamena High School and the determination of the sample size uses a total sampling of 46 respondents. The results of the study obtained the average value of students' knowledge before being given health education of 27.33 and the average value of students' knowledge after being given health education of 35.44 with an average difference of 8.21 knowledge scores. The results of data analysis using the unpaired t-test obtained a p value of  $0.000 < 0.05$  which means that there is a difference in the value of students' knowledge about HIV/AIDS before and after being given health education, where the value of student knowledge has increased so that it can be concluded that there is an influence of health education on the level of HIV/AIDS knowledge in grade XI adolescents at YPK Betlehem Wamena High School, Jayawijaya Regency in 2024.

**INTRODUCTION**

Human Immunodeficiency Virus (HIV) and Acquired Immune Deficiency Syndrome (AIDS) in the era of globalization are serious health problems and are one of the deadly diseases in the world that have become international outbreaks since the first time they existed. Its rapid and widespread spread is especially frequent at a young age or adolescence. HIV has a great influence on the social, economic and psychological of sufferers (Arriza, Dewi, et al, 2017). HIV and AIDS diseases cause sufferers to experience a decrease in body immunity so that it is very easy to be infected with various other diseases (Ministry of Health, 2018).

Controlling HIV/AIDS is a serious challenge in health services in the world. In 2021, the United Nations (UN) urged countries around the world to welcome and commit to ending AIDS globally and ensure that all people who have been infected with HIV receive ARV treatment easily (UNAIDS, 2021). This is because the number of people infected with HIV has continued to increase globally since 2010 where the total number of people in the world infected with HIV reached approximately 38.4 million.

The number of illnesses due to HIV in 2021 showed an increase from previous years, where previously in 2010 it reached 33.3 million people and in 2020 it increased to 37.7 million (UNAIDS, 2021). The number of HIV and AIDS cases in Indonesia has also been reported cumulatively tending to increase from 2005 to 2021. The number of people infected with HIV until March 2021 in Indonesia reached 427,201 or reached 78.7% of the target of 90% of new cases. Meanwhile, people with AIDS from 1987 to March 2021 have reached 131,147 people. The number of HIV/AIDS cases in Papua until 2022 is 50,502 cases. Jayawijaya Regency is the third most HIV/AIDS cases in Papua Province with a total of 6,867 cases (KPA. Papua Province 2023).

Adolescents and young adults (15-24 years old) make up only 25% of the overall sexually active population. Young people and adolescents are the most at risk of contracting STIs. Based on data from the United Nation Population Fund in its report at the end of 2013, it is stated that teenagers in the world today coexist with HIV-AIDS because some new cases of HIV-AIDS have attacked many adolescents aged 15-24 years (Gainau, 2015).

Adolescence is a transition period from childhood to adulthood. In this phase, physical changes that tend to be more dominant such as sexual function which is one of the characteristics of adolescent development or called puberty. Puberty begins with the appearance of secondary sexual signs, namely reproductive ability, hormonal changes, physical changes, psychological and social changes (Rahmadini, 2020).

Based on data obtained at YPK Bethlehem Wamena High School, it shows that students' knowledge about sexually transmitted infections (STIs)-HIV/AIDS is still very lacking and most students have never heard of information about IMS-HIV/AIDS. Adolescent reproductive health information is one way to reduce or prevent premarital sex, especially to prevent unexpected negative impacts, one of which is HIV-AIDS.

Based on the description of the background above, the author is interested in making a study on "the effect of providing health education on HIV/AIDS knowledge in adolescents in grade XI of SMA YPK Betlehem Wamena. The purpose of the study was to determine the effect of providing health education on HIV/AIDS knowledge in adolescents in grade XI of YPK Betlehem Wamena High School, Jayawijaya Regency. The special purpose of this study is to find out the characteristics of adolescents in grade XI at SMA YPK Betlehem Wamena and to find out the difference in the average score of adolescents in class XI at SMA YPK Betlehem Wamena. The results of this study are expected to provide additional information to adolescents about HIV/AIDS and make the principal's consideration in choosing methods that can be used to increase adolescents' knowledge and attitudes about HIV/AIDS.

## **METHOD**

This study uses a research design (pre-experimental) with a one group pretest-posttest design. One group pretest-posttest design is a research activity that provides a preliminary test (pretest) before being given treatment, and after being given treatment to give a final test (posttest). The research was conducted at YPK Betlehem Wamena High School, Jayawijaya Regency in June 2024. The population in this study is active students at YPK Betlehem Wamena High School who are currently in grade XII. The sample size in this study uses total sampling, so the number of samples is determined to be 46 respondents.

