

Illness acceptance degree versus intensity of psychopathological symptoms in patients with psoriasis

Magdalena Kostyła, Klaudia Tabąła, Józef Kocur

Department of Psychosocial Rehabilitation, Medical University of Lodz, Poland
Head: Prof. Wojciech Gruszczyński MD, PhD

Postep Derm Alergol 2013; XXX, 3: 134–139
DOI: 10.5114/pdia.2013.35613

Abstract

Introduction: Chronic inflammatory skin diseases such as psoriasis have undoubtedly a negative impact on the patients' quality of life. Many of them may face various limitations in their psychosocial lives because of symptoms indicating the presence of psychopathological phenomena. Mental disorders in patients with skin diseases occur much more frequently than in the general population. Studies show that a considerable percentage (30-60%) of dermatological patients suffers from mental disorders (depressive and anxiety disorders being the most common). A person's attitude towards illness, its acceptance, and also the recognition of its limitations may be of a great importance in the process of the disease control.

Aim: To evaluate of the relationship between the illness acceptance degree, and the presence and intensity of psychopathological symptoms in patients with psoriasis.

Material and methods: The research was conducted on a group of 54 people (23 men and 31 women), who were treated for psoriasis in the Department of Dermatology and Venereology, Medical University of Lodz and in the Department of Dermatology, Pediatric Dermatology and Oncology, Medical University of Lodz. The following research methods were used: a questionnaire prepared for the purpose of the research, Acceptance of Illness Scale (AIS) and Symptom Checklist (SCL-90).

Results: It was found that there was a relationship between the skin illness acceptance degree and intensity of psychopathological symptoms in patients with psoriasis (negative correlations).

Conclusions: The higher the degree of illness acceptance is, the better mental condition of patients with psoriasis is. The intensity of psychopathological symptoms is also affected by the duration of illness, other people's attitude to the skin disease, age and education level of the patients examined.

Key words: psoriasis, illness acceptance, psychopathology.

Introduction

Children and adults suffering from skin diseases are more likely to develop mental disorders than people in the general population [1]. Stress, feeling of social stigmatization, limitations in various aspects of life, and also pain and itching, result in the development of various mental disorders in some patients [2, 3]. Among patients with skin diseases, 30% of people receiving ambulatory treatment and 60% of hospitalized patients [1, 4] showed psychopathological symptoms. Research of Aktan *et al.* [5], Linnet and Jemec [6] revealed that depression and an increased level of anxiety were most common mental disorders. Similar results were

obtained by other researchers [7-9]. Apart from mood and anxiety disorders, some authors pointed out to other mental dysfunctions in dermatological patients such as: hypochondriac delusions, somatoform disorder, obsessive-compulsive disorder, posttraumatic stress disorder (PTSD), schizotypal disorder, body dysmorphic disorder and personality disorders [10, 11]. The research of Parafianowicz *et al.* [12] revealed that mental disorders were four times more frequent in patients with psoriasis than in patients suffering from other skin diseases.

In the process of adaptation to the life with a chronic disease it is important to learn to gradually accept it. Indications suggest that an increased acceptance of the illness-

Address for correspondence: Magdalena Kostyła MA, Department of Psychosocial Rehabilitation, Medical University of Lodz, Hallera Sq 1, 90-647 Lodz, Poland, phone: +48 42 639 33 24, e-mail: mglowczynska@op.pl

Received: 26.09.2012, **accepted:** 10.02.2013.

related limitations results in better adaptation, lower mental discomfort, lower stress level and higher self-esteem [13].

Focusing on the emotional state and psychological condition of patients with dermatological illnesses enables researchers to see and better understand their needs. This may consequently provide more therapeutic treatment opportunities by using specific methods of psychological support.

Aim

The main objective of this study is to assess whether there is a relationship between the degree of illness acceptance and the presence and intensity of psychopathological symptoms in patients with psoriasis. Furthermore, the impact of the following variables has been analyzed: illness duration, tendency to hide pathological dermal changes, subjective assessment of the skin disease impact on the patient's worse mood, experiencing a different (stigmatizing) treatment due to the skin disease and its impact on the presence and intensity of psychopathological symptoms.

Material and methods

The research was conducted on a group of 54 people receiving treatment for psoriasis in the Department of Dermatology and Venereology, Medical University of Lodz and in the Department of Dermatology, Pediatric Dermatology and Oncology, Medical University of Lodz (23 men and 31 women) at the age of 18 to 77 years ($M = 49.18$; $SD = 15.32$).

