2016;2(1): 39-45

Medical & Health Sciences Review

www.mhsr.pl

Original Paper

The acceptance of a skin disease in patients with psoriasis, atopic dermatitis and common acne

Akceptacja choroby skóry u pacjentów z łuszczycą, atopowym zapaleniem skóry oraz trądzikiem pospolitym

Aleksandra Czerw*[1(A,B)], Mariola Kowalska[1(C,D)], Grażyna Dykowska[1(E)], Rafał Szpakowski[1(E)], Anna Staniszewska[2(F)]

[1] Public Health Department, Medical University of Warsaw
[2] Department of Experimental and Clinical Pharmacology, Medical University of Warsaw
The authors declare that they have no conflict of interest

A – koncepcja i przygotowanie projektu badań, B – wykonanie analiz diagnostycznych, zbieranie danych, C – analiza statystyczna, D – interpretacja danych, E – przygotowanie manuskryptu, F – opracowanie piśmiennictwa, G – pozyskanie funduszy.

Autor do korespondencji: Aleksandra Czerw, Medical University of Warsaw Department of Public Health; 1a Banacha St., 02-097 Warsaw; tel.: +48 22 599 21 80, e-mail: aleksandra.czerw@wum.edu.pl, ola_czerw@wp.pl

SUMMARY

Background. Skin diseases cause problems associated with self-acceptance, and physical as well as mental health.
Objective. The objective of this paper is the evaluation of the degree of acceptance of a disease in patients with the most common skin diseases, and the evaluation of the impact of the socioeconomic variables on the degree of acceptance of the disease.
Material and Methods. The study covered 150 patients who were diagnosed with psoriasis, atopic dermatitis and common acne. The author used Acceptance of Illness Scale (AIS) questionnaire supplemented with socioeconomic variables.
Results. The study revealed that patients suffering from psoriasis should receive special psychological support. This group of patients showed the lowest level of adaptation to a life with a disease. Nearly half of the respondents with psoriasis declared that they find life with the disease difficult (46%). Around 1/3 of the respondents stated that they have problems in following their favourite activities due to the disease, and nearly half (46%) saw themselves as unneeded due to the disease. These patients often felt that they are a burden to the circle of people around them (20%) and had a low self-esteem (42%).
Conclusions. The treatment of skin diseases cannot be based solely on the drug treatment of skin lesions, but it should comprise professional support associated with the mental aspects of the disease.
Key words: **psoriasis, atopic dermatitis, common acne, acceptance of disease**

STRESZCZENIE

Wstęp. Choroby skóry są przyczyną problemów związanych z samoakceptacją, a także zdrowiem fizycznym jak i psychicznym.
Cel pracy. Celem niniejszej pracy jest ocena stopnia akceptacji choroby u pacjentów z najczęściej występującymi chorobami skóry, a także ocena wpływu zmiennych socjoekonomicznych na stopień akceptacji choroby.
Materiał i metody. Badaniem objęto 150 pacjentów u których zdiagnozowano łuszczycę, atopowe zapalenie skóry bądź trądzik pospolity. Autor wykorzystał kwestionariusz Skali Akceptacji Choroby (AIS) uzupełniony o zmienne społeczno-ekonomiczne.
Wyniki. Badania wykazały, że pacjenci cierpiący na łuszczycę powinni otrzymywać specjalne wsparcie psychologiczne. Ta grupa pacjentów wykazała najniższy poziom adaptacji do życia z chorobą. Prawie połowa respondentów z łuszczycą oświadczyła, że ocenia życie z chorobą jako trudne (46%). Około 1/3 respondentów stwierdziła, że mają problemy w podejmowaniu swoich ulubionych zajęć z powodu choroby, a prawie połowa (46%) postrzegała siebie samych jako niepotrzebnych. Tacy pacjenci często czuli, że są ciężarem dla kręgu ludzi wokół nich (20%) a także charakteryzowali się niską samooceną (42%).
Wnioski. Leczenie chorób skóry nie może opierać się wyłącznie na leczeniu farmaceutycznym, ale powinno zapewniać również wsparcie profesjonalistów w zakresie psychicznych skutków choroby.
Słowa kluczowe: **łuszczyca, atopowe zapalenie skóry, trądzik pospolity, akceptacja choroby**

Otrzymano: 05.03.2016,
Zaakceptowano: 20.05.2016.

