Penatalaksanaan Laki-Laki Usia 20 Tahun dengan Skabies Melalui Pendekatan Kedokteran Keluarga di Wilayah Kerja Puskesmas Tanjung Sari Natar

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Abstrak

Skabies merupakan penyakit kulit akibat infestasi dan sensitisasi parasit *Sarcoptes scabiei var. hominis*. Skabies seringkali diabaikan karena tidak mengancam kehidupan, padahal penyakit ini dapat menjadi kronis dan menyebabkan komplikasi, serta menurunkan kualitas hidup penderitanya. Oleh karena itu, diperlukan penanganan yang tepat secara holistik dengan menggunakan pendekatan kedokteran keluarga untuk mencapai keberhasilan terapi. Studi ini bertujuan untuk menerapkan prinsip pendekatan dokter keluarga secara holistik dan komprehensif dalam mendeteksi faktor risiko internal dan eksternal serta menyelesaikan masalah berbasis EBM (*Evidence Based Medicine*) yang bersifat *family approach dan patient centered.* Studi ini merupakan laporan kasus. Data yang diperoleh yaitu data primer didapat melalui *alloanamnesis*, pemeriksaan fisik, serta kunjungan ke rumah, dan data sekunder didapat dari rekam medis pasien. Tn. HY berusia 20 tahun datang dengan keluhan gatal pada kaki kanannya sejak lebih dari satu minggu yang lalu dan terdapat bintil-bintil kecil seukuran jarum pentul berisi cairan bening di area gatal yang kemudian digaruk dan pecah lalu menjadi kropeng kehitaman. Pasien khawatir keluhan akan memburuk dan mengganggu aktivitas pasien. Selanjutnya dilakukan penatalaksanaan holistik yaitu intervensi dengan menggunakan media poster. Pada evaluasi, didapatkan hasil berupa pemahaman mengenai penyakit yang lebih baik dan perubahan perilaku yang berdampak pada keberhasilan terapi. Setelah dilakukan tatalaksana holistik dan komprehensif pasien mengalami peningkatan pengetahuan mengenai penyakit sebesar 3,75 poin. Keluhan gatal dan bintil pada kulit berkurang dan pasien sudah memperbaiki kebersihan diri dan lingkungan.

Kata kunci: Pelayanan kedokteran keluarga, penatalaksanaan, skabies

Management of A 20 Years Old Man With Scabies Through Family Medicine Approach In Puskesmas Tanjung Sari Natar Working Area

Abstract

Scabies is a skin disease caused by infestation and sensitization with the parasite Sarcoptes scabiei var. hominis. Scabies is often ignored because it is not life threatening, even though this disease can become chronic and cause complications, as well as reducing the sufferer's quality of life. Therefore, appropriate holistic treatment is needed using a family medicine approach to achieve therapeutic success. This Study aims to apply the principles of a holistic and comprehensive family doctor approach in detecting internal and external risk factors and resolving problems based on EBM (Evidence Based Medicine) which is family approach and patient centered. This study is a case report. The data obtained were primary data obtained through alloanamnesis, physical examination, and home visits, and secondary data obtained from the patient's medical records. An. 20 years old HY came with complaints of itching on his right leg since more than a week ago and there were small pimples the size of pins filled with clear fluid in the itchy area which he then scratched and broke and became blackish scabs. The patient is worried that the complaint will get worse and interfere with the patient's activities. Next, holistic management is carried out, namely intervention using poster media. In the evaluation, results were obtained in the form of of a better understanding of the disease and changes in behavior that had an impact on the success of therapy. After carrying out holistic and comprehensive management, the patient experienced an increase in knowledge about the disease by 3.75 points. Complaints of itching and rashes on the skin have decreased and patients have improved personal and environmental hygiene.

Keywords: Family medicine services, management, scabies

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Introduction

Scabies or also known as kudis, gudig, and budug is a skin disease caused by infestation and sensitization of the *Sarcoptes scabiei var. hominis* mites. According to the World Health Organization (WHO) scabies disease is a public health problem, especially in tropical areas with low incomes and poor resources, especially in children and the elderly. Globally, the disease is estimated to affect more than 200 million people at any given time and more than 400 million people cumulatively each year. The prevalence of scabies is estimated to range from 0.2% to 71% with an estimated average of 5-10% occurring in children. The prevalence in children in this setting varies from 5% to 50%. Several studies have shown that scabies outbreaks are a major risk factor for kidney disease in the form of acute post-streptococcal glomerulonephritis.[1]

In Indonesia, scabies is one of the most common skin diseases found in community health centers.The number of scabies cases in Indonesia in 2016 reached 3.9-6% and increased in 2018 to 5.6-12.9%. This disease is also still a contagious disease that ranks 3rd out of 12 most common skin diseases in Indonesia.[2] In Lampung Province, in 2014 there were 7,960 people suffering from scabies, which was a significant increase from 2012 when there were 2,941.[3] Based on data from the general polyclinic of Tanjung Sari Natar Health Center, it shows that there were visits by scabies patients, namely around ±7 patients in April and ±5 patients in May 2024.[4]

