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MODULE-BASED HEALTH EDUCATION ON ADOLESCENT KNOWLEDGE OF HIV/AIDS

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ABSTRAK

PENDIDIKAN KESEHATAN BERBASIS MODUL PADA PENGETAHUAN REMAJA TENTANG HIV/AIDS

Latar Belakang: Meningkatnya jumlah remaja penderita HIV dan AIDS yang masih tinggi di Papua dan kabupaten Biak numfor dimungkinkan karena keterbatasan akses informasi dan layanan kesehatan yang berdampak pada rendahnya pengetahuan tentang HIV dan AIDS yang benar dan juga pemahaman yang salah bahwa informasi tentang hubungan seks masih di anggap tabu disampaikan kepada remaja oleh orang tua. Tujuan: untuk menilai pengaruh edukasi pendidikan kesehatan berbasis modul terhadap pengetahuan remaja tentang HIV/AIDS di SMK kesehatan terpadu Biak.

Metode: jenis penelitian yaitu Quasi Eksperimen one group pre-post test design dengan melakukan pengukuran sebelum dan sesudah dilakukan edukasi pendidikan kesehatan. Sampel dalam penelitian ini adalah semua siswa-siswi kelas X pada SMK Kesehatan Terpadu Biak tahun 2021 yang berjumlah 96 siswa. Teknik pengambilan sampel yaitu total sampling.

Hasil: dari hasil uji statistik menggunakan paired t test diperoleh p-value 0,000 atau $p < \alpha$ (0,05), dengan demikian ada pengaruh edukasi pendidikan kesehatan berbasis modul terhadap pengetahuan remaja tentang HIV/AIDS di SMK Kesehatan Terpadu Biak tahun 2021.

Kesimpulan: Program penyuluhan kesehatan reproduksi dengan metode pemberian modul pembelajaran dapat digunakan dalam upaya pencegahan dan penanggulangan HIV/AIDS

Saran : Diharapkan program penyuluhan kesehatan reproduksi pada remaja dapat memilih metode berbasis modul dalam upaya pencegahan dan penanggulangan HIV/AIDS

Kata Kunci: Edukasi, HIV/AIDS, Modul, Pendidikan Kesehatan, Pengetahuan Remaja

ABSTRACT

Background: The increasing number of adolescents with HIV and AIDS who are still high in Papua and Biak Numfor districts is possible due to limited access to information and health services that have an impact on inadequate knowledge about HIV and AIDS correctly and also a false understanding that information about sex is still considered taboo conveyed to adolescents by parents.

Purpose : To assess the influence of module-based health education on adolescent knowledge about HIV / AIDS in Biak integrated vocational health school.

Method: The type of research is Quasi Experiment one group pre-post test design by taking measurements before and after health education. The sample in this study was all ten grade students at Biak Integrated Health Vocational School in 2021, which amounted to 96 students. Therefore, the sampling technique is total sampling.

Results: From the results of statistical tests using paired t-test obtained a p-value of 0,000 or $p < \alpha$ (0.05); thus, module-based health education influences adolescent knowledge about HIV / AIDS in Biak Integrated Health Vocational School in 2021.

Conclusion: Reproductive health extension programs with learning modules can be used in efforts to prevent and combat HIV / AIDS.

Suggestion: It is hoped that reproductive health counseling programs for adolescents can choose module-based methods to prevent and overcome HIV / AIDS

Keywords: Education, HIV/AIDS, Modules, Health Education, Adolescent Knowledge

INTRODUCTION

Human Immunodeficiency Virus (HIV) and Acquired Immune Deficiency Syndrome (AIDS) are viruses that can attack the human immune system. Human Immunodeficiency Virus (HIV) attacks the human body by killing or damaging cells that play a role in the human immune system so that the body's ability to fight infections and cancers that enter the body decreases (Izah et al., 2018; Mukti, 2018; Setiyawati & Meilani, 2015).

