

CLINICAL, EPIDEMIOLOGICAL, LABORATORY AND THERAPEUTIC INVESTIGATION

Quality of life and site of the lesion in dermatological patients

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ABSTRACT

BACKGROUND - The visible aspect of skin lesions and its psychological impact interfere in the quality of life of patients.

OBJECTIVES- To assess the quality of life and site of dermatological lesion; to check associations between variables and compare levels of quality of life in patients with lesions on the face and/or hands and patients with lesions in parts of the body other than face and/or hands.

METHODS - descriptive, association-based cross-sectional study. Two hundred and five subjects were assessed using SF-36 Generic Life Quality Questionnaire "The Medical Outcomes Study 36-item Short-Form Health Survey" (SF-36); the Dermatology Life Quality Index DLQI-BRA, and socio-demographical and lesion site data files.

RESULTS - No significant differences were observed in the results for quality of life between the two groups but the number of associations between SF-36 and DLQI-BRA was higher in the group with lesions on the face and/or hands. Significant differences were verified in a further detailed division into five groups. The significant difference ($p=0.05$) appeared between the group with lesions on the face and/or hands and the group with generalized lesions, being that the latter presented an average ranking of 114.06 compared with 69.1935 in the former group.

CONCLUSION - Regardless of the site of lesion, the feeling of exposure and the damages to which the dermatological patients are exposed are similar. It seems that skin diseases bring about the feeling of exposure and embarrassment no matter which site of the body is affected because in any intimate approach there is some sort of exposure involved.

Keywords: Dermatology; Psychology; Quality of life

INTRODUCTION

Thinking about skin and skin damages is to think about the largest and most external organ of human body, which is exposed to the others to see, delimiting the internal world. The skin is just like a continuous and flexible piece of clothing that involves and protects the subject as a whole ¹, bringing together several interesting and current topics related to it. ²

It is known that skin diseases damage the quality of life of patients and good knowledge about its impact to assess patients is required so as to provide better disease management ³. When assessing quality of life in patients with psoriasis, it is observed that 62% are not satisfied with their physical appearance and it is associated with extension of psoriasis manifestations and damage to specific areas of psychosocial adaptation. Patients also reported changes in their dressing habits and avoiding some environments to hide their lesions ⁴.

Shame, anxiety and sadness are mentioned by subjects with compromised skin, especially when the areas involved are exposed ⁵. The present study intended to assess and relate quality of life (general and specific) with location of lesions in patients with dermatosis.

MATERIAL AND METHOD

Study design

Cross-section descriptive association study.

Sample

The sample was formed by convenience. Adult patients who had dermatoses and were seen in the dermatology outpatient units of Hospital São Lucas, Pontifícia Universidade Católica do Rio Grande do Sul (HSL-PUCRS) and Complexo Hospitalar Santa Casa.

A total of 205 subjects were analyzed, distributed into two groups: Group 1 (n1 = 141), formed by patients with lesions on exposed areas, such as the face or hands, and Group 2 (n2 = 64), with patients who had lesions in other body parts. The study did not include patients who presented ulcerative lesions, because they normally have vascular or blood origin ⁶, which may lead to different repercussions than dermatoses that do not have such origin.

Instruments

We used "The Medical Outcomes Study 36-item Short-Form Health Survey"⁷ translated and validated to Brazil ⁸, to assess the different realms of subjects' lives. The instrument is widely used for different diseases. It has a final score that ranges from 0 to 100 - zero corresponding to the worst general health status and 100 to the best.

To assess the damage caused by dermatosis, we used DLQI-BRA, created in the United Kingdom ⁹, adapted and validated to the south of Brazil ^{10, 11}. It is comprised by 10 questions with four multiple choice answers that correspond to scores 0 to ³. The maximum score is 30 and the minimum is zero, being 30 the worst damage.

To characterize the sample, we used a form of social-demographic and diagnostic data and a form to locate dermatological lesion and to check the different affected body parts. To document patients' comments, we used the collection protocol.

