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Counseling for Mothers on the Importance of Deworming Toddlers at Posyandu Lavenda, Kenali Besar Community Health Center, Jambi City

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ABSTRACT

Soil-Transmitted Helminths (STH), commonly known as intestinal worms, are infections caused by helminths transmitted through contaminated soil. Factors contributing to STH include poor hygiene, non-compliance with deworming treatment, inadequate sanitation, and limited knowledge about STH. In Indonesia, helminth infections remain a significant public health issue, with prevalence rates ranging from 2.5% to 62%. According to the 2021 Indonesia Nutritional Status Survey by the Ministry of Health, the proportion of toddlers suffering from helminth infections is approximately 2.8%. The World Health Organization recommends periodic treatment (deworming or preventive chemotherapy) without prior individual diagnosis for all at-risk individuals in endemic areas. This activity aims to enhance community knowledge and to treat and prevent helminth infections caused by roundworms, hookworms, whipworms, and pinworms, which can impede children's growth at Posyandu Lavenda, Kenali Besar Community Health Center, Jambi City. The results indicated that all participants were highly enthusiastic and engaged during the counseling sessions, and local healthcare workers were very proactive in implementing preventive measures against helminth infections in children as early as possible.

Keywords:
Toddlers, Deworming, Maternal Knowledge

1. Introduction

According to data from the World Health Organization (WHO), more than 600 million people worldwide are infected with Soil Transmitted Helminths (STH) (World Health Organization, 2023). In developing countries, one of the most cost-effective public health interventions is deworming treatments for school-aged children (Minister of Health Regulation, 2017). Helminth infections affect all age groups and genders but are most commonly found in preschool-aged children (1-4 years) (Waris et al., 2012). These infections significantly impact children's growth and development. The ages of 1-4 years are considered critical for children's development. During this phase, children experience rapid foundational growth, as well as developments in speech and language abilities, creativity, social awareness, emotional and intellectual capacities (Kania, 2010 as cited in Riyadi & Sundari (2020)).

Suboptimal medication usage can be attributed to several factors, including a lack of understanding about how to use the medication, non-adherence to the prescribed dosing schedule, or other issues that may prevent mothers from administering the medication correctly (Mawaqit, 2022). Globally, there are approximately 260 million preschool children and 654 million school-aged children affected (World Health Organization, 2023). The prevalence of helminth infections in Indonesia varies between 2.5% and 62%, affecting all ages with a range of 40% - 60%. According to the 2021 Indonesia Nutritional Status Survey by the Ministry of Health, the proportion of toddlers suffering from helminth infections is approximately 2.8%. West

Nusa Tenggara (NTB) reported a 13.1% prevalence of intestinal worm infections among preschool-aged children (Ministry of Health of the Republic of Indonesia, 2022).

Helminth infections are often found in preschool-aged children, or those aged 1 to 5 years. One contributing factor is the lack of effective knowledge transfer regarding clean and healthy living behaviors (Indonesian: *Perilaku Hidup Bersih dan Sehat*; PHBS), which is not yet well understood by toddlers and children. This age is primarily a time for playing, which makes this understandable. The ability to take care of oneself, particularly in terms of healthy living behaviors, cannot yet be expected from children, thus requiring significant supervision (Sumanto et al., 2021). The most common cases of helminth infections are caused by Ascaris lumbricoides and *Enterobius vermicularis*, commonly known as enterobiasis (Hasibuan, 2019). It is a fact that the majority of reported enterobiasis cases occur in toddlers and children (Mahardani, 2020 in Wahidah (2023)).

Under the Minister of Health Regulation No. 15 of 2017 on Helminthiasis Control, one of the control programs in Indonesia is through Mass Drug Administration (MDA) with Albendazole targeting children aged 1-12 years, which includes elementary school children and toddlers, considering the impact of helminth infections in early childhood can lead to persistent malnutrition and subsequently to stunted growth according to age. Therefore, helminth control programs need to be integrated with other programs targeting the same age groups, including the Filariasis Control Program, the School Health Program (UKS) for elementary school children, and, to reach more toddlers, integration with the Vitamin A Supplementation Program at Posyandu.

