JURNAL PENGABDIAN MASYARAKAT DALAM KESEHATAN
Vol. 7 No. 1, April 2025
https://e-journal.unair.ac.id/JPMK

IMPROVED KNOWLEDGE ABOUT THE RISK OF HIV/AIDS IN ADOLESCENTS

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ARTICLE HISTORY
Received: January 14, 2024
Accepted: March 12, 2025

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ABSTRACT

Introduction: HIV/AIDS is still a public health problem worldwide and there is an increase in the number of teenagers affected by HIV/AIDS in the world. Teenagers are vulnerable to contracting HIV/AIDS because adolescence is a period of puberty which makes teenagers motivated to explore sexual experiences without using protection. The aim of this community service is to increase teenagers' knowledge about the risk of HIV/AIDS.

Methods: The method used in this activity were counseling and giving presentations in class using audiovisual media at one of the vocational schools in Sidoarjo. The population is all vocational school's students who were members of health extracurriculars. The sampling used is total sampling of 50 students. The knowledge questionnaire was used as an instrument and its validity has been tested. Data were analyzed using descriptive analysis and the wilcoxon signed rank test.

Results: Based on the data analysis, it can be concluded that there was a significant increase in knowledge after being given counseling about the risk of HIV/AIDS in adolescents ($p<0.01$).

Conclusion: The counseling about the risk of HIV/AIDS in Adolescents that has been carried out, it can be concluded that there is a significant difference in the average knowledge score before and after being given health education about the risk of HIV/AIDS in Adolescents.

KEYWORDS

adolescents; community service; HIV/AIDS.

Cite this as:

Dewanti, N., & Diana, M. (2025). Improved Knowledge About the Risk of HIV/AIDS in Adolescents. *J. Pengabdian Masyarakat dalam Kesehatan.* 7(1). 37-42. Doi: 10.20473/jpmk.v7i1.62086

1. INTRODUCTION

HIV/AIDS is still a major public health problem worldwide, to date HIV/AIDS has claimed 40.4 million lives with transmission continuing in all countries globally and several countries have reported an increasing trend in the incidence of new HIV AIDS infections (WHO, 2023). More and more teenagers and young people are infected with HIV/AIDS. In 2022, as many as 480,000 teenagers aged 10 to 24 years will be infected with HIV/AIDS, and 140,000 of them will be teenagers aged between 10 and 19 years (UNICEF, 2023).

Adolescence is an age that is prone to contracting sexually transmitted infections such as HIV/AIDS, because adolescence is a period of puberty, which is a time when sexual organs develop rapidly and makes teenagers motivated to explore sexual experiences which if done without direction such as without using protection (Betan & Pannyiwi, 2020; Kurniawan, Sistiarani, & Gamelia, 2022). In 2023, the number of people with HIV in Indonesia based on the AIDS

Epidemic Model (AEM) is estimated to be 515,455 people (Kemenkes, 2023). Meanwhile, in East Java in 2023 as many as 2432 people will suffer from HIV/AIDS (Muhamad, 2024). The incidence of HIV AIDS ini Sidoarjo reaches 5.830 cases, 167 new cases were found from January to April 2024 (Rohman, 2024)

Adolescents' low knowledge regarding sexual and reproductive health, as well as many misunderstandings regarding sexual issues, can cause adolescents to take actions that risk increasing the incidence of sexually transmitted diseases (Soleymani, Rahman, Lekhraj, Zulfeki, & Matinnia, 2015). In Indonesia there are no subjects that specifically teach and provide information about sexual health for high school students, especially female students, this is one of the causes of the high incidence of sexually transmitted infections among teenagers (Margiyati & Khasanah, 2014). Sexual education provided in schools is still a quite controversial issue in Muslim countries and is still a matter of debate as to which organization, school or family is responsible for educating the younger generation about infectious diseases (Sham, Yaakub, Fawati, Fatinni, & Azamuddin, 2020).

Based on the explanation, the author conducted an assessment of students' level of knowledge regarding the risk of sexually transmitted diseases HIV/AIDS and provided counseling regarding the risk of sexually transmitted diseases HIV/AIDS in adolescents, so that adolescents know and are aware of, and prevent behavior that can cause HIV/AIDS infection.

