

Counseling on Worms and Scabies for Teenagers in Karang Tengah Village, Gunung Pancar

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ABSTRACT

Background: Worms and scabies are two common health problems found in areas with inadequate sanitation, including rural areas such as Karang Tengah Village, Gunung Pancar. Adolescents are a vulnerable group to these two diseases due to suboptimal hygiene practices and limited health knowledge. **Objective:** This activity aims to increase adolescents' understanding of the transmission, symptoms, prevention, and initial management of worms and scabies through interactive counseling activities. **Method:** The activity was carried out in the form of counseling with a participatory approach in the village hall, involving 45 adolescents aged 12–18 years. The material was provided through presentations, discussions, and the distribution of educational leaflets. Evaluation was carried out with a pretest and posttest to measure changes in knowledge. **Results:** There was a significant increase in knowledge after the counseling, with an average pretest score of 56.2 increasing to 84.5 in the posttest. In addition, participants showed high enthusiasm and expressed a commitment to implementing clean and healthy living behaviors. **Conclusion:** Health counseling has been proven effective in increasing adolescents' understanding of worms and scabies. Educational interventions such as these are recommended to be implemented periodically in similar communities to prevent the occurrence of environmentally based infectious diseases.

Keywords: Worms, Scabies, Health Education, Adolescents, Karang Tengah Village.

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INTRODUCTION

Public health issues related to parasitic infections and skin diseases remain major challenges in rural areas and in areas with limited sanitation. Worm infestations (helminthiasis) and scabies are two of the most common diseases found among adolescents, particularly in tropical regions such as Indonesia. Both diseases are closely linked to clean and healthy living practices (PHBS), environmental conditions,

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and limited access to health education (Chelkeba et al. 2020). Intestinal worm infections, such as *Ascaris lumbricoides*, *Trichuris trichiura*, and hookworms, are endemic to Indonesia. Adolescents, as an active age group in their growth phase, are vulnerable to the long-term effects of these infections, such as anemia, impaired growth and development, and decreased concentration in learning (Bethony et al. 2006). According to a 2023 WHO report, more than 267 million school-age children worldwide require preventive treatment for worm infections, and Indonesia is a priority country for deworming interventions (Anon 2025)

Scabies is a contagious skin disease caused by the infestation of the *Sarcoptes scabiei* mite. This disease spreads through direct contact between individuals and is often a community health problem in densely populated environments such as dormitories or overcrowded homes. Scabies causes intense itching and skin lesions which can lead to secondary infections if not properly treated. Recent data indicate that more than 200 million people worldwide are infected with scabies at any given time, with the highest prevalence found in adolescents and children (Engelman et al. 2019). Karang Tengah Village, Gunung Pancar, is an area characterized by rural geography and limited sanitation facilities. Based on initial observations and interviews with village health workers, many adolescents still do not understand the methods of transmission, prevention, and initial treatment of worms and scabies. This lack of knowledge increases the risk of recurrent disease spreading within the community.

Health education is an effective strategy for its promotion and prevention. Targeted evidence-based education can raise awareness, change behavior, and strengthen community involvement in maintaining personal and environmental health (Lai et al. 2006). Such interventions are crucial for bridging the health information gap between communities and medical professionals. This educational program was implemented to address this need, hoping to increase the understanding of these two endemic diseases among Karang Tengah Village youth and encourage sustainable, clean and healthy lifestyles.

METHOD

This community service activity took the form of interactive health education involving adolescents in Karang Tengah Village, Gunung Pancar District. The implementation method for this activity was as follows:

Time and Venue Date: July 12, 2025; Location: Karang Tengah Village Hall

Activity Targets: Adolescents aged 12–18 years residing in Karang Tengah Village.

Implementation Stages

1. Material Preparation: The community service team prepared educational materials in the form of PowerPoint presentations, posters, and leaflets.
2. Coordination with Village Officials: Coordination was conducted with the Village Head and health cadres to arrange time and participants.
3. Implementation of Counseling:
 - a. Session I: Education about worm infestation (causes, symptoms, impacts, and prevention)

- b. Session II: Education about scabies (transmission, symptoms, management, prevention)
- c. Q&A and interactive discussion
- d. Distribution of leaflets and posters
4. Evaluation: A short pre-test and post-test were conducted to measure participants' understanding.

The Implementation Team

It consists of lecturers and students from the Faculty of Medicine, Indonesian Christian University, who have expertise in public health and tropical diseases.

RESULTS AND DISCUSSION

The number of teenagers who participated enthusiastically in the counseling activity was 45. The results obtained from this activity showed an increase in understanding among participants. As can be seen from the data based on the results of the pre-test and post-test, there was an increase in the average score of participants' understanding from 56% to 88% after the counseling. The response of the participants was very good, where participants stated that the material presented was very relevant and easy to understand. They also admitted to having just learned that the habit of not washing hands and sleeping together without maintaining hygiene can cause skin diseases such as scabies. There was an interactive discussion between the participants and the resource person, where participants actively asked about the early symptoms of worms and how to treat scabies properly. Several teenagers admitted to having experienced similar symptoms but did not check themselves at a health facility. Some participants still had limited access to adequate bathing and toilet facilities (MCK), so education was also directed at simple and effective prevention efforts according to local conditions. Table 1 provides a description of the increase in knowledge.

