



HOLISTIC MANAGEMENT OF A 10 YEAR OLD BOY PATIENT WITH SCABIES THROUGH A FAMILY MEDICINE APPROACH

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ABSTRACT

Scabies, also known as gudik or buduk, is a highly contagious disease, particularly in communities where individuals live in close quarters. Population density in a residence is a significant risk factor, as it increases close physical contact and facilitates disease transmission. This study aims to identify risk factors and clinical issues in patients while applying the principles of family medicine to provide holistic and comprehensive management using a patient-centered and family-oriented approach based on Evidence-Based Medicine. This study is a case report. Primary data were collected through autoanamnesis, alloanamnesis, physical examination, and home visits to gather information on family, psychosocial, and environmental factors. The assessment was conducted holistically, covering the initial phase, process, and conclusion of the study through both quantitative and qualitative approaches. The patient presented with complaints of reddish spots on the hands and feet, accompanied by itching that had persisted for approximately two weeks. Diagnosis and treatment were carried out in accordance with theoretical guidelines and relevant research. Following the intervention, there was a reduction in clinical symptoms and an improvement in the knowledge of both the patient and their family. Holistic management plays a crucial role in enhancing patients' knowledge, attitudes, and behaviors regarding their illness. Additionally, family involvement is essential in supporting the patient's treatment and recovery.

Keywords: family doctor; holistic management; scabies; secondary infection

INTRODUCTION

Scabies is still a global health problem and can infect 150-200 million people every year. It is a disease caused by infestation and sensitization of *Sarcoptes scabiei* var. *hominis* mites. The disease can cause clinical symptoms depending on the number of infesting mites, immune status, age and behavior of the patient. Symptoms may include skin itching and this itching will increase crescendo) (World Health Organization, 2020). The skin favored by mites is skin with a thin stratum corneum such as between the fingers, edges of hands, palms, wrists, volar forearms, elbows, armpits, navel, waist, thighs, edges of the feet and in women can hit the breasts while in men can hit the scrotum (Mutiara and Syailindra, 2016). Scabies or often also called scabies / mange / buduk is a highly contagious disease, especially in a group of people who live together. The factors that influence the onset of this disease are low economic levels, densely populated homes, low levels of education, limited clean water and poor hygiene behavior. The density of occupants in one place of residence is a factor that The density of occupants in one residence is a factor that influences more than other factors because dense occupants cause close physical contact facilitates the transmission or transmission of this disease, therefore dormitories, prisons, boarding schools and orphanages generally have a high prevalence of scabies (Jasmine et al., 2017).

Clinical symptoms of nighttime itching often disrupt sleep, leading to daytime fatigue, impaired concentration and decreased productivity. If this situation continues, it will lead to stigmatization, embarrassment, depression and feelings of exclusion. In children, the clinical symptoms Scabies can be severe in the form of fluid filled and often purulent pustules, often

affecting the palms of the hands and soles of the feet and can sometimes appear on the face and scalp (Luthfa and Nikmah, 2019). The prevalence of scabies is high in refugee camps, boarding schools and orphanages. Research in Thailand in an orphanage found 87% of children infested with *Sarcoptes scabiei*. Research in Pulau Pinang Malaysia, namely in a kindergarten, found 31% of children positive for scabies. Research in Jakarta found 51.6% of boarding school students were positive for scabies. Research in 2020, found that the average prevalence of scabies in Indonesian orphanages was 25% (CDC, 2020; Yunita et al., 2018). An orphanage is one of the social welfare institutions that aims to help orphans, children who are unable to get a welfare life. These children's orphanages are coordinated by an orphanage administrator to take care of a group of children who live together. Generally, these orphanages are overcrowded and lack personal hygiene of the children and the living environment. Overcrowding and lack of personal hygiene are risk factors for the occurrence of scabies (World Health Organization, 2019).

