

SCREENING SKIN INFECTIONS IN STUDENTS OF TANJUNG PASIR AL-AWWABIEN ISLAMIC BOARDING SCHOOL, JAMBI

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ABSTRACT

Islamic boarding schools are faced health problems with various types of diseases such as skin diseases and TB. Skin infection can be caused by bacteria, fungi, parasites, which have the potential to be contagious if students does not practice Clean and Healthy Living Behavior (PHBS). Direct microscopic examination is the easiest, most affordable, and specific method for diagnosis. Therefore, the Community Service Team from the Faculty of Medicine and Health Sciences, University of Jambi (FKIK UNJA), provided education on PHBS, conducted skin scraping examinations, and it's treatments.

The objective of this community service is to describe the skin infection with direct microscopic examination skin scraping using KOH among students at the Tanjung Pasir Al-Awwabien Islamic Boarding School, Jambi. The implementation of community service activities on Sunday, 11 August 2024 at the Tanjung Pasir Al-Awwabien Jambi Islamic Boarding School. The direct skin scraping examinations were carried out by scraping the affected skin area with a scalpel onto a glass slide, followed by the application of one drop of 10% KOH solution. The results were then analyzed using a microscope, and treatments were provided accordingly. The screening session was attended by 59 students with systemic symptoms, while 13 participants underwent direct skin scraping examinations. Among the students with skin disease, the majority were 14-yo. Most of the direct examinations did not detect spores, hyphae, or mites, and the most common diagnosis was tinea among the types of skin disease. The direct skin scraping examinations supports the diagnosis of skin infection, and it's treatment, which is expected to help prevent the spread of skin diseases.

Keywords: Skin Infection, Islamic boarding school, PHBS, Skin scraping

ABSTRAK

Pondok pesantren sering dihadapkan pada berbagai masalah Kesehatan seperti penyakit kulit dan TB. Infeksi kulit dapat disebabkan oleh bakteri, jamur, parasit, yang berpotensi menular jika para santri tidak mempraktikkan Perilaku Hidup Bersih dan Sehat (PHBS). Pemeriksaan langsung dengan mikroskopis merupakan metode diagnosis yang paling mudah, terjangkau, dan spesifik. Oleh karena itu, Tim Pengabdian Masyarakat dari Fakultas Kedokteran dan Ilmu Kesehatan Universitas Jambi (FKIK UNJA), memberikan edukasi tentang PHBS, melakukan pemeriksaan kerokan kulit, dan penanganannya. Tujuan pengabdian ini adalah untuk mengetahui gambaran infeksi kulit dengan pemeriksaan mikroskopis langsung kerokan kulit menggunakan KOH pada santri di Pondok Pesantren Al-Awwabien Tanjung Pasir, Jambi. Pelaksanaan kegiatan pengabdian masyarakat pada hari Minggu, 11 Agustus 2024 di Pondok Pesantren Al-Awwabien Tanjung Pasir Jambi. Pemeriksaan kerokan kulit langsung dilakukan dengan cara menggores area kulit yang terinfeksi dengan pisau bedah pada kaca objek, dilanjutkan dengan pemberian satu tetes larutan KOH 10%. Hasilnya dibaca menggunakan mikroskop, dan pemberian terapi yang sesuai dengan diagnosis. Sesi skrining kelainan kulit dihadiri oleh 59 mahasiswa dengan keluhan sistemik, terdapat 13 peserta menjalani pemeriksaan kerokan kulit langsung. Di antara siswa yang menderita penyakit kulit, mayoritas berusia 14 tahun. Sebagian besar pemeriksaan langsung tidak mendeteksi spora, hifa, atau tungau, dan diagnosis yang paling umum adalah tinea di antara jenis penyakit kulit lainnya. Pemeriksaan kerokan kulit langsung mendukung diagnosis infeksi kulit, dan pengobatannya, yang diharapkan dapat membantu mencegah penyebaran penyakit kulit.

Kata kunci: Infeksi Kulit, Pondok pesantren, PHBS, Kerokan Kulit

INTRODUCTION

The Incidence of skin infection is still high in Indonesia, and also a health problems in people who live in cluster (1–3). Islamic boarding school often face skin infection problem. Skin infection can be caused by bacteria (impetigo, folliculitis/carbuncle, and cellulitis), fungi (tinea versicolor and ringworm),



and parasite (scabies). Skin infection is very infectious because it's easy transmission. This transmission can be through contact (direct/indirect) or transmission from the air, it can also be caused poor immune system, moist and hot environment (4–7).

