

## Effect of Convenient Dermatologic Intervention on Quality of Life in Patients with Chronic Eczematous Dermatitis

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**Objective:** There is some evidence that chronic skin diseases like dermatitis could affect the quality of life of sufferers. In addition, patients with dermatological disorders are at greater risk to develop psychiatric morbidity. The aim of this study was to explore the quality of life in patients with chronic eczematous dermatitis. We also examined the effect of a convenient dermatologic intervention on quality of life of the participants.

**Methods:** Fifty patients with chronic dermatitis (29 females and 21 males with mean age of 29.3 years) were recruited. Data were collected before and after six weeks of dermatological treatment using Dermatology Life Quality Index (DLQI) and a sociodemographic questionnaire. The relevant data were analyzed using paired t test.

**Results:** Mean base score for dermatology life quality index in our sample was 10.94, which was within low limits of averaged for their norm. Moreover, after 6 weeks of treatment, quality of life significantly improved particularly in domains of symptoms and feeling.

**Conclusion:** Dermatologic diseases like chronic dermatitis influence quality of life of patients. Even a feasible dermatologic intervention could significantly improve the quality of life in people who are suffering from such disabling illnesses.

**Declaration of interest:** None.

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### Introduction

Quality of life is a broad concept. It is defined as the subjective perception of the impact of health status including disease and treatment on physical, psychological, social function and wellbeing (1). Skin diseases are not usually life-threatening, however it is well known that the quality of patient's life is affected and many factors including physiologic and psychological factors contribute to this impairment (2-5). In many cases the impact of skin disorder upon the quality of life is a stronger predictor of psychiatric morbidity than the clinical severity of the disorder as per physician ratings (6). Moreover chronic relapsing inflammatory

skin conditions have wide-ranging clinical presentations and have considerable effects on the lives of sufferers.

Dermatitis affects about one in every five people at some time in their lives. It results from a variety of different causes and has various patterns. The terms dermatitis and eczema are often used interchangeably. American Academy of Dermatology prefers the term "eczematous dermatitis". The pattern of dermatitis leads to psychosocial disturbances in most patients, especially self-image, and the persistence of the condition may continue to damage patients' self-esteem, their ability to cope with the disease and adherence to therapy (7-9).

The impact of skin diseases on patients' lives, especially on social and emotional aspects is more complex than other diseases (10). Patients with chronic skin diseases are especially prone to stigmatization and poor quality of life (11). It is also found that dermatological patients are suffering from

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several psychological problems, notably anxiety and hostility (12). These kinds of patients usually undergo long-term treatment and many of them have problems adhering to treatment.

It is apparent that good quality of life is important for each patient; therefore quantifying the patients' perspective of the severity of their disease is necessary. At the best of our knowledge, there has been no study considering effect of a routine dermatology management on quality of life in patients with chronic dermatitis in Iran. The aim of this study was to measure changes in quality of life before and after six weeks of dermatologic intervention in chronic dermatitis patients.

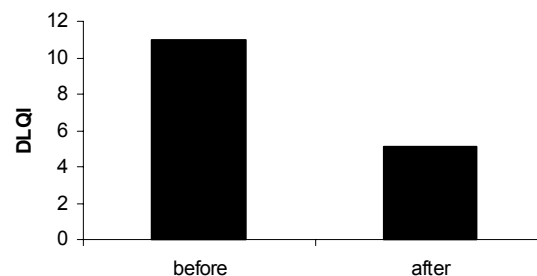
### Materials and Methods

This study was conducted at the Outpatient Dermatology Clinic affiliated to Fasa Medical University in Iran. Fifty patients with chronic eczematous dermatitis including atopic dermatitis, irritant contact dermatitis and allergic contact dermatitis were recruited by convenient sampling. All participants read a structured information form about the purpose of the study and signed it if they were agreed to join the study. The demographic information was recorded on the first visit and Dermatology Life Quality Index (DLQI) questionnaires were distributed among the patients at first visit and after 6 weeks of treatment. The participants underwent a six weeks dermatologic treatment using UV light, corticosteroids and topical ointments under supervision of a board certified dermatologist. In addition, we also trained our clinical staff for the support of the patients psychologically and acknowledged their problems with regard to their treatments, coping skills, as carried out by Maroti et al. (13). Possible effects on quality of life were measured as mean scores of pre and post-treatment differences in DLQI. The DLQI is an easy self-rated compact, dermatology-specified instrument applicable to patients with various skin diseases (14-16). The DLQI measures how much a skin problem has affected the patient life over the previous 7 days. It consists of 10 items, 6 dimensions and one overall summary score, and ranges

between zero (the best score) and thirty (the worst score). The 6 dimensions are symptoms and feelings (questions 1 and 2), daily activities (questions 3 and 4), leisure (questions 5 and 6), personal relationships (questions 8 and 9) each item with maximum score of 6; work and school (question 7), treatment (question 10) each item with maximum score of 3. The validity of the Farsi version of questionnaire was confirmed in Iranian populations (14). All statistical analyses were carried out using the Statistical Package for the Social Sciences (SPSS) version 11.0. We used paired t test to compare quality of life before and after treatment.