The aim of the study is to implement and evaluate a comprehensive care plan that addresses not only the clinical treatment of scabies but also the environmental, behavioral, educational, and psychosocial factors contributing to the disease. This approach emphasizes collaboration with the patient's family and community, aiming to improve awareness, prevent reinfection, and promote sustainable hygiene practices in the household. The study also seeks to highlight the role of family physicians in delivering patient-centered, continuous, and preventive care within the family and community setting.

METHOD

This study is a case report analysis. The data collected consists of both primary and secondary sources. Primary data were gathered through autoanamnesis and alloanamnesis with the patient's mother, physical examination, and home visits to obtain comprehensive family, psychosocial, and environmental information. Meanwhile, secondary data were derived from the patient's medical records. The assessment was conducted holistically, covering the initial phase, process, and conclusion of the study using both qualitative and quantitative approaches.

Clinical Data

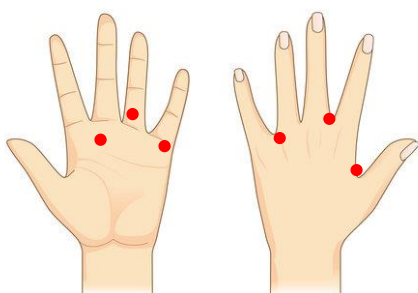
Anamnesis

A 10 years old boy, came to the Kemiling Health Center with complaints of reddish spots on hands and feet accompanied by itching that was felt since +2 weeks ago. Initially the complaint was only one small pustule the size of a pin containing clear liquid, but over time the pustules became more and more and spread. When feeling itchy, the patient often scratches, causing wounds on the scratched area. The patient's mother admitted that the symptoms of itching had been felt for a long time and had recovered after seeing a doctor but appeared again, and this time it the 4th time. According to the patient's mother, the complaint was initially felt when the patient was in boarding school. After 2-3 days the patient claimed to feel itchy itching on several parts of his body, the itching was felt worse at night. The patient had previously had similar complaints on the hands, feet, and buttocks, then the patient saw a doctor until he recovered but the complaint reappeared patient . Mother The patient said that she tried to self-treat the itching by soaking the itchy part with salt water, bathing with PK powder solution, and buying ointment independently at the pharmacy but the complaint reappeared, therefore, the patient decided to seek treatment at the health center. The patient denied any history of allergies such as asthma, food or drug allergies. Previous history of insect bites was denied. The patient was concerned that the itching was getting worse and not disappearing.

The patient bathes twice a day, in the morning and evening. To dry his body, the patient uses his own towel and never uses the same towel as other people. After taking a bath in the afternoon, the patient changes her clothes. The patient also often uses clothes that have previously been used without washing them first. The patient is a school-aged child studying at a school. The patient sleeps with 3 friends in one room. Using the same bathroom but using different toiletries.

Localist Status

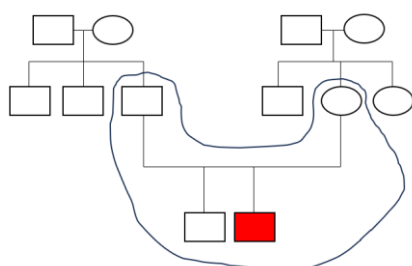
Regio manus dextera et sinistra: there are partially erythema skin-colored papules, multiple, well-defined borders, billion to lenticular in size, scattered partial discrete confluent, some with thin blackish-brown crusts, erosion







Family Data

The patient is the second of two children who are currently studying at the primary level in one of the boarding schools in Bandar Lampung. The patient lives with his father (41 years old), mother (39 years old), first brother (16 years old) The patient's family form is a nuclear family. Communication within the family runs smoothly between family members. The patient often communicates with her father and mother. Financial resources come from the patient's father and mother's income as self-employed. When at home, the patient's family often gathers together, especially at night. During the day, the patient spends more time playing with peers around the neighborhood. Problem solving in the patient's family is through discussion between the father and mother. Family decisions are usually determined by the patient's father. The family's monthly income is 3.500.000 to 4.000.000 IDR per month which is used to support four people in this family.

