

Prevent Scabies with Healthy Living

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ABSTRACT

One of the skin diseases often experienced by the community of Keliling Benteng Ulu RT.09 is scabies. Scabies is an infectious skin disease caused by female mite *Sarcoptes scabiei* varietal *hominis*. This community service activity is to provide education about scabies. This activity is carried out by providing education about scabies, how to prevent and treat it. In this activity, a pre-post test will be carried out to determine changes in knowledge. The pre-post test results showed an increase in knowledge by 79%. Service participants have begun to understand the definition, causes, symptoms, treatment of scabies and its prevention through a healthy lifestyle. Conclusion community service activities run smoothly, series of health counseling also provides great benefits for participants.

INTRODUCTION

South Kalimantan has wetland conditions, where most of the area is swamp, river and peatland. This is due to its waterlogged environment, both seasonally and permanently (settled). The total area of wetlands in South Kalimantan reaches 382,272 hectares. In general, we can understand wetlands as land that for some reason experiences wet, humid conditions, moreover, is continuously inundated (Alfianti and Taqwiem, 2020). The people of South Kalimantan make rivers an integral part of their lives. In addition, many people also live on the banks of the river. Wetland environments have the potential to spread infectious and non-communicable diseases. Keliling Benteng Ulu Village has a wetland ecosystem and is located on the edge of a river. Administratively, this village consists of 9 neighborhoods and is precisely included in the West Martapura District, Banjar Regency, South Kalimantan. Since 2021, this village has been a fostered village for the Undergraduate Medical Study Program, Faculty of Medicine and Health Sciences, Lambung Mangkurat University.

Community service is one of the pillars of the university's three main responsibilities, which is an applicative form of teaching in higher education. The academic civities together with students will go directly to the field to apply the knowledge that has been obtained while helping the community in dealing with a problem. The community service program in the fostered village is in accordance with the vision of the Undergraduate Medical Study Program, Faculty of Medicine and Health Sciences, Lambung Mangkurat University "Becoming a Medical Study Program that is Superior and Competitive in Medical Science and Technology, especially in wetland environments", with one of its missions, namely "Carrying out Community Service Activities that are Relevant to Education and Medical Science and Technology Research Results, especially in wetland environments". This program is expected to be able to foster concern for the community through the application of science and technology. Previously in June 2023, an early survey was conducted to find out the health problems experienced by the community in RT.09 Keliling Benteng Ulu Village. From the survey results, it was known that some people had a history of hypertension, pain/headaches and skin diseases. Most of the community members have been suffering from itching on their bodies. The dominant skin disease experienced by the community is Scabies caused by mites. In addition, Tinea (ringworm) caused by fungi and itching due to allergies.

Skin disease is one of the diseases that is the second health problem in Indonesia. According to the Directorate General of Medical Services of the Ministry of Health of the Republic of Indonesia in 2006, skin and subcutaneous tissue diseases were ranked second after acute respiratory infections (ARI) based on the prevalence of the 10 most common diseases in Indonesian society (Mentaya et al, 2020). Meanwhile, in 2013 the Indonesian Ministry of Health stated that scabies was the third most common skin disease out of 12 skin diseases. Health data shows that the prevalence of scabies in all Indonesian health centers ranges from 3.9-6%. While in South Kalimantan the incidence of scabies ranks sixth out of 10 other diseases. In Banjar District, the prevalence of scabies ranks 13th (Novia et al, 2023).

The geographical environment of wetlands has a high potential for the spreading diseases, especially infectious diseases. Infectious diseases are caused by microorganisms such as viruses, bacteria, parasites, and fungi. Direct transmission occurs when germs on the patient move through physical contact such as touch, while indirect transmission occurs when touching objects such as door knobs or water taps, then directly touching the eyes, nose, mouth without washing hands first. Consistent with research conducted by Rahmadiyah in 2023 which states that one of the infectious diseases found in wetland areas is scabies. Based on the above background, it is necessary to carry out community service interventions through health counseling to provide information to the community regarding scabies disease. The aim of this community service activity is to increase community knowledge and understanding in order to prevent scabies infection.

IMPLEMENTATION AND METHODS

Community service activities with the theme "Prevent Scabies with Healthy Living" was held on October 01, 2023 at 09:00 - 11:15 WITA at one of the houses in RT.09 Keliling Benteng Ulu Village. The objectives of community service activities are 1) Provide education on the importance of maintaining environmental health, 2) Raise public awareness to implement clean and healthy living, 3) Provide health knowledge to the community including understanding, causes, symptoms, modes of transmission, treatment and prevention of scabies.