Human Immunodeficiency Virus (HIV) is a frightening disease today and gets the world's attention through international health agencies. The 2018 United Nations Programme on HIV and AIDS (UNAIDS) report reports that 36.9 million people live with the Human Immunodeficiency Virus (HIV). The number of people with HIV in adolescents and young adults (15-24 years) is as many as 590,000 people, and among adolescents 15-19 years, as many as 250,000 new cases (Mahy et al., 2019; Marsh et al., 2019).

The increase in cases of Human Immunodeficiency Virus (HIV) in 2017, 2019, and 2020 is due to short-lived intensive observance, namely when getting married, during pregnancy examinations, and during childbirth can be detected cases of HIV, while in 2018, HIV cases decreased due to a lack of reporting from the regions.

The number of new HIV-positive cases in Indonesia reported from year to year tends to increase, and in 2017 the number of people with HIV was 48,300 cases. In 2018 decreased to 46,650 cases before finally, in 2019, reported again increased to 50,282 cases. For AIDS cases in 2017, there were 9,280 cases, then in 2018 decreased to 6,162 cases but then expanded in 2019 to 7,036 patients, and continued to jump in 2020 to 8,340 cases. HIV positive in men by 63.6% and women by 36.4%. People with aids in men 68.0% and women 31.9%, with the percentage of HIV cases in adolescents in 2019 amounted to 3.6%, and at the age of 20-24 years, as many as 17.1% (Kementerian Kesehatan RI, 2020; Ministry of Health Republic Indonesia, 2018).

In Indonesia, efforts to prevent HIV cases improve adolescent knowledge, attitudes, and actions through teenage health services. Adolescence is a period of rapid growth and development, either physically, psychologically, or intellectually. Unfortunately, adolescents also tend to dare to take risks for their behavior without considering it carefully first. This condition often brings health problems when adolescents cannot be controlled (Hubaybah et al., 2021; WD & Pamungkas, 2019).

Indonesia Health Data Survey in 2019 reported that 9.26% of male students and 6.17% of female students aged 12-18 years had sexual intercourse. Premarital sex behavior has a broad impact on adolescents, especially regarding the transmission of infectious diseases, unwanted pregnancies, and abortion. (Situmeang et al., 2017; Winarti & Ernawati, 2019; Yuliza et al., 2019)

Data on the number of HIV / AIDS cases in Papua Province in 2019 showed as many as HIV 3,753 cases, while AIDS 1,613 cases and HIV / AIDS in adolescents (15-19 years), as many as 1,706 patients, and HIV / AIDS among the age of 20-24 years 2,330 cases. (Dinkes Prov. Papua, 2019. h.1). Data from the Biak Regency Health Office in 2020 first reported as many as 580 people consisting of 54 cases of HIV, while people with AIDS had as many as 526 patients. The number of adolescents aged 15-24 years as many as 178 patients.

The increasing number of adolescents with HIV and AIDS is still high in Papua and Kabupaten Biak Numfor due to limited access to information and health services which has an impact on common knowledge about HIV and AIDS and also a false understanding that information about sex is still considered taboo conveyed to adolescents by parents. According to Komisi Perlindungan Anak (2011), adolescents' knowledge of HIV and AIDS is still minimal, even though adolescents belong to vulnerable age groups with risky behaviors. Furthermore, data from the Indonesian Health Demographic Survey (SDKI) in 2019 showed that about 34% of adolescent girls and 21% of adolescent boys aged 15-24 years had never heard of HIV and AIDS. Therefore, a lack of information about HIV/AIDS results in a lack of knowledge received by adolescents.

One form of prevention of HIV / AIDS transmission is to increase adolescent knowledge about HIV / AIDS, which can be done by providing education through the media. Many health education methods can be used in providing health information, including individual, group, and mass health education. The lecture method is a method of significant group education that is often used to convey information. Lecture methods are very effective in transmitting material other than cheap and easy can also present the material widely. (Akbar et al., 2020; Khofiyah & Islamiah, 2018; Kurniawati, 2019; Saputri & Azam, 2015).