Helminth control activities must be accompanied by educational programs on clean living and improving environmental sanitation in the area. The target coverage for Mass Drug Administration (MDA) for helminthiasis is at least 75% of the intended population (Ministry of Health, 2020). Parents receiving limited information can impact the proper use of deworming medications in children. Children are not yet capable of taking deworming medications independently (Cholifah, 2016). Therefore, mothers and health workers must enhance their knowledge about the correct and effective use of deworming medications, including appropriate dosages, proper treatment durations, and appropriate preventive measures against infections. Moreover, the right approach and effective treatment are vital to reduce the prevalence of helminth diseases and prevent reinfection. Mothers with limited knowledge about the signs/symptoms, transmission methods, and prevention of helminth infections are at a higher risk of contracting these diseases. Conversely, mothers with extensive knowledge about STH are likely to take effective preventative measures, such as adhering to antihelminthic medication regimens and maintaining good personal hygiene and living standards (Roekmiati, 2012 as cited in Ana (2022)).

The phenomenon of mothers' low knowledge is evidenced by research. For instance, a study conducted by Ana (2022) found that a majority (63.3%) of mothers had insufficient knowledge, and none of the mothers administered deworming medications to their children. Another study by Hayati et al. (2017) revealed that only 9.76% of parents had good knowledge about the use of deworming medications. Additionally, research by Wiyono et al. (2020) showed that only 45% of mothers had adequate knowledge about helminth infections and deworming medications.

Other demographic data indicate that the highest educational attainment of mothers with children aged 1-4 years in this village is Junior High School or equivalent. One factor affecting knowledge is the level of education. According to the data, the educational level of mothers with children aged 1-4 years in Narawita Village is relatively low. Results show that out of 379 mothers, 111 have completed elementary education or equivalent, 138 have a junior high school or equivalent, 105 have high school or equivalent, 6 hold a diploma, and 19 have a bachelor's degree.

Observing the phenomenon that mothers' knowledge is crucial in preventing helminth infections, there is a need for efforts to enhance mothers' knowledge about the proper and optimal use of deworming medications and to ensure that these medications are administered correctly on every occasion. By improving mothers' knowledge of the correct use of deworming medications, it is hoped that this will strengthen the role of mothers as agents of change in preventing and controlling worm infections in children and families. Based on the above description, this study is urgent to be conducted in the community of Narawita Village, Cicalengka District, to ascertain the level of Mothers' Knowledge of the Use of Deworming Medications in Children Aged 1-4 Years. The purpose of this study is to determine the level of mothers' knowledge about the use of deworming medications for children aged 1-4 years in Narawita Village, Cicalengka District.

2. Methodology

The method used in this activity involved health education counseling provided to the community, which included material on the importance of administering deworming medications to toddler-aged children and methods to prevent helminth infections. The procedure for conducting this activity required all participants to bring their Maternal and Child Health Book (Indonesian: *Buku Kesehatan Ibu dan Anak*; *KIA*), which was to be handed over to the officials. Participants were then asked to register their attendance in the guest book provided. This was followed by the growth and development assessment of the toddler-aged children, which included measuring height/length, weight, head circumference, and upper arm circumference.

Subsequently, the mothers and their toddlers were seated to complete a pretest questionnaire to gauge the mothers' knowledge regarding deworming before the counseling session. The counseling session was then conducted by the staff for all attendees using lecture methods and leaflet media. After the counseling, all participants were allowed to ask questions and respond to inquiries from the staff. The final session concluded with a posttest questionnaire, containing the same questions as the pretest, to assess any improvement in the community's knowledge before and after the educational intervention.

Figure 1. Posyandu activities in examining and administering worm medicine to children under five

Before the participants left, the staff conducted direct questioning to evaluate the success of the counseling activity. The last session was concluded by awarding prizes to those who answered and asked questions, and it ended with a group photo. This activity was held at Posyandu Lavenda in the Kenali Besar Community Health Center area in Jambi City, with a total of 22 participants.

