Acta Dermatovenerol Croat 2020;28(3):141-147 CLINICAL ARTICLE

How to Cope with Psoriasis: Data from Patient Tests and Surveys

***Hrvoje Cvitanović*[1], *Iva Bešlić*[2], *Liborija Lugović-Mihić*[2,3]**

[1]Department of Dermatovenereology, Karlovac General Hospital, Karlovac, Croatia
[2]Department of Dermatovenereology, Sestre Milosrdnice University Hospital; Center, Zagreb,Croatia; [3]School of Dental Medicine, University of Zagreb, Croatia

Corresponding author:
Prof. Liborija Lugović-Mihić, MD, PhD
Department of Dermatovenereology
Sestre milosrdnice University Hospital Center
10000 Zagreb
Croatia
liborija@gmail.com

Received: February 26, 2020
Accepted: July 15, 2020

ABSTRACT There are a limited number of studies that have addressed coping strategies in patients with psoriasis, so the aim of this study was to examine how patients with psoriasis cope with their illness. We included 122 participants in the study: 56 patients with psoriasis vulgaris and 66 healthy subjects. They filled out the Recent Life Changes Questionnaire (RLCQ), blinded to their stress and clinical status, and the Brief COPE questionnaire with 28 questions measuring 14 coping strategies that are either adaptive or maladaptive. We statistically analyzed the self-reported magnitude of each stressful event in the participants' lives. Our results show patients with psoriasis most commonly used active coping, seeking emotional support, positive reframing, and acceptance, while their least used strategies were denial and substance use. Since patients with psoriasis often experience psychologically related problems/consequences, it is necessary to take into account their psychological state and try to provide appropriate help and support.

KEY WORDS: psoriasis, coping, psychological factors, stress

INTRODUCTION

As a chronic disease, psoriasis can be related to and be influenced by many factors, including personal psychological changes which can affect a patient's perceptions of themselves and initiate or exacerbate psychological disorders such as depression (1,2). Even patients with mild cases of psoriasis can experience significant psychosocial disability (3). According to recent study results, pruritus is a frequent and relevant problem in patients with psoriasis and is especially associated with sleep problems and with a lower quality of life (QL) (4,5). The medical literature often mentions the influence of psychological stress on psoriasis occurrence, although according to a recent meta-analysis by Snast *et al.* there is no conclusive evidence of a strong association between preceding stress and psoriasis exacerbation (6). However, some patients may still benefit from counseling and/or psychological/psychiatric treatment, including the administration of psychoactive medications.

Due to the chronic nature of the disease, the altered neuroendocrine stress response in patients suggests that stressful events can produce various physiological consequences, possibly adversely affecting disease status (7). It has been demonstrated that psychological stress is associated with various skin diseases such as psoriasis that involve many skin cytokines, hormones, and mediators produced in the skin cells (8-12). An organism reacting to stress triggers may experience both acute and chronic consequences, and psychological and psychosocial symptoms may appear when the stress disturbs the homeostasis of the body/organism. Patients cope differently with their disease or related problems, but all coping strategies belong to one of two categories, adaptive or maladaptive (13). Adaptive coping produces better disease outcomes when dealing with stress, while maladaptive coping strategies can increase distress and disability (13). Patients with psoriasis have to cope with both the skin disease and with psychological conditions caused by the dermatosis. Since resistance to stress can be improved with effective personal coping and social support mechanisms, it is very useful to examine various methods for improving coping with stress.

There are a limited number of studies that have looked at coping strategies in patients with psoriasis, but they have provided useful data. Generally, the most frequent coping strategies found in the literature include planning, acceptance, active coping, and positive reinterpretation, while the least common were alcohol use, religion, and denial (14-19).

In this study, we wanted to identify coping strategies commonly used by patients with psoriasis by looking at the differences in ways of coping between the patients and healthy persons. We recorded differences in adaptive and maladaptive coping at different stages of clinical psoriasis, and we looked at differences between the sexes in ways of coping.

PATIENTS AND METHODS

Patients

We included 122 participants in the study: 56 patients with psoriasis vulgaris and 66 healthy subjects. Our patients with psoriasis had been admitted to the Department for Dermatology (Karlovac General Hospital) over a period of one year (2016-2017). Our study was authorized by the Ethical Committee of the same hospital, and all participants signed consent forms. Among our patients with psoriasis, 40 were men (45.90%) and 16 were women (54.10%). The mean ages of the participants in both groups were similar (patients with psoriasis 33.75; controls 33.12). The data on the participants are presented in Table 1.