So that the delivery of the subject matter can be well received and attractive to students, it is not enough to only utilize the sense of hearing but should also be enjoyed by the sense of sight.

Therefore, one form of media that can be used in conjunction with the lecture method is audiovisual media. (Ikromah, 2015).

Handayani Research (2017) the influence of Health Education With Video media On The Level of Knowledge About HIV / AIDS Prevention at SMA Negeri 1 Parigi Pangandaran Regency and Saadong research (2018) on the influence of health education on adolescent knowledge about HIV / AIDS prevention in SMK Komputer Mutiara Ilmu Makassar (Handayani Lutfi, 2017).

One of the suitable methods for adolescents, especially students who will be applied at SMK Kesehatan Terpadu Biak by providing simple pictorial module media using Papuan dialects similar to textbooks. Students are expected to read the book just like other health textbooks. As for the book giving, namely class X students because they have not been exposed to HIV material, the material is scheduled in class XI (Mat et al., 2015; Pawesti, 2011; Sari & Widati, 2017).

Modules are teaching materials that are systematically arranged with language that is easily understood by students according to their age and level of knowledge so that they can learn independently with minimal guidance from educators (Ekasari et al., 2020)

Research using module media on HIV / AIDS knowledge in adolescents has not been done much in Biak Numfor Regency. This can be proven by tracing researchers on the internet media. So that researchers are interested in researching "The Influence of Module-based Health Education on Adolescent Knowledge of HIV / AIDS in Biak Integrated Health Vocational School."

RESEARCH METHODOLOGY

The type of research used is Quasi Experiment one group pre-post test design, a measurement taken before and after health education.

The sample in this study was all X-grade students at the Biak Integrated Health Vocational School in 2021, which amounted to 96 students. The technique of sampling is total sampling.

The research instruments used are modules and questionnaires to discover adolescent knowledge about HIV / AIDS. Modules contain understanding, etiology, ways of transmission, signs and symptoms, management, and prevention, while the questioners of expertise participate in as many as 30 items

In the study, univariate and bivariate analysis was conducted to prove the research hypothesis, namely the influence of module-based health education on adolescent behavior about HIV / AIDS and see differences before and after providing health education through modules. Since the data is usually distributed then, using the Paired t-test statistics.

The research received approval from the Ethics Commission of the Faculty of Public Health, Hasanuddin University Makassar with Number: 5304 / UN4.14.1 / TP.02.02 / 2021.

RESEARCH RESULTS

Univariate Analysis

Table 1.
Frequency Distribution Before and After Module Exposure

Knowledge	Pre-Test		Post-Test	
	n	%	n	%
Less	20	21	6	5,3
Quite	44	46	35	36,5
Good	32	33	55	57,3
Total	96	100	96	100

Table 1 shows that adolescent knowledge in The Biak Integrated Health Vocational School before the provision of the HIV / AIDS module has less knowledge among as many as 20 respondents (20.8%), sufficient knowledge among as many as 44 respondents (45.8%), and good understanding as many as 32 respondents (33.3%) and after the provision of HIV / AIDS modules have less knowledge decreased by six respondents (5.3%), 35 respondents relatively reduce ability (36.5%) and good knowledge increased by 55 respondents (57.3%)

Bivariate Analysis

Table 2 shows the average knowledge score before intervention with a score of 21.55 and after the intervention with a score of 23.55 with an average difference of 2. The results of the paired t-test statistical test at a meaningful value of 95% (= 0.05) obtained α p-value 0.000 or $p < \alpha$ (0.05); thus, there is an influence of module-based health education on adolescent knowledge about HIV / AIDS at the Biak Integrated Health Vocational School in 2021

Table 2.