Factors that contribute to the high prevalence of scabies are poverty, housing density, low education levels, limited clean water, and poor health behavior. Housing density is the most dominant risk factor compared to other scabies risk factors. Based on these risk factors, the high prevalence of scabies is generally found in dormitories, orphanages, Islamic boarding schools, prisons, and refugee camps.[5]

In 2017, WHO classified scabies as a Neglected Tropical Disease (NTDs).[1] Several factors that contribute to the occurrence of scabies are contact with scabies sufferers, socio-economic factors, low levels of personal hygiene, and environmental conditions that support the development of scabies such as dense housing, poor sanitation, and difficult access to clean water. Low knowledge about scabies can reduce motivation and participation in the management and eradication of scabies in the community.[6,7] Inappropriate or late therapy affects the quality of life of sufferers and increases transmission. If left untreated, scabies can affect quality of life due to difficulty sleeping, school absence, and social isolation, especially in children.[8]

Primary health services have a very important role in scabies, especially in terms of preventing disease in the community, establishing a diagnosis, appropriate therapy, total eradication and preventing recurrence.[9] Therefore, proper holistic handling of this case using a family medicine approach is needed. The importance of eradication in the management of scabies cases is also very necessary in order to break the chain of disease transmission to the community.[10]

Case Presentation

Mr. HY, a 20-year-old male came to the Tanjung Sari Natar Health Center alone on May 18th, 2024 with complaints of itching on his right leg since one month ago. Initially, the complaint was only one small, pin-sized pimple filled with clear fluid, but over time the pimples became more numerous and spread to the calf and the back of his right leg. The patient said that the itching complaint was felt throughout the day but felt worse at night and when sweating. The patient denied a history of allergies such as asthma, food allergies, or drugs. A history of previous insect bites was denied.

Similar complaints in the patient's family were denied. However, one day before the complaint appeared, the patient had participated in an extracurricular marching band activity outside the school environment with his friends which consisted of various physical exercises such as crawling on the ground and grass. The extracurricular marching band activity was carried out for about 1 week in a row until late at night and mostly overnight. During the activity, the patient often exchanged clothes and slept side by side with one of his friends who had similar itching complaints on his feet. The patient denied a history of allergies such as asthma, food allergies, or drugs. A history of previous insect bites was denied.

The patient is worried that the itching complaint will get worse and will not go away. The patient's mother said she tried to treat the itching complaint herself by soaking the itchy part with salt water and buying *Dexteem Plus* medicine with content of 2 mg dexchlorpheniramine maleate and 0.5 mg dexamethasone independently at the pharmacy. Several efforts that have been made have slightly reduced the complaints, but the complaints reappeared a few days later, so the patient decided to seek treatment at the health center.

The patient often takes a bath only once a day, brushes her teeth only once a day, and rarely washes her hair. The patient also often lets her nails grow long and does not cut them, but the patient diligently washes her hands before eating, after eating, and after doing activities. To dry her body, the patient uses her own towel but has used the same towel as the patient's younger sister. The patient often sweats and does not immediately change her clothes. The patient also often wears clothes that have been used before without washing them first. The patient's mother said that she only occasionally dries the mattress, pillows, and bolsters, on average once every one to two months. The patient's mother also said that she rarely changes the sheets, blankets, pillowcases, and bolsters.

Physical examination

General Condition	: Appears mildly ill
Consciousness	: Compos mentis
Blood Pressure	: 115/83 mmHg
Pulse Rate	: 84x/minute
Breath Frequency	: 20x/minute
Temperature	: 36.7°C
Body Weight	: 62 kgs
Height	: 172 cms

Upper Arm Circumference: 27 cms

Body Mass Index (BMI) : 20.96 kg/m^2

Nutritional Status

BMI/A: right at the 25th percentile (good nutrition)

W/H	: 105.09% (good nutrition)
W/A	: 87.94% (normal body weight)
H/A	: right at the 25th percentile or 97.18% (tall)

Generalist Status

Head	**:**	Round head shape, long, black hair, not easily pulled out, and grows evenly. Head circumference size 55 cm.
Face	**:**	Not pale
Eye	**:**	Anemic conjunctiva (-/-), icteric sclera (-/-), exophthalmus (-/-), triangular membrane (-/-), cloudy lens (-/-), shadow test (-/-)
Ear	**:**	Secretion (-/-), hyperemia (-/-), lump (-/-), tenderness (-/-), cerumen (-/-), hearing loss (-/-)
Nose	**:**	Secretion (-), hyperemic and edematous concha (-), livid mucosa (-)
Mouth	**:**	Pale tongue (-)
Pharynx	**:**	Hyperemia (-), tonsils T1-T1
Neck	**:**	Jugular venous pressure 5+1

Thorax

Heart :

I : Ictus cordis is not visible

P : Ictus cordis palpable at ICS 5

P : Right heart border ICS 4 sternalis dextra, left heart border ICS 5 medial fingers midclavicular sinistra line

A : Regular I and II heart sounds

Lungs :

I : Appears symmetrical, retraction (-/-), delayed breathing (-/-)

P : Symmetrical right and left tactile fremitus, tenderness (-/-), mass (-/-)

P : Sonor (+/+)

A : Rhonki (-/-), wheezing (-/-)

Abdomen

I : Flat

A : BU (+) 10 times per minute

P : Tenderness (-)

P : Timpani

Extremities

Superior: Warm acrals, edema (-/-), CRT <2 seconds

Inferior: Warm acrals, edema (-/-), CRT <2 seconds.