Table 1. Demographic data of the psoriasis and control groups

	Psoriasis N=56	Control group N=66	*P*
SEX			
Male	40	46	0.804
Female	16	20	
AGE			
Mean	33.75	33.12	0.46
SD	15.1	9.83	
EDUCATION			
Years	12	11.2	0.35
SD	2.828427	3.34664	
MARITIAL STATUS			
Married	41	45	0.4
Unmarried	15	21	
LOCATION			
Urban	39	40	0.37
Rural	17	26	

Methods

To examine the severity of disease, we determined a PASI score for each of our patients with psoriasis. We analyzed the magnitude of each stressful life event using the Recent Life Changes Questionnaire (RLCQ); the data were scored by two independent investigators, blinded to patient stress and clinical status (20,21).

The Recent Life Changes Questionnaire

In 1949, Norman Hawkins developed a Schedule of Recent Experience (SRE) that evaluated the impact of stress on the onset of disease and its course. In 1959, Thomas Hart introduced score values for various life events; 42 life events were defined, with weighted values for each life change unit (Life Change Unit, LCU). People who had multiple life-changing units had more frequent illnesses. In 1967 Tom Holmes and Richard Rache were interviewed using a survey of recent life changes based on Hawkins and Maps. In 1997, Rache added another 36 new life events and adjusted the LCU values due to lifestyle changes. The Recent Life Changes Questionnaire (RLCQ) tracks stress events over the previous year, measuring events in LCUs. a score of 500 LCU means there is a 90% probability that stress had an important role in the development of disease. The questionnaire contains descriptions of different life events ranging from a spouse's death to childbirth, financial loans, job loss, and changes in eating habits or sleep, among others. On a separate attached questionnaire, respondents list all the life events that have taken place over the past year. Each of these life events will require greater or lesser degrees of personal adjustment to deal with the stress.

Table 2. Adaptive and maladaptive ways of coping in patients with psoriasis and the control group

Way of coping	Adaptive	Maladaptive	*P*
Psoriasis	40	16	0.83385361
Control group	46	20	

Table 3. Adaptive and maladaptive ways of coping in patients with psoriasis in terms of the clinical stage of the disease

Way of coping	**Adaptive**	**Maladaptive**	***P***
PASI score	16.24286	19.61429	0.288911
Standard Deviation	12.94769	15.97263	

The greater the adjustment of the person, the greater the allostatic load and the more susceptible a person is to disease. In this case, the disease occurs due to reduced immune resistance resulting from an individual's effort to adapt. The Holmes and Rache's scale, the Recent Life Changes Questionnaire (RLCQ), is a solid benchmark for psychological and sociological inclinations to stress-induced disease, and it has already been used in studies using Croatian participants, where its reliability and adequacy were confirmed. The (RLCQ) was validated for our population. Cronbach's alpha was 0.71, which is in line with the original results of the authors of this scale.

The Brief COPE

In 1980, Folkman and Lazarus conceived the Ways of Coping Questionnaire based on two basic coping strategies: problem-focused coping and emotion-focused coping. In situations where an individual feels it is possible to influence a stressful event with problem solving, problem-focused coping predominates. Emotion-focused coping predominates in emergency situations. In 1989, Carver Scheier and Weintraub designed a COPE questionnaire where they set 15 dimensions out of a total of 60 questions about how the interviewee copes with stress. In 1997, in an effort to increase efficiency and reduce redundancy, the Brief COPE questionnaire was developed, which has 14 dimensions with two questions for each. The Likert scale with values 1 to 5 was applied, where 1 indicates "I never did it", 2 "did just that time", 3 "moderately did it", and 4 "I often did it". Each dimension is scored from 2 to 8. The dimensions are: active coping, planning, neglecting other activities, deterring, seeking help, seeking emotional support, venting, giving up, positive reinterpretation and growth, denying, accepting, turning to religion, self-accusation, and humor.

The questionnaire is based on two groups of ways of dealing with stress. The first group is the adaptive group, which includes active coping and planning, seeking help and emotional support, acceptance, positive reinterpretation and growth, humor, and turning to religion. The second group consists of maladaptive coping methods such as denial, neglect of other activities, self-accusation, emotional ventilation, drug use, and deterrence. The Cronbach alpha value for this questionnaire was 0.68. This questionnaire was validated for the Croatian population. We used The Brief COPE that included 28 questions measuring 14 coping strategies, both adaptive and maladaptive (23). The questionnaire includes 6 maladaptive strategies (behavioral disengagement, substance use, venting, denial, self-blame, and self-destruction) and 8 adaptive strategies (seeking emotional support, positive reframing, seeking instrumental support, active coping, planning, humor, acceptance, religion), where each item was scored on a scale from 1 to 4. The possible range of scores for each category was from 2 (not used) to 8 (most frequently used). The most frequently used coping strategies scored 5 to 8; less frequently used strategies scored 2 to 4.

