

Counseling On Prevention Of Scabies Transmission, Scabies Screening And Secondary Infection Through Gram Examination And Comprehensive Scabies Treatment

Sukmawati Tansil Tan^{1*}, Yohanes Firmansyah², Alicia Sarijuwita³, Joshua Kurniawan⁴, William Gilbert Setyanegara⁵

¹Department of Dermatology and Venereology, Faculty of Medicine, Tarumanagara University e-mail: <u>sukmawati@fk.untar.ac.id</u>
²Faculty of Medicine, Tarumanagara University, Jakarta, Indonesia;, Indonesia e-mail: <u>yohanesfirmansyah28@gmail.com</u>
³Faculty of Medicine, Tarumanagara University, Jakarta, Indonesia e-mail: <u>alicia.405200126@stu.untar.ac.id</u>
⁴Faculty of Medicine, Tarumanagara University, Jakarta, Indonesia e-mail: joshua.406202071@stu.untar.ac.id
⁵Faculty of Medicine, Tarumanagara University, Jakarta, Indonesia e-mail: <u>william.406202070@stu.untar.ac.id</u>

*E-mail Correspondence: sukmawati@fk.untar.ac.id

Article History:

Received: 07 Maret 2023 Revised: 02 April 2023 Accepted: 16 Mei 2023

Keywords: scabies, treatment, prevention, secondary infection

Abstract: Scabies is a highly contagious infection that falls under the category of neglected diseases. If not treated as soon as possible, scabies rapidly spreads throughout a community, causing significant distress for those affected. In a more advanced stage, scabies can lead to malnutrition in children and threaten their growth and development. Obviously, scabies can impair the quality of life of adult patients. In addition to screening and diagnosis as early as possible to prevent secondary and tertiary infections, education regarding the prevention and complete treatment of scabies is crucial. This community service therefore focuses comprehensively on educating the public about the introduction and prevention of scabies transmission, in addition to screening for scabies by doctors and examination of secondary infections by performing gram examinations, screening for growth disorders caused by scabies, and comprehensive treatment for not only sufferers, but also their families.

INTRODUCTION

Scabies is an ectoparasitic infection in humans caused by the mite Sarcoptes scabiei var hominis.¹ This infection occurs due to direct skin-to-skin contact or indirect contact (through objects such as towels, bed sheets, pillows and others).²

Sarcoptes scabiei is the causative agent of scabies. The arthropod Sarcoptes scabiei burrows into the epidermis, where it lives and reproduces. It belongs to the class Arachnida, subclass Acari, family Sarcoptidae. The female mite measures 0.3 to 0.45 mm in length and 0.25 to 0.35 mm in width and is invisible to the unaided eye, whereas the male is approximately half the size of the female. In the larval stage, it has three pairs of appendages, but this increases to four pairs in the nymph and adult stages. The scabies mite attaches to human epidermis via its two pairs of front legs, which have suction-like pads called pulvilli. There are numerous types of scabies, some of which only affect animals. ³

Scabies can affect all races and social classes throughout the globe, but it is difficult to obtain an accurate picture of its prevalence. Downs et al. conducted a study using data collected in England between 1967 and 1996, which revealed a high incidence in the late 1960s and 1970s, followed by a decline in the 1980s and a rise in the 1990s, when prevalence was higher in urban areas, in the north of England, among women and children, and more often in the winter than in the summer. Several additional investigations have discovered the same seasonal variation.⁴ There is an assumption that a scabies epidemic occurs every 30 years. This disease is caused by a number of factors, including inadequate hygiene, misdiagnosis, and dermographic and ecological development. This illness falls under the disease due to sexual relations category. ⁵

Scabies is most common in children and young adults, but can affect any age group, and in the UK in recent years it has been seen more frequently in older adults in care settings. The overall incidence of sex may be uniform whereas within race there are some vulnerable racial groups, which may relate more to habits and social factors than to inherent susceptibility factors. Overcrowded populations, which are common in underdeveloped countries and almost always associated with poverty and poor hygiene, also contribute to the spread of scabies. ⁶

¹ Bart J. Currie and James S. McCarthy, "Permethrin and Ivermectin for Scabies," *New England Journal of Medicine* (2010).