The Effect of Module-Based Health Education Education on Adolescent Knowledge About HIV/AIDS

Knowledge	Mean	SD	SD	Mean Difference	p-value
Pre-Test	21,55	4,161	4,160	2	0,000
Post-Test	23,55	4,391	4,391		

DISCUSSION

Knowledge before administering HIV/AIDS modules

The results of the study found that the knowledge of adolescents in the Biak Integrated Health Vocational School before the provision of the HIV / AIDS module had less knowledge among as many as 20 respondents (20.8%), enough knowledge among as many as 44 respondents (45.8%) and good understanding as many as 32 respondents (33.3%). This shows that most adolescents have sufficient knowledge about HIV / AIDS before education. This research aligns with Priastana's study (2018), which found most adolescents have adequate knowledge about HI/VAIDS (Indrayani & Prihayati, 2021).

Knowledge is the result of knowing formed after a person senses a particular object. Knowledge of cognition is a fundamental domain for developing attitudes and starting one's behavior (over behavior). From experience and research, behavior based on knowledge will last longer than behavior that is not based on knowledge (Puspitasari & Indrianingrum, 2021).

Less knowledge in adolescents includes specific causes of the incidence of HIV / AIDS. In contrast, the understanding of adolescents in the category can reasonably know the performance and causes and prevention of HIV / AIDS. While in adolescents who have good knowledge already know the deal, signs and symptoms, causes, risks of transmission, and treatment.

Good knowledge in adolescents is sufficient and suitable before providing education due to the source of information obtained from many medical personnel and teachers. The source of information from medical personnel and teachers is important because the information provided follows the existing material. At the same time, adolescents who obtain sources of information from parents are limited and depend on the education and knowledge of parents. Teenagers who get news from social media are pretty good because they present enough material and clear exposure. Still, few are interrupted because of the limited use of internet data packages.

The source of information is a channel for respondents to get information about reproductive

health education about sexuality. In this study, most of the respondents got information from teachers. According to (Notoatmodjo, 2014), information sources are everything a person can use to find new things. Information can also be obtained from print and electronic media and non-media such as schools, family, friends, health workers, etc.

Although a person has a low education, if you get good enough information from various media, this can improve one's knowledge and attitude. This is in line with research (Nila Dwi Susanti, 2013), which suggests that teachers use the school environment as a source of learning and information sources in the context of information source issues. The school environment is very influential on the learning process for students because it is a tool in the educational process (Susanti & Mulyani, 2013).

According to Elisabeth Wawan and Dewi (2019), age is a person's age who starts from birth to birth. The older a person is, remember the maturity and strength of a person will be more mature in thinking and working and grow in his soul's experience and maturity (Wawan & Dewi, 2019)

Adolescent knowledge of HIV / AIDS will affect attitudes and behaviors; people with less knowledge about HIV / AIDS will behave and behave away from people infected with the disease; some even think the condition is harmless and not deadly. Conversely, if the knowledge is sufficient, then the attitude given to sufferers is different; in this case, the community will be more accepting of the presence of sufferers.

If the knowledge and understanding of HIV/AIDS are correct, the transmission can be prevented. But unfortunately, one of the wariest of HIV / AIDS is that there is still little awareness of those who have HIV / AIDS positive about maintaining a lifestyle and do not have sexual intercourse freely that is at risk of transmitting it to others.

The update of this study is that the language used in the module uses the native language of the Biak Region so that teenagers are more interested and easily understand the module's contents. In addition, the use of language has been tested by a

team of linguists in the use of local languages, which is also different from previous research.

Knowledge after the provision of HIV /AIDS modules

The results of the study found that the knowledge of adolescents in the Biak Integrated Health Vocational School after the provision of the HIV / AIDS module had less knowledge decreased by six respondents (5.3%), inside was relatively reduced by 35 respondents (36.5%) and good knowledge increased by 55 respondents (57.3%). This shows that providing HIV / AIDS modules can improve the respondent's ability well about HIV/AIDS.

This research is in line with the study conducted by Azizah (2020) and Listyana (2021) that after education about HIV / AIDS, the majority there was an increase in the number of people in the excellent category (Azizah & Istiqomah, 2020).

Providing education to adolescents is also a challenge that educators must face; if facilitators provide education that seems boring, then they will not listen or even ignore the health education provided. Unfortunately, the results of the study article found by researchers most adolescents have a less level of knowledge about HIV/AIDS.

