

Knowledge and Attitude Levels To Disease Worm infestation At Hidayatul Islamiyah Middle School

Received: 23 November 2025

Accepted: 15 December 2025

Publish online: 20 December 2025

[Anggy Utama Putri](#)^{1*}, Rahma Dita², Rifqi Pratama², Annisa Syahrani², Nur Rahmawati², Adellia Patricia Putri², Seftiana Nur Afifah², Nasyiah Tri Naurah², Rismayanti², Siska Lidia², Qori Agusti², Cien Wulansari², Mutiara Sepriani², Shela Maharani², Rika Dwi Safitri²

Abstrak

Infeksi kecacingan adalah penyakit yang umum terjadi pada anak usia sekolah, yang dapat mempengaruhi kesehatan, status gizi dan kemampuan belajar. Perilaku hidup bersih dan sehat (PHBS) berperan penting dalam pencegahan infeksi ini. Penelitian ini bertujuan memperoleh gambaran mengenai pengetahuan dan sikap siswa terhadap penyakit kecacingan di Madrasah Tsanawiyah Hidayatul Islamiyah. Penelitian ini menggunakan metode kuantitatif deskriptif dengan desain *cross-sectional*. Sampel penelitian terdiri dari 30 siswa kelas VII dan VIII, yang diambil secara total sampling. Data dikumpulkan menggunakan kuesioner pengetahuan dan sikap mengenai penyakit kecacingan, kemudian dianalisis secara deskriptif dengan frekuensi dan persentase. Hasil penelitian menunjukkan bahwa 1 siswa (3,3%) memiliki pengetahuan rendah, 14 siswa (46,7%) pengetahuan sedang, dan 15 siswa (50,0%) pengetahuan tinggi mengenai penyakit kecacingan. Sementara itu, sikap siswa yang baik terhadap penyakit kecacingan terdapat pada 16 siswa (53,3%), cukup pada 8 siswa (26,7%), dan kurang pada 6 siswa (20,0%). Penelitian ini menunjukkan bahwa sebagian besar siswa memiliki pengetahuan sedang hingga tinggi dan sikap yang baik, namun masih terdapat siswa dengan sikap kurang, sehingga diperlukan edukasi kesehatan berkelanjutan di sekolah

Kata kunci: Kecacingan,; Pengetahuan; Sikap.

Abstract

Worm infection is a common disease among school-aged children that can adversely affect health, nutritional status, and learning ability. Healthy living behaviors (PHBS) play a crucial role in the prevention of such infections. This study aimed to describe the knowledge and attitudes of students regarding worm infections at Madrasah Tsanawiyah Hidayatul Islamiyah. A descriptive quantitative approach with a cross-sectional design was employed. The study sample consisted of 30 students from grades VII and VIII, selected through total sampling. Data were collected using knowledge and attitude questionnaires concerning worm infections and analyzed descriptively using frequencies and percentages. The results indicated that 1 student (3.3%) had low knowledge, 14 students (46.7%) had moderate knowledge, and 15 students (50.0%) had high knowledge regarding worm infections. Regarding attitudes, 16 students (53.3%) demonstrated good attitudes, 8 students (26.7%) showed moderate attitudes, and 6 students (20.0%) exhibited poor attitudes. The findings suggest that while the majority of students possess moderate to high knowledge and generally positive attitudes, some students still display inadequate attitudes, highlighting the need for ongoing health education initiatives in schools.

Key words: Worms; Knowledge; Attitude

¹ D3 Pharmacy Study Program, Faculty of Pharmacy, Kader Bangsa University, Palembang

² Bachelor of Pharmacy Study Programs, Faculty of Pharmacy, Kader Bangsa University, Palembang

* Korespondent: Anngy Utama Putri ; e-mail: anggyutama@gmail.com

INTRODUCTION

Disease worm infestation classified as disease infection with distribution that is still wide and still Lots found, especially in countries in the region tropical and subtropical. Infection transmitted worms with intermediary land or *Soil Transmitted Helminths* (STH) incl type common parasitiasis happened, with estimate sufferers reaching 1.5 billion people or almost a quarter of the world's total population. Disease This generally attack group public with limited availability of clean water, facilities poor sanitation adequate, and implementation cleanliness suboptimal environment (Cici et al., 2021).