Pyoderma is skin inflammation caused by bacteria like *Staphylococcus aureus*/*S. albus* and or *Streptococcus* sp.(8). Pyoderma forms are impetigo, folliculitis, and carbuncles (9–13). The complications of pyoderma is cellulitis and erysipelas. Impetigo is inflammation marked with skin existence spots redness and blisters on the skin area (12). Folliculitis is inflammation of hair follicles and is caused by *Staphylococcus aureus* (7,14,15). Cellulitis is a skin infection, caused by bacteria *Staphylococcus* sp. and has skin symptom like rednes/swelling and tenderness pain (16–18). Skin infection caused by fungus are *Tinea Versicolor* and Ringworm (19–21). *Tinea versicolor* is a skin infection by *Malassezia furfur* fungus, which is characterized with spots on the skin (22). Ringworm is a infection skin caused by infection *Trichophyton*, *Epidermophyton*, and *Microsporum* fungi, with symptom itching and spots on the skin with darker edge (19). Scabies is a skin infection caused by invading mites/parasites skin, marked with rash and itching.

Cottage Islamic boarding school is crowded place, where each room capable accommodates 5-10 students or more. Often students borrow goods personal like towels, sandals, and clothes. In fact, sometimes students didn't take a shower because too lazy to queue to bathroom (23–25). In addition inadequate ventilation adequate and low ray sun can increase humidity inside room, which can cause skin infections (26,27). Problems in cottage Tanjung Pasir Al-Awwabien Jambi Islamic Boarding School is lack of knowledge regarding PHBS, PHBS knowledge can prevent reoccurrence skin infection among the students. Cottage Islamic boarding school had high potential for transmit skin infection if students do not implementing good PHBS. The second Problem is the students who have skin infection that need to be handle, so that it doesn't transmit to other students (28,29).

High incidence rate skin disease caused by lack of knowledge, awareness and attitude to public towards Clean and Healthy Lifestyle Patterns (PHBS). Therefore, the Community Service Team of the Faculty of Medicine and Health, University of Jambi (FKIK UNJA) wish to for providing educational programs Clean and Healthy Living Behavior (PHBS), and implementing skin scraping examination for students Islamic boarding schools that had skin infection, and giving treatment. With education about prevention infection skin can increase knowledge students boarding school that can decrease skin infection that found in the Tanjung Pasir Al-Awwabien Islamic Boarding School, Jambi.

METHODS

The Community Service program begins with coordination between the Community Service Team Leader and the the Chairman of the Tanjung Pasir Al-Awwabien Islamic Boarding School, Jambi. As a first step, a survey will be conducted to assess the condition of the premises and residents at Tanjung Pasir Al-Awwabien Islamic Boarding School, Jambi. Health education and examinations will be part of the community service program. The first activity is registration of the identity (name, gender, age, address and skin complaints experienced) of the students who had systemic symptoms or skin symptoms. The second acitivity is examination the skin infection by dokter. The third activity is skin examination with direct skin scraping is done using scalpel above object glass and given one drop of 10% KOH solution, and read the result using microscope, object glass closed with cover glass. Reading results use microscope 100, and 400 magnification. The fourth activity is treatment the skin infection accordance with the diagnosis. Data analysis showed in tables and figures.

RESULTS AND DISCUSSION

This community service activity was attended by 135 students, consisting male and female students (Figure 1). They were attended the helath education about skin infection. There were 59 students with systemic symptoms or skin symptoms, and the students with skin infection are 39 students, it's differentiated into two groups, first is skin with infection of 29 peoples (49%), from the skin infection, we examined the dermatology first and only 13 peoples (22%) had done the skin scraping, second is skin without infection are 10 peoples (17%). Meanwhile, it's not experience skin infection are 20 people (34%). Skin infection diagnosed scabies , tinea, paronychia , impetigo, and abscesses. Skin without infection such as urticaria and dermatitis, where no abnormalities found on skin is diagnosed URI, gangrene pulp, cephalgia, gastritis, infection UTI, mumps, acne, and urethritis (Table 1).





Figure 1. Documentation community service team with female students

Table 1. Categories of Skin Disorders

Category	Amount	Percent
Skin Infection		
Skin scraping is performed	13	22%
No scraping is done	16	27%
Skin without Infection		
Not a Skin Disorder		
Total Respondents	59	100%

Ministry of Health Indonesia (2013), prevalence disease skin in Indonesia is 9%, that is show that number incident abnormalities skin at the Al-Awwabien Islamic Boarding School is appropriate with prevalence in Indonesia based on data from the Ministry of Health . Results of community service public For number the incidence of scabies is 5%, this That in accordance with Prevalence The incidence of scabies in Indonesia is 4.60 % - 12.95 % (30).

Based on gender, skin infection on students Al- Awwabien Islamic Boarding School in Jambi City more more in men (72%) than in women (28%) (Figure 2). This is in accordance with Al Audhah research and Lipinwati et al which says that skin infection in male more than female, it's also can say than man more risky women are 24 times more likely to get scabies than men (29,31).