Data Collection Procedure

The present paper was analyzed and approved by the Scientific Committee, School of Psychology, PUCRS (FAPPSI), and by Research Ethics Committee of Pontifícia Universidade Católica do Rio Grande do Sul (PUCRS), Docket n.º 1134/05 CEP, and approved without restrictions by the Research Ethics Committee of Irmandade Santa Casa de Misericórdia de Porto Alegre (CEP/ISCMPA), Docket n.º 850/05. Patients' participation was voluntary and required signature of Free Informed Consent Term. The head of each department was informed about the study and authorized and supported the required arrangements (such as working hours of the center, information about the project to resident physicians and preceptors, and definition of the room to be used to interview the patients).

Data collection took place individually, in a room pre-scheduled to the activity in the outpatient unit, safeguarding patient's privacy. In both centers, the interview was held after the dermatological visit, and at HSL-PUCRS physicians referred the patients to the interview after the visit, whereas at Complexo Hospitalar Santa Casa the interviewer remained during the visit and later invited the patient to take part in the study.

Data Analysis

Data analysis was performed using Descriptive Statistics, Mann-Whitney, Kruskal-Wallis tests and Spearman correlation quotient. The conclusions were drawn based on 5% significance level. Data were compiled and analyzed by Software SPSS, version 11.5. For complementary analysis, comparisons were made using Student-Newman-Keuls (SNK) tests and software BioEstat 5.0.

RESULTS

Social-demographic data

The study comprised 205 subjects, mean age of 47.43 years (SD=15.07), aged minimum 20 years and maximum 81 years, most of them female subjects (67.5%). As to school level, 39.3% had incomplete elementary school education, 22.8% had complete elementary school education, and the others were distributed into other education levels and only the minority (10.6%) had complete or incomplete higher education level.

Most had a partner, or 51.8% in Group 1 and 54.7% in Group 2. As to occupation, most worked (55.1%), some were retired (25.4%), or were housewives (10.2%), whereas the others were receiving benefits (3.4%), studying (2.9%), or unemployed (2.9%). The groups did not show significant differences concerning age ($p=0.878$) and were homogenous in educational level ($p=0.511$) and gender ($p=0.323$).

The most frequent diagnoses in the total sample may be observed in [Table 1](#).

Table 1. Distribution and percentage of diagnosis of total sample

Diagnosis	F	%
Acne	9	04.29
Undefined (spots)	25	11.90
Keratosis ¹	10	04.76
Psoriasis	47	22.38
Dermatitis ²	20	09.52
Fungal diseases ³	25	11.90
Hair loss	9	04.29
Vitiligo	18	08.57
Other less frequent diagnoses ⁴	47	22.38

Note: ¹ actinic, seborrheic, pilar keratosis; ² dermatitis, chronic, contact, herpertiform seborrheic; ³ candida, fungi, onychomycosis; ⁴: alopecia, psoriatic arthritis, lichen planus or sclero-atrophic, lupus discoid or tumid erythematosus, ingrown hair, melasma, dermatofibroma, neurodermatitis, panniculitis, pigmented purpura, urticaria, freckles, herpes, dry skin, scabies, folliculitis, rosacea, xantelasma

Out of the total 141 subjects with facial or hand lesions, 29.8% presented diagnosis of vitiligo or psoriasis and 70.2% had diagnosis of other dermatoses. In the group of patients with lesions in other body parts (64 subjects), 34.4% had diagnosis of vitiligo or psoriasis and 65.6% had diagnoses of other dermatoses.

Results of General and Specific Quality of Life in Dermatology

Concerning general quality of life, social domain is the most affected one. Vitality is the domain that offers the best quality of life, followed by physical functioning, and both refer to the activities that require some effort, as well as feelings of vigor, energy and strength. Concerning specific quality of life, the mean score was 5.331, and domain symptoms and feelings about the disease, as well as daily activities, were the most affected ones, and work and school, together with treatment, were less impacted. Results of quality of life are shown in [Table 2](#).

