

# Implications of self-esteem in the quality of life in patients with psoriasis

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**Abstract.** Skin has an integrative role in daily life, being a communication organ between the patient and the world. Skin affection in psoriasis has consequences on the patient's self-esteem, with direct implications on the quality of life. This study focused on the impairment of self-esteem in a group of 110 patients: Patients with severe cutaneous and psoriasis arthritis and patients with mild types of psoriasis, using the Rosenberg Self-Esteem Scale. Patients with severe cutaneous and psoriasis arthritis have a lower self-esteem compared with patients with mild psoriasis. The statistical data of two groups regarding the degree of education (secondary and higher education), in the male patients with severe cutaneous and psoriasis arthritis with higher education showed a lower self-esteem, compared with male patients with severe cutaneous and psoriasis arthritis with secondary education. In mild forms of psoriasis, the self-esteem of women and men is relatively equal, but below the general population average. Male patients with psoriasis arthritis have a much lower self-esteem compared with that of women, looking at life prospects more negatively. Psoriasis has a major impact on self-esteem, which correlates with quality of life in patients

with psoriasis arthritis, depending on the skin condition that creates a major visual impact in society.

## Introduction

The quality of life, in the context of health and disease, is a multidimensional concept that targets the well-being and satisfaction on how health is affected, including the emotional status, physical functioning and social well-being (1). These aspects affect the patient's judgment regarding the way the disease affects their life, as well as the impact of the disease on their professional and personal goals (2,3).

Dermatological diseases have a negative impact on the quality of life of the patient, both because of their symptoms and the state they induce. Dermatological pathology and, implicitly, psoriasis negatively impact school, jobs and interpersonal relationships. The treatment itself has a negative effect because of its odor and its greasy, slimy appearance (4,5). The impact of this disease on the quality of life of the patient has been compared with serious pathologies, such as malignancies, hypertension or diabetes (6).

## Patients and methods

Skin has an integrative role in daily life, being a communication organ between the patient and the world. It is observed and judged by others; hence, it holds an important place in social interactions (7,8). For this reason, the authors hypothesized that skin damage in psoriasis has consequences on the patient's self-esteem. A first step in this regard would be a descriptive statistical analysis, which would allow highlighting the existence of differences on average self-esteem levels of the patients included in the research, depending on the severity of the disease.

The research is organized as a comparative study between patients with severe cutaneous and psoriasis arthritis and patients with mild psoriasis types.

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Table I. Starting statistical indices for self-esteem in patients with severe cutaneous and arthropathic psoriasis and in patients with mild forms of psoriasis.

Item	Patients with arthropathic psoriasis, n=54		Patients with mild psoriasis, n=56	
	Mean	Standard deviation	Mean	Standard deviation
Self-esteem	24.33	6.24	26.53	3.40

Table II. Statistical analysis: Self-esteem in patients diagnosed with severe cutaneous and arthropathic psoriasis compared with patients with mild psoriasis.

Items	F <sub>Levene's</sub>	P <sub>Levene's</sub>	t	df	P-value
Self-esteem					
Equality of assumed variances	21.765	<0.001 <sup>b</sup>	-2.309	108	0.023 <sup>a</sup>
Equality of unassumed variances			-2.286	81.349	0.025 <sup>a</sup>

<sup>a</sup>P<0.05; <sup>b</sup>P<0.01.

In total, 110 subjects participated in this study, of whom 56 with mild forms of psoriasis and 54 patients diagnosed with severe cutaneous and psoriasis arthritis. The sex distribution of the patients with severe cutaneous and psoriasis arthritis was: 21 women (38.88%) and 33 men (61.11%), registered at the Dermatology Clinic in Oradea. Regarding the patients with mild forms of psoriasis, there were 23 women (41.07%) and 33 men (58.92%). Subjects with severe cutaneous and psoriasis arthritis ranged in age from 26 to 74 years, with a mean age of 41 years. The level of education of the patients was 48 patients with secondary education (43.63%), 50 patients with university education (45.45%) and 12 patients had postgraduate studies (10.90%). The study group included patients diagnosed with severe cutaneous and psoriasis arthritis; the comparison group comprised patients with mild forms of psoriasis extracted based on stratified selection, so that the subjects with mild forms of psoriasis had approximately the same characteristics in terms of age, sex, level of education as those of the patients with severe cutaneous and arthritic psoriasis.

Ethics approval was obtained from the Commission and Ethics Committee of the Oradea County Emergency Clinical Hospital (approval nos. 1386/2019 and 460/2019, respectively), and written informed consent was obtained from all the patients.

