THE EFFECT OF TELE EDUCATION ON KNOWLEDGE AND ATTITUDES ABOUT HIV/AIDS PREVENTION IN STUDENTS AT CUT NYAK DHIEI LANGSA UNGGUL HIGH SCHOOL IN 2022

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ABSTRACT

According to the World Health Organization (WHO) HIV continues to be a major global public health problem. There are an estimated 38 million people living with HIV at the end of 2019. As a result of concerted international efforts to respond to HIV, service coverage continues to increase. In 2019, 68% of adults and 53% of children living with HIV globally were receiving antiretroviral therapy. In 2019, 68% of adults and 53% of children living with HIV globally were receiving lifelong antiretroviral therapy (ART), yet 7.1 million people living with HIV did not know they had HIV. And because of gaps in HIV services, 690,000 people died from HIV-related causes in 2019 and 1.7 million people were newly infected (WHO, 2020.). This study used a quasi-experimental method with a pre-test and post-test one group only design. Samples were taken as many as 33 people. Data collection was carried out using a questionnaire. Sampling was carried out using the Total Sampling method. The results of the study using Paired t-test obtained P-Value 0.000 there was a significant difference in the average increase in knowledge scores about HIV/AIDS prevention where the average knowledge of students before tele education was 8.636 and the average student/I after tele education was 12,424 so that the difference between changes before and after tele education was 3,788, where the average attitude of students before tele education was 49,697 and the average student/I after tele education was 62,030 so that the difference between changes before and after tele education is 12,333. It is hoped that health promotion efforts for students are carried out more creatively by using different media as an effort to increase students' knowledge and attitudes as primary prevention in adolescents.

Keywords: knowledge; attitude; tele education

BACKGROUND

Several risk factors lead to the incidence of HIV/AIDS in adolescents, namely unsafe sexual relations, use of prohibited substances (alcohol, tobacco, drugs), and lack of awareness among adolescents. In addition, the factors that cause changes in views of sexual behavior in adolescents are due to the loose supervision and attention of parents and families. patterns of promiscuity, permissive environment, more and more things that provide sexual stimulation are very easy to find and facilities are often given by the family without realizing it (Husaini, 2017)
According to the World Health Organization (WHO) HIV continues to be a major global public health problem. There were an estimated 38 million people living with HIV at the end of 2019. As a result of concerted international efforts to respond to HIV, service coverage continues to increase. In 2019, 68% of adults and 53% of children living with HIV globally received lifelong antiretroviral therapy (ART), but 7.1 million people living with HIV did not know they had HIV. And because of gaps in HIV services, 690,000 people died from HIV-related causes in 2019 and 1.7 million people were newly infected. Although it tends to fluctuate, data on HIV AIDS cases in Indonesia continues to increase from year to year, it can be seen that during the last eleven years the number of HIV cases in Indonesia reached its peak in 2019, which was 50,282 cases. The five provinces with the highest number of HIV cases are East Java, DKI Jakarta, West Java, Central Java, and Papua, where in 2017 the most HIV cases were also owned by these five provinces. Provinces with the highest number of AIDS cases are Central Java, Papua, East Java, DKI Jakarta, and the Riau Islands. AIDS cases in Central Java are about 22% of the total cases in Indonesia. The trend of the highest HIV and AIDS cases from 2017 to 2019 is still the same, which is mostly on the island of Java.

Data from the Langsa City Health Office found that there were 33 cases of Human Immunodeficiency Virus (HIV)/Acquired Immuno Deficiency Syndrome (AIDS) in 2020 in the Langsa City area.

Based on age group, the highest incidence of HIV was at the age of 20-49 years (87%). Meanwhile, most AIDS is at the age of 20-49 years (by 81%). When viewed from the incubation period which takes about 5-10 years, it is estimated that the first contact with HIV has occurred in adolescence, so that adolescence can be said to be an age prone to HIV.

Several risk factors cause the incidence of HIV/AIDS in adolescents, namely unsafe sexual relations, use of illegal substances (alcohol, tobacco, drugs), and lack of awareness of adolescents. In addition, the factors that cause changes in behavioral views sexual behavior in adolescents due to loose parental and family supervision and attention, promiscuity patterns, permissive environment, and more and more things that provide sexual stimulation are very easy to find and facilities are often provided by families without realizing it. Adolescents do not get proper education and information about reproductive health, they are very vulnerable to problems in education, environment and work, sex and sexuality. Sex and sexuality problems What happens to adolescents is inappropriate knowledge about sexuality issues, for example false myths, lack of guidance to be positive in matters relating to sexuality, drug abuse and dependence that leads to the transmission of HIV/AIDS through needles and through free sex.

According to The American Telemedicine Association, telemedicine can be defined as the use of medical information exchanged from one place to another through electronic communication to improve the clinical status of the patient’s health. Telemedicine
includes a growing variety of applications and services using two-way video, email, smart phones, wireless devices and other forms of telecommunications technology. Patient consultation via video conferencing, image transmission, e-health, remote monitoring of vital signs, continuing medical education, and other applications can be classified as part of a telemedicine system. One form of utilization of the telemedicine system is tele-education. Tele-education can be done by targeting the community or health workers. Tele-education to the public can be in the form of health education or preventive telemedicine (website-based). Meanwhile, tele-education for medical personnel can be applied in the form of a long-distance continuing education system.