The patients' attitude to difficulties and limitations caused by psoriasis was analyzed with the help of the Acceptance of Illness Scale AIS (developed by B.J. Felton, T.A. Revenson and G.A. Hinrichsen, Polish adaptation by Z. Juczyński [14]), while the presence and intensity of psychopathological symptoms were assessed with the use of the Symptom Checklist SCL-90 (L.R. Derogatis, R.S. Lipman and L. Covi [15]), which covers nine general symptoms – 9 scales: somatization, obsessive-compulsive disorder, interpersonal sensitivity, depression, anxiety, hostility, phobic anxiety, paranoid ideation and psychoticism. Table 1 shows how symptoms speaking for psychopathologies are understood in particular scales.

A questionnaire was also specially designed for the test needs. It allowed us to gather sociodemographic data (sex, age, education, residence, marital status) and obtain more detailed data about skin diseases (e.g. their duration, a tendency to hide pathological dermal changes, a subjective assessment of the illness impact on the patient's worse mood, experiencing a different treatment from others because of the skin disease).

Statistical analysis

Statistical analysis was made using the Statistica 8 package. The Pearson product-moment correlation coefficient was used to assess the relationship between particular variables. The groups were compared using the Student's *t*-test, Mann-Whitney *U*-test or the Kruskal-Wallis test depending on the type of data and number of groups. In the analysis performed, the significance level of $p < 0.05$ was statistically significant.

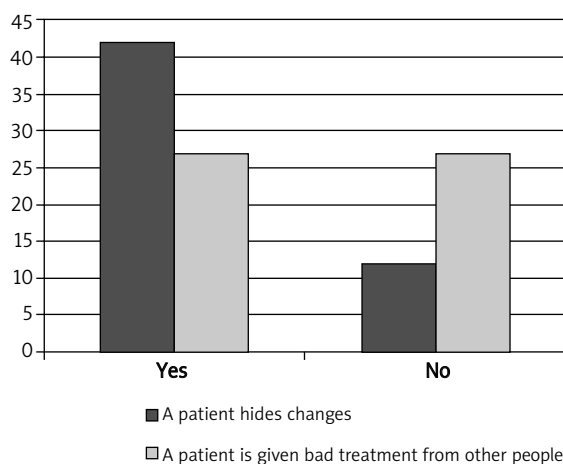
Table 1. Description of subscales in the Scale of Clinical Psychopathological Symptoms SCL-90 [15]

Scale	What does the scale measure?
Somatization	Discomfort caused by somatic ailments characteristic of neurosis (questions about e.g. symptoms involving the myocardium, respiratory system, stomach, myalgia)
Obsessive-compulsive disorder	Presence of obsessive-compulsive thoughts and compulsive activities; this scale also comprises more general cognitive impairments (e.g. mind going blank, recollection of problems)
Interpersonal sensitivity	Feeling of interpersonal inadequateness, inferiority, tendency towards self-deprecation, discomfort in social situations (hypersensitivity, negative expectations about interpersonal communication)
Depression	Bad mood, dysphoria, anhedonia, loss of interest, loss of energy and motivation, feeling of helplessness and hopelessness, suicidal thoughts; this scale also comprises cognitive and somatic symptoms of depression
Anxiety	Anxiety, irritability, tension, also somatic symptoms of anxiety, such as palpitation, excitement, questions about acute and general anxiety
Hostility	Irritability, annoyance, predisposition to impulsive destruction of objects and frequent uncontrollable outbursts of anger
Phobic anxiety	Episodes of acute anxiety states and agoraphobia (fear of travelling, open spaces, crowds, public places)
Paranoid ideation	Suspicion, hostility, mistrust towards others, projective thinking
Psychoticism	Auditory hallucinations, transmission and insertion of thoughts, controlling thoughts from the outside and indicators of the schizoid lifestyle

Table 2. Correlation between the degree of psoriasis acceptance (AIS scale) and intensity of psychopathological symptoms

AIS	SOM	NATR	INT	DEP	ŁĘK	WROG	FOB	MPAR	PSYCHOT
Pearson correlation	-0.362	-0.349	-0.418	-0.226	-0.325	-0.221	-0.134	-0.232	-0.403
Significance (bilateral)	0.007	0.010	0.002	0.100	0.017	0.109	0.336	0.091	0.002
N	54	54	54	54	54	54	54	54	54