In Indonesia, worm infestation Still classified as disease infection with sufficient prevalence high, namely around 60–70%. Children during school is group with risk worm infestation the biggest, so that until moment This become problems that need to be addressed get attention (Syafikka et al., 2025). According to WHO (2019), around 24% world population infected worm infestation with transmission media land. Infection This own prevalence high in countries with a temperate climate tropical and subtropical including area endemic, with estimate around 267 million child age preschool and approximately 568 million children at the age of formal education is in conditions that require treatment and intervention prevention in a way sustainable (Laddo & B, 2023).

Common symptoms found in infections worm infestation with level severity tall covering diarrhea recurring, painful stomach, feeling weak, and decline condition physical. In addition, infection worm can influence function body in a way comprehensive, including cause disturbance cognitive and barriers growth, especially in children. Conditions the can influence quality life, nutritional status, and ability Study so that disease worm infestation need get serious prevention effort proper prevention and handling (Mawar et al., 2025).

Disease Worm infestation in children, especially those caused by *Soil Transmitted Helminths* (STH), is influenced by various factors. factor associated risks with behavior individuals and conditions environment place stay. Practice cleanliness self Which No optimal increase risk

exposure egg worms. In addition, children with habit poor hygiene own possibility more big experience infection worm intestines compared to child Which apply cleanliness self with Good (Laddo & B, 2023).

Infection worm infestation impact to health status, because existence worms inside channel digestion can cause lost substance iron which has an impact on the occurrence of lack nutrition and anemia. If condition the ongoing in term long, immunity child decrease and increase vulnerability to disease. Condition chronic this can also cause decline ability learning and achievement academic child (Cakrawati et al., 2024).

Prevention worm infestation can done through treatment use drug worms (*anthelmintics*) that function eradicate worms in the ducts digest and network body. Therapy pharmacological Which general used covering albendazole, mebendazole, And pyrantel pamoat. Albendazole and mebendazole Work with hinder absorption glucose so that worm out of stock energy and dead, with albendazole known safe, cheap, And Lots recommended For child and adults. Meanwhile that, pyrantel pamoat Work with paralyze worm through disturbance neuromuscular so that can issued together feces, given in dose single in accordance weight, and available in tablet and syrup form (Afifah et al., 2023).

In addition, the level of knowledge and attitudes individual participate influence practice behavior life clean And Healthy (PHBS) in activity daily. Knowledge Which adequate about disease worm infestation, mechanism transmission, as well as effort prevention can form positive and encouraging attitude practice life clean and healthy. On the other hand, limitations knowledge about worm infestation and the importance of PHBS causes individuals, in particular child age school, less consistent in apply behavior cleanliness, so that risk occurrence infection worm infestation still tall (Zulkifli et al., 2024).

A number of research that discusses about disease worm infestation in children age school has done, but part big study focused on prevalence incident or factor risk infection. Studies that are special describe knowledge and attitudes student related disease worm infestation at the junior high school level Still limited. Overview of

level knowledge and attitudes student become aspect important in designing educational programs health as well as push implementation practice life clean and healthy (PHBS) in schools. Based on matter said, research This done For describe knowledge and attitudes students of the Hidayatul Islamiyah Middle School towards infection worm infestation.

METHOD

Study This apply method quantitative descriptive with design *cross-sectional* study conducted at Madrasah Tsanawiyah Hidayatul Islamiyah Palembang in December 2025. Retrieval sample done with total sampling method, so that all member population, namely student Class VII and VIII of Hidayatul Islamiyah Middle School, Palembang participated as respondents in study This. Instrument study consists of on two questionnaire, that is questionnaire knowledge And attitude to disease worm infestation. Questionnaire knowledge containing 10 grains question with scale nominal (Yes = 1 and No = 0) which includes understanding worm infestation, symptoms, methods transmission, as well as effort prevention. A questionnaire that measures attitude to behavior life Clean and Healthy (PHBS) contains 15 questions that assess habit wash hands, wearing footwear, cleanliness food, as well as consumption drug worm.

Validity and reliability test performed on the instrument study before used For collecting data. The validity of the instrument is tested with method compare mark *r count* and *r table* on significance 0.05 with help device SPSS software. A grains question considered valid if mark the correlation exceed values in the table reference. For test consistency instrument, reliability testing was carried out with using Cronbach's Alpha, where the instrument categorized reliable if mark *Cronbach's Alpha* ≥ 0.60 (Forester et al., 2024) . Instrument questionnaire about knowledge student show results that all over grains valid questions with mark *r count* $>$ *r table* (0.361) and the value *Cronbach's Alpha* is 0.698 so stated Enough reliable. Next, in the points questions that measure about knowledge student to worm infestation show all over valid questions with mark

r count $>$ *r table* (0.361) and the value *Cronbach's Alpha* is 0.724 so stated reliable.

