



HUBUNGAN KARAKTERISTIK PENYAKIT KULIT TERHADAP KUALITAS HIDUP PASIEN DI PUSKESMAS OEPOI KUPANG

Dermatology

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ABSTRACT

Residive skin diseases are not only impact medically but also cause psychosocial, emotional effects and affect the quality of life of patients. Suffering skin diseases can cause patients unable to perform daily activities. There are five skin diseases that are most commonly found in Oepoi Kupang Community Health Center, including contact dermatitis, leprosy, scabies, acne vulgaris and dermatophytosis. Therefore, research on the relationship of the characteristics of skin diseases to the quality of life of patients in Oepoi Kupang Community Health Center needs to be done to see from the diseases that are related in influencing the quality of life of patients. This research is an analytical observation with cross-sectional design. Data collection is based on medical record data and uses DLQI questionnaire. The dependent variable is the Dermatology Quality of Life Index, and the independent variable is a characteristic of skin disease. From the results of the study, the most age groups suffering from skin diseases are adults, namely 26-45 years, with women suffering from skin diseases more than men. The results of the analysis found two independent variables that most correlated with the quality of life of patients, namely acne vulgaris ($p = 0.02$) and dermatophytosis (p value = 0.01).

KEYWORDS

DLQI, Skin disease, Public Health Care

BACKGROUND

Residive skin diseases are diseases that affect the skin not only medically but also causing psychosocial, emotional problems and affect patient quality of life.¹ Itchiness is the most common manifestation in skin diseases, as well as discomfort due the skin diseases. Nearly 50% patients experiencing those symptoms, and 25% of those patients suffers severe symptoms.² Itchiness can be disturbing and becoming the main reason for patient to seek medical treatment, because it makes patients unable to do their daily activities.^{3,4}

There are few skin diseases affecting patient quality of life, i.e contact dermatitis patients that can be divided into irritative contact dermatitis and allergic contact dermatitis. Besides, there are also skin diseases that can cause psychological impact such as depression, i.e acne vulgaris, pruritus, urticaria, and psoriasis. A screening conducted by Cohen et al in 2005 showed that from 384 patients, 19.3% suffers from depression, in which 0.8% suffers from mild depression and 9.6% from major depression.^{6,7} Another skin disease that affect patient quality of life is Leprosy. In Indonesia, East Nusa Tenggara province specifically, Leprosy prevalence still reach 5/10.000 population, when it should be less than 1/10.000 population.⁸ Leprosy accompanied by disability causing bad stigma so that patient has difficulties to make social interaction, work, or make a family, hence lowering their quality of life⁹⁻¹¹

The effect of scabies on quality of life can occur in adults and children. They will feel ashamed of their illness, cover up the body parts affected by scabies, start limiting their busy life, and even feel ridiculed by those around them.¹²

Fungal infenctions (dermatophytosis) also affecting patient quality of life because of its itchiness symptom. Fungal infections can occur at any age. Fungi lives in warm and moist surroundings, usually on people who produce excessive sweat or sweat for a long time, nail or skin injury, rarely clean the body, and history of contact with fungal infection patient.

In several skin diseases, patient quality of life can be measured by Dermatitis Life Quality Index (DLQI), which consists of 10 questions related to daily activities, work, education, interpersonal relation, symptoms, and patient's feeling. DLQI is a quality of life questionnaire used to measure patient quality of life and then comparing it with other skin cases founding.

Data on the quality of life of skin disease patients in Indonesia is still limited. From 202 studies conducted, this questionnaire was most widely used in patients with psoriasis, atopic dermatitis, vitiligo, acne, urticaria and contact dermatitis.¹³ Skin diseases with the highest number of visits based on medical records of the Oepoi Kupang Public Health Center in 2018-2019, which also thr skin diseases that most affect the quality of life of patients are contact dermatitis 5, leprosy 9-11, scabies 14-15, acne 6-7, and dermatophytes¹⁶.

Based on the background above and limited data a available regarding skin patient quality of life in East Nusa Tenggara province, a pilot study to assess the characteristics of skin diseases patient quality of life conducted.

The main aim of this study is to knowing the relation of skin diseases characteristics with patient quality of life in Puskesmas (Community Health Center) Oepoi Kupang.

METHODS

This is an analytic observational study, using cross-sectional design. This study is performed in Puskesmas Oepoi Kupang from November 2019 until February 2020. The target population of this study is skin diseases patient with most frequent visit to health center recorded from 2018-2019 in Puskesmas Oepoi Kupang, i.e contact dermatitis, acne vulgaris, scabies, dermatophytosis, and leprosy. Sample needed for this study is 50 samples with purposive sampling based on inclusion and exclusion criteria.

Inclusion criteria are all patients diagnosed with contact dermatitis, acne vulgaris, scabies, dermatophytosis and leprosy in Puskesmas Oepoi Kupang, aged 18-60 years old, able to communicate in Bahasa Indonesia and agree to sign informed consent for this study.