Here are some of the steps in implementing community service activities, as follows:

Preparation

1. Permission from faculty and village authorities.
2. Preparation of the counseling venue, which is using the house of one of the villagers in RT.09 Keliling Benteng Ulu Village.
3. Preparation of assignment letters for lecturers and students during community service activities.
4. Preparation of presence for lecturers, students, and participants.
5. Preparation of pretest and posttest questions.
6. Decide on the material to be given.
7. Preparation of extension media such as posters and banners.

Implementation

1. Registration in the presence form.
2. Opening and remarks to the head/representative of villagers who are targeted by the activity.
3. Praying together.
4. Giving pretest to determine the level of community knowledge before health counseling is given..
5. Health education about scabies disease and how to prevent and treat it through a healthy lifestyle. The method of education this time is by presentation / lecture using poster media so that it can attract the attention of participants..

6. Discussion/Q&A session with participants about scabies.

Closing

1. Giving posttest to evaluate the extent of changes in knowledge of service participants.
2. Provision of mementos from the Faculty of Medicine to the community.
3. Group photo session.

Evaluation

The activity evaluation phase is carried out to assess the extent of the success of community service. The results of community service activities that have been carried out by comparing pre-test and post-test scores to measure the community's knowledge changes both before and after the intervention. The level of knowledge and understanding of the participants is an indicator of the successful community service activities.

RESULTS AND DISCUSSION

This activity was attended by a total of 21 participants, but only 14 participants participated until the end of the activity. The following is the profile of community service activity participants:

Profile of Community Service Participants Based on Gender

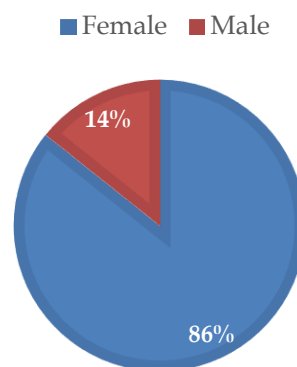


Figure 1. Gender of Community Service Participant

It is known that most of the community service participants are female, namely 12 people (86%), while the other 2 people are male (14%).

Profile of Community Service Participants by Age

■ Early Adults ■ Late Adults ■ Early Elderly ■ Late Elderly

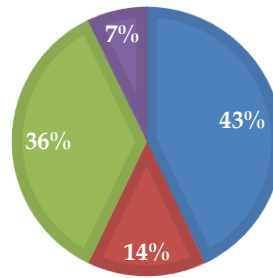


Figure 2. Age of Community Service Participant

It is known that the age of service participants based on the age category of the Indonesian Ministry of Health (2009) is divided into early adults (26-35 years) as many as 6 people (43%), late adults (36-45 years) as many as 2 people (14%), early elderly (46-55 years) as many as 5 people (36%), and late elderly (56-65 years) namely 1 person (7%).

Profile of Community Service Participants Based on Marriage Status

■ Marriage ■ Single

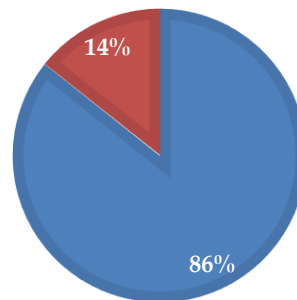


Figure 3. Marriage Status of Community Service Participant

Previously, it was known that most PKM participants had entered adulthood, so most of them were married, namely 12 people (86%), while the other 2 people were not married (14%).

Profile of Community Service Participants Based on Occupation

■ Housewife ■ Farmer ■ Mechanic

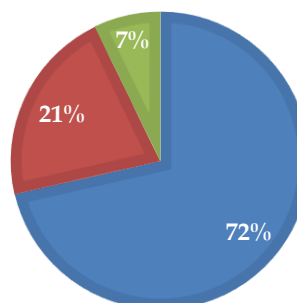


Figure 4. Occupation of Community Service Participant

The majority of the service participants were housewives as many as 10 people (72%), while the other participants' jobs consisted of 3 farmers (21%) and 1 mechanic (7%).

Profile of Community Service Participants Based on Last Education

■ Not attending school ■ Elementary School
■ Junio High School ■ Senior High School

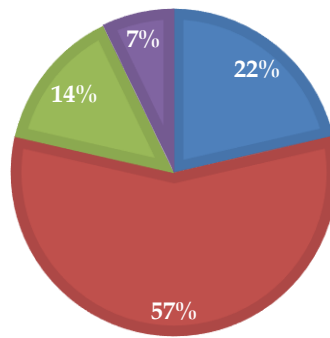


Figure 5. Last Education of Community Service Participant

There are four levels of education of community service participants and it is known that the education of participants is still relatively low. The majority of participants only graduated from elementary school 8 people (57%). Participants with the last education of junior high school were 2 people (14%) and high school only 1 person (7%). Even 3 people (22%) who did not go to school.