Next, the collected data processed in a way descriptive and presented in form distribution frequency as well as percentage For describe characteristics respondents, as well as level knowledge and attitudes they to worm infestation. Category level knowledge and attitudes Then determined based on percentage scores obtained respondents compared to with score maximum use formula following :

$$P = \frac{f}{N} \times 100\%$$

Information :

P = Percentage achieved

f = Score obtained student

N = Maximum score

Percentage results obtained Then classified to in three category, namely category low if score $<$ 56%, category currently If score 56% - 75% and category tall If score 76% - 100% (Sufiadiani & Pelima, 2023). Research This has get agreement from party school and all respondents in a way voluntary after get explanation about objective research. Confidentiality of respondent data maintained and used only For interest study

RESULTS AND DISCUSSION

Attitude students of the Hidayatul Islamiyah Middle School towards disease worm infestation. Focus discussion in study This is in the meaning findings study based on characteristics respondents as well as associated with condition theoretical and results study relevant previous ones. Through discussion This expected can known description condition knowledge and attitudes student to disease worm infestation as base in effort improvement education health in the environment school.

Profile data students also need known For support description about knowledge and attitudes student to worm infestation. The following is table showing composition age student as respondents.

Table 1. Age

Age	Frequency (f)	Percentage (%)
12 Year	11	(36.7 %)
13 Year	12	(40.0 %)
14 Year	7	(23.3 %)
Total	30	(100.0 %)

Based on table 1, it is known that respondents be in range aged 12 – 14 years, namely There were 11 respondents (36.7%) aged 12 years, 12 respondents (40.0%) aged 13 years, and 7 respondents (23.3%) aged 14 years. Based on results the so known that proportion the largest at the age of 13 years which includes in phase teenager beginning (Hasiholan et al., 2023). In phase this, development cognitive Already Enough Good so that respondents capable accept and understand information about health. Condition This potential support reception education about disease worms and behavior life clean and healthy (PHBS), as relevant with findings study previously stated that Power catch and pattern think somebody influenced by age, where along increase age so ability understand information and knowledge possessed will the more Good (Cici et al., 2021).

Table 2. Gender

Gender	Frequency (f)	Percentage (%)
Woman	16	(53.3%)
Man	14	(46.7%)
Total	30	(100.0%)

Analysis results show that majority respondents various sex women, namely as many as 16 people (53.3%) while respondents man as many as 14 people (46.7%). The difference proportion respondents This describe distribution type sex respondents in research, however No as well as immediately reflect difference level knowledge and attitudes to worm infestation. In the context of relevant research, type sex often associated with variation behavior and activities everyday that can influence exposure to potential environment become a medium of transmission worms. Some studies report that in the group certain women can own risk relatively more worm infestation tall consequence pattern activities and habits different hygiene (Laddo & B, 2023).

Research This No measure in a way specific behavior gender- based, so that profile about type sex respondents functioning as description characteristics respondents who provided description context complementary demographics interpretation results level knowledge and attitudes student.

Table 3. Class

Class	Frequency (f)	Percentage (%)
VII	15	(50.0%)
VIII	15	(50.0%)
Total	30	(100.0%)

Table 3 shows that proportion respondents class VII and class VIII are the same many, namely 15 children each (50.0%), so that distribution This nature balanced and depicts that respondents study be at the level relatively homogeneous education, both in a way age and stage development cognitive. Students grades VII and VIII are in the phase teenager early, which is characteristics Still is at in the process of formation habits and attitudes health (Hasiholan et al., 2023). In phase this, understanding about behavior life clean and healthy (PHBS) starting growing, but its implementation Not yet consistent Because influenced by the environment school and family. As findings study previously shown that in the group age school medium First equal, practice Cleanliness is greatly influenced by the environment and habits, so that potential increase vulnerability to infection worm if No accompanied with education sustainable health (Araujo & Dewi, 2024). Characteristics class respondents in study This play a role as context supportive demographics meaning results level knowledge and attitudes student to worm infestation.