Exclusion criteria are patients with psychiatric disorders and patients with chronic diseases such as hypertension, diabetes mellitus, chronic heart diseases and cancer.

Dependent variable in this study is patient quality of life. Independent variable including the characteristics of skin diseases, i.e contact dermatitis, acne vulgaris, scabies, dermatophytosis, and leprosy.

Data collecting method was using questionnaire and patients medical record data. Data then collected and being analyzed with SPSS program using chi-square test. This study has passed ethical clearance from Faculty of Medicine Nusa Cendana University.

RESULT

Characteristics of Research Variables

All samples in this study was 75 people, consists of 15 respondents from each diagnosis, i.e contact dermatitis, acne vulgaris, scabies, dermatophytosis, and leprosy.

Data results of this study showed that there were more adult respondents (26-45 years old) than adolescent respondents (18-25 years old) and elderly (>45 years old), respectively 42 people (56%), 22 people (29.3%) and 11 people (14.7%) with respondent's average age was 33 years old (Table 1).

Table 1. Respondents Characteristics Distribution

Characteristics	n	%
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Age	22	29,3 %
• Adolescent (18-25)	42	56 %
• Adult (26-45)	11	14,7 %
• Elderly (46-60)		
Gender	34	45,3 %
• Male	41	54,7 %
• Female		
Marital Status	46	61,3 %
• Married	29	38,7 %
• Single		
Education background	44	58,7 %
• Basic	23	30,3 %
• Intermediate	8	11 %
• Advanced		
Occupation	60	80 %
• Working	15	20 %
• Unemployed		
Income Level	28	37,3 %
• Sufficient	47	62,7 %
• Low		

Table 1 also showed that there were more female respondents (41 people, 54.7%) than male. Forty-six respondents married (61.3%). Most of the respondents finished basic education (44 people, 58.7%). Sixty people (80%) currently works, but mostly their income level is low (62.7%).

Relationship between variables

Table 2 showed the data of contact dermatitis based on its lesion, i.e allergic contact dermatitis and irritant contact dermatitis. Chi-square test results showed that contact dermatitis characteristics has no relation with DLQI score (p=0.171).

Table 3 showed that the patients of tinea corporis had more influence, namely 5 people (71.4%), in which tinea cruris patients had even more bigger influence, namely 5 people (62.5%). Chi-square test results (p=0.01) showed there was relation between dermatophytosis characteristics with DLQI score.

Table 4 showed the data of moderate and severe acne vulgaris. Eighty-three percent with severe acne vulgaris had great influence in their quality of life. Chi-square test results (p=0.02) showed there was relation between acne vulgaris characteristics with DLQI score.

Table 5 showed the data of scabies based on its complication. Eight persons (73%) suffer from non-infectious scabies had great influence in their quality of life. But chi-square test results showed that there was no relation between scabies and DLQI score (p=0.095).

Leprosy percentage presented in table 6. DLQI score showed that leprosy patient had moderate to great influence in their quality of life. Chi-square test results showed leprosy and DLQI score was unrelated.

Table 2. Correlation of contact dermatitis with DLQI score

	DLQI		P
	S	B	
Contact Dermatitis			
Allergic contact dermatitis	0 (0%)	5 (100%)	0,171
Irritant contact dermatitis	3 (30%)	7 (70%)	

Table 3. Correlation of Dermatophytosis with DLQI score

	DLQI		P
	B	SB	
Dermatophytosis			
Corporis	5 (62,5%)	3 (37,5%)	0,01*
Cruris	2 (28,6%)	5 (71,4%)	

Table 4. Correlation of acne vulgaris with DLQI score

	DLQI		P
	B	SB	
AV			
Moderate	4 (44%)	5 (56%)	0,02*
Severe	1 (17%)	5(83%)	

Table 5. Correlation of scabies with DLQI score

	DLQI		P
	B	SB	
Scabies			
Infection	1 (25%)	3 (75%)	0,095
Non-infection	8 (73%)	3 (27%)	

Table 6. Correlation of Leprosy with DLQI score

	DLQI		P
	S	B	
Leprosy			
PB	5 (50%)	5 (50%)	0,05
MB	0 (0%)	5 (100%)	

DISCUSSION

Characteristics of Respondents' Age

Respondents in this study mostly were adults (aged 26-45), 42 persons (56%), this condition was suitable with study conducted by Jobanputra & Bachman and Lewis & Finlay which stated that disturbance in quality of life skin diseases patients' more experienced by people who are of productive age compared to non-productive age. It is related to interpersonal relationships and activities of daily life. 17,18

Correlation of Contact Dermatitis Characteristics with DLQI Score

Contact dermatitis is a non-infectious inflammatory state of the skin caused by a compound in contact with the skin. 19 In this study, the number of irritant contact dermatitis patients were higher than allergic contact dermatitis, 66.7% and 33.3% respectively. This result was suitable with the study conducted by Nanton in 2015 stating that from 97% of contact dermatitis cases, 66.3% of it was irritant contact dermatitis.