AIS – the degree of illness acceptance, SOM – somatization, NATR – obsessive-compulsive disorder, INT – interpersonal sensitivity, DEP – depression, ŁĘK – anxiety, WROG – hostility, FOB – phobic anxiety, MPAR – paranoid ideation, PSYCHOT – psychoticism

**Fig. 1.** Tendency to hide pathological dermal changes and assessment of environment's response to the illness

Results

The research shows the existence of a relationship between the degree of skin disease acceptance and intensity of some psychopathological symptoms in patients with psoriasis (negative correlations) (Table 2).

While the level of illness (psoriasis) acceptance grows, the intensity of psychopathological symptoms such as somatization, obsessive-compulsive disorder, interpersonal sensitivity, anxiety or psychoticism gets lower.

The patients' mental state was also analyzed in terms of how much the duration of illness affects it. At a statistically significant level there is a relationship between the duration of psoriasis and the intensity of interpersonal sensitivity ($r = 0.36$ at $p < 0.05$) – the longer the patient suffers from psoriasis, the stronger his/her discomfort is in interpersonal contacts (a sense of inferiority, interpersonal inadequateness). The average duration period of the skin disease in the examined group of patients has been 16 years.

In the research, also an impact of intensity of psychopathological symptoms such as a tendency to hide pathological dermal changes and the environment response to the illness has been considered (Figure 1):

- 42 people (78%) confirmed that they intentionally hide

their illness, e.g. under their clothes and make-up; 12 people (22%) denied doing it;

- half of people tested (27 people) confirmed that they have experienced bad treatment from other people because of their skin disease (aversion, avoiding contact); the other half denied being treated badly by other people.

It turned out that the way a sick person is treated by others has an impact on the intensity of psychopathological symptoms. However, we failed to confirm the hypothesis that there is a relationship between the tendency to hide skin changes and the intensity of psychopathological symptoms in patients with psoriasis (Table 3).

Average results obtained in the following scales: somatization, obsessive-compulsive disorder, interpersonal sensitivity, paranoid ideation and psychoticism are significantly higher in a group of people who have experienced different (stigmatizing) treatment because of the skin disease (aversion, avoiding contact) than among people who did not experience such behaviour.

In the questionnaire, participants described a degree to which psoriasis affected their worse mood (impact: big, average, small, none – no one ticked the answer: no impact). In the research it was checked whether there is a relationship between the intensity of psychopathological symptoms and subjective assessment of the illness impact on the patients' worse mood (Table 4).

Average results in the somatization, obsessive-compulsive disorder, interpersonal sensitivity, depression, anxiety and psychoticism scales are different in groups assessing the psoriasis impact on their worse mood differently (statistically significant differences between subgroups 1-2 and 1-3). The highest results were obtained in the group describing the psoriasis impact as big.

In terms of sociodemographic changes, a statistically significant relationship between the age and intensity of symptoms measured with hostility scale ($r = -0.27$) and obsessive-compulsive disorder scale ($r = 0.29$) was observed. The intensity of "obsessive-compulsive disorder" in patients with psoriasis grows with age. However, the level of "hostility" in this group of people decreases with age.

The intensity of some psychopathological symptoms depends on the level of education (Table 5).

Average results in the depression, hostility and paranoid ideation scales in patients with psoriasis differ depending on the level of education (statistically signifi-

Table 3. Intensity of psychopathological symptoms versus other people's attitude

		Stigmatization	Lack of stigmatization	Value of <i>t</i>	Value of <i>p</i>
SOM	M	17.59	13.48	2.31	0.02
	SD	5.97	7.07		
NATR	M	14.07	10.70	2.12	0.04
	SD	6.19	5.45		
INT	M	14.74	8.36	3.94	< 0.01
	SD	5.83	5.55		
MPAR	M	8.67	6.88	2.33	0.02
	SD	2.77	2.79		
PSYCHOT	M	8.93	5.41	3.23	< 0.01
	SD	4.04	3.97		

SOM – somatization, NATR – obsessive-compulsive disorder, INT – interpersonal sensitivity, MPAR – paranoid ideation, PSYCHOT – psychoticism

Table 4. Intensity of psychopathological symptoms and subjective assessment of the psoriasis impact on worse mood