Table 4. Knowledge Worms

Category	Frequency (f)	Percentage (%)
Low	1	(3.3 %)
Currently	14	(46.7 %)
Tall	15	(50.0 %)
Total	30	(100.0%)

Analysis results on show that level knowledge respondents about worms divided into

3 categories that is, low as many as 1 person (3.3%), 14 people (46.7%) category moderate, and as many as 15 people (50.0%) category high. Research results indicates that part big student own level sufficient understanding about infection worms and practice life clean as well as healthy (PHBS). This show that they has exposed information health through various sources, including environment school, family, and other media.

Knowledge is component the beginning that plays a role important in formation attitudes and behavior health, although No always in a way direct realized in consistent practice (Asmariani et al., 2025). Research results This consistent with studies previously stated that improvement knowledge about something disease can push awareness individual will importance steps prevention (Rakhman Hakim & Saputri, 2023). However thus, the height level knowledge No can in a way automatic interpreted as low risk incident worm infestation, because implementation behavior prevention Still influenced by various other factors, such as attitudes, habits, and conditions environment. Therefore that, the result level knowledge in study This viewed as base important in planning education sustainable health in the environment school.

Table 5. Attitude To Disease Worm infestation

Category	Frequency (f)	Percentage (%)
Low	16	(53.3 %)
Currently	8	(26.7 %)
Tall	6	(20.0 %)
Total	30	(100.0%)

Table 5 shows results about attitude respondents there is disease worm infestation, namely as many as 16 people (53.3%) were in category high, 8 people (26.7%) category moderate, and 6 people (20.0%) category low. This is indicates that although majority respondents knowledgeable Good about disease worms and behavior life clean and healthy (PHBS), not all over respondents show readiness optimal attitude.

Findings study indicates that knowledge possessed student Not yet fully reflected in attitude prevention disease worm infestation in a way consistent. One of the the factors is Because student is in phase teenager the beginning which is phase transition Where ability cognitive start growing, but formation attitudes and habits Not yet fully stable (Hasiholan et al., 2023). Conditions This allows student own sufficient knowledge good, but Not yet always followed by attitude or harmonious behavior with knowledge possessed. These results in line with studies previously revealed that height knowledge No always translated to in attitude or behavior proper health (Rahmadhani et al., 2020).

Attitude understood as phase transition between knowledge and practice, where its formation influenced No only by the information received, but also by experience, habits, and environment social place individual is at (Hrp et al., 2022). Therefore that, the difference attitude between respondents can reflect difference in the process of getting used to it behavior life clean and healthy environment everyday life. In the context of schools studied, conditions This can indicates that education health care provided Still need reinforced, no only on the aspect delivery information, but also on the formation attitude through habituation, role model, and support environment school. With Thus, the results about attitude student in study This give description important for planning intervention health more schools directed and sustainable, especially in effort prevention disease worm infestation.

CONCLUSION

Based on findings in research , can concluded that:

1. The level of knowledge of worms is mostly in the high category, namely 50%, 46.7% in the medium category and 3.3% in the low category.
2. Although students' attitudes towards worm disease tend to be good (53.3%), 26.7% were still found to be in the moderate category and 20% were in the low category.
3. Findings This confirm the need intervention better health focused , such as PHBS habits in schools , teacher role models and educational

programs sustainable For ensure knowledge that can implemented in a way consistent in attitudes and behavior student