Based on statistical tests between types of contact dermatitis with quality of life index scores, no relationship was obtained (p = 0.171). Different results showed from research conducted by Higaki et al in 2017, which discussed that contact dermatitis could be related to interpersonal relationships, while also directly related to the emotional and financial aspects of the affected communities. Different results related to differences in time of symptoms arise. In allergic contact dermatitis symptoms were not arising shortly, it will occur at least within 24 hours, compared to irritants that arise shortly after the process of contact with the skin.

Correlation of Dermatophytosis Characteristics with DLQI Score

Dermatophytosis or tinea is a disease of horny tissue, for example in the hair, nails, stratum corneum. 20

This study showed that tinea corporis and tinea cruris found as the most common dermatophytosis form in Puskesmas Opeoi. Some of the factors that trigger the emergence of the disease are climate and weather in Kupang. High temperature increases the production of sweat glands. The habits of rarely change clothes after sweating, using the same clothes for days, and wear tight clothing make a good environment for fungal growth.

Based on statistical results, a significant relationship was found between the types of dermatophytosis and the quality of life index score, where 8 people (53.3%) had a very big influence on their quality of life, and the remaining 7 people (46.7%) experienced a large influence. The amount of influence experienced by patients, in accordance with previous studies conducted by Yuwita in 2015, which mentions dermatophytosis patients will feel complaints that are very disturbing and impact patients' quality of life. 21

Correlation of Acne Vulgaris Characteristics with DLQI Score

Acne vulgaris or acne is a chronic inflammation of the pilosebaceous

follicles with multifactorial causa with clinical manifestations such as blackheads, pustules, papules, nodules and cysts.²² Acne vulgaris is one of the most common skin diseases that occur in more than 80% of the population and generally occurs during puberty and adolescent.²³ In this study, a statistically significant result was found that there was a relationship between the degree of acne vulgaris and the dermatology quality of life index ($p = 0.02$). Acne vulgaris patients get a very big influence on the quality of life in undergoing daily activities and interpersonal relationships. These results are consistent with previous studies that noted a significant psychological impact on the majority of patients with acne vulgaris, especially in adolescents and young adults. Most sufferers have problems with confidence and difficulty in interacting.

Correlation of Scabies Characteristics with DLQI Score

Scabies is a skin disease caused by the sensitization and infestation of *Sarcoptes scabiei* mites into the epidermal layer of the skin. The emergence of this disease is related to the high density population and poverty.

In this study, there were no statistically significant results. ($p = 0.095$). These results are different from previous studies conducted in a boarding school in the Surakarta, showing the effects of scabies on quality of life can affect adulthood by shameful feelings about the illness, covering the affected body parts of scabies, and limiting daily activities.²⁴

Correlation of Leprosy Characteristics with DLQI Score

Leprosy is a chronic granulomatous infectious disease and is one of neglected diseases. Leprosy can affect all ages, men and women but most aged in adolescent. Leprosy patients often have difficulty in social interactions, going to school, working and even having a family, thus reducing the quality of life of patients.

In this study, there was no relation found that supported the statistics between the types of leprosy and the quality of life index of patients. ($p = 0.05$). This results differ from previous studies conducted by Linuwih in 2018, which stated that depression increases in people with leprosy resulting from self-stigma and social stigma that is not easily removed. The stigma makes patients alienate themselves, avoids social interactions, and most patients experience great difficulties in society, hence influencing their quality of life.

CONCLUSION

Based on the study conducted in Puskesmas Oepio Kupang towards 75 respondents from December 2019 until February 2020 about relationship between skin diseases characteristics and patients' quality of life, diagnosis of each disease were made based on history taking, patients' complaints and clinical examination performed by the attending physician. It can be concluded that the characteristics of the disease that are statistically related to the dermatology quality of life index are dermatophytosis ($p = 0.01$) and acne vulgaris disease ($p = 0.02$).

The majority of people who suffer from skin diseases are adults (56%), with women having the most skin diseases. Most patients are those who are already working, amounting to 60 people (80%) and most of them had low income level (47 people, 62.7%).

In dermatophytosis, mostly tinea corporis and tinea cruris, patients' quality of life was greatly influenced until very largely affected. Acne vulgaris is found in moderate and severe degrees, experiencing a large to very large quality of life influence.

The diagnosis of each disease is only based on history and physical examination. To see the clinical manifestations of each disease, further examinations need to be carried out in order to make correct diagnosis. Dermatology Quality of Life Index assessment can be used as treatment parameter. With this study researcher urge physician in Indonesia to treat patients as a whole, not only treat the skin diseases but also taking care of patients' psychological aspect.

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