Table 2: Mean and Standard Deviation: Quality of life – General and Specific (n = 205)

Variable	Results
<i>Domains SF-36</i>	Mean (SD)
Physical functioning	76.17 (23.88)
Physical function	66.74 (38.39)
Pain	60.20 (26.04)
General health	56.99 (14.13)
Vitality	93.23 (13.93)
Social function	48.41 (13.63)
Role Emotional	60.16 (41.10)
Mental component	55.06 (11.61)
<i>Domains DLQI-BRA</i>	Mean (SD)
Symptoms and feelings concerning the disease	1.839 (1.62)
Daily activities	1.312 (1.71)
Leisure	0.830 (1.42)
Work and school	0.789 (0.94)
Interpersonal relationships	0.857 (1.40)
Treatment	0.242 (0.68)
Total DLQI-BRA	5.331 (5.20)

Associations between general and specific quality of life in the group with face and/or hands lesions may be observed in [Table 3](#). It is noticed that correlations ranged from very low to low, and there were no significant correlations.

Table 3: Associations between DLQI-BRA and SF-36 in the group with face and/or hand lesions

	SF-36	Phys Funct	Phys Asp	Pain	General H	Vit.	Soc Func	Emot Role	Mental Comp
DLQI									
Symptoms and feelings concerning the disease	-0.191*	-0.331**	-0.269**	0.081	-0.116	-0.066	-0.154	-0.294**	
Daily activities	-0.148	-0.216*	-0.237**	0.068	-0.067	-0.079	-0.204*	-0.178*	
Leisure	-0.175*	-0.196*	-0.271**	0.114	-0.165	-0.123	-0.211*	-0.218**	
Work and School	-0.111	-0.198*	-0.221*	-0.059	-0.053	-0.076	-0.122	-0.155	
Interpersonal Relationships	-0.182*	-0.137	-0.207*	0.029	0.034	-0.051	-0.282**	-0.119	
Treatment	-0.028	-0.125	-0.269**	0.148	-0.030	0.021	0.012	-0.215*	
DLQI-BRA TOTAL	-0.200*	-0.263**	-0.309**	-0.007	-0.035	-0.102	-0.216*	-0.228*	

* Spearman (*r*) correlation

** domains SF-36: physical functioning, physical function, pain, general health, vitality, social function, emotional role, mental component

In [Table 4](#), there is an association between general and specific quality of life. It is important to highlight the values of higher correlation, between leisure in DLQI-BRA and vitality in SF-36 ($r=-0.361$; $p<0.001$), interpersonal relationships in DLQI-BRA and emotional aspects in SF-36 ($r=-0.347$; $p<0.001$) and total score in DLQI-BRA with emotional aspects in SF-36 ($r=-0.333$; $p<0.001$).

Table 4: Associations between DLQI-BRA and SF-36 in the group with lesions in other body regions than the face and hands

	SF-36	Phys Funct	Phys Asp	Pain	General H	Vit.	Soc Func	Emot Role	Mental Comp
DLQI									
Symptoms and feelings concerning the disease	-0.134	0.005	-0.109	-0.105	-0.114	0.067	-0.126	-0.006	
Daily activities	-0.046	0.054	-0.083	-0.020	-0.053	0.016	-0.160	-0.089	
Leisure	-0.070	-0.151	-0.187	0.057	-0.361**	0.002	-0.250*	-0.143	
Work and School	0.057	-0.071	-0.102	0.018	-0.197	0.133	-0.099	-0.127	
Interpersonal relationships	-0.097	-0.127	-0.233	-0.057	-0.231	0.268*	-0.347**	-0.229	
Treatment	-0.160	-0.061	-0.139	-0.090	-0.030	0.059	-0.220	-0.038	
DLQI-BRA TOTAL	-0.105	-0.039	-0.202	-0.036	-0.297*	0.107	-0.333**	-0.162	

* Spearman (*r*) correlation

** domains SF-36: physical functioning, physical function, pain, general health, vitality, social function, emotional role, mental component

The association between interpersonal relationship of DLQI-BRA and social function of SF-36 is highlighted because it is the only positive significant correlation between the two instruments.