Źródła finansowania:
środki uczelni

BACKGROUND

Skin diseases can pose a serious problem in the patients' perception of their own body, and can obstruct interpersonal relationships and functioning in society. Diseases such as psoriasis, atopic dermatitis and common acne rank among skin diseases that may cause the above-mentioned problems associated with self-acceptance and the physical and mental health in patients. Despite treatment and avoiding factors that can aggravate symptoms patients are often unable to accept their disease. This can result in problems with acceptance of one's appearance, confidence issues and lowered self-esteem. The patients are likely to fall into depression, anxiety and develop other mental disorders. Having said that, the treatment of skin diseases cannot be based solely on drug treatment of skin lesions, but should comprise professional support associated with the mental aspects of the disease. The problem is serious as the epidemiology indices of the said dermatoses in Poland are high.

According to statistical data in Poland there are 800,000 patients with psoriasis, i.e. 2.2% of the population [1]. Around 1% - 20% of the population suffer from atopic dermatitis. If both parents suffer from AD the child has a 60 – 80% chance of development of the disease [2]. Common acne is said to be one of the most common skin diseases in society. It afflicts 80 – 100% of people who are 11 - 30 years old, 85% out of whom have mild symptoms, while the remaining 15% of patients struggle with serious inflammation that leaves scars and discolorations [3].

The objective of this paper is the evaluation of the degree of acceptance of a disease in patients with the most common skin diseases – psoriasis, atopic dermatitis, common acne, and the evaluation of the impact of the socioeconomic variables on the degree of acceptance of the disease.

MATERIAL AND METHODS

The study covered 150 patients who were diagnosed with psoriasis (50 individuals), atopic dermatitis (50 individuals) and common acne (50 individuals) at a dermatology clinic at the Baby Jesus Teaching Hospital (Szpital Kliniczny Dzieciątka Jezus) in Warsaw, who received treatment in 2015. For the purposes of the study the author used Acceptance of Illness Scale (AIS) questionnaire. The AIS test includes eight statements regarding negative consequences of poor health condition. These consequences are grounded in accepting the limitations resulting from disease, the feeling of dependence on other persons, for example family or friends, decreased self-esteem and a lack of self-sufficiency. Due to its structure, the scale may be used to estimate the degree of acceptance in patients diagnosed with any illnesses. It is designed for use solely in currently ill adults. It is assumed that the higher disease acceptance, the better adjustment and the lower feeling of mental discomfort. Each of the eight statements listed in AIS can be graded on a scale from 1 to 5. The study participant indicates one number which best describes his current status. Number 1 means: „I strongly agree", whereas number 5 stands for „I strongly disagree". Selecting 1 on the AIS scale displays poor adjustment to disease, while choosing 5 - complete acceptance of illness. An individual patient may score between 8 and 40 points, which will reflect the degree of illness acceptance. A low score means lack of adjustment to disease, no acceptance of one's condition and strong mental discomfort. Any result near 40, on the other hand, will be indicative of acceptance of disease and a lack of negative emotions related to disease.

The AIS test was supplemented with socioeconomic variables such as: age, sex, education and variables depicting the disease and treatment: name of the disease, frequency of medical appointments, location of skin lesions and family history of the disease.

The Paper and Pencil Interview (PAPI) technique was applied.

The research was conducted with the approval of the Bioethics Committee at the Medical University of Warsaw on 16 April 2013. The patients were informed that the study was carried out by the Public Health Department of Medical University of Warsaw and familiarized with the study purpose. Each study subject was informed that the results obtained would be used for research purposes only. The study included individuals who gave informed, non-written consent to participate. All individuals included in the study were adults.

One essential feature of the sample in this large quantitative study is its size. One hundred and fifty respondents participated in the study, hence reliable material for statistical comparisons was obtained and the risk of the effect of extreme cases on mean scores was minimized.

The Kruskal-Wallis and ANOVA were used for the purpose of statistical analysis of results variance between the study groups. The Mann-Whitney U test was employed for the comparison of differences between the two study groups. The adopted statistical significance was at $p<0.05$.

