

Coping strategies and stress levels in patients with psoriasis* Estratégias de coping e níveis de estresse em pacientes portadores de psoríase*

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Abstract: BACKGROUND - Psychosocial aspects are the current focus of research on chronic dermatoses. These aspects may contribute to exacerbation of psoriasis in 40 to 80% of cases, thus having great impact on patients' quality of life.

OBJECTIVES - This study aims to assess coping strategies and to identify stress levels of patients with psoriasis.

METHODS - This is a cross-sectional study of a sample of 115 patients, which included 61 patients with psoriasis and 54 patients with other chronic dermatoses as controls. Instruments: The *Ways of Coping* Questionnaire and the Lipp Stress Symptoms Inventory for Adults.

RESULTS - The coping strategies of self-control ($p=0.027$) and escape-avoidance ($p=0.014$) were the most used by patients with psoriasis and both groups present high stress levels ($p=0.838$).

CONCLUSION - Patients with psoriasis use specific coping strategies to deal with their skin disorder when compared to other patients with chronic skin disorders; they also present stress levels as high as the control group. The integration of results enables understanding the special state of mind experienced by psoriasis patients to deal with the condition, thus showing the urgent need to develop broader intervention strategies, which also involve the social and psychic dimensions.

Keywords: Adaptation; Psychological; Quality of life; Skin; Stress; Psoriasis

Resumo: FUNDAMENTOS - Pesquisas atuais estão direcionando seu foco aos aspectos psicossociais envolvidos nas dermatoses crônicas. Esses fatores podem contribuir para a exacerbação da psoríase entre 40 e 80% dos casos, causando grande impacto na qualidade de vida desses pacientes.

OBJETIVOS - Verificar estratégias de coping e identificar níveis de estresse do portador de psoríase.

MÉTODOS - Estudo transversal, com amostra de 115 pacientes, divididos em 61 com psoríase e 54 do grupo controle com dermatoses crônicas. Instrumentos: Inventário de Estratégias de Coping e Inventário de Sintomas de Estresse para Adultos de Lipp.

RESULTADOS - Destacam-se as estratégias de coping autocontrole ($p=0,027$) e fuga e esquiva ($p=0,014$) utilizadas mais pelo grupo com psoríase e níveis de estresse altos para os dois grupos ($p=0,838$).

CONCLUSÃO - Pacientes com psoríase utilizam estratégias de coping específicas para o enfrentamento da doença de pele, quando comparados a outros pacientes com doenças crônicas de pele demonstrando relevante nível de estresse. A integração dos resultados possibilita o entendimento do estado específico que portadores de psoríase vivenciam e que denuncia a necessidade de intervenções mais abrangentes que envolvam também as dimensões psíquica e social.

Palavras-chave: Adaptação psicológica; Estresse; Pele; Psoríase; Qualidade de vida

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Conflict of interests: None

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INTRODUCTION

Chronic skin disorders have currently been assessed considering not only their physical aspect but also the related psychosocial issues. Both emotional and social factors have been taken into account by investigators with a multidisciplinary approach to health issues. Psychoneuro-immunology has also contributed to understanding diseases with a multidimensional focus. Psoriasis, one of the most disabling skin conditions, may be considered suitable for this approach that puts equal weight on the physical, psychological and social impairments.

Psoriasis is a chronic skin disease that affects approximately 3% of world population, both men and women, and its onset occurs in the second or third decades of life. This dermatosis is caused by the interaction of genetic (polygenic inheritance), environmental and psychological factors.^{1,2}

Among the several factors related to appearance of this skin disease, emotional stress is mentioned in the general literature as being an important feature, both for the initial spurt of the disease and flaring. Therefore psoriasis is classified as a psychodermatosis. Furthermore, stigmatization and difficult treatment contribute to the patients' high levels of frustration and low self-esteem.^{1,5}

Stress and its repercussions can be analyzed in a multicausal context that encompasses the whole process of being ill. When the stressor causes significant problems to patients, individual differences in physical vulnerability and in inadequate ways to assess and to face the problem contribute to its unbalance.⁶

Folkman & Lazarus called the cognitive and behavioral efforts used by a person to face stress as *ways of coping*. The different ways to deal with stressful situations are deliberate actions learned, used or discarded, which may become a behavior pattern repeated throughout the life of the individual, who is not necessarily aware of that. This reaction of mobilizing natural resources aims to maintain the balance in the body, decreasing the response to distress.^{7,8} The word *coping* has no literal translation into Portuguese, but its approximate meaning is to deal with or to face a problem.

