

School Environmental Cleanliness Counseling to Improve Knowledge of Hermon Timika Vocational School Students

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Abstract

Health education aims to change or influence human behavior individually, in groups, or in society, to enable them to be more independent in achieving healthy living goals. In this health education, a method is needed so that the message can be delivered as expected. The delivery method in this education is by using lectures, videos, and actions towards environmental cleanliness. With this activity, students are expected to be able to increase their knowledge of school environmental cleanliness such as disposing of trash in its place, being able to differentiate organic and inorganic waste, not scribbling on walls and tables, and consciously wanting to work together to clean the yard and classroom. The implementation of community service requires cooperation from various parties so that health education can be carried out not only once, but regularly to monitor the development of students' knowledge about environmental cleanliness in schools. In addition to lectures, videos and actions, the implementation or delivery of health education can also use educational games as media because with games, students can more easily understand, students also do not experience boredom in the delivery of the material.

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1. INTRODUCTION

Situation Analysis

Health is a crucial element of quality of life in national development, aimed at realizing a complete Indonesian human being. Article 3 of Law No. 36 of 2009 states that health development aims to increase awareness, willingness, and ability to live healthily for everyone, thereby achieving the highest possible level of public health, as an investment in the development of socially and economically productive human resources. Successful health development requires high-quality human resources. The quality of human life is influenced by the level of human health from an early age. During school age, students often experience health problems due to environmental factors. The school environment significantly impacts a child's physical development. Physically healthy students are better able to actively participate in the learning process, which positively impacts their academic achievement (Adrianus, 2014).

The Eagle Awards Documentary Competition (2016) also stated that important factors for achieving a healthy Indonesia include public health, environmental health, health services, innovation and development, and public participation. These environmental issues can lead to infectious diseases (Arief, 2013).

Infectious diseases that are often suffered by school-age children include diarrhea, typhoid, acute respiratory infections, malaria, and intestinal parasitic infections. Malaria, acute respiratory infections, and diarrhea are the risk of diseases that cause death in school-age children. Health status

is an important factor in achieving "education for all" (ddk, 2009). Then, in the change from MDGs to Sustainable Development Goals (SDGs), attention is also paid to the health of school children, in this case, the diseases suffered by school-age children, which can affect their attendance at school. Therefore, the SDGs priorities that have been explicitly stated in the 2016–2020 RPJMN provide support for increasing elementary school attendance rates.

According to Riskesdas (2013), the prevalence of ISPA (25.0%), malaria (6.0%), and worm infections currently ranges from 20-86% with an average of 30%, and in 2015, it is estimated that more than 100,000 children under 5 years old died from diarrhea. (Directorate General of Disease Control and Environmental Health, 2015). Various efforts are made to prevent the spread of infectious diseases in schools caused by the environment. One of them is implementing clean and healthy living behaviors through environmental health efforts at the educational institution level. Behaviors such as washing hands with running water and using soap, consuming snacks in the school canteen, using clean and healthy toilets, disposing of trash in its place, eradicating mosquito larvae, and not smoking at school. The application of environmental hygiene behaviors in school children tends to imitate what they have seen and what they have learned from the knowledge provided by parents and teachers at school. The role of students in terms of cognitive and affective abilities and their participation in environmental issues needs to be fostered and developed, because students have a very important role in creating a healthy environment. Cognitive emphasizes student knowledge (Knowledge) regarding environmental cleanliness. Student understanding is the first step to creating a clean environment, because with student knowledge, feelings, awareness, concern, and even a desire to create a clean and comfortable environment will arise.

Based on several surveys conducted in several schools ranging from elementary to high schools in Timika, the environmental conditions are poorly maintained. Poor environmental conditions can be seen from the scattered garbage, especially during break times, when students tend to throw garbage in the school yard and in the classroom. This is not only due to students' poor sanitation behavior but also due to the lack of trash cans. Likewise, the toilets are not clean; students who have used the toilet do not clean it, so it leaves an unpleasant odor. There are mosquito larvae in the water tank, and many puddles that can become breeding grounds for mosquitoes, and also the lack of clean water. The explanation above shows that environmental conditions, students' knowledge about environmental cleanliness in schools, and their participation in cleaning the environment are still lacking, so the implementation of health education about environmental cleanliness needs to be held in schools.