The Brief COPE had already been used with Croatian patients (24). We used Cronbach's alpha coefficient for internal validation of the results instruments (a rate of 0.60 was considered a good internal consistency). We analyzed examinees' magnitude of each stressful life event using the Recent Life Changes Questionnaire (RLCQ), scored by two independent investigators (20,21).

This validated scale lists 91 different life events that can lead to stress and assigns a numerical value (Life Change Unit, LCU) ranging from 18 to 123 to the level of stress the event causes. For the Recent Life Changes Questionnaire, Cronbach's alpha coefficients were used for internal validation of the instruments, and the rate was 0.71. The results were statistically analyzed. The Chi-square and t-test were used to analyze the difference in the two proportions, and the Mann-Whitney U test was used to analyze nonparametric data.

RESULTS

Our results show that patients with psoriasis predominantly used active coping, seeking emotional support, positive reframing, and acceptance. The coping strategies used least were denial and substance use. Adaptive strategies were the ones most commonly used, although without significant differences between adaptive and maladaptive strategies. Regarding differences in coping strategies between our groups, we found that controls used blame and denial significantly more. Patients with psoriasis, on the other hand, more often used avoidance, emotional support and religion as coping strategies but without a significant difference.

Table 4. Differences between sexes in patients with psoriasis in terms of coping

	Sex	Men	Women	
Way of coping		Mean	Mean	*P*
Self-distraction		4.95	5	0.474486
	Standard Deviation	1.637553	2.329929	
Instrumental support		4.65	5.125	0.272844
	Standard Deviation	1.7252	2.167124	
Active coping		5,3	4.875	0.28012
	Standard Deviation	2.167124	2.232071	
Denial		3.35	3.625	0.34212
	Standard Deviation	1.225819	2.326094	
Substance use		2.9	2.25	0.152446
	Standard Deviation	1.68273	0.707107	
Self-blame		3.65	2.375	**0.033825**
	Standard Deviation	1.7252	1.187735	
Humor		4.1	3.125	**0.040207**
	Standard Deviation	0.29824	0.398098	
Planning		4.875	3.125	**0.036653**
	Standard Deviation	1.531253	2.295181	
Emotional support		5.35	5.125	0.378885
	Standard Deviation	1.631112	1.95941	
Behavioral disengagement		3.7	3.625	0.453509
	Standard Deviation	1.301821	1.995531	
Positive Reframing		4.85	5.375	0.2263
	Standard Deviation	1.496487	1.995531	
Venting		4.05	3.5	0.222851
	Standard Deviation	1.79106	1.414214	
Acceptance		4.95	6	**0.030839**
	Standard Deviation	0.944513	1.927248	
Religion		3.8	3.125	0.180173
	Standard Deviation	0.359825	0.71807	

The analysis of differences by sex showed that men with psoriasis used humor, planning, and self-blame significantly more, while women used acceptance significantly more. Women also tended to use more adaptive coping, and a greater number of coping strategies generally, than men.

Correlations between coping processes and stress levels according to the Life Changes Questionnaire and identifying clinical stages according to PASI scores yielded useful results. Only self-blame statistically significantly correlated with a higher stress level and higher PASI score in patients with psoriasis. Negative correlations for higher levels of stress were found in subjects using religion and positive reframing, but were not statistically significant. Positive correlations for higher levels of stress were present for self-distraction, seeking instrumental support, active coping, denial, substance use, self-blame, humor, planning, emotional support, behavioral disengagement, venting, and acceptance, but none were statistically significant. Negative correlations for higher PASI scores where found for seeking instrumental support, active coping, self-blame, use of humor, seeking emotional support, acceptance, positive reframing, and behavioral disengagement, but these were not statistically significant either. Positive correlations for higher PASI scores were found for self-distraction, denial, substance use, planning, venting, and religion but were again not statistically significant. Differences between the two coping strategies (adaptive and maladaptive) used by patients with psoriasis were not statistically significant with regard to the severity of disease (PASI scores), but those with a higher score for life stress events used maladaptive coping significantly more than those with a lower life stress events scores.