Distribution of Pre-Post Test Results of Service Participants

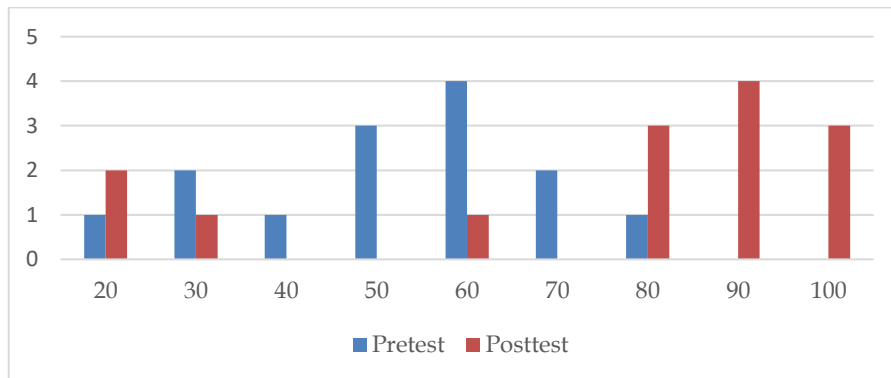


Figure 6. Distribution of Participant's Score Results

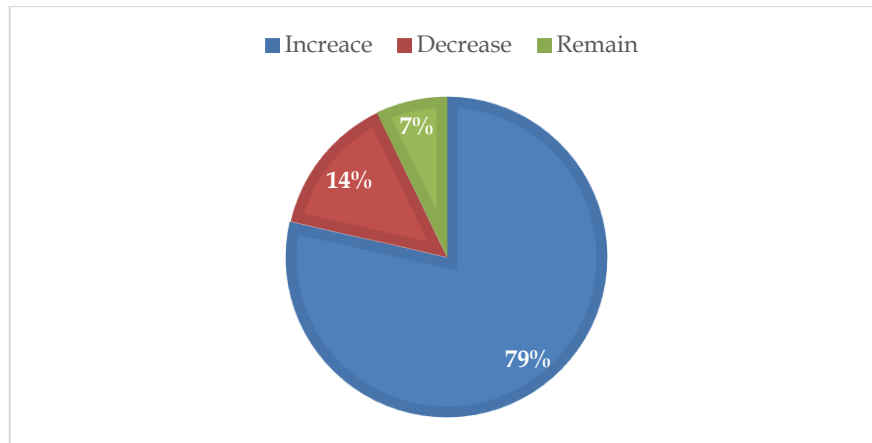


Figure 7. Distribution of Value Improvement of Service Participants

From the results of the analysis on the pretest and posttest, most participants showed an increase in knowledge. So it can be seen that there are differences in knowledge before and after the provision of health education. A total of 11 participants (79%) experienced an increase in value, while 2 participants (14%) experienced a decrease in value, and 1 person (7%) with a constant value.

Community service activities with this health education intervention went according to plan. The opening began with registration, then continued with answering pretest questions. The questions consisted of 10 multiple choice questions about scabies. The pretest was needed to measure the participants' basic knowledge about scabies before health information was given. The next stage was the presentation of material about scabies including definitions, symptoms/signs, transmission, prevention and treatment. This time, the education media used health posters containing pictures and explanations in order to attract participants' enthusiasm. After the presentation of the material was completed, followed by a question and answer session. The participants actively asked questions related to their complaints which were answered by the presenters. Furthermore, the participants will be given back posttest questions to measure the extent of the participants' understanding of scabies after the material is given and then closed by giving keepsake and photos together.



Figure 8. Presentation and Q&A

A person's knowledge can support them to avoid a disease. The prevalence rate of scabies disease increases in community groups that pay less attention to personal hygiene conditions and the environment in which they live. People with low knowledge of clean and healthy behavior are more likely to develop scabies than people with good knowledge of hygiene and healthy behavior. A person's knowledge can support them to avoid a disease. The prevalence rate of scabies disease increases in community groups that pay less attention to personal hygiene conditions and the environment in which they live. People with low knowledge of clean and healthy behavior are more likely to develop scabies than people with good knowledge of hygiene and healthy behavior. This activity can have a positive impact on the people's lives in Keliling Benteng Ulu Village. In addition, the community is able to prevent scabies and continue to implement a clean and healthy lifestyle. The experience of getting health education will increase the knowledge of people who suffer from scabies which will then affect their daily attitudes and behaviors, so that they can break the chain of transmission. This is in line with Notoadmodjo's (2010) statement that behavior is the result of all kinds of experiences and human interactions with their environment which are manifested in the form of knowledge, attitudes and actions. Behavior is the response/reaction of an individual to a stimulus that comes from outside or from inside themselves.