The comparison between General Quality of Life in the two groups was carried out using Mann-Whitney test. There were no significant differences between the groups in any of the domains of general quality of life, which could be observed by the p value, as follows: physical functioning (p = 0.262), physical function (p = 0.913), pain (p = 0.123), general health (p = 0.730), vitality (p = 0.269), social function (p = 0.901), emotional role (p = 0.960), and mental component (p = 0.613).

Concerning specific quality of life between the two groups, we did not find significant differences using Mann-Whitney test in any of the domains, as follows: symptoms and feelings concerning the disease (p=0.942), daily activities (p=0.532), leisure (p=0.992), work and school (p=0.307), interpersonal relationship (p=0.388), and treatment (p=0.667), as well as DLQI-BRA total (p=0.312).

We analyzed the questions in DLQI-BRA between the two groups of location of lesion using Mann-Whitney test, and there was significant difference (p=0.041) in question 4 "during last week, to what extent did your skin interfere in the clothes your normally wear?", which concerns the domain daily activities. The group with lesions in other body parts had the highest average (113.49).

The detailed distribution of lesion site was analyzed as 5 different groups . 16.8% of the subjects had lesions only on the face and/or hands, 14.4% had lesions on the face and other regions (rather than the hands), 35. 1% had lesions in other sites (no face or hands), and 12.9% had generalized lesions (face, hands and other body sites).

There were significant differences between the five groups in total score of DLQI-BRA (p=0.016) and in daily activities (p=0.041) and interpersonal relationships (p=0.041) domains.

As to total score of DLQI-BRA, by means of comparisons (Student-Newman-Keuls . SNK method), there was significant difference between the groups: "only face and/or hands", and "face and hands and other regions" (p = 0.006); "only face and hands and/or hands" and "only other sites, no face or hands" (p = 0.0253), and "face and other regions, no hands", and "face and hands and other regions" (p = 0.0450).

Concerning daily activities, the comparisons (Student-Newman-Keuls . SNK method) showed significant differences and the group of lesions on the face and/or hands presented lower scores than the groups a) hands and other regions, no face (p=0.0403); b) face and hands and other regions (p=0.0086), and c) only other regions, no face or hands (p=0.0340). The group with face and hands and other regions had higher scores than the face and/or hands group (p=0.0086), and the group with face and other site lesions, no hands (p=0.0429).

Concerning interpersonal relationships, differences were significant, according to Student-Newman-Keuls test, between the groups face and hands and other regions and face and other regions, no hands (p=0.033), which had average ranges, respectively, of 126.69 and 86.66.

The third stage was to have the total sample analyzed as two diagnostic groups . the first comprised by patients with vitiligo or psoriasis (65 people) and the second one with patients with other dermatoses (140 people). We performed Mann-Whitney test with both groups and there were statistically significant differences in total score of DLQI-BRA (p=0.016) and domains daily activities (p=0. 027) and work and school (p=0.000). The most severe damages were observed in patients with vitiligo or psoriasis, with average of 108.75 in total DLQI, 115.80 in daily activities and 114.92 in work and school domain.

The fourth stage included only patients with vitiligo or psoriasis, in a sub-sample of 65 people. We used Mann-Whitney test to compare the quality of life of patients with lesions on the face/ and or hands and in patients with lesions only in other body sites and we did not find statistically significant differences. Using Kruskal Wallis test, we compared quality of life in five lesion sites in the sub-sample, in which we observed statistically significant difference in the total score DLQI-BRA (p=0.020), and the group with generalized lesions was the one with the greatest damage.

DISCUSSION

Homogeneity in the studied groups increases the reliability of the comparison between them. Concerning diagnoses, the groups had similar distributions.

Concerning general quality of life, social domain is the most affected area, both in the total sample and in the two groups with different lesion sites. Such data are in agreement with other studies that emphasized the psychosocial impact of dermatosis, referring to situations of discrimination or other stigmatizing experiences, related with self-esteem problems, social isolation and rejection ¹².

In a study with psoriatic patients, 62% of the subjects reported negative feelings and social discrimination, and 44% of them referred current or past impact of the disease on leisure, mentioning that the dermatosis was a restriction to leisure activities, making them limited to family environment because they felt discriminated outside it ⁴. Some authors have referred that withdrawal affects people with skin diseases owing to the association it has between skin disease and contagious status or lack of care ¹³.

