

Peduli kulit sehat: Penerapan PHBS Sebagai Upaya Pencegahan Scabies di Lingkungan Panti Asuhan Al-Hidayah Batu Ringgit

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ABSTRACT

*Scabies is a contagious skin disease that often occurs in densely populated residential environments, including orphanages. This disease is caused by infection with *Sarcoptes scabiei var hominis*, which is generally triggered by low levels of personal and environmental hygiene, as well as high physical contact between residents. This community service activity aims to increase the knowledge and awareness of children at the Al-Hidayah Batu Ringgit Orphanage in preventing scabies through the implementation of Clean and Healthy Living Behaviors (PHBS). The methods used included a pretest, material delivery, handwashing demonstration, question and answer session, and a posttest. The activity involved 41 children from elementary to high school levels. The posttest results showed a significant increase in the average knowledge score across all educational levels. These results indicate that PHBS education is effective in increasing understanding and awareness of scabies prevention among orphanage children.*

Keywords: PHBS, scabies, orphanages, health promotion.

ABSTRAK

Scabies merupakan penyakit kulit menular yang sering terjadi di lingkungan padat hunian, termasuk panti asuhan. Penyakit ini disebabkan oleh infeksi *Sarcoptes scabiei* var hominis yang umumnya dipicu oleh tingkat kebersihan diri dan lingkungan yang rendah, serta tingginya kontak fisik antar penghuni. Kegiatan pengabdian masyarakat ini bertujuan untuk meningkatkan pengetahuan dan kesadaran anak-anak Panti Asuhan Al-Hidayah Batu Ringgit dalam mencegah scabies melalui penerapan Perilaku Hidup Bersih dan Sehat (PHBS). Metode yang digunakan meliputi pretest, penyampaian materi, demonstrasi cuci tangan, sesi tanya jawab, dan posttest. Peserta kegiatan berjumlah 41 anak dari jenjang SD hingga SMA. Hasil posttest menunjukkan adanya peningkatan signifikan pada rerata skor pengetahuan di seluruh jenjang pendidikan. Hasil ini menunjukkan bahwa edukasi PHBS efektif dalam meningkatkan pemahaman dan kesadaran mengenai pencegahan scabies pada anak-anak panti asuhan.

Kata kunci: PHBS, scabies, panti asuhan, promosi kesehatan

1. INTRODUCTION

The skin is the outermost organ of the human body and one of the sensory organs that directly receives stimuli from the external environment. Its primary function is to protect internal organs from harmful substances and various environmental exposures, such as ultraviolet radiation from sunlight. In addition, the skin plays an important role in regulating body temperature. Poor skin health can lead to various skin diseases (Nuraeni et al., 2016 in Putra et al., 2024).

Skin diseases are among the most common health problems in tropical countries such as Indonesia. They can affect individuals of all age groups and may occur on any part of the body (Siregar et al., 2024). Skin disease refers to conditions in which the outer layer of the body experiences inflammation or irritation. Several factors contribute to the development of skin diseases, including bacterial infections, climate changes, allergic reactions, environmental conditions, and poor personal hygiene (Nuraeni et al., 2016 in Putra et al., 2024). These conditions often cause itching, leading to scratching that may result in blisters or secondary infections. Skin lesions are generally characterized by reddish rashes in the affected area, which may cause discomfort in some patients (Febriana et al., 2020).

Scabies is a contagious skin disease caused by individual susceptibility and infestation with *Sarcoptes scabiei* var. *hominis* and its products. This mite burrows into the skin, forming tunnels that cause intense itching, especially at night (Sarma et al., 2023). According to the World Health Organization (WHO),

the global prevalence of scabies affected more than 200 million people at any given time in 2021. In 2022, WHO reported more than 400 million cases worldwide, and in 2023 it was estimated that over 300 million people were affected annually. In Indonesia, the prevalence of scabies was reported to be 3.9%–6% in 2021, 0.3%–46% in 2022, and 4.60%–12.95% in 2023. These data indicate a decrease from 2021 to 2022, followed by an increase in 2023 (Rahmah, 2023; Astanti et al., 2025).