Health education can be done through health counseling. Health counseling is the addition of a person's knowledge and abilities through practical learning techniques or instructions with the aim of changing or influencing human behavior individually, in groups, or in society to be more independent in achieving healthy living goals (Ministry of Health, 2002). Health counseling is a combination of various activities and opportunities based on learning principles to achieve a state where individuals, families, groups, or society as a whole want to live healthily, know how, and do what can be done, individually or in groups, by asking for help (Effendy, 2003). Health counseling conducted in this community service is not only in the form of lectures but also video screenings. According to Azizatul Yaumul Adha, Diah Rahayu Wulandari, and Ari Budi Himawan (2016), video is a tool or media for counseling that functions to convey messages using certain effects so that it can strengthen the learning process and attract the attention of the audience. Based on the description above, this counseling is entitled Counseling on School Environmental Cleanliness to Increase Knowledge in Students of Hermon Timika Vocational School.

Partner Issues

Based on the description above, the problem faced by students of Hermon Timika Vocational School is that students' knowledge about environmental cleanliness at school and their participation in cleaning the environment is still lacking, so one way to overcome this problem is to create a community service program to solve the problem: "How to increase students' knowledge about environmental cleanliness at school?"

Solutions and Output Targets

a. The solutions offered

Based on the problems described previously, the solution offered in this activity is health education to increase students' knowledge, which can be done through health counseling.

b. External targets

1. Students' knowledge about school environmental cleanliness increased.
2. Students can apply a clean lifestyle starting from themselves, their family environment, and also the community environment, especially the school environment.

2. METHOD

This Community Service was carried out by Class XI students of Hermon Timika Vocational School. The methods used in this community service are the counseling method (with lectures and video screenings), discussion (questions and answers), action, and evaluation by asking questions.

In this design, a questionnaire will be administered, consisting of a pretest and a posttest. First, respondents will receive a pretest, followed by an intervention in the form of counseling. After receiving the intervention, they will receive a posttest. The time interval between receiving the pretest, intervention, and posttest is between 15 and 30 days. The research stages are as follows:

1. Preparation

Making a community service proposal, making a permit letter, preparing a list of students, documentation, preparing an activity schedule, and making a community service questionnaire.

2. Pre-service

Before the community service was carried out, the Team coordinated with the school, including the principal, teachers, and students.

3. Implementation of Community Service in Schools

The stages of service in the classroom are: a) Before students receive counseling on environmental cleanliness with lecture media, a pretest is first held, students will receive a pretest in the form of a questionnaire to measure the cognitive and affective abilities of students; b) intervention after 2 weeks of pretest implementation, students receive intervention in the form of providing material and discussion. This intervention is carried out for 60 minutes. c) posttest, carried out after 2 weeks of implementing the intervention, which is carried out for 30 minutes. During the activity, the counseling material is presented with a time allocation of 40%, while 60% is for discussion, questions, and answers, so that participants are more active and the overall activity becomes livelier. The stages of implementation and counseling material can be seen in Tables 1 and 2 below:

Table 1. Stages of Implementation of Counseling at Hermon Timika Vocational School

No	Stage/time	Extension Activities	Activity
1.	Opening: (Pretest) 1 week	a Giving opening greetings b Introduce myself c Distributing questionnaires. d Explain the subject matter and The purpose of counseling	a Replying to greetings b Notice c Answering the questionnaire
2.	Implementa tion of Extension (Interventio n) 2 weeks	a. Providing materials b. Ask students about the material that has been given. c. Invite participants to ask questions	a Pay attention b Listen c Concentrate d Do not leave the counseling location. Participants ask questions. e Listen f Answering questions

3	Evaluation and Closing (Posttest) 1Minggu	a. Summarizing the results of the extension b. Distributing the Posttest Questionnaire c. Giving closing greetings	a. Doing the questions b. Responding to greetings
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Table2. Implementation Stage of Counseling at Hermon Timika Vocational School