Considering that the individual process to develop an identity also involves the recognition of the external world, the skin plays an essential role, since one of its functions is to represent the individual as unique human being. Personal dissatisfaction in not complying with the external requirements may present itself as troublesome interpersonal relationships and as high stress levels.⁹

The intensity of the impact of skin diseases

depends on some variables, such as natural history and the implications of the specific disorder. Demographic characteristics, the patients' personality traits, character and values, their life conditions and the attitudes of the society towards skin diseases are essential aspects to be analyzed.¹⁰

Psychosocial factors may contribute to exacerbation of psoriasis in 40 to 80% of cases. Above all, the impact on quality of life of patients should be highlighted, deserving full attention of healthcare professionals. Psoriasis may affect the professional, social and personal life of patients.¹¹

Patients with psoriasis know that this illness has a deep emotional, physical and social impact on their quality of life. Many patients with severe psoriasis report their frustration with ineffective treatments. They also believe that the impact of this disease is still underestimated by health professionals.¹²

Studies performed using the *Sickness Impact Profile* underline the harm caused by psoriasis on patients' lives and compare it to the harm caused by angina or hypertension or any other high impact illnesses. These patients' disabilities are severe enough to confer a high priority status also for dermatological conditions.¹³

Special care programs for patients with chronic skin diseases have been carried out in some settings. They take into account not only drug prescription, but also the synchrony between mind and body physiology. They focus particularly on complete physical and emotional evaluation in order to have a better understanding of the involved physical, mental and stressing factors, as well as of patients' education, life style and practices. These programs are usually developed in self-help or relaxation training groups.^{5,14,15}

Based on these ideas, the authors conducted a study to better understand the characteristics of patients with psoriasis, by investigating how they face their illness. The idea was to study the *coping* strategies and to identify the stress levels of psoriatic patients using two instruments validated in the literature.

METHOD

Patients and variables studied

This is a cross-sectional study involving 115 patients divided into two groups: 61 patients with psoriasis and a control group composed of 54 patients with non-infectious chronic skin conditions (vitiligo, atopic dermatosis, seborrheic dermatitis, acne, rosacea, lupus erythematosus, pemphigus, lichen planus and ichthyosis). Selected patients were sequentially referred by dermatologists from three

Dermatology reference clinics in the city of Porto Alegre, Brazil: Sanitary Dermatology Outpatient's Clinic – RS, *Complexo Hospitalar Santa Casa* and *Hospital São Lucas da PUC-RS*, from February to July 2004, according to the inclusion criteria: diagnosis of psoriasis or of other non-infectious chronic skin disease for at least one month; to be under medical treatment and be aged 20-70 years. The exclusion criteria were: to suffer from more than one chronic skin disorder; to have any non-skin severe chronic disease (cancer, HIV/AIDS and heart disease).

Instruments

A structured questionnaire with sociodemographic data, information on the disease, including age, gender, schooling, marital status, occupation, city, diagnosis and duration of the disease, site of lesion, treatments used, presence of stressors at the time of onset and description of other health problems was used. Two other instruments were then applied:

1) *Ways of Coping* Questionnaire by Folkman and Lazarus: a 66-item questionnaire assessing how people deal with internal or external demands of specific stressful events. It consists of a wide range of thoughts and acts, rated from 0 (not used) to 3 (highly used). The items of the inventory are divided into eight *coping* mechanisms: confrontive *coping*, distancing, self-controlling, seeking social support, self-control, planful problem solving and positive reappraisal. The participants were oriented to answer the questions in accordance to the way they face their skin disorder.¹⁶

2) The Lipp Stress Symptom Inventory for Adults (LSSI): three sections refer to the four phases of stress. It includes 37 somatic and 19 psychological symptoms, distributed into these three sections. The first section refers to the last 24 hours, the second, to last week and, the third, to last month. The results are checked with assessment tables that define the stress phase of the subject.¹⁷

Procedure

Patient referral was performed by dermatologists from each of the three centers, abiding by the criteria defined. The Informed Consent Form was read and signed by all patients. The instruments were then equally applied to both groups by trained investigators. This study began after approval by the Research Ethics Committees of the PUC/RS and the *Complexo Hospitalar Santa Casa*.

Data Analysis

The statistical analysis was conducted using the SPSS 11.5 software and the significance level was estab-

lished at 5% ($p \leq 0.05$). Descriptive and inferential statistics were used with the following tests: chi-square and the test for the difference in two proportions. Cronbach's alpha coefficient was used for internal validation of the instruments, and a rate of 0.60 was considered good internal consistency.

RESULTS

In a total sample of 115 patients, 56% were female, mean age was 43.12 years ($SD=12.78$), 43% were married and 40% had not completed basic eight-year schooling. Most participants (65%) had the illness for more than five years and 80% of them had already undergone topical or systemic treatment; half of them had both treatments. Sixty eight percent of the sample answered affirmatively to the question asking whether they were in a stressful situation at the time of onset; in that, 30% reported family conflicts or illnesses.