Musculoskeletal and Neurological: Impressions within normal limits

Dermatological Status

Right cruris and right pedis region, there are skin-colored papules, some erythematous, multiple, with clear boundaries, miliary to lenticular in size, spread discretely, some confluent, some accompanied by thin blackish brown crusts, erosion, and excoriation.

Supporting investigation

No supporting examinations were performed on the patient.

FAMILY DATA

The patient is the first child of two siblings who are currently studying at a public high school in Bandar Lampung. The patient lives with his father (45 years old), mother (42 years old), and younger sister (15 years old).

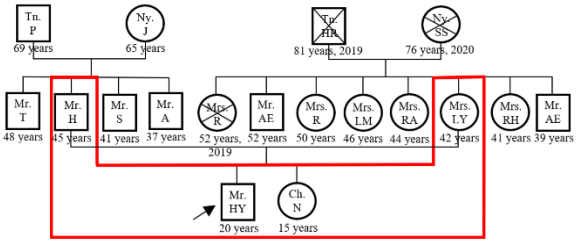
The patient's family structure is a nuclear family. Communication within the family runs smoothly between family members. The patient communicates more often with his mother because his father works almost every day until the afternoon or evening. The patient's family often gathers together, especially at night. During the day, the patient spends more time going to school and playing with peers around the house. Problem solving in the patient's family is done through discussions between the father and mother, but family decisions are usually made by the patient's father.

To meet the daily needs of this family depends on the income of the father and mother. The father's income per month is ± Rp3,000,000,- and the mother's income per month is ± Rp1,000,000,-. The total family income per month is ± Rp4,000,000,- which is used to support 4 people in this family.

All family members have BPJS health insurance but rarely used. Family medical behavior is curative treatment and buying medicine at the pharmacy without a doctor's prescription. If not cured then will check yourself to the doctor. The distance from home to the health center is about 5 kilometers which is usually traveled by the patient using private transportation.

Genogram

Mr. HY's family genogram can be seen in Figure 1.



Information:

: Man : Assisted patient

: Woman : Living in the same house

: Die

Created by: Salma Khairunnisa

Creation Date: May 21, 2024

Figure 1. Mr. HY's family genogram

According to Friedman, Mrs. S's family form is classified as a nuclear family because it contains a husband, wife, and children.

Family Cycle

Mrs. H's family cycle can be seen in Figure 2.

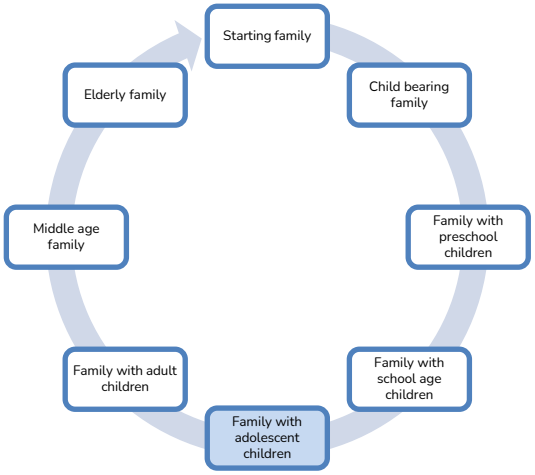
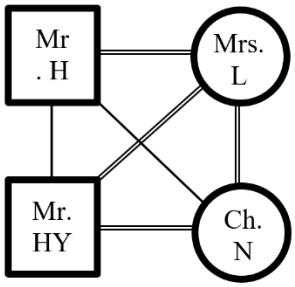


Figure 2. Mr. HY's family cycle

According to the Duvall cycle, this family cycle is at stage V (family stage with adolescent children).

Family Mapping

The relationship between family is depicted in family mapping in Figure 3.



Information:

═══ =Very close

——— =Near

Figure 3. Mr. HY's family mapping

Family APGAR Score

Calculation of the questionnaire total score of the Family *APGAR Score* done by interviewing Mr. HY and his parents to assess Mr. HY's family functioning.

Table 1. Family APGAR

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

Family APGAR Interpretation:
7 – 10 : Functional family
4 – 6 : Less functional family
0 – 4 : Very dysfunctional family

From the table above, it can be seen the family *APGAR Score* from Mr. HY's family is nine (9) so it can be said that Mr. HY's family function is running well.

Family SCREEM Score

Family resources in dealing with problems or crises to the ability to access health services can be seen as follows.

Table 2. SCREEM score

	When someone in the family is sick	SS (3)	S (2)	TS (1)	STS (0)
S1	We help each other in our family	✓			
S2	Our friends and neighbors around us helped our family		✓		

C1	Our culture gives our family strength and courage		✓	
C2	The culture of helping, caring and consideration in our community has been very helpful to our family.		✓	
R1	The faith and religion that we practice are very helpful in our family.	✓		
R2	Religious figures or religious groups help our family		✓	
E1	Our family savings are sufficient for our needs.		✓	
E2	Our family income is sufficient for our needs.		✓	
E'1	Our knowledge and education is enough for us to understand information about the disease.		✓	
E'2	Our knowledge and education is enough for us to care for our family members' illnesses.			✓
M1	Medical assistance is readily available in our community	✓		
M2	Doctors, nurses, and/or health workers in our community help our family.	✓		
	Total			27

Based on the SCREEM scoring results obtained a result of 27, it can be concluded that Mr. HY's family resources are quite adequate.