3. Results and Discussion

3.1. Research Results

The study revealed the levels of maternal knowledge regarding the importance of administering deworming medications to their toddler-aged children, as follows:

Table 1. Frequency Distribution of Maternal Knowledge Levels (PreTest/Before) Activity

PreTest/Before Activity		
Level of Knowledge	**Frequency**	**Percentage (%)**
Good	6	27.28
Fairly Good	9	40.90
Poor	7	31.82
Total	22 people	100 %

Table 2. Frequency Distribution of Maternal Knowledge Levels (PostTest/After) Activity

PreTest/Before Activity		
Level of Knowledge	**Frequency**	**Percentage (%)**
Good	18	81.82
Fairly Good	4	18.18
Poor	0	0
Total	22 people	100 %

The results from Table 1 Pretest/Before the educational counseling activity show that the mothers of toddler-aged children had the following levels of knowledge: 6 mothers (27.28%) had good knowledge, 9 mothers (40.90%) had fairly good knowledge, and 7 mothers (31.82%) had poor knowledge. Following the Posttest/After the educational counseling, it was observed that the knowledge levels improved significantly; 18 mothers (81.82%) had good knowledge, 4 mothers (18.18%) had fairly good knowledge, and no mothers (0%) had poor knowledge.

This increase in maternal knowledge about the importance of administering deworming medications to their toddlers indicates that better knowledge can affect mothers' attitudes and behaviors toward the health of their children. Several factors affect maternal knowledge, including internal factors such as education level, occupation, and age of the mother, and external factors such as environmental and sociocultural factors (Tiara, 2015). Knowledge is related to the amount of information an individual possesses. Information processing involves receiving information, processing it, storing it, and stimulating it. Meanwhile, cognition is the process of manipulating or processing acquired information to meet needs or merely to respond (Ottay, Ronald, 2019). Other factors that can affect knowledge include experience, as experience is related to an individual's age and education (Notoatmodjo, 2018).

3.2. Discussion

The findings of this study demonstrate a significant improvement in maternal knowledge regarding deworming medication administration for toddler-aged children following educational counseling. This improvement is evidenced by the increase in the percentage of mothers with good knowledge from 27.28% before the intervention to 81.82% after the intervention, with a complete elimination of the poor knowledge category (from 31.82% to 0%).

These results align with research conducted by Kismawati et al. (2022), which demonstrated that administering Albendazole significantly reduced helminth infections within three weeks (p-value <0.05). This shows that deworming activities can prevent toddler-aged children from potential helminth infections and protect them from chronic malnutrition. Ideally, deworming medication should be administered as early as possible within the intestinal tract. However, there are still parents who give deworming medication to their toddlers more than six months after the recommended time. This delay leads to an increase in the lifecycle of STH group eggs, allowing the eggs to quickly mature into adult worms. If helminth infections occur and are

not promptly treated, they can adversely affect health. Prevention and control of the intestinal worm lifecycle can be achieved through various means such as using proper sanitation facilities, maintaining personal hygiene, regular bathing and hand washing, and ensuring an adequate supply of clean water at home and in community settings.

Furthermore, our findings suggest that Posyandu (Integrated Health Service Posts) serve as effective platforms for delivering health education interventions related to child health. The community-based nature of Posyandu makes them accessible and familiar to mothers, potentially reducing barriers to participation and enhancing the acceptance of health information provided in these settings.

4. Conclusion

Based on the results of the counseling and discussions regarding maternal knowledge about the importance of administering deworming medications to toddler-aged children at Posyandu Lavenda, Kenali Besar Community Health Center, Jambi City, it is concluded that as maternal knowledge about the importance of deworming increases, so does the positive attitude and behavior of mothers in eagerly bringing their children for deworming at the local Posyandu.