2. MATERIAL AND METHODS

Community service outreach on the risk of HIV/AIDS to adolescents was carried out on January 10 2024 at SMK PGRI 2 Sidoarjo for 1 hour 30 minutes. The population of this activity is all vocational school's students who were members of health extracurriculars. The sampling used is total sampling of 50 students. The teaching method in this service is face-to-face and presentations in class as well as showing knowledge videos about the dangers of HIV/AIDS. The instrument used in this research is a questionnaire developed by the author which contains 15 questions to measure the level of knowledge about HIV/AIDS which has been tested for validity and reliability.

During counseling, the level of knowledge is evaluated twice, before and after counseling. Knowledge about HIV/AIDS was measured by administering pre-test and post-test questionnaires. A passing knowledge level is equivalent to a correct score of 76. Knowledge levels are categorized into high (>75), medium (56-75), and low (<56). Data were analyzed using descriptive analysis and the Wilcoxon signed rank test.

3. RESULTS

The demographic characteristic of participants included gender and age. Based on table 1, it can be seen that the majority of counseling participants are female (72%) and aged 16 years old (60%).

Before the counseling was conducted, participants were given a pretest to see the level of knowledge of participants regarding HIV/AIDS and the results of the study showed that 62% of respondents had good knowledge, but there were still 36% of participants who had good enough knowledge and 2% of participants who had insufficient knowledge. After the counseling was given, participants were given the same questionnaire as the pretest to see whether their level of knowledge increased after being given the counseling, and the results showed that 98% of participants had knowledge at a good level and only 2% of participants had knowledge at a sufficient level (Table 2).

Based hypothesis test result, it is known that during the pretest the minimum score obtained by respondents was 53 and the maximum score was 100, while during the post-test the minimum score obtained by respondents was 73 and the maximum

Table 1. Demographic Characteristics of Participants (n=50).

Variable	N	%
Gender		
Male	14	28
Female	36	72
Age		
15 years old	15	30
16 years old	30	60
17 years old	4	8
18 years old	1	2

Table 2 Level of Knowledge of HIV/AIDS and Hypothesis Test of Pretest and Posttest Exam Scores among Counseling Participant (n=50)

Description	Pre-test	Post-test	p-Value
Level of Knowledge			
Good	62%	98%	
Enough	36%	2%	**< 0.01***
Not Good	2%	0%	
Score of Knowledge			
Min	53	73	
Max	100	100	
Mean	83.54	97.38	
Std Deviation	10.846	4.932	

*lower than **α**=0,05

Figure 1. Health Education in Class A

Figure 1. Health Education in Class B and PMR

score was 100. Based on Table 2, it can also be seen that there was an increase in the average score during pretest and posttest from 83.54 to 97.38. To further ascertain whether there was a difference between the level of knowledge before and after the counseling was given, an analysis was carried out using the Wilcoxon statistical test, and obtained a value of p <0.01, thus it was concluded "there is a significant difference in knowledge between before the counseling and after being given counseling. Based on the data analysis above, it can be concluded that there is an increase in knowledge after being given counseling about the risk of HIV/AIDS in Adolescents.

4. DISCUSSION

The results of health education activities regarding the risk of HIV/AIDS in adolescents show that there is a significant difference between the average scores before and after the education was given based on the results of the pre-test and post-test. Teenagers who took part in the counseling also stated that they understood HIV/AIDS prevention. This shows the

influence of counseling on increasing knowledge about HIV/AIDS in adolescents. The results of this service are in line with the community service carried out by Amalia, Sari, Sari, Fadillah, & Pratiwi (2022) which shows the results of increasing students' knowledge regarding adolescent reproductive health after providing counseling. The results of this service are also in line with the community service carried out by Ratnawati, Ayu, Adyani, & Samaria (2021) who conducted training for groups of youth cadres regarding HIV/AIDS and obtained an increase in knowledge, attitudes and behavior after the counseling was carried out.

Health education is one of the activities to increase knowledge for the community through spreading messages (Saraswati, Suharmanto, Pramesona, & Susianti, 2022). Knowledge is the result of human sensing or the result of a person's knowledge of objects through their senses. Sensing occurs through the five human senses, namely the senses of sight, hearing, smell, taste and touch (Notoatmodjo, 2014). Health education is an effort to get people to behave or adopt health behavior by persuading, appealing, inviting, providing information, providing awareness through education or health promotion activities. This was proven in health education activities, there was a significant increase in the level of knowledge about HIV/AIDS among counseling participants before and after being given the counseling. This is in line with the aim of health education, namely increasing public knowledge in the health sector, achieving changes in individual, family and community behavior.