² O. Chosidow, "Scabies and Pediculosis: Neglected Diseases to Highlight," *Clinical Microbiology and Infection*, 2012; C. M. Salavastru et al., "European Guideline for the Management of Scabies," *Journal of the European Academy of Dermatology and Venereology* (2017).

³ Zeyad Alsyali et al., "A Comprehensive Review Study on Scabies and Its Associated Impact on Psycho-Social Health of an Individual.," *International Journal of Contemporary Research and Review* 10, no. 02 (2019): 20700–20707.

⁴ David Anthony Burns, "Diseases Caused by Arthropods and Other Noxious Animals," in *Rook's Textbook of Dermatology: Eighth Edition*, 2010.

⁵ Djuanda Adhi et al., *Ilmu Penyakit Kulit Dan Kelamin, Fkui*, 2018.

⁶ Burns, "Diseases Caused by Arthropods and Other Noxious Animals."

According to research by Gang and friends, it was found that scabies had a very large impact on the quality of life of sufferers. The mean \pm SD DLQI in this study was 10.09 \pm 5.96. The quality of life for the majority (71.9%) of these patients was that scabies had a moderate effect on quality of life. Questions 1 (symptom), 2 (embarrassment), 7 (interfere with work or study) and 9 (sexual difficulties) had the greatest impact on patients with scabies. Domain 1 (symptoms and feelings) and 5 (personal relationships) scored higher than the other domains which greatly impact the quality of life of sufferers. There has been significant improvement in quality of life after treatment and recovery from scabies.⁷ In order to enhance the quality of life of scabies sufferers, the treatment for scabies should be both effective and simple to administer.

Scabies is typically transmitted through prolonged skin-to-skin contact. Typically, this occurs between relatives and sexual companions. Rarely is classic scabies transmitted via clothing, linens, or other objects. As a result of the greater number of parasites, crusted scabies can spread quickly. Scabies can spread rapidly in densely populated areas like prisons, nursing homes, and military installations. ⁸

When a person is infected with scabies, the mites lie inert beneath the skin, so it takes time for signs and symptoms to manifest. It can take between two and six weeks for the body to develop symptoms in infected individuals. The onset of symptoms in previously contaminated patients is between 1 and 4 days. In addition, there are two clinical forms of scabies, namely classic scabies and crusted scabies. In classic scabies, the most prominent symptoms are intense itching and pruritus, which are typically worse at night. Due to a delayed-type hypersensitivity reaction, mites and mite eggs induce pruritus. The itchy areas of the lesions can cause open sores, which can lead to secondary bacterial infections and sepsis, which is a life-threatening infection that extends to the blood. ⁹

Secondary bacterial infection, usually local but occasionally causing systemic complications. Streptococcal Group A infection can occur which can lead to acute poststreptococcal glomerulonephritis. Staphylococcus aureus infection causes impetigo, ecthyma, and furuncles. In crusted scabies, it can cause sepsis, especially in the elderly and patients with compromised immune systems. Post-scabietic pruritus can last days or weeks (sometimes months), due to a hypersensitive reaction to the mites and scabies products. Patients rarely experience generalized urticaria. Psychological problems such as shyness and parasitosis fantasies may occur. Generalized lymphadenopathy is common in crusted scabies.¹⁰.

To avoid re-exposure of scabies to people around the patient, effective scabies treatment is usually suggested for all family members of scabies-infected patients, especially those who have

⁷ A. Jin-Gang et al., "Quality of Life of Patients with Scabies," *Journal of the European Academy of Dermatology and Venereology* (2010).

⁸ Alsyali et al., "A Comprehensive Review Study on Scabies and Its Associated Impact on Psycho-Social Health of an Individual."