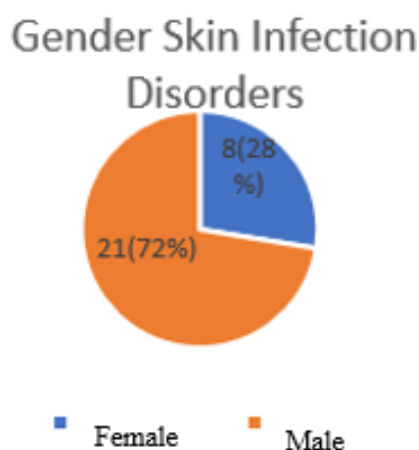


Figure 2. Gender Distribution



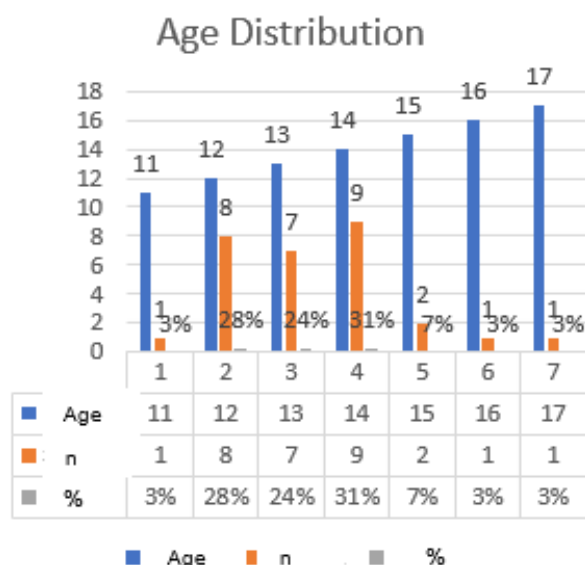


Figure 3. Distribution Age

Based on age experienced skin infection, the most at the age of 14 years (31%), followed by with participant with 12 years old (28%), 13 years old (24%), and 15 years old (7%) (Figure 3). This is in accordance with Lipinwati et al which says that skin infection is more in 13, and 14 years old (31). On examination direct skin scraping case skin infection many do not found *Sarcoptes scabiei* (23%), followed by with infection mixture *Sarcoptes scabiei* and spores / hyphae as many as (15%), and (8%) were found spores / hyphae/mites, because it could be treated before. This is in accordance with Lipinwati et al which says that in skin scraping without spora/hifa/tungau is more than other (31).

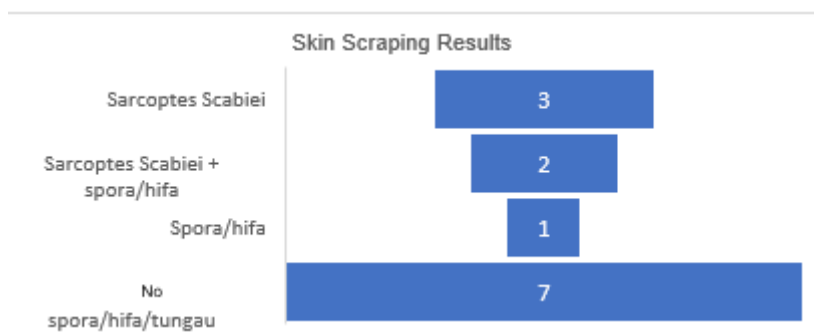


Figure 4. Distribution of Skin Infection Scraping Results

Abnormalities infection skin on students cottage the most Islamic boarding schools is tinea as much as 52%, followed by poiderma as much as 17%, paronychia 10%, and scabies 10%. (Figure 5). This result is opposite with Lipinwati et al, Saputra et al, Mayrona et al, and Kudadiri et al, that say most skin infection is scabies in Nurul Iman Boarding School (1,5,24,31).



Distribution of skin infection disorders

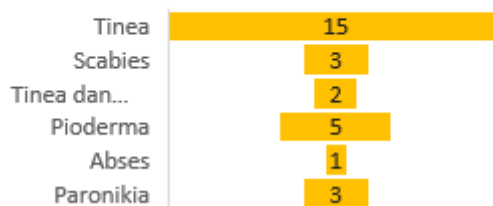


Figure 5. Distribution abnormalities Infection Skin

The students with systemic symptoms after examination of skin infection, and followed with treatment for their symptoms in line with the diagnosed. The diagnosis is confirmed based on found factor reason skin infection from skin scraping examination. If during the examination direct no obtained result, then the diagnosis is confirmed based on clinically condition.

CONCLUSION

This community service activity has been carried out. The direct skin scraping examinations supports the diagnosis of skin infection, and it's treatment, which is expected to help prevent the spread of skin diseases. This community service activities consisted of health education, and examination skin infection Tanjung Pasir Al-Awwabien Islamic Boarding School, Jambi. We hoped that the knowledge about PHBS that is already good can be applied in their lives at the Islamic Boarding School. This service activity has provided benefits for partners, and the boarding school can remind students to carry out PHBS in their lives at the Tanjung Pasir Al-Awwabien Jambi Islamic Boarding School

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