RESULTS

The patients that took part in the study were aged between 15 - 65. The average age of the respondents was 29. The largest group was composed of patients who were 20 – 30 years old (60% of the respondents). The study covered 110 women (73.3%) and 40 men (26.7%). More than a half of the respondents were women with psoriasis. Similarly in case of atopic dermatitis and common acne there were more women than men: 76% and 86% respectively. Nearly half of the respondents had secondary education (43.3%), while 1/3 had higher education. The largest group of patients

with secondary education was composed of patients with common acne.

Patients with common acne usually observed first symptoms of the disease at the age of 10 – 14 (64%), while patients with atopic dermatitis observed them in childhood before they reached 10 (54%). No statistically significant differences were noted in case of psoriasis in terms of age. The family history of the analysed dermatoses was varied. The most common disease found in the family was psoriasis (64%), with common acne (48%) and AD (34%) following.

The respondents suffering from AD declared lack of family history of the disease significantly more often.

The patients with psoriasis usually had medical appointments every 2 months (28.2%), while the patients with common acne twice a year (28%). The patients with a diagnosis of atopic dermatitis used medical advice less often.

The location of skin lesions was determined by the defined skin disease. The patients with psoriasis had skin lesions on the entire body, in particular on the head (14.5%). The most frequent location of lesions in case of patients with AD were hands (16.3%). The patients who suffered from common acne listed the face as the usual location of skin lesions (41.4%).

The type of dermatosis determined the degree of adaptation of patients to the limitations imposed by the disease. The patients with psoriasis scored on average 26.32 points in the AIS questionnaire, with 28.66 points scored by patients with common acne, and 28.58 scored by patients with atopic dermatitis.

The lowest degree of adaptation was recorded for patients with psoriasis. Nearly half of the respondents declared that they find life with the disease problematic (46%). This is probably a result of the skin lesions being present on the entire body, on body parts exposed to view and visible for other people. The patients with common acne, in turn, had the best results regarding the adaptation to life with the disease. Nearly 1/3 of them declared that the disease did not impose any limitations on their life (Tab. 1).

Table 1. I have problems adapting to the limitations imposed by the disease.

Disease	1 - I strongly agree	2 - I agree	3 - I do not know	4 - I disagree	5 - I strongly disagree
Psoriasis	20%	26%	30%	10%	14%
Acne	12%	22%	30%	18%	18%
Atopic Dermatitis	26%	16%	16%	22%	22%

Source: Author's own work

Around 1/3 of the patients with psoriasis declared that they find following their favourite activities difficult due to their health condition. Over 30% of respondents with common acne did not experience any obstacles to following life activities, arising out of their disease (Tab. 2).

Table 2. My health condition prevents me from doing what I like best.

Disease	1 - I strongly agree	2 - I agree	3 - I do not know	4 - I disagree	5 - I strongly disagree
Psoriasis	30%	14%	10%	14%	32%
Acne	16%	12%	12%	26%	34%
Atopic Dermatitis	24%	10%	16%	24%	26%

Source: Author's own work

Nearly half of the patients with psoriasis (46%) saw themselves as unneeded due to their disease. Similar feelings were experienced by the patients with common acne (44%). The patients diagnosed with AD did not share these feelings (Tab. 3).

Table 3. Sometimes the disease makes me feel unneeded.

Disease	1 - I strongly agree	2 - I agree	3 - I do not know	4 - I disagree	5 - I strongly disagree
Psoriasis	26%	20%	12%	6%	36%
Acne	20%	24%	10%	12%	34%
Atopic Dermatitis	12%	14%	16%	12%	46%

Source: Author's own work

The respondents from all three groups of dermatoses strongly disagreed with the statement that their disease forces them to depend on other people. The largest percentage of negative responses was recorded for patients with common acne (54%). The largest number of patients who agreed with the statement were those who suffered from psoriasis (20%). The result is probably conditioned by the specifics of skin diseases (Tab. 4).

Table 4. My health issues make me more dependent on other people than I would like to be.

Disease	1 - I strongly agree	2 - I agree	3 - I do not know	4 - I disagree	5 - I strongly disagree
Psoriasis	20%	2%	14%	12%	52%
Acne	14%	2%	4%	26%	54%
Atopic Dermatitis	18%	8%	12%	16%	46%

Source: Author's own work

The patients with psoriasis and atopic dermatitis often felt that they are a burden to the circle of people around them (20% and 20%). This was not found in the majority of patients with common acne (Tab. 5).

Table 5. The disease makes me a burden to my family and friends.