### Results

Fifty-three patients accepted to participate to the study. Three patients did not return their questionnaires. Finally 21 males and 29 females with mean age( $\pm$ SD) of  $29.38 \pm 10.96$  years were included for analysis. All patients diagnosed clinically. They suffered from eczematous dermatitis for long time and only had been referred to local general physicians. Mean (SD) DLQI scores before and after 6 weeks of treatment were  $10.94 (\pm 5.72)$  and  $5.08 (\pm 3.52)$ , respectively. These results suggested a significant improvement in quality of life after 6 weeks of dermatological treatment with 57% change in DLQI score ( $p < 0.001$ ) (Fig. 1).



**Figure 1:** The mean DLQI score before and six weeks after treatment

The six domains related to quality of life, which were mostly influenced by the treatment, are shown in Fig. 2. All domains were significantly improved ( $p < 0.001$ ). Symptoms and feelings had the highest pretreatment

mean score (3.44 out of 6.0) and showed the greatest difference before and after treatment; 3.44 versus 1.64. While women had higher pretreatment DLQI score (11.20) than men did (8.8), mean scores after treatment were approximately the same (5.4 vs. 5.9). Age did not have any significant influence on quality of life score.

### Discussion

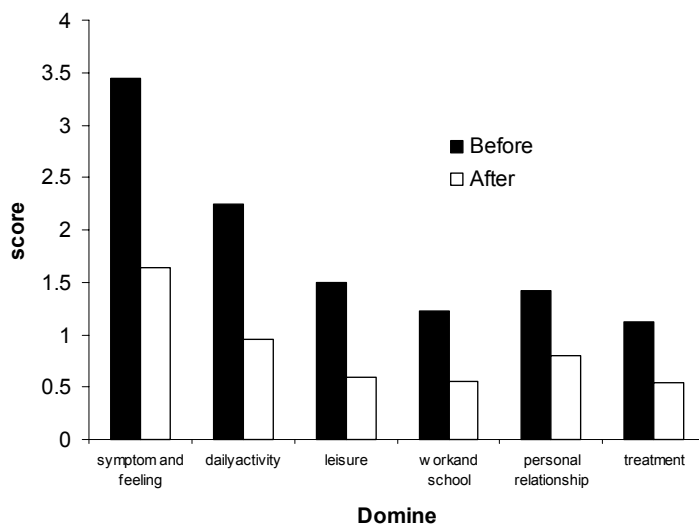
In our study sample the pre treatment score of quality of life was lower than the averaged for their norms (10.94). These findings are consistent with earlier studies (17,18). Our results also revealed that the quality of life mostly affected by certain symptoms like itching and patients’ feeling. Moreover, in our subjects activity of daily living was significantly affected by disease. The patients’ levels of embarrassment, could explain their avoidance in social engagement and daily activities .This is consistent with other studies with different populations and cultures (19-21).

Our data showed female with chronic dermatitis had poorer quality of life than male patients did. Considering the various domains of quality of life, female patients were more embarrassed and self-conscious about the disease. Moreover, they showed significant

impairment in their daily activities and reported more frustration in choosing their cloths. These results are in line with previous studies supporting the gender difference in psychological reactions to chronic skin disease (22,23).The main finding of this study is that a dual psycho-dermatological treatment significantly improved the quality of life in our subjects. Many studies have pointed out not only to recognize the medical needs of the patients but also to acknowledge their psychosocial needs and support the development of coping strategies (21).

We also trained our clinical staff for the psychological support of the patients and acknowledged their problems with regard to their treatments, coping skills, as carried out by Maroti et al. (13). They also tried to convince them with their problems by establishing trust towards treatment, increasing hope and positive attitude among the patients.

In conclusion, as shown in our result the effect of chronic dermatitis on quality of life is important. Even a feasible psycho-dermatologic intervention could improve the patients’ quality of life. However, our study had some limitations including small sample size, lack of a matched control group to eliminate confounding biases in quality of life. Further studies are required to document a concrete conclusion.



**Figure 2 :** Quality of life domains (mean score) before and six week after treatment

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