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The Positive Effect of Counseling about HIV-AIDS in High School

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ABSTRACT

Introduction: Adolescents constitute a significant demographic group susceptible to the development of the HIV/AIDS epidemic. The year 2020 witnessed a rise in the number of HIV/AIDS cases, with a notable concentration among individuals aged 20-29 years. Consequently, preventive measures should be targeted towards those under 20 years of age, specifically adolescents. This research aims to identify the impact of health counseling on teenagers' knowledge of HIV/AIDS. **Methods**: The study utilizes a pre-experimental design, specifically a one-group pre-test and post-test design. The sample comprises 90 respondents selected through Simple Random Sampling. The research assesses the average knowledge level of teenagers before and after counseling, utilizing statistical analysis. **Results**: The findings indicate that the average knowledge level of teenagers before counseling is 1.49, whereas the average knowledge level after counseling is 1.94. The statistical analysis, employing the Wilcoxon Signed Rank Test, reveals a significant p-value of <0.001. Conclusion: The research concludes that health counseling has a substantial influence on enhancing teenagers' knowledge about HIV/AIDS. This underscores the importance of implementing targeted health interventions and educational programs to raise awareness and knowledge levels among adolescents, contributing to the overall prevention and control of HIV/AIDS in this vulnerable population.

INTRODUCTION

The global HIV/AIDS epidemic, caused by the Human Immunodeficiency Virus (HIV), poses a significant public health challenge. Particularly affecting vulnerable populations such as sex workers, injection drug users, homosexuals, children born to mothers with HIV/AIDS, and prisoners, these groups are considered at higher risk of HIV infection (Rosmiati et al., 2022). Acquired Immunodeficiency Syndrome (AIDS) manifests as a consequence of decreased immunity due to HIV infection, with the virus targeting cells expressing the Cluster of Differentiation 4 (CD4), especially T lymphocytes (Angel A and Friends, 2022). The increasing prevalence of HIV/AIDS globally is a cause for concern, necessitating effective preventive measures.

World Health Organization (WHO) reports highlight the alarming increase in HIV/AIDS cases, with 2.7 million new HIV infections diagnosed in 2008 and 33.4 million people living with HIV in 2010. By 2022, the number had risen to 35.3 million people

worldwide, with 630,000 deaths reported in the same year (Angel A and Friends, 2022). Notably, HIV-related deaths have reduced by 51% since 2010, demonstrating progress in combating the epidemic (WHO, 2023).

Despite progress, almost half of young people (aged 13-24) with HIV are unaware of their status, emphasizing the need for enhanced testing and prevention efforts (CDC, 2023). Early detection and intervention play a crucial role in connecting youth to appropriate health services and preventing the spread of the virus.

In 2021, an estimated 540 thousand people were living with HIV in Indonesia, representing an increase from 2015. The epidemic in Indonesia is concentrated among key populations, with varying prevalence rates among different groups, such as female sex workers, people who inject drugs, and men who have sex with men (MSM) (Hanadian Nurhayati, 2023). Notably, MSM in Indonesia exhibit a higher HIV prevalence, reaching 30% in some urban centers, underscoring the urgency for targeted interventions (UNICEF, UNPAD, Ministry of Health, 2019).

Furthermore, the issue of narcotics in Indonesia adds complexity to the HIV/AIDS landscape. Agussalim et al (2018) note that the narcotics problem is significant, with approximately 4.7 million people identified as having addictive narcotics. Narcotics use is identified as one of the gateways to HIV/AIDS transmission. Given this context, understanding the impact of health education on adolescents' knowledge about HIV/AIDS becomes crucial. The objective of this research is to assess the effectiveness of HIV/AIDS education on students, contributing to the overall understanding and prevention of HIV/AIDS.

METHODS

Pre-experimental research design using pre-posttest approach in one group (*one-group pre-post test design*). Where is the respondent before given intervention especially formerly done *pre-test*, then after intervention done *post-test*. Testing cause and effect with method compares pre-test results with post-test results. Study was conducted with using questionnaire. The sample is taking students around 90 students by sampling random technique.

