



# The effect of acne severity on quality of life in acne vulgaris patients

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### Abstract

**Aim:** The purpose of this study is to investigate the relationship between quality of life and acne disease. **Methods:** In this study, a descriptive study method has used. There were 93 patients aged 15 to 50 years with acne skin disorder who included in the study by available sampling method. The GAGS rating scale was used for the severity of the disease. Also, The Skin Quality of Life Questionnaire (DLQI), was used to determine the quality of life of acne patients. **Results:** Quality of life was not normal among the acne severity groups, so the Kruskal-Wallis test was used to calculate the correlation, which stated that there is a significant correlation between these two variables ( $P < 0.001$ ). **Conclusion:** Quality of life and acne vulgaris have a strong correlation. Considering the frequency of this disorder and its effect on the social and emotional performance of people, it is necessary to investigate more in order to prevent and treat this disorder.

**Keywords:** *Acne, Quality of life, Psychological effects.*

## Introduction

Acne is a very common inflammatory skin disease (Lee et al., 2019). The skin is the body's largest organ (Grosbart, 2010), and damage to it hinders the functioning of the immune system. Acne vulgaris is one of the main causes of disability in the world. The skin plays an important role as a sensory organ in the socialization process of people throughout the life cycle. This organ is the first organ seen in communication and responds to different types of emotional stimuli. In addition to the discomfort caused by the clinical symptoms of acne, patients may experience other negative effects. One study found significantly higher unemployment rates among acne cases than controls, suggesting a link between acne and employment. Additionally, acne has been found to have a negative impact on people's social life, self-esteem, and body image (Hing & Chiu, 2020). Therefore, acne, as one of the most common skin diseases, has a close relationship with mental problems (Raza et al., 2012; Samuels et al., 2020).

Quality of life is a personal understanding of satisfaction in life, physical health, social and family health, hope, and the patient's mental health (Neotaki et al., 2013). Quality of life is a vital field in medicine that is very important from a psychological point of view and defines all aspects of patients' well-being regarding the diseases they are fighting against (Chilika et al., 2017). Because acne can severely affect the patient's quality of life in many ways, several methods have been described to evaluate the quality of life of these patients, including: Skin Quality of Life Index (DLQI), Skin Quality of Life Scale (DQOLS), Skin Specific Quality of Life (DSQL) and Acne Disability Index (ADI). These quality-of-life measurement tools can improve the doctor-patient relationship by informing doctors about how people live with this disease (Gillier et al., 2015).

Although acne affects the quality of life in all individuals, changes in quality of life related to acne were greater among Hispanic and Asian groups than among whites and blacks. Significant differences were observed among racial and ethnic groups in self-perception and social roles. Therefore, the current research question is as follows: Does the severity of acne affect the quality of life in women and men with acne vulgaris disorder?

## Method

In this study, a descriptive study method has used. There were 93 patients aged 15 to 50 years with acne skin disorder who included in the study by available sampling method. The GAGS rating scale was used for the severity of the disease. Also, The Skin Quality of Life Questionnaire (DLQI), was used to determine the quality of life of acne patients.

## Results

78.0% are women and 21.5% are men, the population of 93 participants of this research. The Kolmogorov-Smirnov (KS) test was used to measure the normality of the data. In the first group, the significance level is less than 0.05 and this means that the distribution of quality of life among the severity of acne is not normal; Therefore, the Kruskal-Wallis test was used to measure the correlation between these two variables, and the significance level was less than 0.001, which means a

very strong correlation between these two variables. To measure this correlation more accurately, the groups were compared with each other and to reduce the error, Bonferroni correction was used to determine the significance level.

### **Conclusion**

In this study, the relationship between acne severity and skin quality of life was investigated. Acne vulgaris has a negative effect on social interactions, and 44% of patients with acne suffer from clinical anxiety and depression. Therefore, it is expected that acne affects people's mental health and consequently their quality of life. The results of our studies show a very strong and significant relationship between the clinical severity of acne and skin quality of life, which is consistent with previous results. There is some debate about how quality of life relates to the clinical severity of acne. Although many researches show a correlation between acne and quality of life. However, according to some researchers, no relationship between acne severity and quality of life has been reported (Beheshti & Barikani, 2018; Gupta et al., 2016). This difference can be attributed to the lack of specific criteria for acne, self-assessment of acne severity, and different sample sizes.

Among the limitations of the current research, we can mention the fact that our assessment of the quality of life of the people was self-reported, and in future research, the help of psychologists regarding the quality of life and dermatologists regarding the severity of acne of the participants should be obtained in order to obtain more accurate results. Another suggestion for future research is to increase the number of participants so that the results can be more reliably extended to the entire population. The most important strength of the present study is that the skin quality of life questionnaire was used. The questionnaire is specifically designed to measure the quality of life of people with skin diseases and a wide age range is considered, which includes people aged 15 to 50. This has made the results more reliable.

Considering the great impact of acne on the quality of life, the need to pay attention and focus on the health of people with this skin disease is quite clear; But women will be much more vulnerable because beauty plays a more prominent role in women and acne as a skin disease will have a great impact on their beauty. This issue will cause a decrease in self-confidence and, subsequently, the quality of their relationships; Therefore, the need to focus on the mental health of women with acne and focus on their rehabilitation is very noticeable.

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