Home Environment Data

The patient lives in a house owned by his parents with 4 people living there. The patient lives with his biological father, biological mother, and a biological younger sister.

The house is 14.5 x 8 m^2, not multi-storey, has 1 living room, 1 family room, 2 bedrooms, 1 bathroom, 1 kitchen, 1 laundry room, and 1 warehouse. The floor of the house is mostly covered with ceramics and a small part is covered with cement, while the walls are made of bricks throughout the house, some walls are painted and some are not painted. The roof is made of clay tiles without a ceiling throughout the house, some roofs are only covered with tarpaulin.

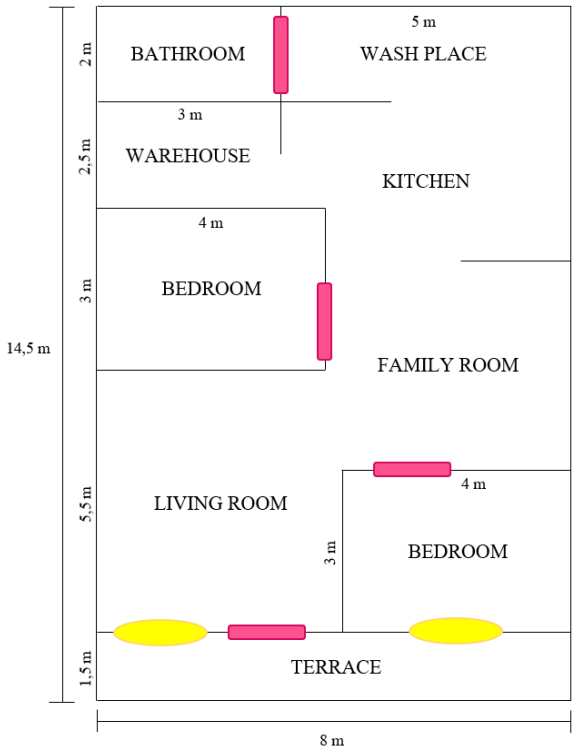
Each room has windows and ventilation covered by curtains, during the day the windows and curtains are rarely opened. The ventilation in the living room is quite good with one window that lets in sunlight. The patient's house already uses electricity. Lighting in the living room comes from sunlight during the day and electric lights at night. During the day the house looks quite dark if you don't turn on the lights because the windows are covered by curtains and rarely opened.

The parents' bedrooms and children's bedrooms looked messy, lots of clothes were piled up on the mattress and hanging behind the door. The bedroom seems dark and damp.

The water source uses a well and an electric pump, can be used for cooking, bathing, washing and others. The kitchen uses a gas stove, drinking water needs come from boiled water. There are 2 trash bins, inside and outside the house. Waste is disposed of and often burned in the patient's backyard.

The patient's house has 1 bathroom. The bathroom is located inside the house, measuring 2 x 3 m^2 with a cement floor, and a squat toilet. The septic tank is located behind the patient's house, 10 meters away. Overall, the house is not well organized, air circulation and lighting are poor. The distance between the patient's house and other houses is close.

House plan



Information:
:Door
:Window

Figure 4. Mr. HY's family house plan

EARLY HOLISTIC DIAGNOSTICS

1.Personal Aspect

- Reason for visit: Complaints of itching on the right leg since one month ago followed by small pin-sized bumps containing clear fluid in the itchy area which were then scratched and burst.
- Concern: The itching is getting worse, not going away, and making it difficult for the patient to sleep.
- Perception: Complaints arose as a result of being infected by a friend who had similar complaints when the patient participated in extracurricular marching band activities for several days.
- Hope: The red spots accompanied by itching can disappear, the disease can be cured quickly so that the patient can carry out their activities as usual.

2. Clinical Aspects

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

3.Internal Risk Aspects

- The patient's personal hygiene is not well. The patient only takes a shower once a day, rarely washes his hair, and rarely cuts his nails.
- The patient often sweat and do not change their clothes immediately.
- The patient wore clothes that had been used before without washing them first.
- The patient often exchanged clothes and towels with friends and younger sister.
- The patient have insufficient knowledge about the disease they are experiencing, risk factors, treatment, and risk of transmission.
- Inappropriate treatment behavior, the patient often buy drugs at pharmacies without a doctor's prescription.
- Curative treatment pattern.

4.External Risk Aspects

- There were similar complaints in the social environment, namely from one of his friends when the patient participated in extracurricular marching band activities for several days.
- The cleanliness of the house is poor because the house is damp and dark, and there are too many clothes hanging on the walls.
- The family's knowledge is lacking regarding the patient's illness, treatment methods, prevention efforts, and breaking the chain of transmission to help the healing process of the disease, such as washing clothes, bed sheets, towels with hot water, and the correct way to use medication.
- The family's treatment behavior is inappropriate and the treatment pattern is curative.