The method contains an explanation of the research approach, study subjects, the research procedure's conduct, the use of materials and instruments, data collection, and analysis techniques. The independent variable of this study is health education and the dependent variable is knowledge about HIV/AIDS.

For now, is There is influence counseling health to knowledge teenagers about HIV/AIDS with tool media assistance in the form of containing *leaflets* and *slides/powerpoint* materials about HIV/AIDS in students class X (ten). Moreover, the first shared questionnaire for the circumstances initial (pretest) then carried out counseling health about HIV/AIDS after sharing the same questionnaire (posttest*)* for now different knowledge after counseling health. The researcher carried out data collection through the questionnaire to each respondent.

Every variable before analyzed, especially formerly done testing normalcy data distribution. Testing this is very important because normal or nope data distribution affects the election presentation of data and the type of test used in hypothesis testing. Normality test distribution on research This use analytical method because more objective compared to plot and histogram methods. The method selected analysis is the Kolmogorov-Smirnov test.

RESULTS

Research results are grouped into 2, namely general data and special data. Which includes general data is demographic data that includes Age, class and type sex. General data is served in the form of a univariate analysis. Which includes special data is the data obtained from answer questionnaire. Specific data is presented in a form analysis bivariate that includes influence between independent and dependent variables.

Table 1. Characteristics Respondents

Variables	n	(%)
Age		
15 years	51	56,7
16 years	36	40.0
17 years	3	3,3
Sex		
Man	39	43.3
Woman	51	56.7

Table 1 above shows that amount sample the most, that are, at the age of 15 years, as many as 51 students (56.7%); aged 16 years, as many as 36 students (40.0%) and aged 17 years, as many as 3 students (3.3%).

Table 2. Distribution frequency based on knowledge *Pre-test* and *Post-test Pre-test*

Variables	Pre-test				Post-test			
	Not enough		Good		Not enough		Good	
	n (46)	%	n (44)	%	n (5)	%	n (85)	%
age								
15	26	51.0	25	49.0	2	3.9	49	96.1
16	17	47.2	19	52.8	3	8.3	33	91.7
17	3	100.0	0	0.0	0	0.0	3	100.0
Sex								
Woman	28	54.9	23	45.1	3	5.9	48	94.1
Man	18	46.2	21	53.8	2	5.1	37	94.9

Table 2 presents the frequency distribution based on pre-test and post-test knowledge for the variables of age and sex. The pre-test and post-test results are categorized into "Not enough" and "Good" knowledge levels.

In the pre-test, 51.0% of 15-year-old participants exhibited “not enough” knowledge, which significantly decreased to 3.9% in the post-test. Conversely, the percentage of participants with "Good" knowledge increased from 49.0% to an impressive 96.1% after the intervention. Among 16-year-old participants, the pre-test indicated that 47.2% had not enough knowledge, experiencing a decrease to 8.3% in the post-test. Simultaneously, the percentage of participants with "Good" knowledge rose significantly from 52.8% to 91.7% after the intervention. Respondents aged 17 years old showed 100% “not enough” knowledge in the pre-test, which further increased to 100% demonstrating "Good" knowledge in the post-test.

In the pre-test, 54.9% of women exhibited “not enough” knowledge, which significantly decreased to 5.9% in the post-test. Simultaneously, the proportion of women with "Good" knowledge rose from 45.1% to a notable 94.1% post-intervention. For men, the pre-test results showed that 46.2% had not enough knowledge, which

decreased significantly to 5.1% in the post-test. Additionally, the percentage of men with "Good" knowledge increased from 53.8% to a remarkable 94.9% after the intervention. These findings collectively suggest a positive impact of the intervention on knowledge levels across different age groups and sex.

