

DESCRIPTION OF PARENTS' KNOWLEDGE LEVEL ABOUT WORMS IN PRE-SCHOOL CHILDREN TUNAS MULIA KINDERGARTEN

Audhyra Eka Rahmadhani¹⁾, Dony Sulystiono²⁾, Alfi Maziyah³⁾.

1. D3 D3 Keperawatan Sidoarjo, Politeknik Kesehatan Kementerian Kesehatan Surabaya, Sidoarjo, Indonesia
Email : audhyraeka@gmail.com
2. D3 Keperawatan Sidoarjo, Politeknik Kesehatan Kementerian Kesehatan Surabaya, Sidoarjo, Indonesia
Email : donistavolt@gmail.com

Abstract

Worm infestation is still a serious problem in Indonesia. Worm infestation is often considered a trivial disease by most people. In this case this disease can reduce the level of health of children e.g. anemia, growth and development disorders, cognitive development disorders, lazy activities and weight gain, The research design used in this research is "descriptive" research, which is a research design that aims to describe present events, carried out systematically and emphasizes factual data rather than inference by conducting surveys on variables. Based on the results of the discussion that has been presented, the researcher can conclude several things based on the objectives achieved in the research conducted at Tunas Mulia Kindergarten, namely that the level of parental knowledge about the prevention of worms in the good category is 41 people (91.1%). The incidence of helminthiasis based on the Sidoarjo District Health Office profile is 7.22 percent or around 174 children out of 2,400 children who were weighed. They were found in 19 villages. It is expected that parents generally have the motivation to increase their knowledge and seek information about the impacts that arise if not treated immediately through counseling and from various media.

Keywords: deworming, parents' level of knowledge related to deworming prevention.

1. INTRODUCTION

Pre-school children are a group that has a high risk of developing malnutrition. This is because at that age the growth and development of children is in a rapid period so that more nutrients are needed, the immune system is still weak so that it is more susceptible to infection than children with older ages and more vulnerable to wrong parenting (Julianti, 2003).

That's why the role of parents is very necessary, especially the low behavior of mothers in getting used to washing hands can cause children to get infections, one of which is parasitic infections, namely worms (Solikhin, 2011). Worm infestation is a group of neglected diseases. Helminths can affect all age groups and genders, but are most commonly found in pre-school children (Waris, 2009).

Severe infections can be fatal. Helminthiasis can be transmitted in various ways, one of which is through food or drink contaminated with worm eggs or through the soil. The development of this disease is influenced by many factors ranging from tropical climate, poor body hygiene, poor

environmental sanitation, dense and humid settlements.

In addition, unclean water, eating with dirty nails, and contaminated objects can help spread worms or larvae. 819 million people are infected with *Ascaris lumbricoides*, 464.6 million with *Trichuris trichiura* and 438.9 million with Hookworm.

Worms can affect everyone, but children are most vulnerable. Worms are also not for thin people and have nothing to do with poverty (Rosparida, 2019). Eradicate helminthiasis by mass drug administration, promotion of healthy lifestyles and clean sanitation (MOH RI, 17).

The national rate of helminthiasis is 30.35% with a prevalence of roundworm 17.75%, whipworm 17.74% and hookworm 6.46% (DG PPM and PL, 2014).

The incidence of helminthiasis based on the Sidoarjo District Health Office profile is 7.22 percent or about 174 children out of 2,400 children who were weighed. They were found in 19 villages.

This shows that efforts need to be made to reduce helminthiasis by taking deworming medication, promoting healthy lifestyles and

clean sanitation. Children suffering from helminthiasis will experience impaired learning concentration and impaired growth and development, which will affect their ability to receive school lessons (Supali, 2021).

2. RESEARCH METHOD

This research method is a plan and structure of investigation that is arranged in such a way that the researcher will be able to obtain answers to his research questions and the plan is a comprehensive scheme that includes a research program. (Heriyanto, 2017).

The research design used in this study is "descriptive" research, which is a research design that aims to identify the level of parental knowledge of worms.

In terms of time, this research includes cross-sectional research, namely a study in which variables including risk factors and variables including effects are observed at the same time. (Heriyanto, 2017).

3. RESULT AND DISCUSSION

This chapter will describe the results of research on the description of the level of parental knowledge about deworming prevention behavior at Tunas Mulia Kindergarten, Tanggulangin.

The presentation of data about the results of the study is grouped into two parts, namely general data and specific data, starting from general data about the characteristics of parent respondents. While the specific data presented is about data on parental knowledge about the prevention of worms, impacts and symptoms.

Data were obtained by taking data through questionnaires and filled in by respondents using a guttman questionnaire.