⁹ Ibid.

¹⁰ Ibid.

direct skin-to-skin contact with the patient. Items used within three days of therapy should be washed in hot water, whether they are garments or blankets. After use, the patient's room must be vacuumed with an electric vacuum. Items that cannot be washed should be placed in a confined area and placed in a plastic bag for several days to prevent the mites from acquiring nutrition and to wait until the mites die or can be sun dried. To prevent a scabies outbreak, early detection of scabies, as well as suitable isolation and control techniques, are required, in addition to treatment. Anyone with scabies symptoms should be subjected to a thorough inspection by all patients and staff. The doctor performing the skin test must be qualified and knowledgeable in scabies detection. When assisting scabies patients, it is critical to maintain proper control and isolation by wearing gloves and gowns and avoiding direct skin contact.¹¹

According to the preliminary survey report, there are numerous Islamic boarding schools in the planned area. According to a survey conducted at one of the randomly selected Islamic boarding schools, there were 13 persons who had scabies and 90 people who were suspected of having scabies. This is critical because scabies spreads quickly through direct contact.

Based on the foregoing, the community service team in Cisitu village was interested in providing counseling on scabies transmission prevention, screening for scabies and secondary infections via gram examination, and thorough scabies treatment.

METHOD

Community outreach and education is very important in the prevention and eradication of scabies. Some solutions that can be done to overcome the problem of scabies include:

- Community outreach and education: Community outreach and education about scabies needs to be carried out continuously so that people have sufficient knowledge about this disease, its symptoms, ways of transmission, ways of prevention, and ways of treatment. With sufficient knowledge, people can prevent the spread of scabies and avoid being infected with scabies.
- 2. Comprehensive Management and Treatment of Scabies: To deal with scabies, it is necessary to carry out comprehensive management and treatment of scabies by involving doctors, health workers, and the community. Comprehensive steps for treating scabies include administering antiparasitic drugs, administering ointments, administering antihistamines, and administering other drugs according to the patient's condition.
- 3. Thorough Eradication of Scabies: Complete eradication of scabies can be carried out by carrying out correct and timely treatment of scabies patients, identifying and isolating newly diagnosed scabies patients, treating close contacts of scabies patients, and cleaning

⁵⁷

¹¹ Ibid.

the environment cleanly and regularly.

4. Prevention of Scabies Infection: Prevention of scabies infection needs to be done by keeping the body and surroundings clean, avoiding direct contact with scabies patients, avoiding using personal items that are the same as scabies patients, and treating scabies in patients and close contacts of scabies patients as soon as possible.

By taking these steps in an integrated manner, it is hoped that the prevention and eradication of scabies can be carried out effectively and efficiently.

The activity that will be carried out is to gather residents and environmental leaders and elders to carry out counseling about the symptoms of scabies, scabies transmission, and prevention of scabies infection. Continuing with the community, a free examination is carried out for an integrated diagnosis of the disease which begins with examination of vital signs, physical examination and looking for pathognomic signs of scabies infection, supporting examinations with swabs, culture, and gram staining, as well as complete treatment of scabies thoroughly for patients and family with permethrin and sulfur. The information obtained from this activity can be the basis for information for preparing further activities to prevent the occurrence of scabies transmission in the community.

The method used to solve the problem is to conduct counseling with media posters and leaflets that discuss:

- 1. Get to know scabies
- 2. Signs and symptoms of scabies
- 3. Treatment of scabies
- 4. Prevention of scabies
- 5. Complications of scabies

Followed by a physical examination and basic health screening, namely:

- 1. Vital Signs
- 2. Basic physical examination

Scabies Cardinal Signs: There are four cardinal signs of infection by Sarcoptes scabiei, namely nocturnal pruritus, attacking a group of people, having a tunnel (cuniculus), and finding the scabies parasite.

