

Psychological aspects of atopic dermatitis and contact dermatitis: stress coping strategies and stigmatization

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Abstract

Introduction: Atopic dermatitis (AD) and contact dermatitis (CD) are among the most common out-patient dermatological diseases. Characteristic skin lesions are located mainly on visible body parts and could attract negative interest of the society. As a result, patients feel socially rejected (stigmatized). Stress coping strategies (concrete ways of coping with stress in different situations) can influence this process.

Aim: The aim of our study was to compare stress coping strategies and the stigmatization level in AD and occupational hand CD patients.

Material and methods: The study group comprised 65 patients of the Centre for Asthma and Allergy Diagnosis and Treatment in Lodz (35 suffering from AD (27 females, 8 males) and 30 – from hand CD with a negative history of atopy (22 females, 8 males)). Methods used: Stigmatization Scale in Dermatological Patients, Coping Orientations to Problems Experienced – *COPE*, Coping with Skin Disease Scale – *SRS-DER*.

Results: The comparison of stress coping strategies and feelings of stigmatization between AD and CD groups did not demonstrate statistically significant differences ($p > 0.05$). The AD patients more often used instrumental and emotional stress coping strategies than CD patients ($p < 0.05$). The AD group with higher disease acceptance presented a lower stigmatization level ($p < 0.05$). The employment of hopelessness and helplessness strategies in CD patients was associated with stronger stigmatization ($p < 0.05$).

Conclusions: There are differences between stress coping strategies used in AD and CD groups and they influence feelings of stigmatization, thus enhancement of adaptive coping could be conducted in these patients.

Key words: stigmatization, stress coping strategies, atopic dermatitis, contact dermatitis, psychodermatology.

Introduction

Atopic dermatitis (AD) and (CD) are among the most common out-patients dermatological diseases. The first condition concerns 1-30% of the population, the second refers to 1-10% [1, 2]. Atopic dermatitis and CD could be regarded as so-called psychodermatological diseases, because environmental stress is an essential factor triggering and/or exacerbating skin symptoms in numerous patients [3, 4]. Additionally, skin lesions could further add to patients' discomfort [4-21]. Patient's situation worsens when skin lesions are located over visible parts of the body, thus they can easily be noticed by others. Taking into account that lesions are regarded rather as unaesthetic, they attract negative interest

of the society leading to stigmatization of the patients [7, 10, 14-16, 22].

It is commonly accepted that physical appearance is of utmost importance, especially for women. In today's world, the first impression, especially the first 20 s, is crucial. We are all judged by our appearance. Skin diseases play an extremely important role in social perception [10, 15, 23-25].

Society can make unfair opinions assessing patients by skin lesions, comment on them in an unpleasant manner, express their disgust or even avoid dermatological patients. As a result, people suffering from AD and CD could feel socially rejected (stigmatized) [9, 15, 24].

Based on Goffman's concept, stigma is a strongly devaluating attribute which causes that a person with a defect is perceived as not fully valuable. People connect

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stigma with social stereotypes and evaluate dermatological patients as dirty ones who do not care properly for hygienic procedures [15, 24].

The condition of being ill is a difficult, stressful situation. Based on the relational definition, stress is regarded as external and/or internal demands which are on the borderline of the human possibilities or even exceed this border [24, 26].

Numerous literature data point out that human activity in stress confrontation determines to a higher extent the result of overcoming problems than objective attributes of stressors. Thus, the feelings of stigmatization can be associated with employed stress coping, regarded as cognitive and behavioral efforts changing constantly with the aim of overcoming the situation perceived as a demanding one [26].

Aim

The aim of the study was to compare stress coping strategies and feelings of stigmatization in AD and hand CD patients.

Material and methods

The research group comprised 65 patients (35 suffering from AD, and 30 ones with CD) of the out-patient aller-

gological department (49 females (27 – AD, 22 – CD), 16 males (8 – AD, 8 – CD)). The average age was 43.48 ±15.83 years (range 16-76 years) and the mean disease duration 4.82 ±6.95 years (range 1-48 years). Disease severity was evaluated using a qualitative scale by a dermatologist (none-mild-moderate-severe). All patients demonstrated a mild skin condition.