Research Population

In this study the population was all parents totaling 45 respondents at Tunas Mulia Elementary School, Kalidawir Village, Tanggulangin Sidoarjo.

Sample

The sampling technique in this study was by means of total sampling where the number of samples was the same as the population so the number of samples in this

study was 45 respondents of parents of children at Tunas Mulia Kindergarten.

Sampling Techniques

Sampling technique is a way of taking samples used in research from a population. The sampling technique used in this study used a total sampling technique.

Variable Identification

A research variable is an attribute or trait or value of people, objects, or activities that have certain variations set by researchers to study and then draw conclusions (Sugiono 2016 in Fakhri, 2021). The variable in this study is the level of parental knowledge.

3.1 General Data

General data in this study include age, latest education and occupation.

Table Characteristics of parent respondents (n=45)

No.	Indicators	Frequency	Percentage %
1.	Age		
	- Minimum	25 Years	
	- Maximum	48 Years	
	- Average	33 Years	
2.	Last Education		
	- Elementary School	1	2,2
	- Junior High School	8	17,8
	- High School	27	60
	- S1	9	20
3.	Occupation		
	- Housewife	32	71
	- Civil Servant	7	15,6
	- Private	1	2,2
	- Self-Employed	5	11,1

The minimum age is 25 years and the maximum is 48 years with an average of 32.8. Most of the respondents last education majority of high school 27 people (60%). Most respondents work the majority of housewives 32 people (71%).

Special Data

Table 3.1 How to prevent worms score assessment

No.	Handling Methods	Frequency	Percentage (%)
1.	Good	19	42,2
2.	Fair	19	42,2
3.	Less	7	15,6
	Amount	45	100

The results showed that the majority of parents' knowledge about how to treat worms in preschool children at Tunas Mulia

Kindergarten was good and sufficient at 84.4% (38 people).

Table 3.2 Assessment of parents' knowledge of deworming symptoms

No.	Symptom Knowledge	Frequency	Percentage (%)
1.	Good	27	60
2.	Fair	17	37,8
3.	Less	1	2,2
Amount		45	100

The results showed that most parents' knowledge about the signs and symptoms of worms in preschool children at Tunas Mulia Kindergarten was good, which amounted to 60% (27 people).

Table 3.3 Assessment of parents' knowledge on the impact of deworming

No.	Impact of worms	Frequency	Percentage (%)
1.	Good	24	53,2
2.	Fair	19	42,2
3.	Less	2	4,4
Amount		45	100

The results showed that most mothers' level of knowledge about the effects of worms in preschool children at Tunas Mulia Kindergarten was good, which amounted to 53.3% (24 people).

Discussion

1. Parents' knowledge about preventive measures in children

Parents' knowledge about prevention methods in children

From the results of the study, it was found that most parents of pre-school children had good knowledge about how to handle, namely 38 respondents (84.4%). Respondents who have sufficient knowledge are the average age of high school education.

The majority of parents know the impact of worms, but there are still 20% who do not know that worms can cause malnutrition and decreased endurance. Worm infestation in the community is still considered a disease that does not require serious treatment. In fact, the disease can cause various health problems such as nutritional disorders, decreased immunity, and decreased learning concentration in children (Kemenkes RI, 2017; WHO, 2020).

The majority of parents knew about the prevention of worm infestation in the form of treating people with worms, washing hands with water and soap after defecation, wearing

footwear when outside the home, cutting nails once a week, maintaining environmental hygiene, and maintaining personal hygiene. However, there are some students who do not know how to prevent worms. As many as 20% of parents still do not know that worms need to be treated.

Patients with worms must be treated so that the worms die and the worm eggs become infertile so that they cannot infect others. Treatment of worms in all children is now routinely carried out every 6 months by the government. Deworming every 6 months is based on the worm's life cycle from egg to larva to human infection. The results of this study also explain that not taking deworming medication can be 11 times greater risk of worms (Kartini, 2016).

2. Parents' knowledge about the symptoms of worms

From the results of the study, it was found that most parents of pre-school children had good knowledge about the symptoms of worms, namely 27 people (60%). Respondents who have good knowledge have an average education of SMA to S1.

From other studies, it is known that environmental sanitation including the presence or absence of clean water sources and the availability of toilets are factors that play a role in increasing soil-transmitted helminthiasis infections in pre-school children in rural areas.

3. Maternal knowledge about the impact of helminths

From the results of the study Increased knowledge of the symptoms of worms can improve people's lifestyles, so as to reduce the incidence of worm disease. The role of parents is an important factor in shaping children's health behavior. Without sufficient knowledge, parents cannot perform their role in maintaining children's healthy behavior optimally. Prevention of worm infections can be done if parents have knowledge related to worms and clean lifestyles.

