

Education about worms through animated videos for early childhood

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Abstract

This worm disease can infect all ages, but those who are most susceptible to infection are children under five and elementary school age (SD) aged 5 to 14 years. To be able to break the chain of worm infections and reduce the number of worm infections in schools, this can be done by providing information or education. Providing education about worms can increase students' knowledge regarding preventing worms. The aim of this activity is to increase the knowledge of students and girls in preventing worms. The method of this service is to provide education using animated video media about worm disease and hand washing demonstrations. After counseling and demonstrations, the results of the education that has been provided will be evaluated using a questionnaire to evaluate students' knowledge of worms and their prevention after 1 week of providing counseling via educational video media. The results of the activity showed an increase in knowledge and psychomotor skills after being given education regarding worms and washing hands. It is hoped that increasing understanding of the dangers of worms can foster awareness and independence in preventing worms in families and communities.

Keywords: *Worms, education, animated video*

I. INTRODUCTION

Worms are an endemic disease caused by infection with one or more types of intestinal nematodes. This intestinal nematode infection is chronic without causing clear clinical symptoms and the impacts it causes are only visible in the long term, such as malnutrition, impaired growth and development, cognitive impairment in children, and resulting in decreased health conditions, intelligence and productivity of children (Lubis, 2018).

Indonesia is a country that requires special treatment for worms. (WHO) notes that Indonesia is in third place, after India and Nigeria in the ranking of worms. The prevalence of worms in Indonesia varies between 2.5% to 65%. This number increases if the prevalence of worms is calculated in school-aged children to 80% (Minister of Health Regulation No. 15 of 2017). Worm cases in Indonesia vary between 2.5% to 65%. This number increases if the prevalence of cingna is calculated in school-aged children to 80 (Minister of Health Regulation No. 15 of 2017)

Worm infections can affect the process of food absorption in the intestines, causing symptoms such as stomach ache, nausea and diarrhea. If not treated, the infection will become chronic, causing malnutrition and anemia which will disrupt the child's growth and development and immune system (Djuma et al., 2020). In the long term, this condition will cause learning and cognitive disorders, especially in school children (Setiawati et al., 2022).

School-age children often do physical activities and play in their surroundings, making them vulnerable to worm infections, one of which is through their hands and nails. Worm eggs found in the soil will enter the human digestive tract through dirty hands and/or nails. One way to prevent worm infections is to wash your hands with soap and cut your nails at least once a week. Washing hands with soap according to WHO's six steps is the act of cleaning hands and fingers using soap and running water which aims to mechanically remove dirt and dust from the surface of the skin and reduce the number of microorganisms (Hasanah & Mahardika, 2020; Wasliah, 2023; WHO, 2016). Finger and toe nails are always cut and kept clean and lotion is applied if there is dry and rough tissue around the nails to avoid the entry of germs and other pathogens (Rafika et al., 2020)

According to research, there is a significant influence of health education using video and poster media on children's knowledge and attitudes in preventing diarrheal disease. Behavior does not always follow a certain sequence so that the formation of positive behavior is not always influenced by knowledge and positive attitudes (Green, 1980). Positive behavior can be formed from good knowledge, so the right way to increase knowledge is to use media as health education (Ma'munah, M, 2015).

Therefore, in order to prevent worms, it is necessary to provide information about preventing worms through audio-visual media, namely video. According to (Ode, 2014), using audiovisual media can train students' concentration and focus on the material being taught, the students' focus will be focused because second by second the students will never be willing to miss it. When showing this learning video, it is also able to present the reality of the material so that students are encouraged to carry out their own activities (Fujiyanto et al, 2016).

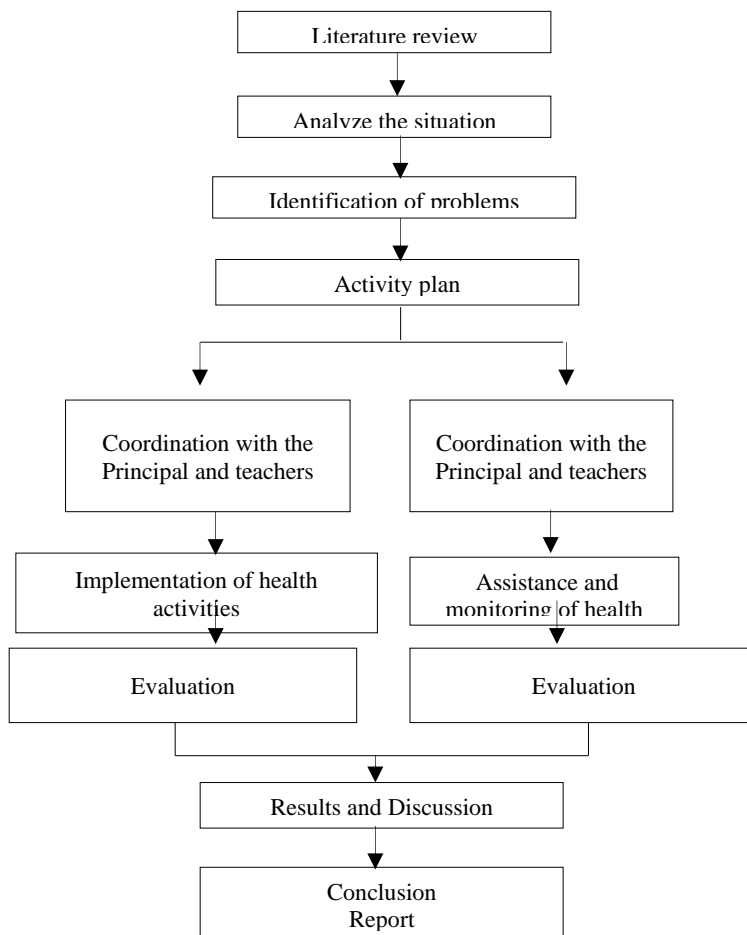
The use of video (also called audio visual) as a learning medium is one of the most efficient educational media. The world of entertainment and education often uses multimedia. Multimedia is the presentation of text, sound, images, animation and video using a computer while combining these elements with tools and connections allows people to navigate, interact, create and communicate (Suryanto et al., 2020) According to Utami (2011) a series of images that can create movement is the definition of animation. Animation's ability to consider environmental changes over time differentiates it from other forms of media such as text or static images.