The purpose of the investigation was to reveal the quality of life as perceived by patients with severe cutaneous and psoriasis arthritis, compared with patients with mild forms of psoriasis, and to identify the impact of the disease on their self-esteem and, implicitly, their quality of life. The questionnaires were paper-pencil with unlimited time. The subjects participated in the study voluntarily. In order to evaluate the aspects, the Rosenberg Self-Esteem Scale (1965) of Self-Esteem was used.

The scale was adapted for the Romanian population by Băban (1998). The scale consists of 10 items. It has a good internal consistency, the  $\alpha$  coefficient being 0.89, according to the authors, and 0.75 for the Romanian population-Băban (1998). The test-retest fidelity is between 0.85 and 0.88. It was

hypothesized that: *The self-esteem of patients with severe cutaneous and psoriasis arthritis is lower, compared with that of patients with mild forms of psoriasis.*

In order to extend the results obtained on the analyzed samples, the authors resorted to statistical analysis and, because the population distributions are symmetrical P>0.05 in Kolmogorov-Smirnov, the authors used parametric statistics, namely the Student's t-test.

## Results and Discussion

The statistical analysis of the study results revealed the existence of significant differences between the self-esteem of patients with severe cutaneous and psoriasis arthritis and the self-esteem of patients with mild forms of psoriasis (Table I).

The question that arises is whether the 2.21 difference in absolute value between the level of self-esteem in patients with mild form of psoriasis and the self-esteem of those with severe form is significant or not. In order to analyze the relevance of the differences detected, the authors used the Student's t-test (Table II).

The statistical analysis revealed significant differences between the self-esteem of patients with severe cutaneous and psoriasis arthritis and the self-esteem of patients with mild psoriasis. The former ones have a lower self-esteem compared with the latter,  $t(81.34) = -2.286$  significant at a P=0.025 threshold [ $m_{\text{psoriasis arthritis}}=24.33$  and  $m_{\text{mild psoriasis form}}=26.53$ , for a F ( $F_{\text{Levene's}} = 21.765$  P<0.001, P<0.05)]. This score is due to the fact that psoriasis, being a chronic disease with an invalidating effect on the body image of the person, alters the social relations, the integration in the professional group and even in the extended family. This represents the reason for which the patient begins to make negative evaluations regarding themselves; the more severe the cutaneous manifestations, the more often these evaluations occur. The way one feels about themselves constitutes a process sustained mainly by the complex feedback between oneself and others. What one wants to feel

Table III. Statistical analysis: Self-esteem in patients diagnosed with severe cutaneous and arthropathic psoriasis compared with patients with mild psoriasis.

Items	Patients with severe cutaneous and arthropathic psoriasis (mean)	Patients with mild psoriasis (mean)	t	df	P-value
Self-esteem					
Men	23.15	26.51	-2.94	52.56	0.005 <sup>a</sup>
Women	26.19	26.56	-0.226	29.21	0.823

<sup>a</sup>P<0.01.