5.Functional Degree

Functional degree 1 (one), namely the patient can carry out daily activities as before the illness.

Intervention Plan

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

The intervention uses media in the form of poster materials. Evaluation is also carried out by providing pre-tests and post-tests.The patient will be visited 3 times. The first visit is to

complete patient data and monitoring, the second visit is to perform intervention, and the third visit is to evaluate the intervention that has been done.

Therapy Targets Based on Initial Holistic Diagnosis

Table 3. Therapy targets based on initial holistic diagnosis

Holistic Diagnosis	Therapy Target
Scabies	Disappearance of itching complaints due to scabies.
Lack of patient knowledge about the disease they are suffering from	The patient can understand and care more about the disease they suffer from and be disciplined in their lifestyle.
Perception of the patient and family who prioritize curative treatment and buy drugs without a doctor's prescription	The patient and family can improve their treatment behavior, especially in purchasing drugs with a prescription from a doctor.

Patient Centered

1. Pharmacology
   - Treating the patient and their friends for eradication of scabies mites.
   - Treat the patient's disease by giving 5% permethrin skin ointment.
   - Give the patient antihistamines, namely *CTM* tablets 2x1 mg/day to reduce the disturbing itching.
   - Encourage patient friends who have similar complaints to immediately treat their illness at the nearest health facility through the patient.
2. Non-Pharmacology

   Providing education about:
   - Scabies disease, including causes, risk factors, transmission, treatment, efforts that must be made to help cure the disease, and stopping transmission.
   - Management of infectious linen by washing sheets, pillowcases, blankets, clothes, and towels in the correct way, namely soaking them in hot water and drying them under the hot sun until dry and drying mattresses and pillows under the sun until dry.
   - Separation of washing of patient clothes from other family members.
   - Avoid sharing personal items such as clothing and toiletries with other family members.
   - Change clothes every time after bathing or after excessive sweating.
   - Avoiding direct or indirect contact with friends or other people in the home and social environment to avoid transmission.
   - Avoiding direct or indirect contact with friends or other people in the home and social environment after recovery to prevent recurrent infection.
   - Improving personal hygiene such as bathing twice a day, brushing your teeth after eating and before going to bed, washing your hair every 2 days, and diligently cutting your nails when they are long.

Family Focused

Providing information and education using posters regarding:
- Causes, signs and symptoms, transmission, and management of scabies.
- The importance of personal and environmental cleanliness around the house.
- There is a possibility of scabies transmission to family members and explains the importance of detecting and breaking the chain of transmission.
- It is important for family to avoid contact with the patient first to prevent transmission, such as not sleeping together in the same bed with the patient.
- How to use medication correctly.
- Cleanliness to help the healing process and prevent infection.

Community Oriented

- Providing education on how scabies is transmitted and prevented, which can be transmitted through direct contact and sharing of items.
- Provide education to playmates or neighbors to check themselves at the nearest health service facility if similar complaints arise.

Final Holistic Diagnostics

1. Personal Aspect

- Reason for visit: Complaints of itching on the right leg since one month ago followed by small pin-sized bumps filled with clear fluid in the itchy area which were then scratched and burst and have reduced.
- Concerns: The patient no longer feels anxious due to itching, the itching has been greatly reduced. The patient can now sleep soundly at night.
- Perception: The patient has known about the disease is scabies. Scabies disease can be prevented by implementing good personal hygiene patterns and appropriately and avoid contact with other people suspected of having similar complaints.
- Hope: The patient's hope was partly achieved because the redness and itching complaints have decreased. The patient hopes that the healing process will be faster and complaints like this will not recur.
- Efforts: The patient is willing to follow the recommendations given during the intervention regarding personal hygiene, how to manage infectious linen, and how to use medication and has a much better understanding of the causes and transmission of the disease.

2. Clinical Aspects

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

3. Internal Risk Aspects

- Personal and environmental hygiene have started to change for the better. The patient does not share clothes with other people. The patient understands and is willing to make changes related to personal hygiene such as bathing twice a day, brushing teeth after every meal and before bed, shampooing every 2 days, and diligently cutting nails when they are long, as well as managing infectious linen such as washing sheets, pillowcases, blankets, clothes, and towels in the right way, namely soaking them in hot water and drying them under the hot sun until dry and drying mattresses and pillows under the sun until dry. In addition, the patient also does not reuse clothes that have been worn without washing them first, when sweating immediately changes clothes, and does not exchange clothes and towels with friends and younger sister.
- Treatment patterns have not yet fully shifted to preventive.

4. External Risk Aspects

- The cleanliness of the home environment has started to improve. Clothes hanging on the walls have decreased and windows/ventilations are opened every day to allow light to enter.
- The family's knowledge about the patient's illness and what efforts need to be made to help the patient's healing process is better.
- Treatment behavior is slowly improving, the patient's mother and father have purchased medicine with a prescription from the doctor.

5. Functional Degree

Functional level 1 (one), namely the patient can carry out daily activities as before the illness (no difficulties).

DISCUSSION

This case study was conducted on patient Mr. HY, a 20-year-old male who came to the Tanjung Sari Natar Health Center on May 18th, 2024 with complaints of itching in his right leg since one month ago. Initially the complaint was only one small bump the size of a pin filled with clear fluid, but over time the bumps became more numerous and spread to the calf and the back of his right foot. The patient said the itching complaint was felt throughout the day but felt worse at night and when sweating.