The high global and national prevalence of scabies, along with fluctuating incidence rates, indicates that curative treatment alone is insufficient to address the problem sustainably. Overcrowded living conditions and poor personal hygiene are major contributing factors; however, the root of the problem often lies in low awareness of preventive skin health practices. This awareness includes the knowledge, attitudes, and practices (KAP) of individuals and communities in recognizing symptoms, understanding transmission, and adopting preventive behaviors (Lukman et al., 2021). Low awareness is reflected in habits such as sharing towels, clothing, or bedding, as well as inadequate bathing and handwashing practices, which facilitate the transmission of *Sarcoptes scabiei* (Wahyuningsih et al., 2022). Therefore, health promotion interventions focusing on increasing awareness and improving clean and healthy living behaviors are crucial strategies to break the chain of transmission and significantly reduce scabies prevalence (Nurhayati et al., 2020).

Clean and Healthy Living Behavior (Perilaku Hidup Bersih dan Sehat/PHBS) is a set of behaviors that should be implemented to maintain health and minimize health problems. These behaviors should arise from

personal awareness so that families and their members can take responsibility for their health, become more independent in managing health conditions, and actively participate in community health efforts. The implementation of PHBS serves as an initial step in preventing and controlling various health problems (Ministry of Health of Indonesia, 2016), including skin diseases such as scabies, which commonly occur in communities where awareness of personal hygiene is low.

Orphanages are environments that are particularly vulnerable to the transmission of scabies due to overcrowded living conditions and the habit of sharing personal items. Limited knowledge regarding the importance of personal and environmental hygiene is a major factor contributing to disease transmission. Therefore, this health promotion activity aims to provide education on the importance of implementing Clean and Healthy Living Behavior (PHBS) as a preventive measure to reduce and control the incidence of scabies in orphanage settings.

METHOD

The community service activity was conducted at Al-Hidayah Orphanage Batu Ringgit–Tanjung Karang, Sekarbela District, Mataram City, West Nusa Tenggara, involving 41 participants ranging from elementary to senior high school levels. This location was selected due to the high risk of scabies transmission among orphanage residents, which is associated with close physical contact, the habit of sharing personal items, and the low implementation of Clean and Healthy Living Behavior (PHBS), further exacerbated by inadequate sanitation conditions. Therefore, the setting was

considered appropriate for implementing health promotion activities related to scabies prevention through PHBS.

The methods applied in this community service program consisted of several stages, including a pretest, material delivery, a question-and-answer session, practical activities, and a posttest. The educational content focused on scabies prevention through the implementation of PHBS. The material was delivered verbally using supporting media, including PowerPoint presentations and tutorial videos.



Figure 1. Health Education Materials

2. RESULT & DISCUSSION

Al-Hidayah Orphanage, located in Batu Ringgit, Tanjung Karang Subdistrict, Sekarbela District, Mataram City, accommodates children ranging from elementary to senior high school levels. The residents come from diverse

backgrounds, including children who require social support, particularly those from low-income families, children who have lost one or both parents (orphans), and children from unstable family conditions who require a safe and proper living environment. All residents are foster children who live permanently within the orphanage.

The prevalence of scabies is significantly high among orphanage residents, particularly children. Orphanage environments require special attention in scabies control and prevention efforts due to limited space that results in intensive skin contact, thereby accelerating disease transmission. Various risk factors contribute to the occurrence of scabies in orphanages, including environmental, individual, and social factors. Residential crowding is one of the most influential factors affecting scabies incidence. The greater the number of residents in an orphanage, the higher the likelihood of the spread of *Sarcoptes scabiei* mites (Indraswari, 2024).

The number of residents at Al-Hidayah Orphanage Batu Ringgit is approximately 40 children, with 6–8 occupants per room. High room density, particularly when infected individuals come into skin contact with uninfected residents, greatly facilitates the transmission of scabies mites. In environments with a large number of occupants, frequent and close physical interactions increase the likelihood of mite transfer from one person to another. This situation is further exacerbated by crowded room conditions, where direct contact commonly occurs during resting, sleeping, and daily activities (Setiyo, 2019).

Each room at Al-Hidayah Orphanage Batu Ringgit is equipped with windows; however, they do not receive direct sunlight, resulting in relatively dark and humid conditions. Humidity accelerates the growth and spread of scabies mites. Therefore, residents are encouraged to open windows and doors regularly to improve air circulation and allow natural sunlight to enter, thereby minimizing mite development within the living environment.