The detailed demographic characteristics of the patients are presented in Table 1. Patients were recruited from October 2009 to June 2010 by a dermatologist.

The research was approved by the Medical University of Lodz Bioethics Committee. Patients gave their informed consent to take part in the study.

To make assessments, the following scales and questionnaires were employed:

- 1) authors' questionnaire comprising clinical and demographic data;
- 2) Stigmatization Scale in Dermatological Patients (short version by Evers; Polish adaptation by Szepletowski *et al.*) [27] – the questionnaire consists of 6 items (scored from 0 to 3); the patient chooses one of four potential answers (no, sometimes, very often, always); the higher the score patients get, the more stigmatized they feel;
- 3) Coping Orientations to Problems Experienced – *COPE* (by Carver, Scheier, Weintraub; Polish adaptation by Juczyński, Ogińska-Bulik) [24] – the scale involves

Table 1. Sociodemographic characteristics of the study group: atopic dermatitis and contact dermatitis patients

Parameter	Atopic dermatitis			Contact dermatitis		
	M	SD	Range	M	SD	Range
Age [years]	43.37	16.77	18-76	43.61	4.95	16-66
Disease duration	5.71	8.43	1-48	3.77	4.59	1-25
	N	%		N	%	
Educational level						
Student	3	9		4	13	
Primary	1	3		2	7	
Secondary	18	51		14	47	
University	13	37		10	33	
Marital status						
Single	20	57		12	40	
Married	11	31		16	54	
Widow/widower	2	6		1	3	
Divorced	2	6		1	3	
Place of residence						
City	33	94		29	97	
Countryside	2	6		1	3	

N – number of patients in the group, *M* – mean value, *SD* – standard deviation

Table 2. Stepwise regression analysis in atopic dermatitis and contact dermatitis group

Stigmatization	R ²	β	p	F
Atopic dermatitis				
Acceptance	0.591	1.035	0.045	0.755
Contact dermatitis				
Hopelessness/helplessness	0.830	1.574	0.007	2.192

Dependent variable – stigmatization, independent variables – stress coping strategies: acceptance, feeling of hopelessness/helplessness, R² – multiple regression analysis coefficient, β – β coefficient, p – statistical significance, F – value of F test

60 statements presenting 15 different stress coping strategies, regarded as chosen ways to overcome stress in different situations; the person marks the best answer which describes his/her behavior in a stressful situation (from 1 point which denotes “I never behave in such a manner” to 4 “I almost always behave in such a manner”); the score is added up for each strategy (the total ranges from 4 to 16 points); for our study needs, stress coping strategies were divided into adaptive ones (positive reframing, active coping, planning, sense of humour, emotional social support, instrumental social support, religious approach, competitive actions avoidance, acceptance) and non-adaptive (activity restraining, concentration on emotions and emotional expression, denial strategy, distraction, alcohol/drug use, discontinuance strategy); the higher the score in a given strategy means that the patient employs that method more often in a stressful situation;

- 4) Coping with Skin Disease Scale – SRS-*DER* (by Miniszewska) [28] – the scale assesses three stress coping strategies with skin disease (subscales): a) hopelessness/helplessness, b) fight spirit, c) distraction/catastrophization – the questionnaire includes 18 statements (6 for each subscale); the patient evaluates each item on a four-point scale (definitely yes, rather yes, rather not, definitely not) with scores from 0 to 3; results are summed up separately for three subscales (total score for each of them ranges from 6 to 36 points; the higher the score, the more dominant is that particular strategy employed by the patient in a stressful situation resulting from the disease itself; the hopelessness/helplessness and distraction/catastrophization strategies were treated as non-adaptive strategies and fight spirit as an adaptive one.

Statistical analysis

Statistical analysis was performed using the SPSS package for Windows (IBM SPSS Statistics 19). Mean (M) and standard deviation (SD) are presented. The distribution of the obtained results did not differ significantly from normal distribution. The Student's *t*-test (*t*) and stepwise

regression analysis were employed. The statistical significance level was set at $p < 0.05$.