	Big impact (<i>n</i> = 18)		Average impact (<i>n</i> = 31)		Small impact (<i>n</i> = 5)		<i>H</i>	Value of <i>p</i>	Mann-Whitney <i>U</i> -test		
	M	SD	M	SD	M	SD			1-2	2-3	1-3
SOM	18.83	5.65	14.58	6.64	9.60	6.84	7.68	0.021	NS	NS	0.015
NATR	15.89	5.93	10.97	5.31	8.60	5.59	9.40	0.009	0.006	NS	NS
INT	15.72	5.32	10.10	6.16	7.00	4.74	12.46	0.002	0.002	NS	0.009
DEP	21.67	7.68	12.97	6.58	11.80	7.92	13.52	0.001	< 0.001	NS	0.009
LEK	14.39	4.81	10.29	5.80	6.20	4.97	9.08	0.011	NS	NS	0.007
PSYCHOT	9.67	4.59	6.42	3.54	2.80	3.27	11.87	0.003	0.012	NS	0.008

SOM – somatization, NATR – obsessive-compulsive disorder, INT – interpersonal sensitivity, DEP – depression, LEK – anxiety, PSYCHOT – psychoticism, NS – not significant

Table 5. Intensity of psychopathological symptoms and the level of education

	Vocational education (<i>n</i> = 9)		Secondary education (<i>n</i> = 31)		Higher education (<i>n</i> = 13)		<i>H</i>	Value of <i>p</i>	Mann-Whitney <i>U</i> -test		
	M	SD	M	SD	M	SD			1-2	2-3	1-3
DEP	19	5.57	14.94	8.09	12.31	6.85	10.33	0.006	0.008	NS	0.001
WROG	7.89	2.42	7.26	3.59	4.46	2.73	7.84	0.020	NS	NS	0.007
MPARA	10.67	2.83	7.68	2.53	6.46	3.41	8.66	0.013	0.008	NS	0.014

DEP – depression, WROG – hostility, MPARA – paranoid ideation, NS – not significant

cant differences between subgroups 1-2 and 1-3). The highest results were obtained in the group of people with vocational education and the lowest in the group of people with higher education. The variable of “primary education” was excluded from the analysis because of a low number of its representatives.

At a statistically significant level no relationship between sex, place of residence, marital status and the intensity of psychopathological symptoms in patients with psoriasis was found.

Discussion

Before undertaking the research with the participation of psoriasis patients, it was assumed that the degree of illness acceptance depends on the patients' mental condition. The results confirm this assumption (with reference to the somatization, obsessive-compulsive disorder, interpersonal sensitivity, anxiety and psychoticism scales at a statistically significant level) and indicate that if the patient has adapted to the illness and its limitations, his/her men-

tal condition is much better. The lowest results in the psychopathological symptoms scale were obtained by people who believe that psoriasis has a small effect on their general condition (in comparison to those who regarded the impact as big or moderate). No psoriasis acceptance and the conviction that the illness has a negative impact on people's performance and general condition may thus lead to various somatic complaints (perhaps of neurotic background), the increase in tension, anxiety, depression, appearance of tiring, obsessive thoughts, regarding oneself as someone inferior, unattractive in contacts, less valuable and even to complete isolation from the society, distancing from one's emotions, loss of the ability to feel pleasure (which indicates a pathological lifestyle). To some extent, these results correspond with the report presented by King *et al.* [16] who indicate that patients regarding their illness as a challenge worth their efforts have better chances of adaptation. Otherwise, negative emotional states may occur (feeling of helplessness, lowered self-esteem, depression, disturbed sense of identity) causing disturbance in one's thinking and disorganizing their performance.

Barton *et al.* and Shortus *et al.* [17, 18] pointed out that the degree of illness advancement and its duration also has an impact on the degree of illness acceptance. In our research we obtained a result indicating that the longer the skin illness lasted, the sensitivity in interpersonal relations got higher (discomfort, anxiety, feeling of inferiority, anticipation of rejection). Indications suggest [19, 20] that people with psoriasis regard their bodies as "impure", having a "flaw", which further results in feelings of guilt and shame, causes greater sensitivity to other people's opinions and anticipation of rejection. Hawro *et al.* [21] presented their results indicating that the feeling of rejection in patients with psoriasis, seen as e.g. avoiding social situations, grew with age, and that the longer the duration of illness, the stronger the anticipation of rejection. Furthermore, it turns out that the improvement in the patients' somatic state has not changed their opinion on social rejection and the feeling of stigmatization – therefore, the authors of the research suggest a necessity to plan interdisciplinary actions (a combination of pharmacotherapy and psychotherapeutic support), which are recommended – where reasonable – by the authors of this study.