In research conducted by Afridzal (2018) stated that children aged between 6 and 12 years can benefit from animated video content because it is very interesting for them with moving images, interesting characters and interesting sounds. Animated video media can also be used to study each subject due to the variety of interesting images in the characters displayed so that children can understand the subject or material being taught. As a result, animated video content is an excellent learning medium for children aged 6 to 12 years. Apart from that, in order to produce good animated videos, designers must understand the 12 principles of animation proposed by Ollie Johnston and Frank Thomas, who are the animators behind Disney films (Prakosa, 2010). With this design, it is hoped that the design objectives will be achieved, including: 1.) Providing

interesting educational information to children aged between 6 and 12 years about how to prevent worms. 2.) Helping provide learning media for health promotion programs in Indonesia. 3.) Children are expected to be able to model good behavior in maintaining personal and environmental health through animated video content.

II. METHOD

Figure 2.1 Devotion Flow Chart



III. RESEARCH FINDINGS

This health education is about worms in children to provide information and knowledge to students at SDN 1 Turus in Gampengrejo Village. Participants in this education consist of 15 people. For the process and results, all students participated from start to finish of the activity. During the counseling process, students pay attention,

enthusiastically ask questions, try to digest what we share with them. Even though there are some students who cannot stay still here and there, thank God we can still handle them so that they can be conducive during the activities. Apart from that, the students were very enthusiastic about asking questions to the presenters and were able to answer what we asked them.

The structure of this counseling starts from preparation for approximately 20 minutes before the counseling takes place, the media used are power points and animated videos, class preparation, arranging students to remain conducive, as well as organizing the counseling complete with female students on duty according to their respective duties. . The counseling in this class was attended by 15 students. During the counseling, the students really listened to what we gave/explained regarding the material on worms, were enthusiastic in asking questions, active when asked questions by the presenter, and also had great curiosity about this material. This is demonstrated by several things that we have previously mentioned regarding health education about worms delivered by female students and lecturers at several Kediri institutions. We don't forget to provide ice breakers, memory games, door prizes for those who answer questions, and small prizes for the students.



Figure 3.1 Extension documentation through animated videos

IV. DISCUSSION

The activity, which was attended by 15 students, was held at 08.00-11.30 WIB. Material is given in 2 sessions. The first session was filled with education regarding definitions, types of worms that infect humans, risk factors, modes of transmission, symptoms and complications, prevention and treatment through animated videos. The

second material showed a video of 6 steps for washing hands, which includes (i) Spread the soap with both Palm; (ii) Rub the back of the hand; (iii) Rub between fingers alternately; (iv) Rub the inside of your fingers in an interlocking position; (v) Rub the thumb in a circular motion in the grip of the hand; and (vi) Rub the tips of the fingers on the palms in a circular motion. The material is delivered interactively in layman's language that is easy for participants to understand. The activity continued with a demonstration of how to wash hands by the service team followed by all participants. All participants seemed to be listening and enthusiastic in following the material and demonstration. This was demonstrated by the many questions that arose during the discussion session and competition to answer questions and demonstrate the correct way to wash hands during the evaluation session.

No	Indikator	Pre-test	Post Test
1	Knowledge	15%	85%
2	Skills	18%	80% %

Table 4.1 distribution of hand washing knowledge and skills

Knowledge plays an important role in preventing worms. The higher a person's level of knowledge, the greater their awareness of attitudes and behavior and confidence in preventing the disease. One effort to increase a person's knowledge regarding worms is through health education. Education in the form of socialization, counseling and demonstrations are activities aimed at increasing knowledge through the learning process so as to produce changes in attitudes and behavior as well as character values, both in individuals, families and community groups. In this service activity, participants' knowledge and psychomotor skills increased after being given hand washing education and demonstrations.