- 3. Supporting examinations, namely:
 - a. Looking for mites
 - b. Perform a secondary infection swab in the wound/lesion area, perform an infection culture and identify the bacteria causing the secondary infection

- 4. Comprehensive treatment
 - a. Personal and family (community) treatment for primary infection in the form of Sulfur and Permethrin
 - b. Treatment of secondary infections caused by bacteria in the form of antibiotics
 - c. Management of tertiary infections according to the patient personally and comprehensively

RESULTS

Counseling was provided to 76 people, including children, instructors, and pesantren officials. The seminar approach is used for counseling, and it is followed by a discussion in the form of questions and replies. (See Figure 1)

The following items can be used in scabies counseling in Islamic boarding schools:

- 1. Scabies definition: Counseling might begin by describing what scabies is and how it spreads. Scabies is an infection of the skin caused by the mite Sarcoptes scabiei. Direct touch with diseased skin might spread these mites.
- 2. Scabies signs and symptoms. Scabies signs and symptoms, such as skin rashes, acute itching at night, and lumps or blisters on the skin, can be learned through education. Participants in the counseling should also be told that scabies can spread quickly among those who live or interact closely.
- 3. Scabies prevention. Steps to prevent scabies can be discussed in counseling, such as maintaining personal and environmental hygiene, washing garments on a regular basis, and avoiding direct contact with people infected with scabies.
- 4. Treatment for scabies counseling can provide information regarding scabies treatment, such as the use of creams or lotions containing active chemicals like permethrin or ivermectin. Counseling participants must also be informed that in order to avoid the spread of scabies, all people who live or interact closely in the same area must be treated.
- 5. Scabies-related itching relief. Counseling can provide knowledge on how to treat scabies itching, such as taking a cold shower or applying an anti-itch ointment. Participants in counseling should also be told that scratching the skin might aggravate infection and develop other skin problems.
- 6. The significance of the environment in avoiding scabies transmission. Extension can emphasize the necessity of maintaining a clean environment, such as washing clothes and bedding on a regular basis, as well as cleaning the bed and bathroom. Counseling participants might also be encouraged to take preventive steps in their own communities.

7. Counseling might be concluded by presenting findings and highlighting the necessity of scabies prevention. Participants in counseling might also be given the opportunity to raise questions and clarify the information that has been delivered.

After that, all participants who experience symptoms leading to scabies will undergo a physical examination to establish a diagnosis of scabies accompanied by supporting examinations (Figure 2). It is known that there were 21 participants who were diagnosed with scabies accompanied by 11 of them experiencing secondary infections which would be further cultured. All participants were treated with permethrin to completion, and the results of bacterial culture for the diagnosis of secondary infection are presented in the table 1

Parameter	N (%)
Scabies infection	
Primary	10 (47,6%)
• Secondary	11 (52,4%)
Secondary Infection	
Staphylococcus	6 (54,5%)
Streptococcus	2 (18,2%)
Combines	3 (27,3%)

Table 1. Respondent Examination Results



Figure 1. Extension Media



DISCUSSION

Scabies is a skin disease caused by a parasitic infection known as Sarcoptes scabiei. This infection is generally transmitted through direct contact with someone who is already infected, either through physical contact or sharing contaminated items.¹²

In the context of Islamic boarding schools, where many people live in a crowded environment and interact closely, the spread of scabies can be a serious problem. This condition can spread quickly among students and teaching staff.

Symptoms of scabies include: ¹³

¹² Daniel Engelman et al., "A Framework for Scabies Control," *PLoS neglected tropical diseases* 15, no. 9 (2021): e0009661; D Engelman et al., "The 2020 International Alliance for the Control of Scabies Consensus Criteria for the Diagnosis of Scabies," *British Journal of Dermatology* 183, no. 5 (2020): 808–820.