DISCUSSION

The ways patients cope with psoriasis, along with their social environments, are important for disease outcomes/flare-ups. The cumulative effects and demands of psoriasis as a chronic disease can exhaust an individual's coping mechanisms and ability to deal with the disease, making disease flare-ups common. Since psoriasis is a chronic disorder which causes many difficulties, much research has naturally been conducted with the aim of helping patients find ways of coping (25-29). According to a study by Wahl *et al.*, patients with psoriasis commonly use optimistic belief in oneself and confrontational strategies of coping (30). According to Fortune *et al.*, common ways of coping also included active coping, acceptance, positive reinterpretation, and planning (15). Similarly, and in accordance with our study results, Finzi *et al.* showed active coping and planning were the most used coping strategies in patients with psoriasis (31). A positive attitude/approach as a kind of coping mechanism is also very important and useful. Additionally, patients with psoriasis often need emotional support. However, a study by Altunay *et al.* found that attachment-related avoidance and not support-seeking coping strategies were important, which was consistent with our study (32). According to Rapp *et al.*, patients with psoriasis who use avoiding strategies of coping have greater deterioration of QL (33). According to literature data, attachment-related avoidance or not seeking support was common in patients with psoriasis (6,14,30,34).

There is also the question of how disease severity influences the clinical features. In terms of ways of coping by disease severity, patients with severe and moderate psoriasis did not differ significantly. Concerning adaptive and maladaptive coping strategies, our results show adaptive strategies were mostly used among patients with psoriasis, but there was no significant difference in terms of disease severity (PASI score) between adaptive and maladaptive coping strategies.

In terms of how sex influences coping strategies, our results indicated that men used significantly more humor, planning, and self-blame, while women used acceptance significantly more. We also saw greater types/numbers of coping strategies in women than in men; women also more commonly used adaptive coping. Besides that, greater social support was associated with better acceptance of diseases in the women than in men.

In women with psoriasis, higher acceptance was also associated with less depression and a better QL than in men (16). According to Taylor *et al.*, women more frequently used social support, especially emotional support, and sought more information and advice. Women use the tend-and-befriend strategy, while men use the fight-or-flight strategy (35).

Generally, patients with psoriasis more commonly use self-control and escape-avoidance strategies and thus show significantly higher scores of maladaptive coping helplessness, which is a major predictor of stigmatization. Mental disengagement is another common technique among patients that serves to distract a person from thinking about stressors. Additionally, maladaptive coping strategies are very common in patients with psoriasis who worry pathologically.

Higher acceptance was correlated with higher levels of optimism and less maladaptive ways of coping. The cause of low scores in acceptance and positive reinterpretation observed in patients with psoriasis could be due to stigmatization, discomfort, disability, and psychological problems. Furthermore, according to other study results, patients with psoriasis more frequently use religion for coping and are less directed towards social networks and support. In our patients, however, religion was the least-used coping method.

Table 6. Ways of coping in patients with psoriasis and the control group

		Psoriasis	Control group	
Way of coping		Mean	Mean	*P*
Self-distraction		4.964286	4.424242	0.237506
	Standard Deviation	1.815206	1.714466	
Instrumental support		4.785714	4.969697	0.694114
	Standard Deviation	1.832973	1.793824	
Active coping		5.178571	5.666667	0.283098
	Standard Deviation	1.70084	1.796988	
Denial		3.428571	3.636364	0.649109
	Standard Deviation	1.573592	1.917325	
Substance use		2.714286	3.090909	0.410424
	Standard Deviation	1.487158	1.974266	
Self-blame		3.285714	4.272727	**0.035623**
	Standard Deviation	1.674584	1.875379	
Humor		3.821429	4.181818	0.407834
	Standard Deviation	1.334821	1.927669	
Planning		4.714286	5.757576	**0.03623**
	Standard Deviation	1.334821	2.016034	
Emotional support		5.285714	5.121212	0.746471
	Standard Deviation	1.696557	2.175971	
Behavioral disengagement		3.678571	3.666667	0.978407
	Standard Deviation	1.492042	1.865252	
Positive reframing		5	5.393939	0.38865
	Standard Deviation	1.632993	1.869816	
Venting		3.892857	4.484848	0.170807
	Standard Deviation	1.685214	1.641669	
Acceptance		5.25	5.666667	0.276456
	Standard Deviation	1.350583	1.574537	
Religion		3.607143	3.30303	0.502595
	Standard Deviation	1.728611	1.776317	

In clinical practice, it is often difficult to recognize the patients who may benefit from additional psychological exploration and support. According to results reported by Remröd C *et al.*, patients who have a more vulnerable psychological constitution perceive stress as a causal factor for psoriasis, which may be a factor in helping the clinician identify candidates for additional psychological support (36). According to recent study results concerning the relationship between QL and coping strategies, psoriasis was most likely to have an extremely large effect on QL in patients who use maladaptive coping and had at least an elementary education, which may be helpful in identifying at-risk patients who require psychological support (37).

CONCLUSION

Our results show that patients with psoriasis predominantly used active coping, seeking emotional support, positive reframing, and acceptance and very rarely used denial and substance use as coping strategies. Since patients with psoriasis often experience psychological consequences due to their illness, clinicians need to take their psychological status into account and try to provide appropriate support and psychological help.

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