In the present study, vitality was the least affected aspect, followed by physical functioning. Such findings are relevant because some dermatoses, per se, do not affect directly the vitality of the subject. In a survey with patients with plaque psoriasis, from moderate to severe, found less damage in physical functioning, followed by emotional elements, and the main damage to vitality and pain ¹⁴, justifiable by disease severity.

Seventy-five patients with atopic dermatitis were studied and the physical functioning and social element were identified as domains with the best scores, and the worst scores were given to mental component and emotional function ¹⁵.

In another investigation, also concerning atopic dermatitis, the main impact was on social function and psychological well-being, and comparing the means to a study with psoriasis patients, from mild to moderate disease, the best means were detected for social function and physical functioning, and the worst ones for mental health and vitality ¹⁶.

The aspects the most related with physical component are physical functioning, physical elements, pain and general health, whereas the other are related to mental component ¹⁷. In a study with lupus erythematosus patients, the authors found greater means for physical functioning and social function and lower means for mental component and general health ¹¹. In most reported studies, physical functioning has the least impact.

An interesting finding is the social element with low impact as reported by some studies, which contradicts what is demonstrated by the clinical practice of many professionals. This fact may be understood by the realization that patients, even though they get looks and are discriminated, do not fail to have social activities, many times using their clothes as a way to be protected from people's look, which is confirmed by the fact that psoriatic patients change their clothes to hide their lesions ⁴.

Data from previous studies with SF-36 reported that the means of general quality of life in dermatological patients range from one study to another. In addition to investigating different types of dermatoses, we should bear in mind that quality of life is assessed according to the perception of the subject in relation to himself and his life. It is important to consider that dermatosis is one of the aspects that may influence quality of life but patients with the same disease, but presenting different characteristics, may experience different levels of damage ¹⁵.

It is known that people have different ways of interpreting their life situations, as well as different ways to deal with them, reason why we need to have studies to assess coping strategies and levels of stress of psoriasis patients ¹⁸. Moreover, social damage may range according to disease severity, so that major quality of life impacts are related with high severity ¹⁶.

The group with lesions on the face and/or hands presented a high number of correlations, specially symptoms and feeling related to the disease of DLQI-BRA and mental component of SF-36 ($r=-0.294$; $p<0.001$), interpersonal relationships of DLQI-BRA and emotional function of SF-36 ($r=-0.282$; $p<0.001$), and total score of DLQI-BRA and pain score of SF-36 ($r=-0.309$; $p<0.001$), because they were the highest.

As to the only positive correlation in the group with lesions in other body regions, there was a divergence: the higher the score of social function of SF-36, the better the quality of life, and the higher the score in

interpersonal relationships of DLQI-BRA, the greater the difficulties the patient had. Thus, this correlation showed that as SF-36 increases its score of social domain, there is an increase in the score of DLQI-BRA in interpersonal relationships, showing greater dissatisfaction of patients. Such correlation enables the understanding that in social contact, the patient is faced by dissatisfying interpersonal relationships.

The experience of professionals that work with dermatological patients shows greater damage in subjects with face and/or hand lesions, because it is difficult to have the lesion exposed for others to look, as well as the suffering from prejudice felt "under the skin". Data resulting from this study may result from the exposure of other body lesions than only face and/or hand lesions, because of high temperature and heat, intimate contact, or even because of embarrassment implied in having skin lesions.

Thus, in previous studies, there were no significant differences in specific quality of life among patients with localized or disseminated lesions, referring that because the disease causes so much impact on people's life, regardless of being localized or disseminated, the difficulties felt would be the same¹⁰.

Some authors refer the difficulties that people have with abdomen and genital lesions. Even though they are not exposed, these patients tend to withdraw, which certainly leads to damage¹².