Similar complaints in the patient's family were denied. However, one day before the complaint appeared, the patient had participated in an extracurricular marching band activity outside the school environment with his friends which consisted of various physical exercises such as crawling on the ground and grass. The extracurricular marching band activity was carried out for about 1 week in a row until late at night and mostly overnight. During the activity, the patient often exchanged

clothes and slept side by side with one of his friends who had similar itching complaints on his feet. The patient denied a history of allergies such as asthma, food allergies, or drugs. A history of previous insect bites was denied.

The patient is worried that the itching will get worse and not go away. The patient's mother said she tried to treat the itching herself by soaking the itchy area in salt water and buying *Dexteem Plus* medicine with content of 2 mg dexchlorpheniramine maleate and 0.5 mg dexamethasone independently at the pharmacy. Several efforts that have been made have slightly reduced the complaints but the complaints reappeared a few days later so the patient decided to seek treatment at the health center.

In this case, the diagnosis of scabies can be established by anamnesis and physical examination. There are four cardinal signs of *Sarcoptes scabei* infection, namely nocturnal pruritus, attacking a group of people, there are tunnels (*cuniculus*), and the presence of scabies mites. In this patient, two of the four cardinal signs were found, namely nocturnal pruritus and attacking in groups, while the other two cardinal signs could not be found because further microscopic examination was needed, but this examination could not be carried out due to limited facilities and infrastructure at the health center. If there is a secondary infection, pustules or nodules may be found.[11,12]

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 through direct or indirect contact. Therefore, in this case, other family members have a high potential to be infected. Therefore, it is necessary to provide guidance to family so that family members can participate in preventing transmission and treating disease.

Scabies is a skin disease caused by infestation and sensitization to *Sarcoptes scabei var. hominis* and its products. This disease is highly contagious and is characterized by itching at night, affecting a group of people, with a predilection site in thin, warm, and moist skin folds. Transmission occurs through the transfer of adult mites from one infected individual to another with direct skin-to-skin contact and indirectly through clothing, towels, bed linen or other items that have been contaminated. The predilection area for this disease is in places with a thin stratum corneum, namely between the fingers, the volar part of the wrist, the outer part of the elbow, the armpit fold, the areola mammae, the umbilicus, the buttocks, the external genitalia, and the lower abdomen.[13]

On physical examination, the general condition was mildly ill, compos mentis consciousness, weight 62 kgs, height 172 cms. Patient nutritional status according to the CDC (Center for Disease Control) growth chart with indicators body mass index for age (BMI/A) results were obtained exactly at the 25th percentile, giving the impression of good nutrition and with the indicator of weight per height (W/H) the result was also 105.09%, giving the impression of good nutrition. According to the CDC curve with the weight per age (W/A) indicator for 20-year-old boys, the results were obtained 87.94%, normal weight impression. According to the CDC curve with height per age (H/A) indicator, the results were obtained exactly at the 25th percentile or 97.18%, high impression.

On examination of the dermatological status it was found in the right cruris and pedis region, there are skin-colored papules, some erythematous, multiple, with clear boundaries, miliary to lenticular in size, spread discretely, some confluent, some accompanied by thin blackish brown crusts, erosion, and excoriation. This is in accordance with the theory that states that scabies predilection occurs in areas with thin skin folds, such as between the fingers and the volar wrist. The lesions seen in the patient are also in accordance with the theory that in scabies, papules, vesicles and others can be found, erosion, excoriation, crusting, and secondary infections due to scratching can also be found. Typical skin lesions found in scabies cases can be *canaliculi* (tunnels), papules, vesicles and pustules in predilection areas.[14]

The patient came to the Tanjung Sari Natar Health Center on May 18th, 2024 to seek treatment. While at the health center, the patient was given therapy in the form of Permethrin 5% skin ointment and *CTM* antihistamine tablets 1 mg. This is in accordance with the special management of

scabies patients, namely using drugs to kill scabies mites and using antihistamines to reduce itching symptoms. Permethrin interferes with the function of voltage-gated sodium channels of arthropods, causing prolonged depolarization of the nerve membrane and disrupting neurotransmission so that the parasite is paralyzed and dies. Sodium channels are found in various organs, so that permethrin works at all stages in the parasite's life cycle. This factor is thought to cause a single dose of permethrin to be sufficient for scabies. Permethrin is applied by applying it to the entire surface of the skin from the neck to the tips of the toes. Special attention is given to lesions in predilection sites. This cream is used for 8-10 hours before finally being rinsed off and repeated seven days later.[15,16]

When first visiting the Tanjung Sari Natar Health Center, a holistic anamnesis and physical examination were carried out, and then informed consent was given to the patient to ask for approval to carry out family coaching along with its intentions and objectives. The patient agreed verbally, then communication was continued via telephone and *WhatsApp* media. Management of this patient was carried out using a family medicine approach through coaching and intervention. This activity was carried out three times at the patient's home. The first meeting was anamnesis and physical examination. During the first visit, namely May 20th, 2024. The purpose of the first visit to the patient's home was to introduce and identify problems so that further interventions can be determined. During the first visit, a holistic anamnesis was carried out regarding the patient's current complaints, complaints from other family members, treatments that had been carried out, expectations regarding the disease and including identifying family mapping, biological, psychosocial, economic functions, health behavior, health facilities and infrastructure, and the home environment. During the first visit, a physical examination was also carried out on the patient. The patient said that the itching was still felt, but it seemed to have decreased compared to before and the spots had begun to decrease since the patient used medicine from the health center.