The data collected in this study is primary data which includes data on the level of knowledge of adolescents about HIV/AIDS before and after being given health education. Data processing in this study includes editing, processing, coding, tabulating, analyzing and cleaning activities. The collected data is then carried out univariate analysis, which is an analysis that aims to explain or describe the characteristics of each research variable. In general, this analysis only produces the frequency distribution and percentage of each variable. Single-variable analysis is used to describe independent variables and dependent variables presented in the form of tables. Bivariate analysis was carried out on two variables that were suspected to be related or correlated (Notoatmodjo, 2010).

Bivariate analysis in this study will be used to see the influence of health education on adolescents' knowledge about HIV/AIDS. The bivariate analysis used in this study was the paired t test (normally distributed data) and the Wilcoxon test (normal undistributed data) with a degree of significance or significance ( $< \alpha = 0.05$ ) (the data processing in this study was assisted by a computer program).

## RESULTS AND DISCUSSION

Distribution of respondents based on respondent characteristics:

**Table 1 Characteristics by Age**

Age of Respondents	Frequency (f)	Percentage (%)
< 16 Years	0	0
16-18 Years	46	100
>18 Years	0	0
<b>Sum</b>	<b>46</b>	<b>100</b>

Based on the table above, all respondents were between 16-18 percent, which was 100%.

**Table 2 Characteristics by Gender**

Gender	Frequency (f)	Percentage (%)
Man	30	65
Woman	16	35
<b>Sum</b>	<b>46</b>	<b>100</b>

Based on the table above, it was obtained that 65% of respondents were male and 35% were female

Distribution of respondents based on level of knowledge about HIV AIDS:

**Table 3 Respondents' Knowledge Level About HIV/AIDS Before and After Health Education**

Knowledge	Average	Difference	IK 95%	P value
Before being given health education	27,33	8,21	6,74-9,69	0,000
After being given health education	35,44			

Based on table 3, it shows that there is an increase in the average value of knowledge from before being given health education by 27.33 to 35.44 after being given health education, with an average difference of 8.21 knowledge values. The results of the unpaired t-test obtained a p value of 0.000 ( $< 0.05$ ), which shows that the increase is statistically significant. Therefore, it can be concluded that there is a difference in the value of participants' knowledge about HIV/AIDS between before and after being given health education, where the value of knowledge of participants has increased. Based on the results of the research conducted by the researcher on the knowledge of HIV/AIDS in adolescents in grade XI of SMA YPK Betlehem Wamena before and after being given health education, the results of the statistical test showed a P value (0.000). As the basis for decision-making, if the results of the statistical test show a  $p < \alpha 0.05$ , then the null hypothesis is accepted, then it can be concluded that there is an influence of health education on the knowledge of HIV/AIDS adolescents in class XI of YPK Betlehem Wamena High School.

The health education carried out provides a lot of knowledge and experience to students. The students received education about HIV/AIDS globally and especially in Indonesia up to Jayawijaya district, received education about the characteristics of HIV AIDS, the symptoms caused, the way of transmission, how to prevent, countermeasure, and attitude towards ODHA. Students (adolescents)

as important subjects in the community are expected to be able to educate not only themselves but also their families, the environment, and the surrounding community.

The results of knowledge measurement before being given health education showed that students still had very little information related to HIV/AIDS. Therefore, it is very important to provide information through counseling or health education to increase the knowledge of adolescents and to equip them to be more aware in responding to the problem of sexually transmitted diseases that can be caused, one of which is HIV/AIDS. One of the causes of HIVS transmission is the lack of knowledge related to HIV/AIDS among adolescents. Adolescent knowledge about HIV-AIDS is part of the indicator Millenium Development Goals (MDGs), and must be monitored regularly by all developing countries including Indonesia (Nurwati & Rusyidi, 2019)

The results of the post-test show that the intervention (health education) provided can provide a change in students' knowledge about HIV/AIDS. From the intervention provided by the students, they became aware of HIV/AIDS, how it is transmitted and prevented. The increase in knowledge has a positive impact on improving the behavior of students in maintaining their health and avoiding free sex and promiscuity and being able to become good educators for teenagers and the wider community. This has been proven by research conducted by Sari & Verini (2018) By providing health education to students, it can increase knowledge about HIV/AIDS so that it is expected to help students to determine a more positive direction of life, so that adolescents do not fall into environments and actions that are at risk of HIV/AIDS.

The supporting factor is the high enthusiasm of all adolescents in participating in learning activities in the context of empowering adolescents in preventing HIV/AIDS. In addition, there is high support from the principal and teachers of YPK Bethlehem Wamena High School

### **Conclusion and Advice**

The results of the study on the effect of health education on HIV/AIDS knowledge in adolescents in grade XI of YPK Betlehem Wamena High School can be concluded as follows: Based on the characteristics of the respondents, all respondents were obtained, namely 100% aged 16-18 years. Based on gender, respondents with male gender were obtained as much as 65% and respondents with female gender as much as 35%.