Tabel 3. Analysis Influence Health Education Against Knowledge Teenager About HIV/AIDS

	N	Means	std. Deviation	Min	Max	p-value
Pre-Test	90	1.49	0.503	1	2	0.000
Posttest	90	1.94	0.230	1	2	

Source: Primary data, June, 2023 Wilcoxon Signed Rank Test.

From Tabel 3 above illustrates that there are 90 respondents. For category *Pre test* with mark *mean* 1.49, standard deviation value is 0.503, value *min* 1 and value *max* 2 meanwhile for category *posttest* listen mark *mean* 1.94, value standard deviation 0.230, value *min* 1 and value *max* 2. Using *Wilcoxon* test, shows results with mark significance of 0.000 (p <0.05).

DISCUSSION

Based on results research that has done, then is known that out of a total of 90 respondents, knowledge student before intervention in good category as many as 44 respondents, meanwhile knowledge student before intervention in less category as many as 46 respondents. This knowledge respondent Still more many knowledgeable is not enough compared to with the knowledgeable.

From 44 respondents, adolescents / students aged 15 and 16 years knowledgeable Good about HIV/AIDS for men totaling 21 students and girls with a total of 23 students , identified that respondents the Already Once hear or get information good about HIV/AIDS That from television, radio, posters, and other media from NGOs (non-governmental organizations) and the health team others with the knowledge they get since in junior high school form counseling health with get a brochure or *leaflets* and include *powerpoint /slides*, so what ever seen, heard and read by students the will make they get matter new about HIV/AIDS disease, so level knowledge to draft basis of HIV/ AIDS ok . This is in line with theory of Soekidjo Notoatmodjo (2010), knowledge is results sensing man or the result of “knowing ” someone to object through the senses he has. Sensing happen through the senses man namely, the senses sight, hearing, smell, taste and touch. Most knowledge man obtained through the eyes and ears. Knowledge or cognitive is very domains important for formation action someone.

Whereas out of a total of 46 respondents in the category less knowledgeable about HIV/AIDS viz aged 15 to 17 years with amount 18 male students and 28 female students identify which are the respondents not enough information or direct lessons good from party schools, NGOs (Institutions Self-subsistent Community) and the Health Team other nor with source information that can be obtained with *searching* or *browsing* on *the internet* or with through other media such as: television, radio, posters, so that respondents in matter these are teenagers level his knowledge Still belong not enough or No know.

This is in line with theory of Notoatmodjo (2010), who stated that knowledge somebody can influenced by several factor. including experience, level of education, belief, facilities, income, and social. The more Lots experience someone earns from experience Alone, like reading books and other people around him, the broader knowledge the person has. The more Lots facilities as source information such as

radio, television, magazines, newspapers and books so the more knowledge gained.

Counseling health is an activity of education health, which is done to spread messages and embed beliefs so that society does not just know, know, and understand but also wants and can make related suggestions to health (Heni Eka Puji, 2015).This is in line with the theory of Soekidjo Notoatmodjo (2010), which says that Study is something business For obtain things new in Act in demand and covers knowledge, skills, and values with activity mental alone. From the statement, it looked clear that the characteristic typical of the learning process is obtaining something new, the old Not yet there, now become there, the original Not yet known, now known, the first Not yet understand, now understandable. Knowledge of the Finally expected can influence behavior.

However, from posttest results is still found 5 knowledgeable respondents in category not enough that is with age respondents 15 and 16 years, and all respondents aged 17 years has knowledgeable. This caused of level knowledge a person is also affected by age / age, ie the more tall age somebody so the more knowledge is high nor level understanding them, so respondents aged 17 years has own good knowledge after counseling. And also due to ability student or Power reason somebody in accept something information or lesson different so that what one person knows and understands not yet of course also understood by other friends. Then also caused by the respondent the not enough notice during counseling sessions health going on so that still found a number of respondents with level still knowledge belong not enough or still course, no There is enhancement knowledge.