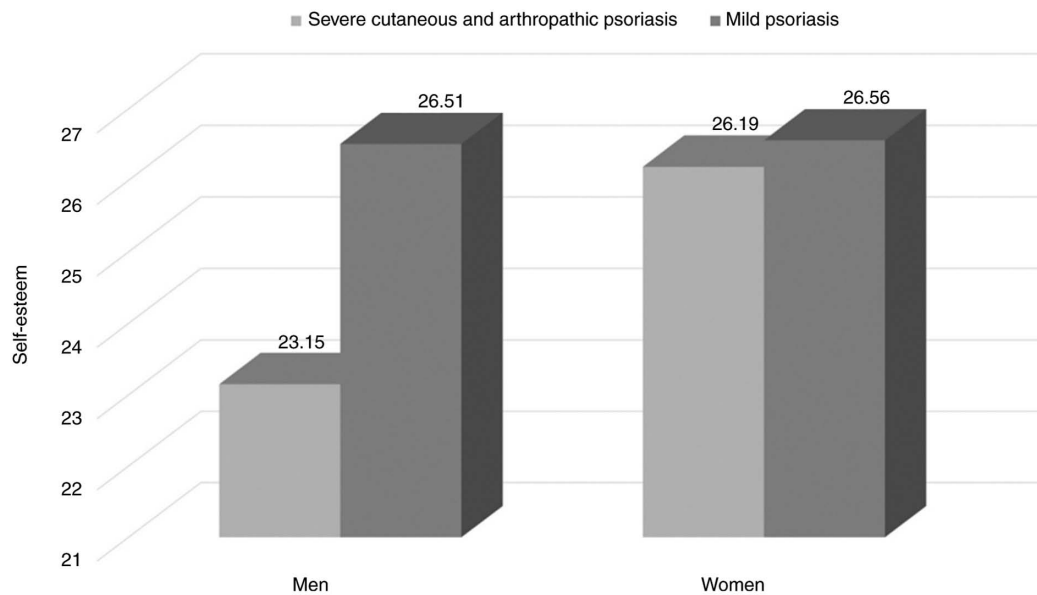


Figure 1. Self-esteem in men and women, according to the form of psoriasis.

about themselves and what one wants others to feel about them depends on the interpretation of verbal or non-verbal communication with other people. The interpretation of these messages can be strongly influenced by what one feels towards themselves.

Psoriasis is a condition that can influence what we feel about ourselves; what others feel about us; and what we think others feel about us.

Generally, there is a deterioration of self-image for every condition. This is even more pronounced for psoriasis because, initially, there is a self-rejection when facing one's own case, which will be generalized on what others think of them: *'I know how they feel about me because I know how I feel about myself.'* In order to improve the self-image, it is necessary for the patient to accept himself first, then to await for the acceptance of others, but this cannot be achieved through a low self-image.

The characteristics of the cognitions and feelings about oneself are the result of previous experiences, in which the success and failure to fulfill the goals and tasks proposed have a major role (9,10). A negative self-evaluation, due to the anticipation of failure, this time the impossibility of recovery, pushes the patient towards negative affects of anxiety, anger and depression, characteristics mentioned to be associated with psoriasis (11-14). The authors aimed to see, however,

whether self-esteem is different, within the same sex groups, in people with psoriasis arthritis and in patients with mild forms of psoriasis.

To this purpose, the authors analyzed the means of self-esteem in patients with severe cutaneous and psoriasis arthritis, depending on the sex of the patient and the level of diagnosis (Table III).

It can be observed that, if in mild forms of psoriasis the self-esteem of women and men is relatively equal, in patients with psoriasis arthritis, men have a much lower self-esteem compared with women, looking at life prospects more negatively. This may be because, besides the deterioration of the self-image and the alteration of the social relations, there is also a series of behavioral restrictions owed to the evolution of the disease-joint pain, the impossibility to perform certain physical activities. This further amplifies their inability to carry out gender-specific activities (for instance, to carry out sustained physical activities), which leads to the amplification of negative self-assessment, as can be seen in Fig. 1.

However, in men with psoriasis arthritis there are other factors that further modulate self-esteem. Age and level of education will be discussed.

Thus, the authors found that male patients with severe cutaneous and psoriasis arthritis with higher education have

Table IV. Statistical analysis: Self-esteem in male patients with psoriasis.<sup>a</sup>

Item	Higher education, n=8		Secondary education, n=20	
	Mean	Standard deviation	Mean	Standard deviation
Self-esteem	21.10	5.98	28.25	0.88

<sup>a</sup>Means and standard deviations of self-esteem in male patients with severe cutaneous and arthropathic psoriasis, according to the level of education.

Table V. Statistical analysis: Self-esteem in male patients with severe cutaneous and arthropathic psoriasis, according to the level of education.

Items	F <sub>Levene's</sub>	P <sub>Levene's</sub>	t	df	P-value
Self-esteem					
Equality of assumed variances	45.73	<0.001 <sup>a</sup>	3.32	26	0.003 <sup>a</sup>
Equality of unassumed variances			5.20	20.97	<0.001 <sup>a</sup>

<sup>a</sup>P<0.01.