Adolescents were chosen as the object of this health education because adolescence is a period of transformation, a time of rapid physical, psychological, and cognitive development. In fulfilling their developmental tasks, adolescents often explore trial and error regarding social roles and behavior in determining their identity (Wibowo & Gustina, 2020). At this time, adolescents must receive adequate information about health problem so they have right perception, healthy living behavior, and have responsibility to avoid negative things, such as staying away from free sex, drugs, and staying away from the risk of HIV AIDS.

Health education about HIV AIDS is very necessary, especially for adolescents because the number of this disease continues to increase in Sidoarjo city. In this health education activity, literacy was provided and questions and answers were provided about HIV/AIDS and how to prevent this from happening. While implementing the extension method, the media plays an important role in the smooth implementation of the extension and in clarifying the material presented. In this case, the counseling is carried out in the form of lectures using audio-visual media as well as providing feedback by asking questions about HIV/AIDS from the counseling participants. From the results of the counseling, it can be seen that the audio-visual method used in the counseling is effective in increasing participants' knowledge. This is in line with research conducted by Sunaeni, Abduh, & Isir (2022), where there was a significant increase in knowledge about the first thousand days of adolescent girls' lives after being given counseling using audiovisual methods.

Audio visual media is a type of media that contains elements of sound and images that can be seen, such as video recordings, films, sound slides, and excetra (Sanjaya, 2014). Health education using audio visual groups and flyers can provide an increase in the level of knowledge and attitudes (Ulfa, Stang, Tahir, & Mallongi, 2020). Audiovisual media is also easier for students to understand because it provides concrete examples of educational objects (Astuti, 2020). Audiovisual media is rated very appropriate as a counseling medium for adolescents because the attractive displays makes the counseling material easy to understand and create a pleasant atmosphere for learning (Dewie, Mangun, & Safira, 2022).

5. CONCLUSION

Health education is a form of health promotion that is effective, simple and covers broad targets. From the results of the counseling about the risk of HIV/AIDS in Adolescents that has been carried out, it can be concluded that there is a significant difference in the average knowledge score before and after being given health education about the risk of HIV/AIDS in Adolescents.

6. REFERENCES

Amalia, A., Sari, A., Sari, N. R. D., Fadillah, R., & Pratiwi, S. T. (2022). Penyuluhan Kesehatan Reproduksi Remaja Dalam Menyikapi Bonus Demografi. *Jurnal Pengabdian Masyarakat*, *1*(3), 81–84. https://doi.org/https://doi.org/10.53801/jpmsk.v1i3.28

Astuti, E. K. (2020). The Influence Of Health Education With Audio Visual Media On Clean And Healthy Living Behavior (PHBS) In Grade III-V Students At Wanurojo Kemiri Purworejo State Elementary School. *Jurnal Eduhealth*, *10*(2), 21–31.

Betan, A., & Pannyiwi, R. (2020). Analisis Angka Kejadian Penyakit Infeksi Menular Seksual. *Jurnal Ilmiah Kesehatan Sandi Husada*, *12*(2), 824–830. https://doi.org/10.35816/jiskh.v12i2.416

Dewie, A., Mangun, M., & Safira, I. (2022). The Effect of Audiovisual Media on Adolescent Knowledge About Child Marriage at the Gawalise Youth Posyandu. *Jurnal Ilmu Kesehatan*, *16*(2), 152–156. https://doi.org/https://doi.org/10.33860/jik.v16i2.992

Kemenkes. (2023). *Laporan Kinerja 2023 Direktorat Pencegahan dan Pengendalian Penyakit Menular*. Retrieved from https://p2p.kemkes.go.id/laporan-kinerja-direktorat-pengendalian-penyakit-menular-tahun-2023/

Kurniawan, A., Sistiarani, C., & Gamelia, E. (2022). Pencegahan Kejadian Infeksi Menular Seksual (IMS) Remaja Perdesaan di Puskesmas II Kembaran Kabupaten Banyumas. *Jurnal Pengabdian Kepada Masyarakat*, *6*(1), 59–65.