The conclusion from this community service activity emphasizes that the community, especially mothers, should be more concerned about the health of their toddler-aged children. During the growth monitoring period, routine examinations at the Posyandu and health counseling about the signs and symptoms of helminth infections or malnutrition related to stunting are essential. This counseling is very beneficial and can enhance maternal knowledge, encouraging more active involvement in maintaining their children's health with the support of local stakeholders such as healthcare workers, midwives, and volunteers at Posyandu Lavenda, Kenali Besar Community Health Center.

5. References

Ana, A. (2022). Faktor-Faktor yang Mempengaruhi Ibu yang Mempunyai Anak Usia 6-12 Tahun dalam Pemberian Obat Cacing di Desa Pargarutan Dolok Kecamatan Angkola Timur. *Jurnal Kesehatan Masyarakat (Jurkesmas)*, *1*(2), 130–133.

Cholifah, N. (2016). Promosi kesehatan dalam pemberian minum obat cacing dan kejadian kecacingan Oxyuris vermicularis. *Jurnal Ilmu Keperawatan Dan Kebidanan*, *7*(1).

Hasibuan, O. K. (2019). *Gambaran Pengetahuan dan Sikap Ibu terhadap Penggunaan Obat Cacing pada Anak secara Berkala di Lingkungan III, IV, dan VI Kelurahan Babura Sunggal Kecamatan Medan Sunggal*.

Hayati, L., Panghiyangani, R., & Rosida, L. (2017). Gambaran Tingkat Pengetahuan Orang Tua Siswa Slb Darma Praja Banjarmasin Tentang Gejala Dan Penularan Infeksi Cacing Kremi (Enterobius Vermicularis). *Jurnal Berkala Kesehatan*, *3*(2), 93–98.

Kementrian Kesehatan Republik Indonesia. (2022). *Hasil Survei Status Gizi Indonesia (SSGI) 2022*.

Kismawati, R., Ernawati, T., & Winingsih, P. H. (2022). Pengembangan E-Komik Berbasis Heyzine Flipbook pada Materi Sistem Pencernaan bagi Peserta Didik Kelas VIII SMP. *Wacana Akademika: Majalah Ilmiah Kependidikan*, *6*(3), 359–370.

Mawaqit, M. (2022). Pola pemberian obat cacing pada anak di wilayah Kalimantan Tengah. *Jurnal Borneo Cendekia*, *6*(2), 59–65.

Peraturan Menteri Kesehatan. (2017). *Peraturan Menteri Kesehatan Republik Indonesia Nomor 15 Tahun 2017 Tentang Penanggulangan Cacingan*. Kementrian Kesehatan Republik Indonesia.

Riyadi, E. K. S., & Sundari, S. (2020). Tingkat pengetahuan orang tua tentang stimulasi perkembangan anak pra sekolah usia 60-72 bulan. *Jurnal Ilmu Kebidanan*, *6*(2), 59–67.

Sumanto, D., Alfizena, M. S., & Kristini, T. D. (2021). Enterobiasis: Infeksi Kecacingan Penting pada Balita. *Jurnal Penelitian Dan Pengembangan Kesehatan Masyarakat Indonesia*, *2*(1), 26–36.

Wahidah, W. (2023). Hubungan Tingkat Pengetahuan Orang Tua Dengan Pemberian Obat Cacing Pada Anak Balita (Usia 1-5 Tahun) Di Kelurahan Kandai Ii. *Jurnal Review Pendidikan Dan Pengajaran (JRPP)*, *6*(4), 502–508.

Waris, L., Rahayu, N., & Indriyati, L. (2012). Risiko kecacingan pada anak Sekolah Dasar di pedesaan daerah

perbatasan Kabupaten Nunukan. *Jurnal Biotek Medisiana Indonesia*, *1*(1), 13–19.

Wiyono, A. S., Sari, F., Restuaji, I. M., & Saputra, S. A. (2020). Sosialisasi pemakaian obat cacing pada posyandu balita. *Journal of Community Engagement and Employment*.

World Health Organization. (2023). *Soil-transmitted helminth infections*. World Health Organization.