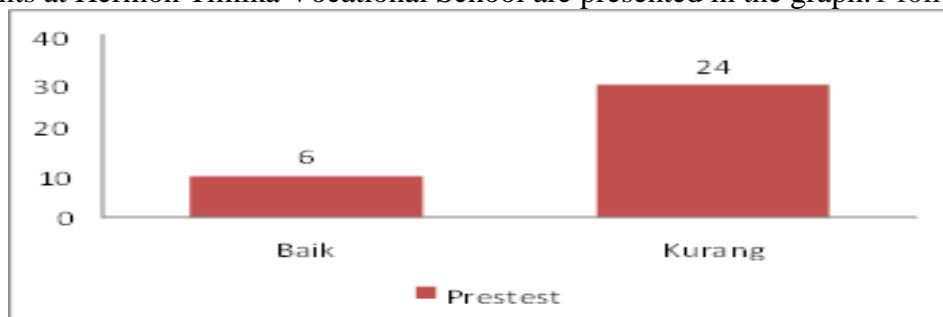
No	Material	Method	Weight
1	Connection Man and the Environment	a. Talk b. Discussion	40 % 60 %
2	Screening of a film about the causes of environmental pollution in schools	a. Video and Leaflet b. Discussion	40 % 60 %
3	Diseases caused by poor school environments	a. Video and Leaflet b. Discussion	40 % 60 %
4	How to overcome negative impacts Environment with environmental cleanliness care actions	a. Talk b. Discussion	40 % 60 %

Post-Service: After carrying out community service, students are still allowed to complete other data that may be needed.

3. RESULTS

Pre-Test Results Before Counseling

The results of the pretest of the school environmental cleanliness counseling to improve knowledge among students at Hermon Timika Vocational School are presented in the graph. 1 following:



Graph 1. Results of the Pretest of School Environmental Cleanliness Counseling

Based on the graph, the level of knowledge of SMK Hermon Timika class XI students about the cleanliness of the school environment is as many as 6 students (20%) who have good knowledge and as many as 24 students (76.3%) who have poor knowledge before being given counseling, this is because many students do not understand the importance of maintaining environmental cleanliness, there are still some students who cannot distinguish between organic and inorganic waste because the school has not yet accustomed them to the behavior of disposing of waste according to its type, the school also only provides one type of trash can. Students also do not understand the method of destroying organic waste, for example, students buy snacks from the school canteen, and students do not know that the remains of the food/drink can be reprocessed into compost. In addition, when using the toilet at school, they do not pay attention to cleanliness, so the toilet can leave an unpleasant odor.

Post-Test Results After Counseling

The community service activities through counseling for the 11th-grade students of Hermon Vocational School in Timika have generally gone well, thanks to the collaboration between the

school and the presenters and the assistance and support of various parties. However, in future implementation, it is hoped that this activity can be carried out even better and improve coordination between various parties. The success of this community service activity is evidenced by the increasing post-test scores of 11th-grade students of Hermon Vocational School in Timika, as can be seen in the following graph 2:

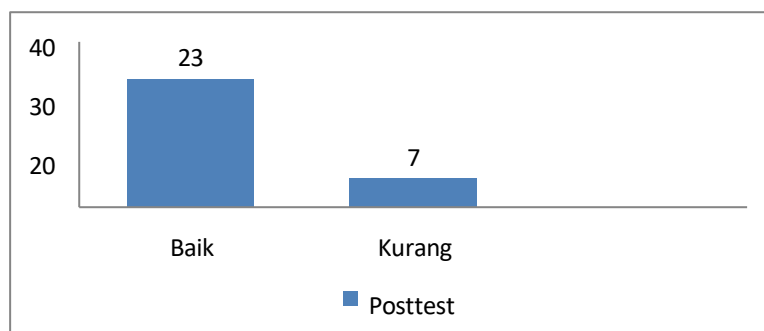


Figure 2. Post-Test Results Following the School Environmental Cleanliness Education

School Environment From graph 1 before the counseling was held, it can be seen that as many as 6 students (20%) had good knowledge and as many as 29 students 24 students (76.3%) had less knowledge but after the intervention with counseling, the students' knowledge at the time of the posttest became increasingly increased, it can be seen in graph 2, namely as many as 23 (76.66%) students had good knowledge while only 7 students (23.33%) had less knowledge. This means that the environmental health counseling that has been carried out has a great influence on the level of students' knowledge of the importance of environmental cleanliness in schools. Thus, it indicates that if health counseling about cleanliness is given, the knowledge of students will increase, the more intensive the counseling is given, the level of knowledge will also be better, this is in line with the counseling conducted by Yoni Hermawan and Komara NurIkhsan (2013) that health counseling has a great influence on the level of students' knowledge about the health of the school environment.