The way a person is seen and judged by others is an important element of their psychosocial behaviour. According to Hrehorów *et al.* [22], both in Poland and in other countries the problem of stigmatization of people with psoriasis has been seldom addressed by researchers.

People suffering from skin diseases often encounter fear and prejudice from others, which may come from a false belief that "psoriasis is contagious" [23]. Our research shows that half of the patients have experienced different treatment because of their skin disease. The intensity of psychopathological symptoms (measured with the somatization, obsessive-compulsive disorder, interpersonal

sensitivity, paranoid ideation and psychoticism scales) is significantly higher compared to the group of people who do not experience such behaviour. Ginsburg and Link [24, 25] indicated the presence of the following feelings and beliefs in people suffering from psoriasis: a feeling of being "defective", guilty and ashamed, sensitivity to other people's opinions, anticipation of rejection from the society, a belief that their illness should be a secret, experiencing pity and compassion from others.

In our own research also the analysis of the impact of sociodemographic variables on the intensity of psychopathological symptoms in patients with psoriasis was presented. Statistically significant data referred only to the level of education and age. It turns out that people with a higher education obtained lower results in the SCL-90 scale than people with secondary or vocational education. This result may be interpreted in reference to the research by Chodorowska *et al.* [26] on the patients' level of interest in their disease. Patients with a higher education more often turned to professional literature, Internet or requested pharmaceutical advice. The research of Kowalczyk *et al.* [27] also proved that patients with a higher education had greater knowledge on psoriasis. Furthermore, this research showed that the level of knowledge corresponded to the patients' quality of life.

In numerous studies on patients with psoriasis, the impact of age on various aspects of the life with this chronic disease has been often analyzed – their results are not conclusive. Our research has confirmed the relationship between the age and intensity of obsessive thoughts (positive correlation) and hostility (negative correlation). The first result seems compatible with the reports of Miniśewska [20] who indicates that older people (over 40 years of age) complained more about their disease as they were worried about the severity of their illness, afraid that their condition could become worse, had sleeping problems. They lived in isolation, limited their social contacts and stayed at home – this could explain the results regarding hostility (inability to experience this feeling due to a small number of interpersonal contacts). Different results were obtained by Janowski [28], who indicated that older people regarded their disease as a value helping them develop internally.

Conclusions

Results of the research conducted show a negative impact of psoriasis on psychosocial lives of people and the presence of psychopathological symptoms in this group of patients. The degree of the illness acceptance is greater in psoriasis patients in a better mental condition. No illness acceptance results in the increase in tension, anxiety, depression, presence of tiring, obsessive thoughts, feeling of inferiority, unattractiveness in contacts with others, isolation, distancing from one's emotions, loss of the ability to feel pleasure. The research shows that the following

variables also have an impact on the intensity of psychopathological symptoms in psoriasis patients: illness duration, subjective assessment of the psoriasis impact on the patient's worse mood, attitude of other people, age and level of education.

Acknowledgments

Research financed by the Medical University of Lodz from the funds: 502-03/7-128-03/502-54-093.