Genogram



Note:

-  : Male
-  : Female
-  : Patient
-  : Died


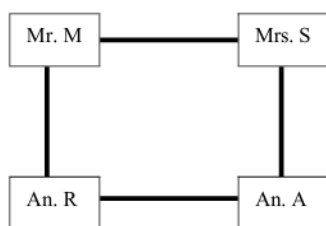
 : 1 house

Figure 1. Genogram of the family

Family Map



— : Very close relationship

Figure 2. Family Map

Family Apgar Score

Family functions of An. A can be seen as follows:

Table 1.
 Family Apgar Score

	APGAR	Score
Adaptation	I feel satisfied because I can ask my family for help when I face problems	2
Partnership	I am satisfied with the way my family discusses things with me and shares problems with me.	2
Growth	I am satisfied that my family accepts and supports my wishes to start new activities or goals. in my life	2
Affection	I feel satisfied with the way my family expresses affection and responds to my feelings. my feelings, such as anger, sadness and love	1
Resolve	I feel satisfied with the way my family and I share our time together.	2
	Total	9

Total Family Apgar score 9 (score 8-10, good family function).

Family Life Cycle

Based on Duvall's family life cycle, An. A is in the family stage with school-age children

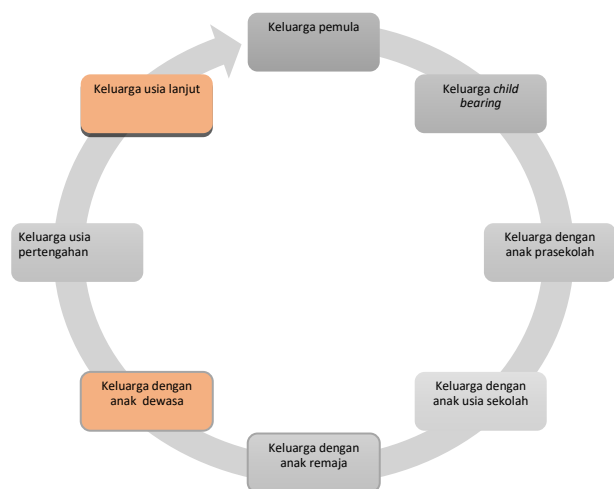


Figure 3. Family Life Cycle

Family Scream

Scream score can be used to assess pathology function. With the results of 24, it can be concluded that An.'s family has family resources sufficient

Home and Environment Data

The patient lives with his father, mother and brother in a privately owned permanent house. The patient's house measures 9x9m. There are three bedrooms, one living room, one kitchen and family room, one toilet, and there is a terrace in front of the house. Walls, cement floor. The kitchen is located inside the house. Sunlight enters the house, ventilation and windows are very sufficient, so that sunlight and air enter sufficiently. The house is electrified, the water source is from PDAM, the kitchen facilities use a gas stove, drinking water needs come from purchased gallon water. During the visit, it was found that cleanliness and tidiness were well taken care of.