The variables marital status, schooling and comorbidities were not statistically significant in both groups, as well as in the other chronic non-infectious skin disease subgroups.

Cronbach's alpha coefficient was 0.71 for the *Ways of Coping* Questionnaire and 0.84 for the Lipp Stress Symptom Inventory. As seen on table 1, the least or never used *coping* strategy was confrontive in both groups, with no significant difference between them ($p=0.306$). Self-control was the most utilized strategy in both groups: 55% in psoriasis group and 35% in control group ($p=0.027$). The psoriasis group also used the escape-avoidance strategy (54%), in greater proportion than the control group (31%) ($p=0.014$).

Based on the Lipp Stress Symptom Inventory (LSSI), most patients had a diagnosis of stress, 57% in psoriasis group and 59% in control group, with no significant difference ($p=0.838$) (Table 2). Most patients of the two groups were in the resistance stress phase ($p=0.840$) (Table 3). Females were diagnosed as having stress significantly more often than males ($p=0.012$) (Graph 1).

DISCUSSION

Most patients had the disease for over five years. Many patients (68%) reported they were under difficult situation when the dermatosis appeared, in accordance with the literature addressing the emotional aspects as important in triggering and worsening skin disorders.^{1-5,8,18}

Ways of Coping Questionnaire by Folkman and Lazarus

Among the most important results ($p < 0.05$) are the *coping* strategies of confrontation, self-con-

TABLE 1: Percentage of factors related to the *Ways of Coping* Questionnaire in psoriasis group (G1=61) as compared to control group (G2=54)

Factors (n=115)	Not used/ little used		Used sometimes		Used often		Used almost		Difference between proportions p
	G1	G2	G1	G2	G1	G2	G1	G2	
Confrontive coping	80%	72%	18%	24%	2%	4%	-	-	0,306
Distancing	31%	28%	59%	68%	10%	4%	-	-	0,692
Self-control	5%	6%	33%	53%	55%	35%	7%	6%	0,027*
Seeking social support	7%	7%	56%	44%	33%	44%	5%	4%	0,858
Accepting responsibility	52%	63%	41%	33%	7%	4%	-	-	0,255
Escape-avoidance	5%	11%	33%	43%	54%	31%	8%	15%	0,014**
Planful problem solving	16%	24%	46%	33%	23%	30%	15%	13%	0,304
Positive reappraisal	23%	33%	54%	41%	18%	24%	5%	2%	0,215

* p<0.05 / **p<0.01

trol and escape-avoidance, used by both groups.

The confronting strategy encompasses aggressive attitudes used to change situations, for instance, *"Somehow my feelings overflowed"; "I poured my anger on others"*. The self-control strategy describes the attempt of ruling one's feelings, for instance, *"I tried to keep my feelings to myself; I didn't let other people know about the situation"*, as well as the actions resulting from these feelings *"I tried not to allow my feelings to interfere with whatever I was doing"*. The escape-avoidance strategy, on the other hand, involves wishes, as *"I wish there was a miracle; I wished that somehow the situation ended or disappeared"*, and efforts to escape from the stressor, *"I tried to feel better by eating, smoking, drinking, using drugs or medicines; I tried to run away from people"*.¹⁹

Regardless of the group, patients with chronic skin conditions seem to avoid confronting the stressful situation, generally attempting to control their emotions. Of notice is the fact that the self-control and the escape-avoidance strategies are employed significantly more often by the psoriasis group when compared to the control group. The psoriasis group may be employing the self-controlling and escape-avoidance coping strategies in order to avoid conflict and confrontation with the stressful situation. Self-controlling and escape-avoidance may also serve to refrain from the expression

of aggressive feelings or any other emotions by not allowing the internal contact with such feelings, thus avoiding confrontation with the stressful situation.

Taking this into account, it is reasonable to consider that the avoidant or passive coping styles, which psoriasis patients tend to use, are part of their individual responses when facing their disease. Further studies are necessary to assess how these personal features will interfere in the course and treatment of psoriasis.