Scabies is a contagious skin infection caused by the female mite *Sarcoptes scabie varieta hominis*. The female mite will live for 30 days inside the epidermis and will cause itching. Female mites can burrow into the upper epidermis and then lay eggs in the hole. Egg larvae emerge after 50-53 hours and adult mites develop after 10-14 days (Budiartin et al, 2022). Skin diseases are commonly experienced by people in Indonesia, this is because Indonesia has a tropical climate. This climate facilitates the development of bacteria, parasites and fungi. The high prevalence of scabies is found in densely populated environments and frequent interpersonal contact. Scabies can be transmitted directly (skin to skin contact), for example shaking hands, sleeping together and through sexual activity. While indirect transmission (through objects) such as clothing, towels bed linen, pillows and blankets. Scabies will cause discomfort to the sufferer. Patients will feel itching around between the fingers which is the predilection of this disease and can spread to other parts of the body. Scabies is usually found in closed areas of the body such as thigh folds, groin, and axilla. The itching will be more pronounced especially at night (Budiartin et al, 2022).

The transmission factor of scabies infection is physical contact with the patient. In addition, hygiene factors also influence such as personal hygiene, environmental sanitation, residential density, and availability of clean water. Personal hygiene can determine a person's health status. A person's personal hygiene and skin problems will adversely affect their health. How to maintain personal hygiene to avoid scabies includes maintaining skin cleanliness, hand and nail washing habits, the frequency of changing clothes, not using towels at the same time as other people, and the frequency of changing bed linen. Sanitation of the living environment includes bedroom cleanliness, bathroom cleanliness, and bed cleanliness. One of the efforts to improve community

sanitation and hygiene behavior is through Community Based Total Sanitation (STBM). STBM is a community empowerment program that has five pillars, including stop open defecation, washing hands with soap, managing drinking water and food, securing household waste and securing household liquid waste. The spread of scabies mites is easier in communities that live in groups such as dormitories, between densely populated family members, and even villages. High occupancy density, especially in bedrooms will greatly facilitate the transmission of scabies because the risk of direct contact from one person to another is more susceptible. The denser the indoor population, the faster the indoor air is polluted. Increased CO² levels in indoor air will increase the risk of bacteria growing and multiplying faster. Lastly, water is a medium of disease transmission. A person can get scabies if they use dirty water, where the polluted water is used for bathing. By providing clean water in both quality and quantity, the spread of infectious diseases can be minimized (Husna et al, 2021; Indriani, 2021).

Clinical symptoms of skin disease due to scabies are caused by the body's allergic response to the mites. After the mites copulate on the skin, the males die and the females tunnel into the stratum corneum laying 2 to 50 eggs. The activity of *S. scabiei* mites in the skin will cause itching that generally starts 4 - 6 weeks after the first infestation, if there is a re-infestation of mites, then symptoms can appear faster within two days. Worsening itching at night is caused by higher mite activity in more humid and hot temperatures (Kurniawan, 2020). Treatment of scabies can be carried out with medication and non-medication. Medicamentous is treatment by giving medicine to the patient. Topical medications such as permethrin ointment are given, while non-medicamentous efforts are made to improve personal and environmental hygiene to help cure the disease. In general, the doctor frequently prescribes permethrin rather than sulfur because permethrin ointment works to kill mites with their eggs. Permethrin ointment is more widely used by patients because permethrin ointment leads to faster healing. Permethrin is a synthetic pyrethroid and an effective insecticide for treating scabies where Permethrin ointment uses a 5% concentration with an efficacy rate of 90%. In addition, Permethrin is indicated and safe for use on newborns, young children, pregnant and lactating women. The use of permethrin is by applying the cream on the body affected by scabies for 8-12 hours before bedtime, if the cream is erased before the specified time then the cream must be applied again (Hamzah and Rosita, 2022).

CONCLUSIONS AND RECOMMENDATIONS

Community service activities with health counseling interventions went smoothly without any obstacles. Providing information about scabies infection is very useful for the community of Keliling Benteng Ulu Village RT.09. In addition, the community has understood the concept of scabies disease, this is concluded by an increase in knowledge before and after the provision of health education. Through this activity, the community has learned the importance of maintaining personal and environmental hygiene and implementing a healthy lifestyle to avoid skin diseases, which is an achievement of the community service program. It is hoped that after this, the number of people with skin diseases in Keliling

Benteng Ulu Village can decrease and the community can prevent themselves and their families from scabies.

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