Table 1. Results of Participant Knowledge Evaluation Based on Pre-test and Post-test Scores

No.	Assessment Aspect	Average Pretest Score	Average Posttest Score	Improvement (%)
1	Knowledge about worms	58.0	86.0	48.3%
2	Knowledge about scabies	52.5	83.0	58.1%
3	Understanding how to prevent it	55.0	85.0	54.5%
4	Knowledge of signs and symptoms	59.5	84.0	41.2%
	Total average	56.2	84.5	50.4%

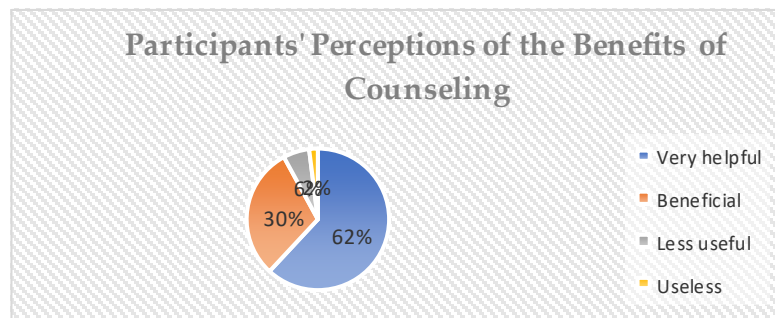


Figure 1. Diagram of Participants' Perceptions of the Benefits of Counseling

Table 2. Summary of Qualitative Findings (Participant Discussion)

Discussion Topics	Participant Responses
Attitudes towards clean behavior	The majority want to start washing their hands regularly and maintaining personal hygiene.
Understanding prevention	Participants mentioned the importance of wearing footwear and not sharing towels.
Hope for follow-up	Desiring regular check-ups and follow-up counseling

**Figure 2. Documentation of Extension Activities****Discussion:**

The results of the activity indicate that the outreach program had a positive impact on increasing the knowledge of adolescents in Karang Tengah Village regarding worms and scabies. This increased understanding is evident in the comparison of the pre-test and post-test scores, which significantly increased from an average of 56% to 88%.

Worm infections remain a public health problem, particularly in areas with poor sanitation and hygiene awareness. The WHO estimates that more than 1.5 billion people, or 24% of the world's population, are infected with intestinal worms, with the highest burden among children and adolescents in tropical and subtropical regions, including Indonesia (Jourdan et al. 2018). These infections affect nutrition, growth, and academic achievement by disrupting nutrient absorption and causing anemia. The outreach program provided an understanding of the importance of handwashing with soap, regular nail trimming, and the consumption of clean water and cooked

food as primary preventative measures. A study by Azziz-Baumgartner et al. (2023) showed that school-based educational interventions could reduce the prevalence of worms by up to 40% when accompanied by mass deworming (Thériault et al. 2014).

However, scabies is also a significant problem in densely populated communities. This disease is caused by an infestation of the *Sarcoptes scabiei* mite, which is transmitted through direct skin contact and sharing of personal items. Adolescents who live in crowded households, share beds, or have irregular bathing habits are at high risk of infection (Romani et al. 2015). In this counseling session, the participants were educated about the symptoms of scabies, such as intense itching at night and skin lesions on the internodes, wrists, and abdomen.

One important point emphasized is that scabies is not just an individual disease, but a collective one all members of a family or community living together must be treated simultaneously to avoid reinfection. According to a global study by Engelman et al. (2022), scabies is one of the most frequently neglected skin diseases, yet it significantly impacts the quality of life of sufferers, particularly in social and psychological contexts (Stienstra et al. 2019).

Participants' responses in interactive discussions indicated that the stigma surrounding skin diseases persists, making friendly, non-blaming, and contextual education crucial. In this context, counseling as a means of advocating for behavior change has proven to be effective. Participatory and visual approaches, such as posters and leaflets, have also strengthened participants' understanding, as demonstrated in the research by Singh et al. (2023), who found that visual-audio counseling methods were more effective in building awareness of hygienic behaviors in adolescents (Wahyudi, Nursanti, and Raharjo 2024).

Worm infestation (helminthiasis) remains a public health problem in Indonesia, particularly in children and adolescents. This infection affects nutritional status, academic concentration, and productivity (Ummah 2019). Similarly, scabies remains a skin disease with a high prevalence in rural areas with poor personal hygiene and close contact with household members (Purwanto and Hastuti 2020). Counseling has proven to be a cost-effective and effective promotive-preventive intervention, as supported by a recent study showing an increase in healthy behaviors following community educational intervention (Febriani and Sari 2023).

With a participatory and interactive approach, this activity not only served as a medium for knowledge transfer but also successfully fostered collective awareness of maintaining clean and healthy living behaviors (PHBS) among adolescents. It is hoped that this activity will trigger similar initiatives in other areas and be followed by ongoing programs such as routine check-ups and periodic mass deworming. However, challenges such as limited sanitation facilities and clean water remain major obstacles to consistently implementing healthy behaviors. Therefore, collaboration among the health sector, village governments, and community leaders is needed to ensure the sustainability of the impact of educational interventions.

CONCLUSION

An outreach activity on worms and scabies conducted in Karang Tengah Village, Gunung Pancar, proved effective in increasing adolescents' knowledge about these

two infectious diseases common in environments with poor sanitation. The valuation results showed a significant increase in the participants' understanding of the causes, transmission routes, symptoms, and preventive measures for both diseases. The adolescents' active participation in the activity and their high enthusiasm for the material demonstrated that this interactive educational approach is highly appropriate for rural communities. This outreach activity served not only as a medium for knowledge transfer but also as a means of building collective awareness of the importance of clean and healthy living behaviors. It is hoped that this activity will be the first step in ongoing efforts to improve public health in Karang Tengah Village and will serve as a model for similar activities in other areas experiencing similar environmental health issues.

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Conflict of Interest declaration

The authors declare that they have no affiliations with or involvement in any organization or entity with any financial interest in the subject matter or materials discussed in this manuscript.

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