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# Comprehensive Analysis Of The Level Of Knowledge, Stigma In An HIV/AIDS Program

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#### Abstract.

The number of HIV/AIDS infections in Indonesia tends to rise year after year, although it is clear that in recent years, the incidence has peaked and is highest among those between the ages of 20 and 49. primarily through the promotion of socialization and health education, to lessen the rate of HIV/AIDS transmission. This study intends to understand and evaluate people's attitudes and knowledge towards HIV/AIDS prevention in 2022. This study employed a one-group, pre-and post-test quasi-experimental design. There were as many as 33 samples collected. There was a statistically significant difference in the average increase in knowledge score about HIV, according to the study's results utilizing the Paired t-test, which had a P-value of 0.01.

Keywords: HIV/AIDS Knowledge; Attitudes; and Teleeducation.

# I. INTRODUCTION

The World Health Organization, or WHO, claims that HIV is still a significant global public health issue. By the end of 2019, there were reportedly 38 million HIV-positive individuals worldwide. Service coverage is growing as a result of coordinated international efforts to combat HIV. In 2019, 7.1 million persons living with HIV were unaware that they were infected, even though 68% of adults and 53% of children living with HIV received lifelong antiretroviral medication (ART). Due to a lack of HIV services, 1.7 million people acquired the virus for the first time in 2019, and 690,000 people died from HIV-related causes [1,2]. The age range 20-49 has the highest incidence of HIV (87%). However, AIDS affects 81% of people between the ages of 20 and 49. Adolescence can be considered a susceptible age for HIV, given that the incubation period, which lasts around 5 to 10 years, is thought to begin during this time [3,4]. Unsafe sexual behaviors, the use of illegal substances (alcohol, tobacco, and drugs), and adolescent ignorance are risk factors contributing to the occurrence of HIV/AIDS in adolescents. Additionally, factors such as lack of parental and family oversight, promiscuity patterns, permissive environments, the proliferation of sexually stimulating activities, and unintentionally provided facilities by families contribute to changes in adolescents' perspectives on sexual behavior [5-8]. Furthermore, a recent poll by the National Commission for Child Protection found that 93.7% of teenagers have engaged in various types of intimate acts without penetration, and as many as 97% of adolescents claimed to have watched adult movies. Teenage sexual instincts develop without being tempered by sexual behavior education, leading to an increase in instances of casual sex [9-10].

Adolescents engage in sexual activities, but they often lack basic knowledge about reproductive health, the ability to negotiate sexual relationships, and access to reproductive health services, making them vulnerable to reproductive health issues such as HIV/AIDS. Only 20.6 percent of teenagers aged 15 to 24 have a comprehensive understanding of HIV/AIDS, falling short of the 85% goal. Counseling is one of the HIV/AIDS prevention strategies that should specifically target teenagers [11-12]. The results of an initial survey on adolescent knowledge about HIV/AIDS prevention, conducted by researchers on 10 students, showed that 8 (80%) students did not understand what HIV/AIDS prevention for adolescents was, and as many as 2 (20%) students had a negative attitude towards HIV/AIDS prevention. Some students even claimed they did not know about HIV/AIDS prevention and had never received information about it [6, 8,

12].Health education in the form of counseling about HIV/AIDS for adolescents is crucial because the incidence of HIV/AIDS in parts of the world has been increasing every year. The problem of HIV/AIDS is a public health issue that demands serious attention, as it spreads rapidly across borders and communities worldwide (Asfar, 2018). The purpose of this study conducted by researchers is to determine whether tele-education has an influence on knowledge and attitudes about HIV/AIDS prevention [13-14].

#### II. METHODS

To assess the impact of tele-education on knowledge and attitudes regarding HIV/AIDS prevention, this research employs a quasi-experimental design involving a one-group pre-test and post-test. As there is no control group in this design, researchers can examine changes that occur after the intervention, starting with the initial assessment (pre-test). The difference between 01 and 02 can be assumed as the effect or influence of existing treatments [7,9].



Fig 1. Research Design

## III. RESULT AND DISCUSSION

Indonesia is among the countries experiencing one of the world's fastest-growing HIV pandemics. This epidemic is not limited to adults; it also affects children as victims of vertical transmission of the infection. Globally, there are approximately 1.5 to 2 million children living with HIV, with 110,000 to 190,000 new infections occurring [15-16]. Child deaths resulting from HIV/AIDS-related diseases reach 110,000 annually. Approximately 400 children contract HIV each day, and around 290 AIDS-related child deaths occur daily. According to available data, the national HIV/AIDS prevalence was recorded at 0.26%. Over the past three years, these numbers have been steadily increasing. In 2021, there were 1,927 HIV/AIDS cases, and in 2022, this number rose to 2,784 [18].