The average value of adolescents' knowledge of HIV/AIDS in grade XI before being given health education was 27.33. The average value of adolescents' knowledge of HIV/AIDS in grade XI after being given health education was 35.44. There is an effect of health education on the knowledge of adolescents in grade XI about HIV/AIDS ( $p = 0.000$ ) at YPK Betlehem Wamena High School, Jayawijaya Regency.

It is hoped that the school principal needs to increase the dissemination of information about HIV/AIDS prevention through the cadres of the School Health Unit (UKS), it is necessary to form a PIK-R (Adolescent Counseling Information Center) to involve the teachers concerned and collaborate with health workers so that students can receive extensive and accurate information as early as possible. For the next researcher, it is hoped that the results of this study can be used as a basis for conducting further research, especially regarding the prevention of HIV/AIDS among adolescents.

### **BIBLIOGRAPHY**

- Annur, C.M. 2023. Jumlah Kasus HIV/AIDS di Indonesia. (online) Available: <https://databoks.katadata.co.id/datapublish/2023/07/03/>
- Izah, N., Zulfiana, E., & Qudriani, M. (2019). Formation of KRR Cadres in Vocational School Students. *E-Dimas: Journal of Community Service*, 10(1), 111. <https://doi.org/10.26877/e-dimas.v10i1.3558>
- Ministry of Health of the Republic of Indonesia, Viral Load Month Campaign: The Importance of Knowing the Status of ARV Treatment in ODHA Through HIV Viral Load Examination, Ministry of Health Article on September 29, 2020, accessed March 30, 2024 (<https://www.kemkes.go.id/id/rilis-kesehatan/kampanye-bulan-viral-load-the-importance-of-knowing-status-treatment-arv-odha-through-examination-viral-load-hiv>)

- Ministry of Health of the Republic of Indonesia. 2023. Commemoration of World AIDS Day: Causes, Obstacles, and Efforts of the Ministry of Health to Handle HIV in Indonesia. (online) Available: <https://kesmas.kemkes.go.id/konten/133/0/peringati-hari-aids-sedunia-ini-penyebab-kendala-dan-upaya-kemenkes-tangani-hiv-di-indonesia>.
- Kurniawati, H. F., & Rohmah, F. (2019). Formation of Kare (Youth Cadres) for HIV and Aids Care in Kalitung Temon Kulon Progo. 2(1), 66–72.
- Muflihatin, I., & Swari, S. J. (2017). Prevention of Free Sex Behavior and HIV/AIDS in Adolescents through Counseling on Adolescent Reproductive Health and the Formation of Adolescent Health Cadres at MTs Nurul Islam Panti Jember. National Seminar on Community Service Seminar, 142–145. <https://publikasi.polije.ac.id/index.php/prosiding/article/view/703>
- Muhamad, N. 2023. Percentage of HIV Cases in Indonesia by Age Group (January-September 2023). (online) Available: <https://databoks.katadata.co.id/datapublish/2023/12/01/>
- Najmah. 2016. Epidemiology of Infectious Diseases, First printing. Jakarta: CV. Trans Info Media
- Noviana, N. 2016. The concept of HIV/AIDS Sexuality and Reproductive Health. Yogyakarta: Trans Info Media.
- Nursalam and Kurniawati. 2013. HIV/AIDS Nursing Care. Jakarta: Salemba Medika
- Nurwati, N., & Rusyidi, B. (2019). Adolescent Knowledge of HIV-Aid. Proceedings of Research and Community Service, 5(3), 288. <https://doi.org/10.24198/jppm.v5i3.20607>
- Risati, M.A. 2021. Global HIV Cases Nearly 1.5 Million in 2020, Highest in Africa Region (online) Available : <https://databoks.katadata.co.id/datapublish/2021/09/02/global-hiv-cases-near-15-million-at-2020-highest-in-africa>
- Sari, D. A., & Verini, D. (2018). The Effect of Health Education on the Level of Knowledge of High School Students About HIV/AIDS. 3(3), 588–595.
- UNAIDS/WHO. 2023. Data Dan Statistik HIV. (online) Available: [https://www-who-int.translate.goog/teams/global-hiv-hepatitis-and-stis-programmes/hiv/strategic-information/hiv-data-and-statistics?](https://www-who-int.translate.goog/teams/global-hiv-hepatitis-and-stis-programmes/hiv/strategic-information/hiv-data-and-statistics?_lang=en)