Based on this description, the authors are interested in conducting research on the effect of tele-education on knowledge and attitudes about HIV/AIDS prevention in students at Cut Nyak Dhien Langsa Superior High School.

RESEARCH METHODOLOGY

This type of research is a quasi-experimental where the design form used is one group pre-test and post-test to determine the effect of tele-education on knowledge and attitudes about HIV/AIDS prevention in students of SMA Unggul Cut Nyak Dhien Langsa in 2022. In this design there is no comparison group (control), but the first observation (pre-test) was conducted which allowed the researcher to test the changes that occurred after the treatment.

<table>
<thead>
<tr>
<th>Pre test</th>
<th>Treatment</th>
<th>Post-test</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>X</td>
<td>02</td>
</tr>
</tbody>
</table>

The difference between 01 and 02 can be assumed as the effect or effect of the existing treatment (Notoatmodjo, 2014)The number of samples used in this study were 33 people, the research location was carried out at Cut Nyak High School Dshien Langsa in 2022 and the research was carried out from November 2021 to July 2022.

RESEARCH RESULTS

Overview of the Research Location of Cut Nyak Dhien Senior High School having its address at Jalan Perumnas No. 45 Paya Bujok Seullemak Village, Langsa Baro District, Langsa City, Aceh Province. The geographical position is at 4.4987783 latitude and 97.946185 longitude. The number of educators at Cut Nyak Dhien High School is 20 teachers, the number of students is 119 with details of class 10 totaling 33 males 15 people, females 18 people, class 11 totaling 45 males 19 people and females 26, 12th grade consisted of
35 boys and 14 girls and 21 girls. Cut Nyak Dhien Superior High School has infrastructure, teacher council office, principal's office, TU office, class X MIPA, class XI science, class XII science, language laboratory, biology laboratory, computer laboratory, library room, T1 room, teacher and student toilets.

The research location is close to the highway so that the road infrastructure to the Cut Nyak Dhien High School is relatively good and can be reached by 2-wheeled or 4-wheeled vehicles or on foot. In addition, at the research location, there has never been any counseling on reproductive health that uses teleeducation as a medium for health promotion.

**UNIVARIATE ANALYSIS**

**Table 1.1**
Frequency Distribution of Respondents Characteristics by Age

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Total</th>
<th>Percent %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Respondent's age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15 years</td>
<td>13</td>
<td>33.3</td>
</tr>
<tr>
<td>16 years</td>
<td>20</td>
<td>66.7</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>33</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Source: Primary Data 2022

Based on table 1.1, it can be seen that the majority of respondents aged 16 years were 66.7%.

**Table 1.2**
Frequency Table of Respondents Characteristics by Gender

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Total</th>
<th>Percent %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Man</td>
<td>15</td>
<td>45.5</td>
</tr>
<tr>
<td>Woman</td>
<td>18</td>
<td>54.5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>33</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Source: Primary Data 2022

Based on table 1.2, it can be seen that the majority of respondents have a female gender as much as 54.5%.

**NORMALITY TEST**
The data normality test is used to determine whether the data population is normally distributed or not. In this study, the data normality test was carried out using the Shapiro-Wilk test. It was found that the $p \leq 2$ value indicated that the two data were not normally distributed.

**Table. 1.3**
The results of the comparative analysis of the average knowledge before teleeducation and after teleeducation at Cut Nyak Dhien Langsa Unggul High School in 2022

<table>
<thead>
<tr>
<th>Knowledge</th>
<th>Mean</th>
<th>Std Deviation</th>
<th>Std Error Mean</th>
<th>T</th>
<th>P Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before</td>
<td>8,636</td>
<td>2,191</td>
<td>0,381</td>
<td>9,136</td>
<td>0,000</td>
</tr>
<tr>
<td>After</td>
<td>12,424</td>
<td>1,750</td>
<td>0,304</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Primary Data 2022

Based on the data in table 1.3, it is obtained a probability value of 0.000 in providing teleeducation on the prevention of HIV/AIDS, meaning that the probability value is $<0.05$ so it can be concluded that there is an effect of providing teleeducation on the prevention of HIV/AIDS. The results obtained that the mean value before teleeducation was carried out was 8,636, while the mean value after teleeducation was 12,424, so that the difference in change was 3,788 with a $p$-value of 0.000. Judging from the different mean values between the first and second measurements, it can be concluded that there is a significant effect between knowledge before and after teleeducation.