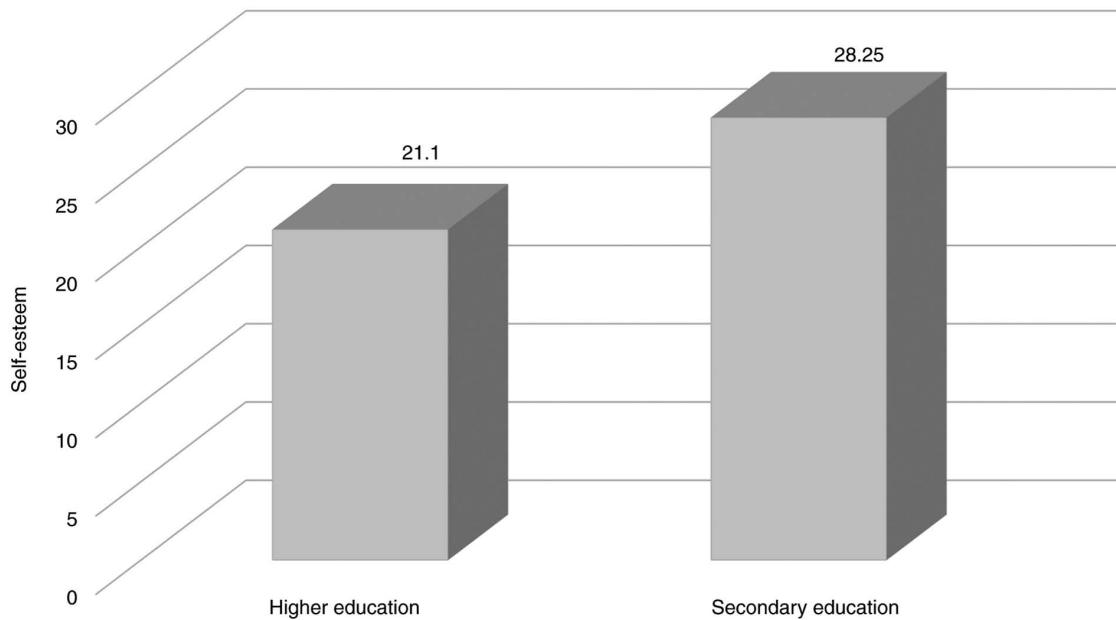


Figure 2. Self-esteem in male patients with psoriasis arthritis, according to the level of education.

a lower self-esteem, compared with male patients with severe cutaneous and psoriasis arthritis with secondary education  $t(81.34) = -2.286$  significant at a  $P=0.025$  threshold (Table IV).

The question arises whether that difference between the level of self-esteem of male patients with psoriasis arthritis with higher education and the self-esteem of those with secondary education is significant or not (Table V; Fig. 2).

The authors found that male patients with severe cutaneous and psoriasis arthritis with secondary education have a significantly higher self-esteem compared with male patients with psoriasis arthritis with higher education  $t(5.20)=20.79$

significant at  $P<0.001$  threshold [ $m_{\text{higher education}}=21.10$  and  $m_{\text{secondary education}}=28.25$  for  $F_{(\text{Levene's})} = 45.73$   $P=0.001$   $P<0.05$ ] (Fig. 3).

The authors investigated further whether age influences self-esteem in patients with severe cutaneous and psoriasis arthritis (Table VI).

Analyzing the image above, the authors observed that there are differences in self-esteem; it is more pronounced in men with severe cutaneous and psoriasis arthritis than in women with severe cutaneous and psoriasis arthritis, both groups with higher education. Thus, the authors found

Table VI. Means and standard deviations of self-esteem in patients with arthropathic psoriasis with higher education, according to age.

Items	Under 30 years old		31 to 40 years old		41 to 50 years old		Over 51 years old	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Men	17.02	2.75	22.85	6.41	24	-	-	-
Women	24.66	5.77	25.03	0.98	29.12	6.72	28.00	1.15