¹³ Pooja Arora et al., "Scabies: A Comprehensive Review and Current Perspectives," *Dermatologic Therapy* 33, no. 4 (2020): e13746; Amal A El-Moamly, "Scabies as a Part of the World Health Organization Roadmap for Neglected Tropical Diseases 2021–2030: What We Know and What We Need to Do for Global Control," *Tropical medicine and health* 49, no. 1 (2021): 1–11.

- 1. Intense itching, especially at night.
- 2. A red rash that looks like small lines or spots.
- 3. Formation of blisters or scabs on the skin.
- 4. Skin that is irritated and feels sore.

If there is a suspicion of scabies in an Islamic boarding school, it is critical to act quickly to prevent and treat it. Here are some steps you can take:¹⁴

- 1. Consult a medical professional: Immediately see a medical officer or doctor to ensure proper diagnosis and treatment. The doctor will probably do a physical examination and may also take skin samples to be examined under a microscope.
- 2. Treatment: Scabies can be treated by using creams or lotions that contain ingredients that effectively kill the scabies parasite. Usually, the recommended drug is permethrin. In addition, the doctor may also prescribe itch relievers to reduce discomfort.
- 3. Prevention of spread: To prevent scabies from spreading in Islamic boarding schools, it is important to provide education to all residents of Islamic boarding schools about the signs and symptoms of scabies, as well as the preventive steps that need to be taken. This includes maintaining personal hygiene by washing your hands frequently, avoiding sharing personal items such as towels, clothes or bedding, and maintaining a clean environment by routinely cleaning frequently touched surfaces.
- 4. Treatment of items: All items that may be contaminated with the scabies parasite, such as clothing, sheets or towels, need to be washed in hot water and dried at high temperature. If the item cannot be washed, it can also be stored in a tightly closed plastic bag for a few days to ensure the parasites die.

Education, diagnosis, and examination of secondary infections have an important role in treating scabies. The following are some reasons why these are important: ¹⁵

1. Education: Education is a key step toward increasing individual understanding of scabies, including how it is transmitted, symptoms, and preventive methods. Individuals will be better able to recognize the early symptoms of scabies, take the appropriate preventative

¹⁴ Ani Qomariyah, Orchidara Herning Kawitantri, and Mamluatul Faizah, "Edukasi Kesehatan Tentang Penyakit Scabies Dan Personal Hygiene Pada Santri Putra Pondok Pesantren Safinatul Huda Banyuwangi," *Dharma: Jurnal Pengabdian Masyarakat* 2, no. 2 (2022): 27–39; Mardiana Mardiana et al., "Pengabdian Masyarakat POPABES (Pondok Pesantren Bebas Scabies) Pada Santriwan Dan Santriwati Di Pondok Pesantren," *Jurnal Pesut: Pengabdian untuk Kesejahteraan Umat* 2, no. 1 (2020): 44–51.

¹⁵ Angelica Vanini WT et al., "Upaya Peningkatan Derajat Kesehatan Masyarakat Mengenai Gerakan Edukasi Dalam Menanggulangi Scabies Di Daerah Wisata Pantai Nipah," *Jurnal Pengabdian Komunitas* 1, no. 1 (2022): 79–83; Eva Martini et al., "Pendampingan Program Pencegahan Penyakit Scabies Melalui Peningkatan PHBS Menuju Generasi Santri Sehat Di Pondok Pesantren," *Sasambo: Jurnal Abdimas (Journal of Community Service)* 4, no. 3 (2022): 457–463; Hasyim Kadri and Salvita Fitrianti, "Pendidikan Kesehatan Tentang Pencegahan Scabies Pada Santri Di Pondok Pesantren Modern Al-Hidayah Kota Jambi," *Jurnal Abdimas Kesehatan (JAK)* 3, no. 1 (2021): 72–75.

measures, and seek medical care swiftly if the right information is provided. Education also helps to decrease the stigma and shame associated with scabies, making people more willing to seek treatment.