4. CONCLUSION

Community service activities carried out at Hermon Timika Vocational School went smoothly, with the hope that students would increase their knowledge and be able to apply the material that had been delivered, especially about maintaining personal and environmental hygiene. Class XI students of Hermon Timika Vocational School were aware of the importance of maintaining personal hygiene; this was proven by being able to distinguish between types of waste, both organic and inorganic, not scribbling on walls or tables, flushing the toilet clean after urinating/defecating. In addition, students were also aware of the importance of environmental cleanliness, as evidenced by students being aware of working together to clean the yard and classrooms.

5. SUGGESTIONS

There needs to be cooperation between various parties so that health education can be carried out not only once, but also repeatedly or routinely to monitor the development of students' knowledge regarding environmental cleanliness at school.

More attention is needed to the methods used in health education. The methods used for health education should be tailored to the age group being educated. For example, for school children, in addition to using videos, health education can be delivered using educational games. Games can help students understand the material more easily and prevent boredom during the presentation.

6. BIBLIOGRAPHY

- Arsyad, A. 2002. Media Pengajaran. Penerbit PT. Raja Grafindo Persada, Jakarta
- Azizatul Yaumul Adha, Diah Rahayu Wulandari, Ari Budi Himawan. 2016. Perbedaan Efektivitas Pemberian Penyuluhan dengan Video dan Simulasi terhadap Tingkat Pengetahuan Pencegahan TB Paru (Studi kasus di MA Husnul Khatimah Kelurahan Rowosari Kecamatan Tembalang Kota Semarang). Jurnal Kedokteran Diponegoro. Volume 5, Nomor 4, Oktober 2016. ISSN Online : 2540-8844
- Departemen Kesehatan RI. 2009. Panduan Pengelolaan Pusat Informasi & Konseling Kesehatan Lingkungan. Direktorat Remaja BKKBN, Jakarta.
- Depkes RI. 2002. Modul Penyuluhan Kesehatan Masyarakat. Jakarta: Pusat Promosi Kesehatan. Direktur Jenderal Pengendalian Penyakit Dan Penyehatan Lingkungan . 2015 Rencana Aksi Program Pengendalian Penyakit Dan Penyehatan Lingkungan Tahun 2015-2019
- Eagle Awards Documentary Competition 2016,. INDONESIA SEHAT. Eagle Institusi Indonesia. Diakses melalui <http://dinus.ac.id/repository/docs/ajar/tor.pdf>
- Effendy. 2003. Penyuluhan Kesehatan. Jakarta.
- Hargono, Arief. 2013. Aplikasi Surveilans Epidemiologi Penyakit Potensial Wabah Pada Anak Sekolah Menggunakan Epi Info. FIKI 2013, 1 (1). ISSN 979-26-0263-1 Fakultas Kesehatan Masyarakat Universitas Airlangga, Surabaya
- Junus Adrianus. 2014. Pembinaan lingkungan sekolah sehat dengan pendekatan filosofi lima jari. Kendari. Diakses melalui http://simposium.gtk.kemdikbud.go.id/karya/files/tendik_2/Dra.AdrianaJunus,M.Sos_16112016193300.pdf Tanggal akses 15 maret 2026
- Kementerian Perencanaan Pembangunan Nasional (Bappenas) dan United Nations Children's Fund (UNICEF). 2017. Laporan Baseline SDG tentang Anak- Anak di Indonesia
- Riskesdas. 2013. Badan penelitian dan pengembangan kesehatan Kementerian kesehatan RI. Jakarta
- Rosso, Joy Miller, Rina Arlianti. 2009. Investasi untuk Kesehatan dan Gizi Sekolah di Indonesia, Departemen Pendidikan Nasional, Kingdom of Netherland, World Bank.
- Undang-Undang Tentang Kesehatan, UUNomor 36 Tahun 2009
- Yoni Hermawan dan Komara Nur Ikhsan. 2013. Pengaruh Penyuluhan Kesehatan Lingkungan Terhadap Tingkat Pengetahuan Dan Pelaksana Kesehatan Lingkungan Smp Negeri Tambaksa Kecamatan Tambaksari Kabupaten Ciamis. Jurnal Bumi Lestari, Volume 13 No. 1, Februari 2013, hlm. 166-17