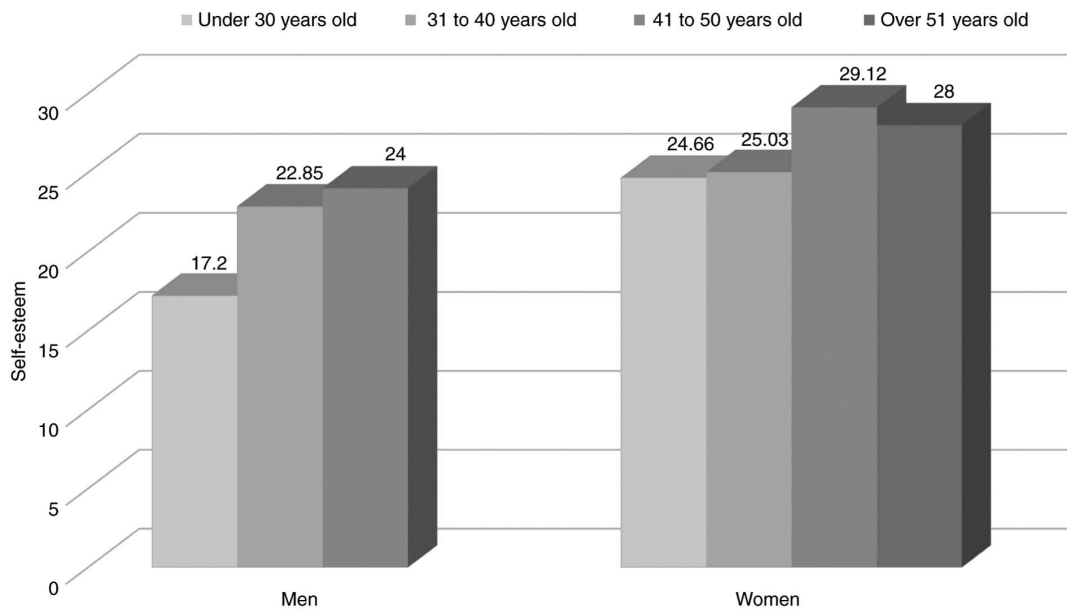


Figure 3. Self-esteem in patients with psoriasis arthritis, by sex and age group.

that the level of self-esteem of men with psoriasis arthritis with higher education and age up to 30 years is much lower compared with that of men with the same disease and the same studies, aged 31 to 40 years  $t(13)=-3.41$  significant at a  $P=0.005$  threshold [ $m_{\text{under 30 years old}}=17$  and  $m_{\text{31-40 years old}}=22.85$  for  $F_{(\text{Levene's})}=25.13$   $P=0.001_{\text{critical}}=P<0.05$ ]. This is probably due to a higher level of expectations in men with higher education under 30 years old, who face, as a result of the disease, its permanence, the impossibility of meeting their own expectations, due to social rejection and behavioral restrictions imposed by the disease. This causes them to significantly deteriorate their cognitive scheme, perceiving themselves to be very far from their own system of values. The marked deterioration of the self-esteem of the patients with psoriasis was also highlighted by Grob *et al* as compared with other skin disorders, such as chronic urticaria and atopic dermatitis (15).

Patients with severe cutaneous and psoriasis arthritis, especially men, have a very negative self-image due to the alteration of social contacts, a certain limitation of their daily activities, which leads to the impossibility of professional fulfillment that reaches their expectations, the patient being rejected due to scales and the false 'risk of contamination'. Of these, the maximum impact of the disease is on the self-esteem of men with higher education and under the age

of 30 years; they go through a troubled period, looking for their own path and place, both professionally and personally (16,17).

Recent studies have shown that psoriasis is a chronic systemic inflammatory disease, and not just a skin condition. The disease is currently associated with obesity, cardiovascular diseases, dyslipidemias, with the metabolic syndrome, with inflammatory bowel diseases and Crohn's disease. A number of treatments used today for these disorders are considered to cause the induction of psoriasis (17). Lithium salts, beta blockers, NSAID antimalarials, tetracyclines, even interferon, clonidine conversion enzyme inhibitors, digoxin, amiodarone and calcium blockers are just a few of the drugs that negatively affect psoriasis (18,19). Thus, considering their unfavorable role on psoriasis, both the presence of comorbidities and some therapies indirectly influence the self-esteem and quality of life of psoriasis patients (20,21). Therefore, the era of biological therapies in psoriasis, through their efficacy, maintaining their effectiveness, speed of installation and high safety profile has revolutionized the evolution of the disease and, implicitly, the quality of life of psoriasis patients. Patients undergoing biological therapy have a much improved self-esteem, compared with patients undergoing classical therapy and who have lost hope of long-term improvement in the course of the disease (22).

In terms of self-esteem, the quality of life in patients with psoriasis correlates with the degree of severity of the disease, but also with the social status of the individual. The results of this study show that self-esteem is an essential element to be monitored regarding the quality of life in patients with psoriasis.

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### Availability of data and materials

All data generated or analyzed during this study are included in this published article.

### Authors' contributions

IB was responsible for the clinical management of the patients, and the analysis and scientific interpretation of the data. SLI was responsible for the data analysis and editing of the manuscript. DB was involved in the data analysis and was also responsible for the revising of the manuscript. LGF was responsible for the analysis of the data, the analysis of specialized literature and the editing of the manuscript. MZ was responsible for the data analysis and the establishment of psycho-medical correlations. AH was responsible for the statistical analysis of the data and their analysis from a psychological point of view. All authors read and approved the final manuscript.

### Ethics approval and consent to participate

Ethics approval was obtained from the Commission and Ethics Committee of the Oradea County Emergency Clinical Hospital (approval nos. 1386/2019 and 460/2019, respectively), and written informed consent was obtained from all the patients.

### Patient consent for publication

Not applicable.

### Competing interests

The authors declare that they have no competing interests.

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