Results

Initial evaluation based on the authors' questionnaire presented that 46% of AD patients and 37% of CD ones indicated stress as an important causative factor of disease exacerbation. The majority (83% of AD patients and 93% of CD ones) of patients were never hospitalized. Most patients (80% suffering from AD and 90% from CD) claimed that they had never had suicidal ideations in association with their diseases. Patients reported (97% in the AD group and 97% in the CD group) that they obtained support from their families in connection with their diseases. Sixty-nine percent of the AD group and 77% of the CD one stated that their disease did not influence their social activity. Comparing feelings of stigmatization in AD vs. CD group, no significant differences were found ($t = 0.652$, $p = 0.517$).

Stress coping strategies analysis in AD patients demonstrated that two methods to overcome stress were employed more frequently, namely instrumental support ($t = 2.302$, $p = 0.025$) and emotional support ($t = 2.259$, $p = 0.027$). The correlation between acceptance coping strategy and feelings of stigmatization was found in the AD group: the higher the acceptance, the lower level of stigmatization was observed ($p = 0.045$). In the CD group, a positive correlation between hopelessness/helplessness strategy and stigmatization was noted ($p = 0.007$).

Stress coping strategies explain 59%, as concerns AD, and 83%, as for CD, results variation, thus they could be regarded as significant predictors of stigmatization.

No correlations between sex, age, disease duration, educational level, marital status and feelings of stigmatization were found ($p > 0.05$). We did not analyze the association between location of skin lesions (visible vs. invisible) and stigmatization because the majority of the research group (86% of the patients) presented lesions over uncovered areas. The summary of stepwise regression analysis is presented in Table 2.

Discussion

Literature data point out that patients suffering from dermatological diseases feel stigmatized, especially regarding psoriasis [7, 15, 16, 22]. The research conducted by Schmid-Ott [16] demonstrated no difference in the stigmatization level between psoriatic and AD patients with comparable sociodemographic characteristics. Numerous studies indicate also an impaired quality of life in dermatological patients, thus it could be assumed that it results in feelings of being socially rejected [7, 10, 12, 15, 16, 22]. Our results suggest that AD and CD patients do not differ in feelings of stigmatization. It could result from the fact that these two conditions are similar in terms of their course, location and symptoms.

What is really interesting, and we would like to point it out, are feelings of stigmatization, which are determined by employment of stress coping strategies.

In the literature it is marked that illness cognition of helplessness, low acceptance and lack of social support are essential predictors of worse physical and psychological functioning [8, 12, 21], thus they could be associated with a feeling of being rejected. Our findings are consistent with the above data in the case of acceptance as we investigated reverse correlations. In the AD group, acceptance was connected with lower stigmatization. It can be caused by the fact that there are many informative programs and campaigns regarding allergy and atopic dermatitis. Atopic dermatitis is more commonly known by the public than contact dermatitis. What is more, usually the AD disease begins in childhood, so the social attitude can be more empathetic [24]. It can result in employment of the acceptance strategy more frequently.

In the case of contact dermatitis, a correlation between helplessness/hopelessness and higher stigmatization was found. It could be associated with the fact that social knowledge about this disease is usually more limited. It is often connected with work conditions and can be perceived as a pretext for avoiding professional commitments and regarded as laziness [24]. In such situations, patients could feel hopeless and helpless. They not only have problems with coping with distressing disease, but also they are not understood by others and, as a consequence they can search for social instrumental and emotional support less frequently than AD patients.

Despite assumption that CD patients look for social help less often, they declared that they got empathy from their families. It is worth pointing out that the same situation was noted in AD patients. Thus, both groups mostly reported that they did not have problems in social functioning.

Our results demonstrated that stress coping strategies could be regarded as essential predictors of the stigmatization level. This observation confirms the important role of these methods as mediators between experienced stressors and their influence on social functioning [29]. Based on the above, it is worth performing educational activities that could teach patients how to cope with stress more effectively. Literature seems to confirm that methods such as cognitive-behavioral therapy, therapy by music, biofeedback or stress management education could help to overcome stress and diminish its consequences [3, 30-34].

Conclusions

Although stress coping strategies explain the majority of regression analysis variation of our results, it is still worth searching for other psychological factors which could serve as predictors of stigmatization.

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