This is because using the adolescent module can directly observe and read carefully the material provided at the time of counseling. Teenagers have a very high enthusiasm for getting information that they think is useful for themselves. Research conducted by Khofiyah (2018) states that the provision of interventions in health counseling can increase adolescent knowledge. This is due to the existence of information through counseling provided by researchers to respondents. Health counseling or health education can significantly increase a person's ability compared to those not given counseling (Khofiyah & Islamiah, 2018).

Many theories can be used in health education; more importantly, the principle is a situation that suits the individual, family, and group, especially those related to his behavior. As a health educator, one must have the ability to examine the strengths and impacts that nursing interventions have on the subject's behavior that can enrich, provide information, and complement the desired subject's behavior.

Two models are often used to explain determinants and preventive behavior, namely the health value and promotion models. Fundamentally, the model of health value is shown to promote the improvement of healthy behavior rather than tackling causative factors. This model focuses on

models of health values, including sensitivity, severity, perceived barriers, structural variables, and other socio-psychology. At the same time, the health promotion model modifies health values and focuses more on predicting changes in behavior due to health (Maryam S, 2014).

The study results obtained that as many as 5.3% of adolescents have less knowledge. In the provision of health education materials, students' reading interest is needed for the material provided. Therefore, increasing adolescent knowledge about HIV/AIDS is inseparable from the student's reading interest. The more students often read the more knowledge increases. This is because each student has a different level of intelligence. It is also following Khofiyah's research (2018) that health education using media requires students' interest in reading (Khofiyah & Islamiah, 2018).

The Influence of Module-Based Health Education Education on Adolescent Knowledge About HIV / AIDS in Biak Integrated Health Vocational School in 2021

The study results obtained an influence of module-based health education on adolescent knowledge about HIV/AIDS at the Biak Integrated Health Vocational School in 2021. This shows an increase in knowledge after module-based education containing HIV/AIDS materials. However, the expected value has not been maximized, only with an average difference of 2. This is because there is still a lack of interest in reading in some students and the capture power of different students, which results in there are still less grades on post-test results.

This research aligns with a study conducted by Rosaria (2021), which uses educational media HIV prevention modules to significantly increase knowledge about HIV/AIDS (Rosaria & Fitria, 2021). Furthermore, this is in line with Gobel (2020), who shows that counseling about HIV/AIDS in students can increase knowledge and change students' attitudes toward prevention (Gobel & Asrina, 2020).

Learning results from research respondents who have obtained or socialized HIV/AIDS prevention modules will have different knowledge than respondents who have not been exposed to the information. So that it shows the provision of information in the form of HIV/AIDS confirmation modules for brides-to-be can be said to be quite effective as one of the strategies in health education for the community because the absorption and understanding of respondents are better than respondents who have not been exposed to the information.

The results showed that students given health education interventions increased their knowledge. Furthermore, because the module is written, someone who studies it can be more independent and concentrated. In addition, in the presence of modules, one can review or check repeatedly until the stage he understands the material in the module. Another possibility is the readiness of students to take the post-test, indicated by some students doing the problem exercises contained in the module; this proves that enthusiasm reflects the desire and ability to learn.

Educational media using modules allow for more in-depth delivery of the material. Modules can contain more complete and more detailed materials so that students will more easily understand the material delivered. In addition, the modules allow students to study the material independently.

The provision of HIV / AIDS learning modules to class students can provide more effective and more understandable information to students. The value of being given education after health education has increased adolescent knowledge about HIV/AIDS. So that by providing health education using multimedia, it is hoped that students can be more empowered by increasing knowledge, especially in determining what is good and what is terrible for reproductive health, and can provide good information to the community and the surrounding environment about HIV/AIDS.

CONCLUSIONS

Reproductive health extension programs with learning module methods can be used in HIV/AIDS prevention and countermeasures

SUGGESTION

It is hoped that reproductive health counseling programs for adolescents can choose module-based methods in efforts to prevent and overcome HIV / AIDS.

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