The general condition appears mildly ill, consciousness compos mentis, pulse rate 84x/minute, respiratory rate 20x/minute, temperature 36.7ºC, body weight 62 kgs, height 172 cms, nutritional status BMI/A is right at the 25th percentile (good nutrition), W/H 105.09% (good nutrition), W/A 87.94% (normal body weight), H/A right at the 25th percentile or 97.18% (high). In the right cruris and pedis region, there are skin-colored papules, some erythematous, multiple, with clear boundaries, miliary to lenticular in size, spread discretely, some confluent, some accompanied by thin blackish brown crusts, erosion, and excoriation. From the results of the anamnesis and this visit, a list of problems in the patient and family was also obtained so that the type of intervention to be given could be planned, so that on the second visit an intervention could be carried out in accordance with the poster media that had the slogan "Understand, Handle, Monitor". Before the intervention was carried out, the patient took a pretest to measure initial knowledge about the disease being experienced.

In family mapping, social functions, and infrastructure, no problems were found related to the patient's condition. In terms of the home environment, the problem was found in the form of the patient living in a densely populated area where the distance between one house and another was very close. In addition, overall the patient's house was not neatly arranged, not clean, and the air circulation and lighting in the house were not good. In terms of human biology, the problem was found in the form of complaints of red to blackish brown spots accompanied by itching on the right leg. This complaint has been felt since one month ago. The patient has tried to treat it by soaking the itchy part with salt water and buying medicine *Dexteem Plus* with content of 2 mg dexchlorpheniramine maleate and 0.5 mg dexamethasone independently at the pharmacy but the complaint has not disappeared. The patient does not know the type of disease he is suffering from and what factors have caused the treatment to be unsuccessful so far. The patient only thinks that this disease is transmitted by one of his extracurricular friends who has similar complaints. This problem underlies the intervention to be carried out which includes

knowledge about scabies, transmission, risk factors, and correct treatment as well as the importance of personal and environmental hygiene.

In the psychosocial aspect, there was a problem in the form of lack of knowledge of other family members regarding the patient's complaints. The family did not know that this disease could easily be transmitted to people around them. The family also did not know the importance of maintaining hygiene in the home environment for the patient's healing process. The patient often slept in the same bed and exchanged towels and clothes with friends or younger sister. These problems underlie the interventions that will be carried out which include knowledge for the patient and family about scabies, transmission, risk factors, and correct treatment as well as the importance of personal hygiene and the environment.

From the economic aspect, the patient comes from a family with a lower middle economic level. The patient's father is a private employee and the patient's mother is a factory worker. The father's income per month is ± Rp3,000,000,- while the mother's income per month is ± Rp1,000,000,-. The total family income per month is ± Rp4,000,000,- which is used to support four people in this family. The knowledge possessed about the disease suffered is still lacking.

In the function of family health behavior, the patient and family still have inappropriate treatment behavior, namely buying drugs without a doctor's prescription and consulting with people other than doctors. The patient and family prioritize curative treatment over preventive treatment and their knowledge of the disease they suffer from is still lacking. Problems were found in the form of the patient rarely changing clothes after sweating, the habit of wearing clothes that have been worn without washing them first, and the habit of exchanging clothes with other family members. This lack of hygiene behavior is based on the patient's lack of knowledge about the relationship between cleanliness and the transmission of the disease they experience. The family does not know that this disease can spread and can be easily transmitted to people around them through direct contact. The family also does not know the importance of maintaining the hygiene of the home environment for the patient's healing process.

The second meeting was held at the patient's home on May 21st, 2024. The purpose of the visit was to conduct an intervention according to the identified problems. The intervention was carried out using media in the form of a poster "Understand, Handle, Monitor". The "Understand" section explains the definition of scabies, its symptoms, spread, and transmission, the "Handle" section explains the drugs given to treat scabies, and the "Monitor" section explains how to prevent contracting scabies.

Before the intervention, anamnesis was conducted regarding the patient's current complaints and a physical examination. The patient said that the itching had decreased compared to before, but the spots of scars on the legs had not decreased. The general condition appeared mildly ill, consciousness was compost mentis, pulse rate 85x/minute, respiratory rate 18x/minute, temperature 36.8ºC, body weight 62 kgs, height 172 cms, nutritional status BMI/A is right at the 25th percentile (good nutrition), W/H 105.09% (good nutrition), W/A 87.94% (normal body weight), H/A right at the 25th percentile or 97.18% (high). On physical examination, lesions were found in the right cruris et pedis region, there were papules, erythematous, miliary to lenticular in size, discrete with blackish brown crust on top, and scratch marks were visible. There were hyperpigmented macules, multiple, miliary to lenticular in size, spread discretely-confluently, with clear boundaries.