It was found that most mothers of pre-school children had good knowledge about the impact of worms on children, namely 24 people (53.3%). Respondents who have good knowledge are 25-48 years old with an average education of SMA to S1.

Cumulative deworming in humans can cause nutritional losses in the form of carbohydrates and protein as well as blood loss, which can reduce work productivity. Worms can also hinder physical development. Worms can also reduce the body's immune system, making it susceptible to other diseases.

4. CONCLUSION AND SUGGESTION

Conclusion

Based on the results of the discussion that has been presented, the researcher can conclude several things based on the objectives achieved in the research conducted at Tunas Mulia Kindergarten, namely:

1. That the level of parental knowledge about the prevention of worms in the majority of indicators is good and sufficient 38 people.

2. That the level of parental knowledge about the symptoms of worms in the majority indicator is good 27 people.

3. That the level of parental knowledge about the impact of worms in the majority indicator is good 24 people.

Suggestions

1. For TK Tunas Mulia

Efforts that can be made by the relevant school (TK Tunas Mulia) can improve their services by providing correct information through posters and providing counseling on the prevention of worms in children so as to prevent problems in children.

2. For Parents

Parents are expected to have the motivation to increase their knowledge and seek information about the impacts that arise if not treated immediately through counseling or from various media.

3. For children

Efforts made by parents in general have the motivation to increase knowledge about the prevention of worms in children can make health healthier and prevent decreased appetite.

4. For future researchers

In further research, it is necessary to conduct a more detailed study in sufficient time and a larger number of respondents (parents) to determine the level of parental knowledge about the prevention of worms with clean and healthy living behavior.

5. REFERENCE

Annisa, I., Damayanti, R., Trianto, D. M.,

Wiratama, M. P., Wahdini, S., & Sungkar, S. (2017). Effect of Single Dose Albendazol Treatment on Soil-Transmitted Helminth Infection and Child Nutritional Status in Perokonda Village, Southwest Sumba. *EJournal Medicine Indonesia*, 5(2). <https://doi.org/10.23886/ejki.5.8229>.

Andaruni, A. (2012). Description of the factors causing worm infection in children at Sdn 01 Pasirlangu Cisarua. *Students E-Journal*, 1, 28. <http://jurnal.unpad.ac.id/ejournal/articel/view/597>

Surgery, S., & Syafitri, A. (2019). Helminthic infection in children aged 8-14 years in Rw 007 Tanjung Lengkong, Bidaracina Village, Jatinegara, East Jakarta. *Scientific Journal of Health*, 10(1), 20–31. <https://doi.org/10.37012/jik.v10i1.13>

Carolina, P., Carolina, M., Muji, R., School, L., Science, T., Eka, K., City, H., & Raya, P. (2016). Correlation Of Knowledge And Resources With Application Behavior Clean And Healthy Lifestyle (PHBS) In The Family In The Work Area Pustu Pahandut Seberang Kota Palangka Raya 2016. *EnviroScienteeae*, 12(3), 330–337.

Croke, K., Hsu, E., & Kremer, M. (2017). Editorial: More evidence on the effects of deworming: What lessons can we learn? *American Journal of Tropical Medicine and Hygiene*, 96(6), 1265–1266. <https://doi.org/10.4269/ajtmh.17-0161>

Ganda Sigalingging , Selli Dosriani Sitopu, D. W. D. (2019). Knowledge of worms and deworming prevention efforts. *Journal of Darma Agung Husada*, 6(2), 96–104.

Hardisari, R. (2018). The relationship of knowledge about helminthic infections with the number of helminth eggs in children of primary school age. *Publication Manuscript of the Department of Health Analyst of Yogyakarta Health Polytechnic*, 1–13. <http://pustaka.poltekkes-pdg.ac.id/repository/NURAINI-SOFIANTI.compressed.pdf>