**Table. 1.4**
The results of the comparison analysis of the average attitude before teleeducation and after teleeducation were carried out at Cut Nyak Dhien Langsa Superior High School in 2022

<table>
<thead>
<tr>
<th>Attitude</th>
<th>Mean</th>
<th>Std Deviation</th>
<th>Std Error Mean</th>
<th>T</th>
<th>P Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before</td>
<td>49,697</td>
<td>5,015</td>
<td>0,873</td>
<td>6,144</td>
<td>0,000</td>
</tr>
<tr>
<td>After</td>
<td>62,030</td>
<td>9,150</td>
<td>1,593</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Based on the data in table 1.4, it is obtained a probability value of 0.000 in providing tele education on HIV/AIDS prevention, meaning that the probability value is <0.05 so it can be concluded that there is an effect of providing tele education on HIV/AIDS prevention. The mean value before tele education was done was 49,697 while the mean value after tele education was 62,030, so the difference in change was 12,333 with a p-value of 0.000. Judging from the different mean values between the first and second measurements so it can be concluded that there is a significant influence between attitudes before and after tele education.

DISCUSSION

The Effect of Tele-Education on Knowledge of HIV/AIDS on Students at CND Langsa Superior High School

The results showed that the level of knowledge was known to have a p value (sig) (0.000) < 0.05, which means that there was an effect of tele education on students' knowledge. The average score of knowledge before being given an intervention was 8.636 and after being given an intervention a score of the average knowledge increased to 12,424, so the difference in change was 3,788, this shows that tele-education is effective in increasing adolescent knowledge about HIV/AIDS.

Based on the results of the intervention carried out by researchers before teleeducation of 33 student respondents using a questionnaire containing 15 questions, it was found that students' knowledge on average answered the questions incorrectly. The majority of respondents answered incorrectly on questions no. 3, 7, 8, 9, 11, 12, namely questions that ask about the process of the occurrence of HIV/AIDS, as a result of HIV/AIDS how to prevent HIV/AIDS. While respondents answered correctly on questions no. 1, 2, 4, 5, 6, 10 as many as 21 respondents and number 13, 14 as many as 12 people who asked about the meaning of HIV/AIDS and how to prevent HIV/AIDS. It is known that students' knowledge is still low before teleeducation is carried out.

The results of this study are in line with research conducted by I Gde Hendra Widarma (2017) which shows that the knowledge of respondents before being given treatment shows that almost half of the respondents (48.7%) belong to the category of lack of knowledge, almost half (41%) belong to the category of sufficient knowledge and a small portion (10.3%) belongs to the category of good knowledge about HIV/AIDS. Knowledge after being given treatment results obtained almost all (95%) of the respondents belonged to the category of good knowledge about HIV/AIDS. Knowledge after being given treatment results obtained almost all (95%) of the respondents belonged to the category of good knowledge, a small portion (5%) belonged to the category of sufficient knowledge and none of
the respondents belonged to the category of poor knowledge.
This study is in line with research by Adius Kusnan et al (2020) which showed that the respondents with the highest level of knowledge in the pre-test had a low level of knowledge (87.0%) and after receiving HIV/AIDS counseling the post-test was at a good level of knowledge (74.0%).

The Effect of Tele Education on HIV/AIDS Attitudes in Adolescents at CND Langsa Superior High School

The results showed that the attitude was known to have a p value (sig) (0.000) <0.05, which means that there was an effect of tele education on knowledge and attitudes about HIV/AIDS prevention in adolescents at CND Langsa Superior High School. Average attitude score before being given intervention was 49.697 and after being given intervention the average score of attitude increased to 62,030 so that the difference in change was 12,333, this shows that teleeducation is effective in increasing adolescent attitudes about HIV/AIDS prevention.

Based on the results of the intervention carried out by researchers before teleeducation of 33 student respondents using a questionnaire containing 20 questions, it was found that the attitude of students on average answered the questions incorrectly. The majority of respondents answered incorrectly on questions 1,2,3,4,5,6,7,10,18,19,20, namely questions that showed a negative attitude. While the respondents answered correctly on questions no. 8,9,11,12,13,14,15,17 as many as 20 respondents and 13,14,15,17 as many as 13 people who asked about sexual behavior, prevention of HIV/AIDS. It is known that students' attitudes were still low before teleeducation was carried out.

This research is in line with Elvi Juliansyah's research (2020) which shows that HIV/AIDS counseling can improve the attitude of the students of SMA Negeri 1 Sepauk by 1.57. The results of the t-test are obtained p value = 0.064 statistically there was no significant difference in attitudes before and after HIV/AIDS counseling was carried out on students of SMA Negeri 1 Sepauk. The results of this study are in line with research conducted by Nia Sari Ayuningsih (2015) showing that respondents who behaved well before counseling were 5.6% while after counseling were 5.6% while after counseling 68.5%. The conclusion of counseling affects students' attitudes about HIV/AIDS with (P value = 0.000).

CONCLUSION

Based on the results of research conducted by researchers at SMA Unggul Cut Nyak Dhien Langsa, namely: Knowledge before teleeducation was carried out with an average pre-test knowledge of 8.636 and Knowledge after teleeducation with an average post-test knowledge- test is 12,424 so that the difference in change is 3,788. Attitudes before teleeducation were carried out with an average pre-test attitude of 49.697 and attitudes after tele-education with an average post-test attitude of 62.030 so that the difference in changes was 12,333.
There are differences in knowledge and attitudes about HIV/AIDS prevention at SMA Unggul Cut Nyak Dhien Langsa before and after health promotion through teleeducation with P value (sig) = 0.000.

BIBLIOGRAPHY