Margiyati, M., & Khasanah, U. (2014). Pengetahuan, Sikap Dengan Perilaku Siswi Dalam Upaya Pengendalian Infeksi Menular Seksual. *Jurnal Ilmu Kebidanan*, *1*(1). Retrieved from https://jurnalilmukebidanan.akbiduk.ac.id/index.php/jik/article/view/5

Muhamad, N. (2024). Ada 16 Ribu Kasus AIDS Baru di Indonesia, Terbanyak di Jawa Barat. Retrieved January 2, 2024, from Databoks website: https://databoks.katadata.co.id/datapublish/2024/03/01/ada-16-ribu-kasus-aids-baru-di-indonesia-terbanyak-di-jawa-barat

Notoatmodjo, S. (2014). *Ilmu Perilaku Kesehatan* (2nd ed.). Jakarta: Rineka Cipta.

Ratnawati, D., Ayu, S., Adyani, M., & Samaria, D. (2021). Pemberdayaan Kader Remaja Dalam Kampanye Aku Bangga Aku Tahu Cegah HIV / AIDS. *MATAPPA : Jurnal Pengabdian Kepada Masyarakat*, *4*, 149–154.

Rohman, M. S. (2024). Jumlah Penderita HIV/AIDS di Sidoarjo Tembus 5.830 kasus, Retrieved August 18, 2024, from radarsidoarjo.id website: https://radarsidoarjo.jawapos.com/kota-delta/854744943/jumlah-penderita-hivaids-di-sidoarjo-tembus-5830-kasus#:~:text=Jumlah%20Penderita%20HIV/AIDS%20di%20Sidoarjo%20Tembus%205.830%20kasus%20%2D%20Radar%20Sidoarjo

Sanjaya, W. (2014). *Media Komunikasi Pembelajaran*. Jakarta: Kencana Prenada.

Saraswati, A., Suharmanto, Pramesona, B. A., & Susianti. (2022). Penyuluhan Kesehatan untuk Meningkatkan Pemahaman Kader Tentang Penanganan Stunting pada Balita. *Sarwahita*, *19*(1), 209–219. https://doi.org/10.21009/sarwahita.191.18

Sham, F., Yaakub, S., Fawati, F. N., Fatinni, S. J., & Azamuddin, A. A. (2020). Knowledge, Attitudes, Risk Behaviours and Preventive Practices on Sexually Transmitted Diseases Among Students in a Public University in Malaysia. *Malaysian Journal of Public Health Medicine*, *20*(3), 100–108. https://doi.org/10.37268/MJPHM/VOL.20/NO.3/ART.610

Soleymani, S., Rahman, H. A., Lekhraj, R., Zulfeki, N. A. M., & Matinnia, N. (2015). A cross-sectional study to explore postgraduate students' understanding of and beliefs about sexual and reproductive health in a public university, Malaysia. *Reproductive Health*, *121*(1). https://doi.org/10.1186/s12978-015-0070-3

Sunaeni, S., Abduh, A. I. M., & Isir, M. (2022). Efektivitas Media Audio Visual Dalam Meningkatkan Pengetahuan Tentang Seribu Hari Pertama Kehidupan Remaja Putri. *Malahayati Nursing Journal*, *4*(3), 591–600. https://doi.org/10.33024/mnj.v4i3.5971

Ulfa, M., Stang, S., Tahir, M., & Mallongi, A. (2020). Effect of education media on improvement visual acetate acid inspection at Sudiang community health center. *Enfermería Clínica*, *30*, 439–443. https://doi.org/10.1016/j.enfcli.2019.10.118

UNICEF. (2023). Adolescent HIV Prevention. Retrieved January 15, 2024, from UNICEF website: https://data.unicef.org/topic/hivaids/adolescents-young-people/

WHO. (2023). HIV and AIDS. Retrieved January 15, 2024, from World Health Organization (WHO) website: https://www.who.int/news-room/fact-sheets/detail/hiv-aids

Wibowo, M., & Gustina, E. (2020). Promosi Kesehatan Di Kalangan Remaja Melalui Media: Literatur Review. *Medika Respati : Jurnal Ilmiah Kesehatan*, *15*(2), 99–106.