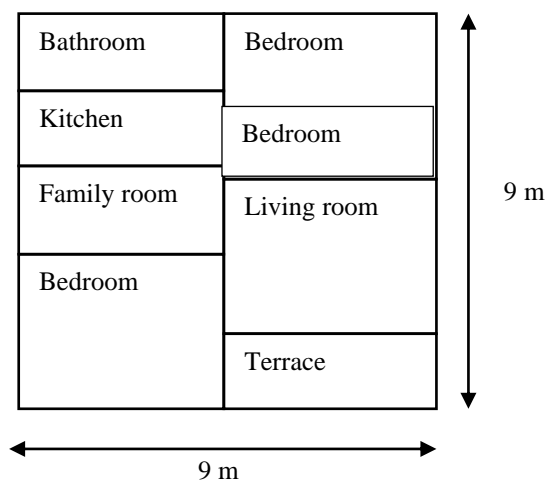


Figure 4. House plan

Initial Holistic Diagnostics

Aspect 1. Personal Aspect

- Reason for visit: Complaint of itching since two weeks ago followed by small pustules the size of needles filled with clear liquid in the itchy area which were then scratched and burst.
- Concerns: Itching worsens and does not go away and prevents the patient from sleeping.
- Expectations: Reddish pustules accompanied by itching will disappear, the disease will be cured soon so that the patient can carry out normal activities.
- Perception: Complaints arose due to being infected by a friend who suffered from hives previously

Aspect 2. Initial Clinical Diagnosis

- Scabies (ICD 10: B86, ICPC-2: S72)

Aspek 3. Internal Risk

- The patient's personal hygiene is not good. The patient often sweats and does not immediately change his clothes.
- The patient uses clothes that have already been used without washing them first The patient is a boarding school child
- lack knowledge about the disease, risk factors, treatment, and transmission risks.
- Inappropriate medication behavior, patients seek pharmacists. treatment
- Curative treatment pattern.

Aspek 4. External Risk

- The family lacks knowledge about the patient's illness, treatment methods, prevention efforts, and breaking the chain of transmission to help the healing process, such as washing clothes, bed linen, towels with hot water and the correct use of medicine.
- Family behavior is inappropriate and treatment patterns are curative.

Aspect 5. Functional Degree treatment

- Functional degree 1 (one), that is, the patient can perform daily activities as before the illness.

INTERVENTION PLAN

The interventions that will be given to this patient are education and counseling to patients and families about things that are The treatment should be modified and should be known to prevent the possibility of complications and recurrent complaints. Interventions to be carried out are divided into patient centered, family focused and community oriented.

Patient Centered

1. Pharmacology

- Treat the disease by administering 5% permethrin ointment.
- Give anti-histamine, namely CTM tablets 2x1mg/day to reduce itching.
- Administer anti-biotic 2% fusidic acid ointment 2-3x applied to the wound to prevent secondary infection.

2. Non Pharmacology

- pharmacology-- Provide education about scabies. The education provided includes causes, risk factors, transmission, treatment, efforts that must be made to help cure the disease, and break the transmission.

- Educate patients on how to eradicate scabies mites by washing bed linen, pillowcases, and towels about once every 1-2 weeks in the correct way, namely soaking with hot water and drying in the sun; drying mattresses and pillows in the sun; avoiding the use of personal items, such as clothes and toiletries together with other family members; changing clothes every time after bathing or when after excessive sweating, separating the washing of the patient's clothes from other family members.
- Educate people to avoid direct or indirect contact with friends or other people at Home environment and colleagues who have the same complaints to avoid recurrent infections.
- Patient: personal hygiene and eating a balanced nutritious diet.

Family Focused

- Provide education on scabies including causes, symptoms, management.
- Provide signs transmission, education on and and the importance of personal hygiene and the environment around the house.
- Educate family members about the possibility of scabies transmission and explain the importance of detecting and breaking the chain of transmission.
- Provide education on the correct use of medication.
- Provide education on hygiene to help the healing process and prevent transmission.
- Provide education to avoid contact with patients or patients with similar symptoms.

Community Oriented

- Provide education on how to transmit and prevent scabies, which can be transmitted through direct contact and the use of items together.
- Educate playmates or neighbors to seek medical attention at the nearest health care facility if similar complaints arise.
- Comprehensive: Instructed the boarding school management to pay attention to cleanliness. environment and personal hygiene of students
- Collaborative: working with the health promotion department to improve knowledge about personal hygiene and scabies transmission in pesantren residents.
- Contact: doctors and patients are made to establish interpersonal relationships, exchange information and make medical decisions.
- Continuous: patients are educated to maintain the cleanliness of the boarding school environment, especially the patient's room, maintain personal hygiene and educate the patient's friends to maintain personal hygiene.