One effort to prevent and break the chain of transmission of worm infections is to wash your hands. Washing your hands with soap and running water is a simple and effective measure to prevent the entry of pathogens into the body, but not everyone gets into the habit of doing it in life, especially before eating, after defecating, and after activities. Children who have dirty nails are twice as likely to be infected with worm eggs as those with clean nails because worm eggs can stick under the nails (Kartini, 2016). Awareness of the attitudes and behavior of washing hands and cutting nails needs

to be taught from childhood within the family. The first time, all participants were not able to demonstrate the correct way to wash their hands, that is, participants only washed their palms or washed their hands without soap, but after being given direction and demonstration, all participants were able to demonstrate it well and correctly.

The use of games and video media helps in increasing students' knowledge in preventing worms. Increasing children's knowledge occurs due to receiving good information. Providing initial stimulus to children in the form of treatment makes children able to accept the stimulus and turn it into good knowledge (Prayogi, 2017).

V. CONCLUSION

1. There is an increase in the knowledge of students and girls after being given counseling.
2. The students' skills in carrying out the 6 steps of washing their hands correctly after being given counseling were the most children with skills in the appropriate category, namely by washing their hands in 6 steps sequentially from steps 1-6.
3. Most of the students and girls independently are skilled in preventing worms by washing their hands and maintaining personal and environmental cleanliness.
4. Implementation of community service education on preventing worms in children is carried out in accordance with the activity schedule.

REFERENCES

- Afridzal, A., Bina, S., & Getsempena, B. (2018). Perbedaan Hasil Belajar Menggunakan Media Gambar Dan Video Animasi Pada Materi Karangan Deskripsi Di Kelas III Sd Negeri 28 Banda Aceh. In *Jurnal Tunas Bangsa* (Vol. 5, Issue 2).
- Alang, H., Rafika, R., & Hartini, H. (2020). Edukasi Cuci Tangan Dan Pemeriksaan Telur Cacing Pada Kuku Tangan Siswa Sd Inpres Pampang 1 Makassar. In *Januari* (Vol. 1, Issue 1). [Http://Jurnal.Poltekkespalu.Ac.Id/Index.Php/Pjpm/](http://Jurnal.Poltekkespalu.Ac.Id/Index.Php/Pjpm/)
- Djuma, A. W., Susilawati, N. M., Djami, S. W., A. R., Agni, N., Rohi Bire, W. L. O., Foekh, N. P., Octrisdey, K., Bessie, M. F., & Naskah, G. (2020). Siswa Sd Bebas Kecacingan Di Sd Inpres Besmarak Dan Sd Gmit Biupu. Nomor 1. *Jurnal Pengabdian Masyarakat Sasambo*, 2. [Http://Jkp.Poltekkes-Mataram.Ac.Id/Index.Php/Pks](http://Jkp.Poltekkes-Mataram.Ac.Id/Index.Php/Pks)
- Hasanah, U., & Mahardika, D. R. (2020). Edukasi Prilaku Cuci Tangan Pakai Sabun pada Anak Usia Dini untuk Pencegahan Transmisi Penyakit. *Jurnal Seminar Nasional Pengabdian Masyarakat LPPM UMJ*, 1–9.
- Kartini, S. (2016). Kejadian Kecacingan pada Siswa Sekolah Dasar Negeri Kecamatan Rumbai Pesisir Pekanbaru. *Jurnal Kesehatan Komunitas*, 3(2), <https://doi.org/10.25311/jkk.vol3.iss2.102>
- Lubis, R., Pangabeian, M., & Yulfi, H. (2018). Pengaruh Tingkat Pengetahuan Dan Sikap Ibu Terhadap Penyakit Kecacingan Pada Balita. *Jurnal Kesehatan Lingkungan Indonesia*, 17(1), 39. [Https://Doi.Org/10.14710/Jkli.17.1.39-45](https://doi.org/10.14710/Jkli.17.1.39-45)
- Prakosa, G. (2010). Animasi: Pengetahuan Dasar Film Animasi Indonesia. Fakultas Film dan Televisi, Institut Kesenian Jakarta.
- Rafika, R., Alang, H., & Hartini, H. (2020). Edukasi Cuci Tangan dan Pemeriksaan Telur Cacing Pada Kuku Tangan Siswa SD Inpres Pampang 1 Makassar. Poltekita: *Jurnal Pengabdian Masyarakat*, 1(1), 15–22.
- Setiawati, E., Sjaaf, F., Wahyun, S., & Amran, R. (2022). Edukasi Bahaya Cacingan pada Anak Usia Sekolah dan Pencegahannya di SDN 06 Kampung-Lapai Kota Padang Tahun 2022. *Prosiding Seminar Nasional ADPI Mengabdikan Untuk Negeri*, 3(2). <https://doi.org/10.47841/semnasadpi.v3i2.58>

Utami, D. (2011). Animasi dalam pembelajaran. *Majalah Ilmiah Pembelajaran*, 7(1).