- 2. Diagnosis: An accurate diagnosis is critical in detecting scabies. Even though the symptoms appear to be relatively normal, a medical evaluation performed by trained medical staff is still required. The doctor may conduct a physical examination, looking for distinguishing indications such as thin streaks or spots on the skin, and may also collect a skin sample to examine under a microscope. A correct diagnosis ensures that the patient receives the proper treatment and lowers the danger of infection spreading.
- 3. Examine for secondary infection: Scabies can cause subsequent skin infection. When a person scratches itchy scabies skin, bacteria can enter the sores or blisters that form and cause an infection. Secondary infection examination is critical in order to evaluate if complications emerge and the appropriate therapy. If a secondary infection develops, the doctor may prescribe antibiotics to treat the illness and avoid further complications.

In the case of Islamic boarding schools, scabies therapy might be done in groups to provide larger understanding. Secondary infection diagnosis and evaluation should be performed by medical staff who are experienced in recognizing and managing scabies and its consequences. With this comprehensive strategy, it is believed that afflicted persons will receive prompt treatment and that the spread of scabies in the Islamic boarding school setting would be reduced.

CONCLUSION AND SUGGESTION

CONCLUSION

This community service was attended by 76 participants of various ages. Counseling provides additional knowledge to the public about the ins and outs of Scabies. Physical examination is carried out in the rare diagnosis of scabies and is continued with investigations to see whether there is a secondary infection. Based on the results of laboratory tests, it was found that 11 out of 21 people had a secondary infection in the form of a bacterial infection. Treatment with permethrin and antibiotics was given to all participants according to indications.

SUGGESTION

Here are some suggestions for further counseling, for Islamic boarding schools, and for the community in terms of preventing the occurrence of scabies:

- 1. Next activity:
 - a. Evaluate previous activity and consider adapting materials and delivery methods to increase activity effectiveness.
 - b. Involve experts and health professionals in counseling so that participants receive

e-ISSN: 2962-3839; p-ISSN: 2962-4436, Hal 54-65

accurate and up-to-date information about scabies.

- c. Provide detailed information on how to treat and prevent steps, including how to wash clothes and bed linen infected with scabies.
- 2. Islamic Boarding School:
 - a. Conduct regular counseling to increase awareness and knowledge about scabies.
 - b. Provide adequate facilities for washing clothes and bed linen, and changing clothes and bed linen regularly.
 - c. Improve cleanliness and sanitation, including bedrooms and bathrooms.
- 3. Society:
 - a. Public education on how to treat and prevent scabies, and the importance of maintaining environmental hygiene and sanitation.
 - b. Invite people to wash clothes and bed linen regularly and separate infected clothes from those that are not infected.
 - c. Provide hand washing facilities and encourage people to wash their hands regularly with soap and running water

REFERENCE

- Adhi, Djuanda, Suriadiredja S.D. Aida, Sudharmono Aryani, Wiryadi E. Benny, Kurniati Dwi Detty, Daili Sjamsoe S. Emmy, Novianto Endi, et al. *Ilmu Penyakit Kulit Dan Kelamin. Fkui*, 2018.
- Alsyali, Zeyad, Abdullah Alaithan, Khalid Almubarak, Hassan Alibrahim, Abdulrahman Almansour, Turki Albalawi, Syed Rehan Hafiz Daimi, and Shamim Shaikh Mohiuddin. "A Comprehensive Review Study on Scabies and Its Associated Impact on Psycho-Social Health of an Individual." *International Journal of Contemporary Research and Review* 10, no. 02 (2019): 20700–20707.
- Arora, Pooja, Lidia Rudnicka, Marta Sar- Pomian, Uwe Wollina, Mohammad Jafferany, Torello Lotti, Roxanna Sadoughifar, Zuzanna Sitkowska, and Mohamad Goldust. "Scabies: A Comprehensive Review and Current Perspectives." *Dermatologic Therapy* 33, no. 4 (2020): e13746.
- Burns, David Anthony. "Diseases Caused by Arthropods and Other Noxious Animals." In *Rook's Textbook* of Dermatology: Eighth Edition, 2010.
- Chosidow, O. "Scabies and Pediculosis: Neglected Diseases to Highlight." *Clinical Microbiology and Infection*, 2012.
- Currie, Bart J., and James S. McCarthy. "Permethrin and Ivermectin for Scabies." *New England Journal of Medicine* (2010).
- El-Moamly, Amal A. "Scabies as a Part of the World Health Organization Roadmap for Neglected Tropical Diseases 2021–2030: What We Know and What We Need to Do for Global Control." *Tropical medicine and health* 49, no. 1 (2021): 1–11.
- Engelman, D, J Yoshizumi, R J Hay, M Osti, G Micali, S Norton, S Walton, F Boralevi, C Bernigaud, and A C Bowen. "The 2020 International Alliance for the Control of Scabies Consensus Criteria for the Diagnosis of Scabies." *British Journal of Dermatology* 183, no. 5 (2020): 808–820.
- Engelman, Daniel, Michael Marks, Andrew C Steer, Abate Beshah, Gautam Biswas, Olivier Chosidow, Luc E Coffeng, Belen Lardizabal Dofitas, Wendemagegn Enbiale, and Mosoka Fallah. "A Framework for