Final Holistic Diagnosis

Aspect 1. Personal Aspect

- Reason for visit: Complaint of itching since two weeks ago followed by small pustules the size of needles filled with clear liquid in the itchy area which were then scratched and burst.
- Concerns: The patient and family are less worried as they have increased their about their disease. knowledge
- Expectations: Reddish pustules accompanied by itching gradually disappear
- Perception: the patient and his/her family are currently aware of the transmission of illness.

Aspect 2. Initial Clinical Diagnosis

- Scabies (ICD 10: B86, ICPC-2: S72)

Aspek 3. Internal Risk

- Patient's personal hygiene has improved
- Patients always wash clothes that have been used previously
- Treatment behavior is appropriate

Aspek 4. External Risk

- The family has good knowledge about the treatment patient's methods, illness, prevention efforts, and breaking the chain of transmission to help the healing process of the disease, such as washing clothes, bed linen, towels with hot water and the correct use of medicine.
- Family treatment behavior is appropriate

Aspect 5. Functional Degree

Functional degree 1 (one), that is, the patient can perform daily activities as before the illness.

DISCUSSION

A case study was conducted on 10 years old patient that came to Kemiling Health Center with complaints of reddish spots on hands and feet accompanied by itching that was felt since +2 weeks ago. Initially the complaint was only one small pustule the size of a pin containing clear liquid, but over time the pustules became more and more and spread. When feeling itchy, the patient often scratches, causing wounds on the scratched area. According to the patient's mother, initially the patient's mother together with the patient took her family's child who was a fellow from the boarding school and was experiencing itching for treatment. After 2-3 days the patient claimed to feel itchy itching on several parts of his body, the itching was felt worse at night. The patient denied a history of allergies such as asthma, food or drug allergies. History of previous insect bites was denied. The patient bathed twice a day, in the morning and evening. To dry the body, the patient uses her own towel and never uses the same towel as others. After the afternoon bath, the patient changes her clothes. The patient often sweats and does not change her clothes immediately. The patient also often uses clothes that have previously been used without washing them first. The patient is a school-aged child studying at a school. The patient sleeps with 3 friends in one room. Using the same bathroom but using different toiletries.

Physical examination and vital signs were found to be within normal limits. Regio manus dekstra et sinistra: there are partially erythema skin-colored papules, multiple, firm borders, billion to lenticular in size, partially confluent discrete scattered, partially accompanied by thin blackish brown crusts, erosion The patient is the second of two children who are currently studying at the primary level in one of the boarding schools in Bandar Lampung. The patient lives with his father (41 years old), mother (39 years old), first brother (16 years old) Interventions are carried out on patients with the aim of changing the living behavior of patients and families to become living behavior. clean and healthy and reduce the risk of disease transmission and recurrence. Interventions are conducted medically and non-medicamentally. Medicaments are given not only to the patient but all family members of the patient (Swe et al., 2017).

Management of Non medicamentous patient-centered management includes education about scabies disease including causes, risk factors, transmission, efforts that must be made to help cure the disease, and how to prevent it, educating patients to maintain personal and environmental hygiene. In addition, education is also provided on how to handle infectious linen to break the chain of transmission, and avoid direct or indirect contact with families in the home environment who have the same complaints to avoid repeated infections. They also

educate patients to seek treatment at the health center or other health services if their complaints do not improve. In family focused, education is carried out to the patient's mother as the patient's guardian. Education provided in the form of understanding the causes, transmission of disease, treatment carried out for a long time, treatment is carried out regularly, treatment is carried out to all family members, and the importance of home hygiene to break the chain of disease transmission (PERDOSKI, 2017). Patients are also given education on the correct use of drugs and the role of the family to remind and monitor the use of drugs by patients. Family's role in maintaining hygiene home environment is important (Benerji, 2015; Dien and Sibuea, 2020).