BIBLIOGRAPHY

- Afifah, A. R., Sanna, A. T., Lestari, N. A., Sulaiman, A. B., & Jafar, M. A. (2023). Faktor Risiko Infeksi Kejadian Kecacingan pada Anak Usia Sekolah di Wilayah Kerja Puskesmas Panambungan Makassar. *Fakumi Medical Jurnal: Jurnal Mahasiswa Kedokteran*, 3(5), 254–260.
- Araujo, J. M. De, & Dewi, Y. R. (2024). *Analisis Infeksi Cacing Pada Anak Sd Hati Kudus Dili Timor Leste*. 1(3), 475–480.
- Asmariyani, A. N., Irwan, Z., & Al-fath, M. D. (2025). *Gambaran Pengetahuan dan Sikap Remaja Tentang Jajanan Sehat di SMP Negeri 1 Mamuju Description of Adolescents ' Knowledge and Attitudes Toward Healthy Snacks at SMP Negeri 1 Mamuju*. 5, 18–23.
- Cakrawati, R., Zakaria, R., & Arlianti, N. (2024). Faktor-Faktor yang Berhubungan dengan Perilaku Pencegahan Penyakit Cacingan pada Anak Umur 6-10 Tahun di Desa Rikit Gaib Kabupaten Gayo Lues, Aceh. *Jurnal Kesehatan Tambusai*, 5(3), 5942–5950. <https://journal.universitaspahlawan.ac.id/index.php/jkt/article/view/30916>
- Cici, A., Rahmawati, A., Indraswati, F., Maulia Hasrida, H., Sanjaya, Y., Fitriana, N., Nabilla, A., Oktiana, F., & Fifendy, M. (2021). Analisis Sikap Dan Pengetahuan Remaja Rentang Umur 15-22 Tahun Tentang Penyakit Kecacingan. *Universitas Negeri Padang*, 01(2021), 818–829. <https://doi.org/10.24036/prosemmasbio/vol1/106>
- Forester, B. J., Idris, A., Khater, A., Afgani, M. W., Isnaini, M., Islam, U., Raden, N., & Palembang, F. (2024). Penelitian kuantitatif: uji realibilitas. *Jurnal Pendidikan, Ilmu Sosial Dan Pengabdian Kepada Masyarakat*, 4(3), 1812–1820. <https://jurnal.permapendis-sumut.org/index.php/edusociety> Penelitian
- Hasiholan, A. M., Manik, J., Tanga, M., & Setyobekti, A. B. (2023). Edukasi Dini Tentang Pornografi Bagi Usia Remaja Awal Bagi Siswa/I Sma Prestasi Prima Jakarta. *Jurnal PKM Setiadharna*, 4(2), 128–137. <https://doi.org/10.47457/jps.v4i2.387>
- Hrp, N. A., Masruro, Z., Saragih, S. Z., Hasibuan, R., Simamora, S. S., & Toni. (2022). Buku Ajar Belajar Dan Pembelajaran. In *Penerbit Widina*. <https://doi.org/10.21070/2022/978-623-464-043-4>
- Laddo, N., & B, E. S. N. (2023). Faktor Risiko Infeksi Kejadian Kecacingan pada Anak Usia Sekolah di Wilayah Kerja Puskesmas Panambungan Makassar. *Fakumi medical journal*, 3(4), 278–289.
- Mawar, Herdiana, R., Ida, A. S., Widiarti, & Nasir, M. (2025). Deteksi Tingkat Infeksi Cacing Soil Transmitted Helminths (STH) Pada Ibu Hamil Yang Menetap Pada Pemukiman Kumuh Di Kota Makassar Detection. *Jurnal Media Analisis Kesehatan*, 125(2), 132–139.
- Rakhman Hakim, A., & Saputri, R. (2023). Edukasi Tentang Penyakit Cacingan Dan Cara Mencuci Tangan Yang Benar Pada Siswa Sekolah Dasar.. *Majalah Cendekia Mengabdikan*, 1(1), 1–4. <https://wpcpublisher.com/jurnal/index.php/majalahcendekiamengabdikan>
- Sufiadiani, N. K., & Pelima, R. V. (2023). Pengetahuan Dan Sikap Siswa Tentang Perilaku Hidup Bersih Dan Sehat Di Sekolah Dasar Negeri 25 Balaesang Kecamatan Balaesang Kabupaten Donggala. *Jurnal Ilmiah Kesmas IJ (Indonesia Jaya)*, 23(1), 14–20. <https://journal.stik-ij.ac.id/index.php/kesmas/article/view/192>
- Syafikka, Jafriati, & Handayani, L. (2025). Faktor Yang Berhubungan Dengan Infeksi Telur Cacing Soil Trasmited Helminths Pada Siswa Tk Wulele Sanggula Ii Kecamatan Kambu Kota Kendari. *Jurnal Kesehatan Lingkungan Univ. Halu Oleo (Jkl -Uho)*, 6(1), 100. <https://jkl-fkm.uho.ac.id/index.php/journal/article/view/21/55>
- Zulkifli, Arman, Nurlinda, A., Mahmud, N. U., & Abbas, H. H. (2024). Gambaran Kecacingan Pada Siswa Kelas Iii Dan Iv Sekolah Dasar Negeri Mannuruki. *Window of Public Health*, 5(1), 117–124.