 Characteristic Respondent's Age (Year)
 Amount
 Percent %

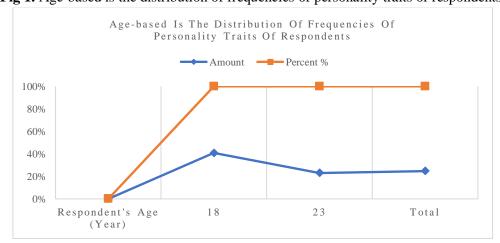
 19
 24
 34,4

 24
 21
 65,6

 Total
 45
 100

Table 1. Age-Based Distribution of Frequency of Question Characteristics

Fig 1. Age-based is the distribution of frequencies of personality traits of respondents.



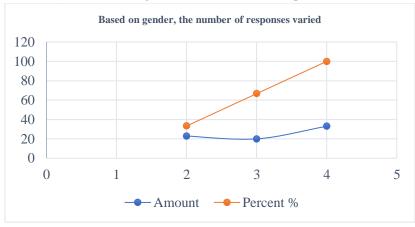


Fig 2. Based on gender, the number of responses varied

The majority of respondents, 65.6%, are female, as indicated in Table 4.2. To determine whether the data population follows a normal distribution or not, a data normality test was conducted. The Shapiro-Wilk test was utilized for this purpose. The results revealed that both sets of data were normally distributed, with a p-value of 0.2. The impact of tele-education on knowledge and attitudes toward HIV/AIDS prevention was examined in the bivariate analysis [6-13].

**Table 2.** Examination of two variables to determine the effect of online learning on understanding and opinions about preventing HIV and AIDS.

Knowledge, Stigma in an HIV/AIDS Program	Mean (%)	Deviation (%)	% Error	T	V
Before	8,626	1,121	0,382	2,126	0,000
After	20,424	1.740	0,325	0	0

Based on the information in Table 2, a probability value of 0.000 was calculated for the delivery of teleeducation on preventing HIV/AIDS. This probability value is less than 0.05, suggesting a significant impact. Prior to teleeducation, the mean score was 8.636, while after teleeducation, the mean value increased to 12.424, resulting in a difference of 3.788 with a p-value of 0.000. It can be inferred that there is a substantial influence on knowledge before and after teleeducation, as indicated by the significant differences in mean values between the initial and subsequent measurements [15,16]. The study's findings suggest that tele-education has a significant impact on adolescents' knowledge and attitudes toward HIV/AIDS prevention.

This is evident from the p-value (sig) of 0.000, which is less than 0.05, particularly for attitudes. The difference in change was 12.333, indicating that teleeducation effectively changed teenagers' attitudes regarding HIV/AIDS prevention. The average attitude score increased from 49.697 before the intervention to 62.030 after the intervention [12, 15, 18]. Based on the results of the intervention conducted by researchers with 33 student respondents using a 20-question questionnaire before teleeducation, it was found that the typical student's attitude led to incorrect answers. Most respondents provided incorrect responses to questions 1, 2, 3, 5, 6, 7, 10, 18, 19, and 20, reflecting a negative attitude. On the other hand, 13 respondents correctly answered questions 13, 14, 15, and 17 regarding sexual conduct and HIV/AIDS prevention, and 20 respondents provided correct answers to questions 8, 9, 11, and 12. It is evident that, before the introduction of teleeducation, student opinions were generally negative [9, 13, 18].

## IV. CONCLUSION

According to the study's findings, prior to teleeducation, the average pre-test knowledge score was 8.636. After the completion of teleeducation, the average post-test knowledge score increased to 12.424, resulting in a difference of 3.788. Similarly, the average pre-test attitude score before teleeducation was 49.697, and the average post-test attitude score after teleeducation was 62.030, yielding a difference of 12.333. A p-value (sig) of 0.000 was used to determine whether there was a significant difference in students' knowledge and attitudes regarding HIV/AIDS prevention before and after the teleeducational health promotion intervention.

# V. ACKNOWLEDGMENTS

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