Fortune et al.⁵ stated that, according to theoretical and clinical reports, the avoidant coping strategy tends to maintain the emotional confusion. Processing of emotions is significantly different between psoriasis patients and controls, suggesting that the former are hypervigilant of possible threats and concerned with avoiding them. According to these authors, the use of avoidance is positively associated

TABLE 2: Percentage of diagnosis of stress in the Lipp Stress Symptoms Inventory in psoriasis group (n=61) and in control group (n=54)

Diagnosis of stress (n=115)	Psoriasis %	Control %	Chi-square P
Stress	57	59	0.838
No stress	43	41	0.414

TABLE 3: Percentage of the Lipp Stress Symptoms Inventory phase in psoriasis group (G1 = 61) and control group (G2 = 54)

Stress Phase (n=115)	Groups		Chi-square P*
	G1	G2 %	
Alert	1.6	1.9	0.931
Resistance	44	43	0.857
Quasi-exhaustion	8.2	9.3	0.840
Exhaustion	4.9	5.6	0.878

* p<0,05

to high anxiety scores. Patients reporting greater disability due to the disease use avoidance strategies more often.⁵

The distancing strategy was used more frequently by patients with psoriasis and, although not significantly different from the control group; it could reinforce isolation ("*I overslept*"). This corroborates the avoidant coping pattern, which the patients with psoriasis tend to use.

The control group, on the other hand, used the social support strategy (for instance, "*I told someone about how I was feeling*") more often than the psoriasis group, although not significantly, suggesting that it is more prone to call for help and share its feelings, as opposed to the psoriasis group that, as already mentioned, tends to use more avoidant coping strategies. However, it should be taken into account that psoriasis in itself is a condition that hampers personal contacts, due to the embarrassment it causes.

It is well demonstrated that patients with other chronic diseases using coping strategies of being active, expressive and having positive thoughts are highly functioning and display positive scores in clinical and well-being assessments.²⁰

Lipp Stress Symptom Inventory for Adults

High levels of stress were diagnosed in both groups, with no significance difference between them. This shows that irrespective of its type, chronic inflammatory skin disorders cause considerable impairment in the patient's adaptive efforts, causing distress that undoubtedly interferes with their quality of life.^{5,11,12,21} Most patients studied are in the resistance phase, suggesting the occurrence of an automatic attempt to keep internal homeostasis. If the stressful factors remain as frequent or intense, resistance may disrupt and the patient may move to a more severe stress phase.^{17,22}

Women have more stress symptoms than men (p = 0.012), which agrees with other studies conducted in patients with chronic skin conditions, in

Brazil.²³ According to these studies, aesthetics is socially more important to women than men, a fact that should be taken into account when such studies are performed. Other factors that may influence the stress level in women are their sociocultural roles and hormonal changes.²⁴

Instrument integration

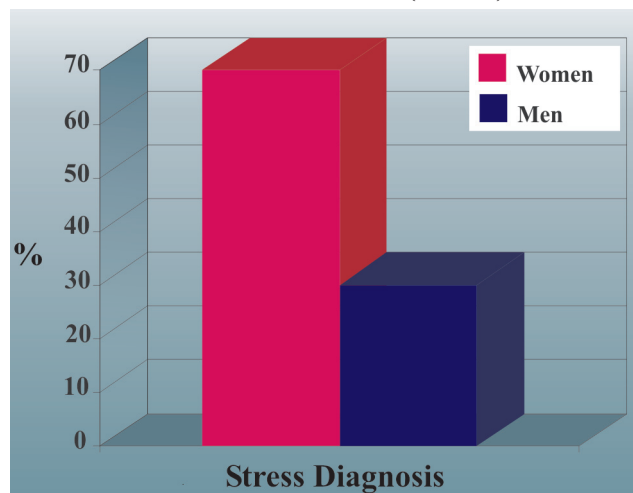
Stress level and coping strategies assessment are very important to understand how patients with psoriasis manage stress and thus seek for better quality of life. It is important to realize that physical and mental health exist when stress levels and defensive responses are in balance. However, when stress levels are high enough to disrupt this balance, physical or psychosocial symptoms may appear.²⁵

Integration of results discloses a specific situation patients with psoriasis experience. Thus, interventions should envisage not only physical treatment but also psychological and social approaches, both therapeutic and preventive.

The results point to the need of psoriatic patients to learn how to identify their ways of dealing with stress, enabling them to take actions and to change. Psychotherapy is likely to be a complementary resource in treating patients with chronic dermatoses. Psychotherapy may help these patients to learn how to manage their skin condition and the psychosocial factors involved; its main goal is to improve the patient's quality of life.^{13,18,26,27}

This study has the limitations of explaining the causal sequence among variables, as well as of providing retrospective access to patients' past history data. Studies with larger samples are necessary for better understanding of related data.

GRAPH 1: Stress diagnosis in women and men with chronic skin diseases (n=115)



(p = 0.012)

CONCLUSIONS

The psoriatic patients presented in this study demonstrated using some specific *coping* strategies to deal with their skin condition and high stress levels.

Collecting data on people with psoriasis using a biopsychosocial approach and pointing to the need for further interdisciplinary knowledge, this study suggests that the best management for psoriasis patients should comprise a broad perspective of health interventions that may serve as matrix for individual and collective health promotion strategies. □

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