In addition, having lesions in different body parts seems to bring greater damage, given that when analyzed as five groups with different lesion location, there was significant difference between the group of patients with generalized lesions and the group that had lesions only on the face and/or hands. In another study, we found significant differences of generic quality of life among patients with localized lesions and patients with disseminated lesions, being that the latter had greater damage¹⁰.

The results led us to infer that, regardless of the lesion site, the feeling of exposure and damage related to it are similar to dermatological patients. Interpersonal relationship in general, as well as intimate relations, are situations that imply exposure to the other, being difficult to hide the lesions.

As to psoriasis, the importance of climate/ seasonal variable is highlighted, whereas we should not forget the importance of the occasional factors for onset or worsening of the disease⁶. In addition to the fact that diseases such as psoriasis get worse in winter, wearing tight clothes expose less body regions, which is more limited in summer time. Conversely, it is known that patients with psoriasis improve in summer. Future studies may control this variable.

Other hypothesis used to explain why there were no statistically differences between the two groups of lesion site may be related with the variables analyzed in the study, even though in a study with contact dermatitis greater damage had been observed for subjects with facial lesions¹⁹. However, quality of life encompasses many different areas and probably the greater damages concerning more exposed lesions are related with self-esteem, self-image and self-concept, which may be reinforced by the situation of embarrassment that visible lesions may have on the patient²⁰.

One of the limitations of the study was not having assessed separately the subjects who had other health problems in addition to skin lesions, which could have interfered in the results, especially of SF-36, which could have detected damage resulting from other diseases rather than the skin. Similarly, it was not possible to assess in a controlled fashion the disease extension, because the only instrument that could recover the data was the dermatological lesion site form, in which in most situations, only affected body regions were marked, meaning that some forms missed the appropriate record of how much the body was affected.

It is also due to the number of interviewers, which is common in surveys, which enables the large sample, but opens space for subjectivity of each examiner when assessing the skin lesion in this study. More detailed training to examiners could have avoided incomplete documentation.

To assess disease severity according to patient's perception would also be an important measure. The literature shows varied data concerning the importance of disease severity, presenting studies in which quality of life is not related to this variable²¹, whereas there are others in which visibility is more important than severity²², or those in which quality of life did not vary depending on lesion site, but was proportional to the severity perceived by the patient²³. Taking into account the exposure that people with dermatological disorders face, some authors have suggested the need to get adapted to the disease²⁴.

It is necessary to consider the personality characteristics of the subjects, given that the way the subjects perceive and interpret the situations around them, including the dermatosis itself, is influenced by personal characteristics.

A careful look about the skin, its affections and consequences on people's life from the perception of the others is a topic still to be discovered, given that we say that the skin is our cover, considered the system that limits our individuality and places us in contact with the world and other people². Thus, dermatological lesion site is a broad topic to be further investigated.

CONCLUSION

The data collected from the present study showed greater damage depending on more body parts affected by the dermatosis, and worse specific quality of life in patients with vitiligo or psoriasis compared to the others.

The issue of influence of dermatological lesion site on patient's life is still to be unfolded. Aspects such as disease severity, perceptions of the patient about himself and his disease, personal and personality characteristics, as well as weather issues, are variables implied in this understanding. Future studies may assess the seasonal variable, interpersonal relationships, self-image, self-esteem and self-concept in a controlled form, using instruments directed to interrelation issues, to check whether there is any different damage in social relations according to location of dermatoses or whether suffering is really the same, regardless of having a fully exposed lesion or not.

Finally, data collection was made from general outpatient dermatological units, in which the demand is broad, including variations concerning level of skin severity. The findings have evidenced the importance of new investigations to assess data not included by the present study, as mentioned before, and other more specific variables. Future studies to qualitatively analyze the studied data are also recommended.

ACKNOWLEDGEMENT

I would like to acknowledge the work of research assistants Luciana Hauber and Tatiana Helena José Facchin, for their constant support and tireless work in collecting and inputting data into the system, as well as their search for scientific evidence.

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How to cite this article: Ludwig MWB, Oliveira MSO, Müller MC, Moraes JD. Qualidade de vida e localização da lesão em pacientes dermatológicos. An Bras Dermatol. 2009;84(2):143-50.