Interventions are carried out on the patient who are at risk of scabies transmission with the aim of changing the patient's and family's lifestyle to be clean and healthy and reduce the risk of transmission and recurrence of the disease. Interventions are carried out medically and non-medically. Medical management using topical 5% permethrin is given not only to the patient but to all members of the patient's family.[17] However, considering the availability of drugs and the economic price, 5% permethrin was chosen as topical therapy for the patient.

Non-pharmacology management patient centered includes education about scabies including causes, risk factors, transmission,

efforts that must be made to help cure the disease, as well as prevention methods, education to the patient to maintain personal and environmental hygiene. In addition, education is also provided on how to manage infectious linen and avoid direct or indirect contact with family in the home environment who have the same complaints to avoid recurrent infections. Education is also provided to the patient to seek treatment at a health center or other health services if the complaint does not improve and encourage patient friends who have similar complaints to immediately treat their illness at the nearest health facility through the patient.

In family-focused, education was given to the patient's mother as the patient's guardian. The education provided was in the form of an understanding of the causes, transmission of the disease, long-term treatment, routine treatment, and the importance of home cleanliness and management of infectious linen to prevent transmission of the disease. The patient were also given education on how to use medication correctly and the role of the family to remind and monitor the use of medication by the patient. The role of the family in maintaining the hygiene of the home environment is important. Cooperation is needed in decontamination of mites that are outside the host's body because mites can live outside the host's body for about three days. Mites are mostly found in beds, sofas, and chairs. Therefore, decontamination is very important in eradicating scabies and preventing reinfection. Environmental decontamination can be done by replacing or drying carpets, mattresses, pillows, bolsters, sofas, furniture, and other furry items in the sun and is done at least twice a week. Clothes, sheets, pillowcases and bolster cases, prayer robe, headscarves, and sarongs must be washed with hot water and then dried in the sun until dry. After decontamination, these items should not be reused immediately because mites can still live after leaving the host for approximately three days, although mites generally die after 36 hours outside the host's body at room temperature. Therefore, items that have been decontaminated should only be used within two days to three weeks after decontamination.[9]

As previously discussed, scabies is a disease that attacks groups, especially people who live together or in the same environment. Therefore, it is important to carry out management with a community-oriented approach that includes providing education about scabies in the surrounding environment, especially to the patient's family who have similar complaints, how to maintain personal and environmental hygiene, and providing encouragement to people who have similar complaints to immediately seek treatment at the nearest health service as an effort to break the chain of scabies transmission. Guidance activities are carried out through the patient to people around them by providing educational media in the form of posters containing information about scabies.

The third meeting was held at the patient's home on Wednesday, June 19th, 2024. The purpose of this third visit was to conduct an evaluation to assess whether the expected target of the intervention activity had been achieved. A re-anamnesis was conducted on the patient and the results obtained were the knowledge, attitudes, and actions of the patient and family towards the disease suffered by the patient by asking eight questions. Based on the eight questions asked, the patient answered seven questions correctly and the results were quite satisfactory.

Table 4. Pre test and post test score

Variables	*Pre test*	*Post test*	Δ Score
Knowledge	5.00	8.75	There was an increase in knowledge of 3.75 points

In addition, the patient's itching complaints have been greatly reduced and the patient is no longer disturbed when sleeping. The patient has reduced the habit of scratching the lesions, but occasionally still does it because

it itches. However, the skin lesion scars are still found and some of the pimples are starting to disappear slowly. In addition, the patient no longer exchanges clothes with friends and the patient's younger sister. The patient has improved personal hygiene such as shower twice a day, brush your teeth after eating and before bed, wash your hair once every 2 days, and cut your nails regularly when they are long. In addition, the patient also did not wear clothes that had been used before without washing them first. In addition, it was found that the patient had washed clothes, towels, sheets, and blankets using hot water and detergent, and dried them under the hot sun until dry.

The patient and family are advised to continue to check their health at the health center if the same complaint reappears and if there are other disturbing symptoms to get treatment. The patient and family are also advised to continue to change their clean and healthy lifestyle, and it is also recommended if one of the family members is affected by scabies to avoid too intense physical contact, and not to mix their belongings with other family members to reduce the risk of transmission.

Supporting factors in solving patient and family problems are all family members who implement clean and healthy living behavior, and the application of knowledge gained, and providing knowledge to other families. While the inhibiting factor is the lack of social function in the family which affects the relationship between family members in the process of healing the disease.

Conclusion

1. Establishing a diagnosis in the patient based on anamnesis and physical examination and found three of the four cardinal signs of scabies, namely pruritus nocturna, attacking a group of people, and the presence of canaliculi (tunnels).
2. There are several internal and external factors that trigger scabies, including personal and environmental hygiene, lack of knowledge, social interaction, curative treatment patterns, and inappropriate treatment behavior.
3. The management given to the patient includes medication in the form of scabicide and antihistamines and non-medication which includes patient-centered, family focused, and community oriented.
4. Evaluation of the patient resulted in reduced complaints, increased patient and family knowledge about scabies, correct treatment methods, and changes in behavior in maintaining personal and environmental hygiene.
5. Holistic management of scabies the patient with a family medicine approach in this case successfully helped the patient's healing process and prevented transmission in the community.

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