Scabies Control." PLoS neglected tropical diseases 15, no. 9 (2021): e0009661.

- Jin-Gang, A., X. Sheng-Xiang, X. Sheng-Bin, W. Jun-Min, G. Song-Mei, D. Ying-Ying, M. Jung-Hong, X. Qing-Qiang, and W. Xiao-Peng. "Quality of Life of Patients with Scabies." *Journal of the European Academy of Dermatology and Venereology* (2010).
- Kadri, Hasyim, and Salvita Fitrianti. "Pendidikan Kesehatan Tentang Pencegahan Scabies Pada Santri Di Pondok Pesantren Modern Al-Hidayah Kota Jambi." *Jurnal Abdimas Kesehatan (JAK)* 3, no. 1 (2021): 72–75.
- Mardiana, Mardiana, Tegar Atmajaya, Rendy Wardana, Nur Gindawati, Avirda Dwi Anaya, Anisa Larasati, Anindi Trikandini, and Dinda Ni'matul Khasanah. "Pengabdian Masyarakat POPABES (Pondok Pesantren Bebas Scabies) Pada Santriwan Dan Santriwati Di Pondok Pesantren." *Jurnal Pesut: Pengabdian untuk Kesejahteraan Umat* 2, no. 1 (2020): 44–51.
- Martini, Eva, Asep Suryadin, Ernawati Hamidah, and Sri Hartati. "Pendampingan Program Pencegahan Penyakit Scabies Melalui Peningkatan PHBS Menuju Generasi Santri Sehat Di Pondok Pesantren." *Sasambo: Jurnal Abdimas (Journal of Community Service)* 4, no. 3 (2022): 457–463.
- Qomariyah, Ani, Orchidara Herning Kawitantri, and Mamluatul Faizah. "Edukasi Kesehatan Tentang Penyakit Scabies Dan Personal Hygiene Pada Santri Putra Pondok Pesantren Safinatul Huda Banyuwangi." *Dharma: Jurnal Pengabdian Masyarakat* 2, no. 2 (2022): 27–39.
- Salavastru, C. M., O. Chosidow, M. J. Boffa, M. Janier, and G. S. Tiplica. "European Guideline for the Management of Scabies." *Journal of the European Academy of Dermatology and Venereology* (2017).
- WT, Angelica Vanini, Ida Ayu Made Mahayani, Dewi Fajrianti, and Nur Rahmatullah Pertiwi. "Upaya Peningkatan Derajat Kesehatan Masyarakat Mengenai Gerakan Edukasi Dalam Menanggulangi Scabies Di Daerah Wisata Pantai Nipah." *Jurnal Pengabdian Komunitas* 1, no. 1 (2022): 79–83.