This activity was carried out in three visits to the patient's home. The first meeting was a history taking and physical examination. During the first visit to make introductions and identify problems so as to determine further interventions. At the first visit, a holistic history was taken regarding the patient's current complaints, complaints in other family members, treatment that had been done, expectations regarding the disease and included identifying the family map, biological function, psychosocial, economic, health behavior, health facilities and infrastructure, and home environment. During the first visit, a physical examination is also conducted on the patient. The second meeting was conducted to conduct interventions in accordance with the identified problems. Interventions were carried out using media in the form of posters "Understand, Handle, Watch" In the understand section, the definition of scabies disease was explained, how symptoms, its spread, and transmission. In the handle section, it explains the drugs given to treat scabies, and in the watch section, it explains how to prevent being infected with scabies.

The third meeting was evaluated to assess whether the expected targets of the intervention activities had been achieved. The patient's knowledge, attitudes and actions towards the patient's illness were assessed by asking eight questions. Based on the eight questions asked, the patient answered seven questions correctly and the results were satisfactory. Scabies is a skin disease that can cause uncomfortable itching, especially at night. If left untreated, the itching can interfere with sleep and even daily activities. In addition, scabies is a disease that is easily transmitted either through direct or contact. Therefore, in this case, other family members have a high potential to be infected. Therefore, it is necessary to provide guidance to the family so that family members can participate in the prevention of transmission and treatment of the disease (Jannic et al., 2018). Predilection for scabies in areas with thin skin folds, such as axillary folds, umbilicus area. The lesions seen in the patient are also in accordance with the theory which states that scabies can be found in the presence of papules, vesicles and others, erosion, excoriation, crusts and secondary infection due to scratching can also be found. Typical skin lesions found in the case of These can be canaliculi or tunnels, papules, vesicles and pustules at the site of predilection. Patients also have other factors that support the occurrence of this disease due to lack of personal and environmental hygiene. Patients rarely change the clothes used after sweating, the habit of rarely washing hands using soap after activities (Karac et al., 2015; Stam and Strowd, 2017).

Internal factors and external factors affecting the patient's illness. In internal factors, a lack of personal and environmental hygiene was found. Patients rarely change their clothes after sweating, rarely wash their hands with soap after activities, rarely dry mattresses and pillows, rarely wash bed linen, pillowcases, and towels. The patient's knowledge is not correct about the cause of the illness, the transmission of the disease, treatment that is carried out for a long period of time, treatment must be carried out regularly, treatment is given to all family members, the importance of home hygiene to break the chain of disease spread. Inadequate treatment pattern. Based on this problem, a solution was chosen in the form of

pharmacological and non-pharmacological therapy which was considered appropriate for the patient (Anderson et al., 2017; Djuanda, 2017). In pharmacological therapy, the patient can be given a medicine for scabies, namely Permetrin 5% cream which is applied 1x all over the body except the face and head and then let stand for hours without being exposed to water, treatment was conducted together with the patient's husband and her children and grandchildren. Non-pharmacological therapy can be provided in the form of education using printed media in the form of power points and posters. Education covers the disease that is being suffered including definitions, causes, symptoms, treatment and prevention efforts. Patients are educated to eradicate the spread of scabies so that complaints disappear, do not recur and spread to other family members (Dressler et al., 2016; Sungkar, 2016).

CONCLUSION

The diagnosis of scabies in this case aligns with established theories and is supported by a critical review of recent research. The patient's management was carried out holistically and comprehensively, emphasizing a patient-centered, family-focused, and community-oriented approach, with regular treatment based on evidence-based medicine (EBM). The pharmacological therapy provided was appropriate and consistent with existing clinical guidelines. Furthermore, there was a significant improvement in the knowledge of both the patient and their family regarding scabies, with an increase of 37.5 points, indicating the effectiveness of the educational intervention.

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