- Hayati, L., Panghiyangani, R., & Rosida, L. (2018). Overview of the level of knowledge of parents of students of Slb Darma Praja Banjarmasin about the symptoms and transmission of pinworm infection (*Enterobius vermicularis*). *Journal of Health Periodicals*, 3(2), 93.
- Ibrahim. (2013). The Relationship of Personal Hygiene with Worms in Children in the Working Area of Tamangapa Antang Makassar Health Center. *Thesis*, 1–107. <http://repositori.uin-alauddin.ac.id/3102/>
- Kamil, R. (2019). Descriptive Study of Mother's Level of Knowledge about Ascariasis (Worms) in Children in the Working Area of Siwuluh Health Center, Brebes Regency in 2021. *Bhakti Husada Health Sciences Journal*, 10(2), 115–121. <https://doi.org/10.34305/jikbh.v10i2.10>
- Genesis, D., Son, K., Place, D. I., & End, P. (2019). *Knowledge, behavior and environment related to daffodils*. 13, 10–17.
- Kusumarini R, S., Sholekhah, S. S., Vandania, F., & Lazulfa, Z. I. (2021). Overview of knowledge and application of student personal hygiene in an effort to prevent soil transmitted helminth (STH) infection. *Journal of Innovation Results of Community Service (JIPEMAS)*, 4(1), 134. <https://doi.org/10.33474/jipemas.v4i1.9105>
- Limbanadi, E. M., Rattu, J. A. M., & Pitoi, M. (2013). The relationship between economic status, education level and maternal knowledge about helminthic disease with worm infestation in grade IV, V and Vi students in SD Negeri 47 Manado City. *Sam Ratulangi University School of Public Health*, 1–6.
- Lihawa, N. F., Hadi, S., & Amaliyah, I. K. (2020). The Influence of Mother's Level of Knowledge and Attitude towards Deworming Consumption in MI DDI Gusung Elementary School Students Makassar City. *UMI Medical Journal*, 5(1), 20–27. <https://doi.org/10.33096/umj.v5i1.84>
- Lombu, A. (2019). *The relationship of counseling on deworming to increase knowledge of toddler mothers at Bpm Rina Hanum in 2019*. <http://repository.helvetia.ac.id/id/eprint/2011/%0Ahttp://repository.helvetia.ac.id/id/eprint/2011/7/ASNIA> LOMBU 1801032008.pdf
- Mustafa, P., Palandeng, H., & Lampus, B. S. (2013). *The relationship between behavior about helminthiasis prevention and worm infestation in elementary school students in Bengkol Village, Mapanget District, Manado City*. 000.
- Noviyanti, Purwaningsih, & Dwiranti, F. (2020). Image-based health education for the prevention of soil-sourced worms in West Papua. *Dynamism : Journal of Community Service*, 5(1), 169–175. <https://doi.org/10.31849/dinamisia.v5i1.4482>
- Rahma, N. A., Zanaria, T. M., Nurjannah, N., Husna, F., & Putra, T. R. I. (2020). Risk Factors for Worms in Elementary School-Age Children. *Indonesian Journal of Public Health*, 15(2), 29. <https://doi.org/10.26714/jkmi.15.2.2020.29-33>
- Sahani, W., & Limbong, O. S. (2020). The relationship of nail washing habits with the incidence of helminthic infections in elementary school children (literature study). *Sulolipu: Communication Media of the Academic Community and the Community*, 20(2), 310. <https://doi.org/10.32382/sulolipu.v2i20.1850>
- Sembiring, B., & Lubis, F. H. (2021). Counseling on preventing worms in children in the harvest village of Biru-biru sub-district. *Putri Hijau Journal of Community Service*, 1(3), 33–38.
- Sugiono 2016 in Fakhri. (2021). Purposive Sampling Research Methods. 2021, 32–41.
- Suwandi, J., Tjahjani, S., & Hidayat, M. (2010). Effectiveness of Repeated Single Dose of Mebendazol 500mg Against Tricuriasis in Children of Cigadung Elementary School and

- Cicadas East Bandung. *Maranatha Journal of Medicine*, 1(2), 25–29.
- Sulistianah, R., Handayani, D., & Farakhin, N. (2021). Overview of Personal Hygiene with Symptoms of Worms in Children in Pasar Keputran Village, Surabaya City. *Health Journal*, 14(2), 95–101.
<https://doi.org/10.32763/juke.v14i2.253>
- Taisir, A., Hapsari, R., Pratama, I. S., Aini, S. R., Tresnani, G., & Suryadi, B. F. (2019). Counseling on deworming traditional medicine efforts as an implementation of healthy pesantren programs. *Transformation: Journal of Community Service*, 15(2), 105–114.
<https://doi.org/10.20414/transformasi.v15i2.1789>
- Yurika, E., A. S., A. P., Fauziah, N., Z.C, A., Farhan N, N., Natasia L, I., Ayu M., D., Eldytananda, D., Ervianoer M, F., Dewi A, A., Darojatul F, R., & Nugraheni, G. (2020). Profile of parents' knowledge related to worm disease and deworming programs as well as risk behavior for deworming in children. *Journal of Community Pharmacy*, 6(2), 52.