There are several influencing factors development intellect teenager namely: factor hereditary, factor encompassing environment family, environment school and environment community (Gendis 2013). According to Novia Aisyah , 2022 results study prove that size speed processing information correlated positive with IQ score. Speed processing is depending on efficiency genetically controlled neurology and maturation. From corner view This There is proof strong that level intelligence somebody very determined by factor descent.

Reality that children with disabled genetics have an average IQ more low from colleagues those who don't own the same defect (Nur Fauziyah, 2018). Study This is giving proof more carry on about the influence of heredity to intelligence. Since in content, teenagers has own characteristics that determine intellectual performance. Potentially child has bring possibility to become able to think equivalent to normal, above normal or below normal. However, potential will develop or be optimally realized when the environment is not give a chance to grow. Because that is role environment very determines the development intellectual child. A child's intelligence can develop if the environment provides the opportunity to develop optimally. In matters that affect the development of intellect in the environment, among others: Increased information stored (in the brain) of a person so that he is able to think reflectively, lots of experiences solving problems so that someone can think proportionally, there is freedom of thought so that children can solve problems and draw conclusions.

They have got since junior high school (School Intermediate First) through print media as well as electronic media like books, flyers, posters, television, and others so that level his knowledge good before and after intervention/counseling. As well as there are 49 respondents have more knowledgeable before counselling, with exposure material through counseling health with through leaflets and *slides/powerpoint* media regarding HIV/ AIDS explaining what is HIV/AIDS, the etiology or reason of HIV/AIDS, how is HIV/AIDS, transmitted, stages symptom somebody infected with HIV / AIDS, manifestations clinic or signs and symptoms of HIV/AIDS, HIV diagnosis in women and

children, objective from counseling, goals counseling HIV pre -testing, HIV/AIDS prevention, the like how does HIV/AIDS not can caught, and how handling or treatment to HIV/AIDS sufferers. This is because their knowledge get increased ie enhancement knowledge related to respondents with counseling health or interventions that have given.

According to the assumption researcher, enhancement knowledge is wrong teenager only one ie with gift counseling health or education health To use increase knowledge teenagers/students with female students about the draft of healthy sick to something disease. Through counseling health with use some of the media like print media as well as electronic media. electronic media for example counseling with using the presented *slides/powerpoint* media with pictures and colors as well as serve whole points material about draft the basis of HIV / AIDS as well with print media form *leaflet*.

Fill the *leaflet* in accordance with material counseling given with pictures and colors as well as serve whole points material on the leaflet inside questionnaire. Media *Leaflets* and *Slides / Powerpoint* very effective in increasing effectiveness counseling with method lectures, because *leaflet* besides summarizes from whole material counseling, also presents interesting pictures that make it easy somebody understand content material. with knowledge, he will capable sort as well as choose which one is right and which one is wrong, he will not either affected with person other in operate a deed. automatically someone who has own knowledge and familiar For always draw knowledge will easy for him is at in right circumstance. because he know consequence from do something without based on by knowledge, counselling health will give change knowledge for realize degrees optimal health know and get prevent things that can harm health.

However although has own good knowledge , that is No ensure a teenager For No do risky activity infected with HIV/AIDS. Based on assumption on in line with research conducted by Siagian (2012), who examined the Influence Counseling By Executors nutrition with Method Lecture Accompanied by Media Posters and *Leaflets* To Maternal Behavior and Growth Toddler Malnutrition in Tanjung Beringin District, with conclusion that counseling with method lecture accompanied by posters and counseling media with method lecture accompanied by *leaflets* can increase knowledge and attitude Mother toddler.

CONCLUTION

The statistical results show that it has a good influence on the knowledge of teenagers with counseling through education about HIV/AIDS. The research explain well to the community that it is one of the important activitities to increase the understanding about HIV/AIDS to the public especially teenager trough education counseling. The next research may explore much about the benefits of the counseling trough education and another idea to increase the understanding of teenager about HIV/AIDS.

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