Skin diseases remain a common public health problem, particularly in areas with high population density and poor environmental sanitation. One of the skin diseases that frequently causes outbreaks is scabies, a condition caused by infestation with *Sarcoptes scabiei*. The mites burrow into the skin to lay eggs, causing intense itching, especially at night, along with rashes and lesions from scratching that may serve as entry points for secondary bacterial infections (Fayaz et al., 2020). The disease is highly contagious through direct skin-to-skin contact or through shared items such as clothing, towels, and bedding. Several studies have reported higher scabies incidence in dormitories, Islamic boarding schools, and orphanages due to overcrowded living conditions and low awareness of personal hygiene (Tarigan et al., 2021).

Clean and Healthy Living Behavior (PHBS) plays an important role in preventing and controlling skin diseases such as scabies. PHBS includes positive habits such as handwashing with soap, regular bathing, wearing clean clothes, washing clothing regularly, and maintaining environmental hygiene. The implementation of PHBS has been shown to reduce the risk of scabies transmission and other skin diseases by decreasing the number of mites present on the skin and surrounding objects (Yoshida et al., 2019). In addition,

educational interventions targeting school-age children and residents of communal living environments represent a strategic approach to increasing awareness of personal and environmental hygiene. Therefore, scabies control requires not only medical treatment but also behavioral and social approaches through the consistent and sustainable implementation of PHBS.

Prior to the educational session, participants were given a pretest questionnaire. The pretest aimed to assess and identify the participants' baseline knowledge regarding the topic, serving as a basis for evaluating the effectiveness of the intervention. Following the pretest, educational material on scabies prevention through PHBS was delivered. The content included the definition of scabies, treatment methods, prevention strategies, and practical implementation of PHBS to avoid infection and transmission. Subsequently, a posttest questionnaire was administered to measure the extent of improvement in participants' knowledge and understanding after receiving the educational intervention.



Figure 2. Presentation of Educational Material

The educational session was followed by a demonstration of proper handwashing techniques conducted by the organizing team. All facilitators and

participants performed the demonstration together, accompanied by music, to facilitate participants' understanding and help them remember the handwashing steps more easily. Subsequently, several participants were selected to re-demonstrate the procedure to assess their comprehension and ability to perform the correct handwashing technique.

Table 1. Comparison of Mean Pretest and Posttest Scores

Hasil	Jenjang Pendidikan		
	SD	SMP	SMA
Jumlah	10	25	6
Rerata Skor Pretest	76	83,2	96,67
Rerata Skor Posttest	100	96	100
Peningkatan	24	12,8	3,33

Based on the posttest results, there was an overall increase in participants' knowledge following the implementation of the health promotion program. This finding indicates that the educational intervention was effective in improving participants' understanding at Al-Hidayah Orphanage Batu Ringgit. The increase in mean scores further confirms that the educational intervention successfully delivered the information and enhanced the cognitive aspects of the participants.

Further analysis revealed differences in the level of improvement across educational levels. Participants at the elementary school level demonstrated excellent outcomes, achieving perfect mean scores, indicating that the materials were appropriate and easily understood by this age group. Among senior high school participants, although their baseline knowledge was already high, the perfect mean posttest scores suggest that the intervention effectively reinforced their existing understanding.

Meanwhile, participants at the junior high school level also showed a considerable improvement. However, the presence of several participants who did not achieve maximum scores indicates variation in their ability to absorb the material. This finding suggests the need for further identification and more targeted follow-up interventions for participants who require additional support, in order to ensure a more equitable level of knowledge across all educational levels.

Through this health promotion activity, it is expected that the orphanage residents will maintain clean and healthy living behaviors, avoid sharing personal items, and consistently maintain personal hygiene as well as room cleanliness. In addition, orphanage administrators are expected to conduct ongoing monitoring of environmental hygiene, ventilation, and regular sun-drying of clothing and bedding to prevent recurrence. With the provision of this educational intervention, it is anticipated that the incidence of scabies at Al-Hidayah Orphanage will gradually decrease through sustained behavioral changes and improvements in environmental conditions.

CONCLUSION

The health promotion program on the implementation of Clean and Healthy Living Behavior (PHBS) at Al-Hidayah Orphanage Batu Ringgit was shown to improve children's knowledge and understanding regarding personal and environmental hygiene for the prevention of scabies. This was reflected in the significant increase in pretest and posttest scores among participants across different educational levels, ranging from elementary to senior high school.

In addition to the children, orphanage administrators play a crucial role in monitoring, reminding, and improving environmental cleanliness as well as the residents' hygiene practices. Through the proper implementation of PHBS, the risk of scabies transmission within the orphanage environment can be reduced, thereby improving the overall quality of life of the children.

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