References

- Kieć-Świerczyńska M, Dudek B, Kręcisz B, et al. The role of psychological factors and psychiatric disorders in skin diseases [Polish]. *Med Pr* 2006; 57: 551-5.
- Jenerowicz D, Silny W, Dańczak-Pazdrowska A, et al. Environmental factors and allergic diseases. *Ann Agric Environ Med* 2012; 19: 475-81.
- Tyc-Zdrojewska E, Trznadel-Grodzka E, Kaszuba A. The impact of chronic skin diseases on patients' quality of life [Polish]. *Derm Klin* 2011; 13: 155-60.
- Studen S, Janowski K. Dermatological diseases and mental disorders. *Przeł Dermatol* 2000; 87: 257-61.
- Aktan S, Ozmen E, Sanli B. Psychiatric disorders in patients attending a dermatology outpatient clinic. *Dermatology* 1998; 197: 230-4.
- Linnert J, Jemec GB. An assessment of anxiety and dermatology life quality in patients with atopic dermatitis. *Br J Dermatol* 1999; 140: 268-72.
- Fried RG, Friedman S, Paradis C, et al. Trivial or terrible? The psychosocial impact of psoriasis. *Int J Dermatol* 1995; 34: 101-5.
- Kurd SK, Troxel AB, Crits-Christoph P, Gelfand JM. The risk of depression, anxiety and suicidality in patients with psoriasis: a population-based cohort study. *Arch Dermatol* 2010; 146: 891-5.
- Gottlieb AB, Chao C, Dann FJ. Psoriasis comorbidities. *Dermatol Treat* 2008; 19: 5-21.
- Woodruff PW, Higgins EM, du Vivier AW, Wessely S. Psychiatric illness in patients referred to a dermatology-psychiatry clinic. *Gen Hosp Psychiatry* 1997; 19: 29-35.
- Mehta V, Malhotra SK. Psychiatric evaluation of patients with psoriasis vulgaris and chronic urticaria. *Germ J Psychiatry* 2007; 10: 104-10.
- Parafianowicz K, Sicińska J, Moran A, et al. Psychiatric comorbidities of psoriasis: pilot study [Polish]. *Psychiatr Pol* 2010; 44: 119-26.
- Niedzielski A, Humeniuk E, Błaziak P, Fedoruk D. The level of approval in selected chronic diseases [Polish]. *Wiad Lek* 2007; 60: 5-6.
- Juczyński Z. Measurement tools in promotion and psychology of health [Polish]. *Pracownia Testów Psychologicznych, Warsaw* 2001.
- Derogatis LR, Lipman RS, Covi L. SCL-90. An outpatient psychiatric rating scale – preliminary report. *Psychopharmacol Bull* 1973; 9: 13-25.
- King G, Cathers T, Brown E, et al. Turning points and protective processes in the lives of people with chronic disabilities. *Qual Health Res* 2003; 13: 184-206.
- Barton C, Clarke D, Sulaiman N, Abramson M. Coping as a mediator of psychosocial impediments to optimal management and control of asthma. *Respir Med* 2003; 97: 747-61.
- Shortus T, Rose V, Comino E, Zwar N. Patients' views on chronic illness and its care in general practice. *Aust Fam Physician* 2005; 34: 397-9.
- Roenigk RK, Roenigk HH. Sex differences in the psychological effects of psoriasis. *Cutis* 1979; 21: 529-53.
- Miniszewska J. Personal resources as determinants of life in psoriasis patients. In: *Psychological and medical aspects of skin diseases* [Polish]. Rzepa T, Szepietowski J, Żaba R (eds). Cornetis, Wrocław 2011; 52-64.
- Hawro T, Janusz I, Miniszewska J, Zalewska A. Quality of life and stigmatization and the severity of skin lesions and itching in people with psoriasis. In: *Psychological and medical aspects of skin diseases* [Polish]. Rzepa T, Szepietowski J, Żaba R (eds). Cornetis, Wrocław 2011; 42-51.
- Hrehorów E, Szepietowski J, Reich A, et al. Instruments for stigmatization evaluation in patients suffering from psoriasis: Polish language versions [Polish]. *Dermatol Klin* 2006; 8: 253-8.
- Ogłodek E, Araszkiwicz A, Placek W. Stigmatization of people with psoriasis [Polish]. *Zdr Publ* 2009; 119: 335-7.
- Ginsburg IH, Link BG. Psychosocial consequences of rejection and stigma feelings in psoriasis patients. *Int J Dermatol* 1993; 32: 587-91.
- Kowalewska B, Krajewska-Kułak E, Baranowska A, et al. Problem of stigmatization in dermatology [Polish]. *Dermatol Klin* 2010; 12: 181-4.
- Chodorowska G, Bryczek M, Dąbrowska-Członka M, Bartosińska J. To what extent do psoriasis patients take an interest in their condition? – a pilot study [Polish]. *Postep Derm Alergol* 2006; 23: 186-91.
- Kowalczyk K, Jankowiak B, Sekmistrz S, et al. Nurse education program for psoriatic patients [Polish]. *Probl Hig Epidemiol* 2008; 89: 258-63.
- Janowski K. Personality factors in coping with psoriasis-related stress. *Polihymnia, Lublin* 2006.