Disease	1 - I strongly agree	2 - I agree	3 - I do not know	4 - I disagree	5 - I strongly disagree
Psoriasis	10%	10%	8%	12%	60%
Acne	12%	0%	2%	18%	68%
Atopic Dermatitis	12%	8%	8%	12%	60%

Source: Author's own work

The above-mentioned relations between a disease and its impact on patient's functioning in society directly correlate with patient's self-depreciation. The largest problem with low self-esteem was found in patients with psoriasis and common acne – it applied to nearly half of the respondents (42% and 42% respectively). The patients with atopic dermatitis had the smallest problems in feeling their self-worth (24%) (Tab. 6).

Table 6. My health condition makes me feel like a less worthy person.

Disease	1 - I strongly agree	2 - I agree	3 - I do not know	4 - I disagree	5 - I strongly disagree
Psoriasis	26%	16%	20%	8%	30%
Acne	22%	20%	12%	22%	24%
Atopic Dermatitis	18%	8%	8%	24%	42%

Source: Author's own work

A substantial majority of the respondents did not see the disease as a threat to self-sufficiency (69%). However, the patients with psoriasis expressed fear of such threat significantly more often (22%) (Tab. 7).

Table 7. I will never be as independent as I would like to be.

Disease	1 - I strongly agree	2 - I agree	3 - I do not know	4 - I disagree	5 - I strongly disagree
Psoriasis	16%	6%	20%	10%	48%
Acne	8%	10%	8%	12%	62%
Atopic Dermatitis	6%	6%	14%	20%	54%

Source: Author's own work

The patients who suffered from psoriasis sensed the uneasiness of third persons due to their disease significantly more often than the patients with common acne and atopic dermatitis. The problem was the least common among patients with common acne (Tab. 8).

Table 8. I think that the people who hang around with me feel uneasy about my disease.

Disease	1 - I strongly agree	2 - I agree	3 - I do not know	4 - I disagree	5 - I strongly disagree
Psoriasis	16%	6%	20%	10%	48%
Acne	8%	10%	8%	12%	62%
Atopic Dermatitis	6%	6%	14%	20%	54%

Source: Author's own work

The study also comprised an analysis of differences in acceptance of the three dermatoses in terms of socioeconomic variables and variables depicting the disease and treatment.

In the case of patients with psoriasis, the later the first symptoms appeared the more difficult it was for the respondents to follow their everyday activities ($p=0.016$). A statistically significant relationship between the sex and the observation of other people's uneasiness associated with the disease, was found. Men made such observations significantly more often than women ($p=0.007$).

In the case of the patients with common acne the age differentiated the patients in terms of self-sufficiency and self-esteem. The older respondents pointed to low self-esteem and to requiring support of third persons in

functioning more often than the younger respondents (p=0.044 and p=0.035 respectively).

For patients with atopic dermatitis a statistically significant difference was found in age groups in terms of requiring the support of third persons (p=0.025). The older the respondents the greater the feeling of being dependent on third persons. In addition, men with AD, more frequently than women, felt unneeded and troublesome to the people around them due to their disease.

Significant relations were also identified between the education level and the AIS questions in all groups of patients diagnosed with dermatoses (psoriasis p=0.40, common acne p=0,12, atopic dermatitis p=0,20). The higher the education level of the respondents, the higher the degree of acceptance of their disease.

DISCUSSION

The quality of life associated with skin diseases may be defined by subjectively evaluated physical symptoms – individual emotions of every human being and functioning in terms of psychosocial aspects [4]. Skin diseases may impair the perception of patients of their own body and obstruct interpersonal relationships and functioning in society [5]. The discomfort arising out of the disease may affect the mental and emotional health of people. It often becomes a source of frustration and leads to decrease in quality of life. Patients struggle to accept the symptoms and this eventually prevents the acceptance of the disease [6].

Skin diseases that manifest themselves by lesions visible to other people affect the mental condition of a patient and their functioning in society in a particular way. It is not uncommon for chronic dermatoses to be the cause of social stigma or the feeling of being excluded from the society [7].

For the purposes of the study conducted by J. Mniszewska AIS questionnaire was employed among other tools to evaluate the role of psychological factors in defining the quality of life of patients with psoriasis. She reaches conclusions similar to those of the author of this study. She points to patients' defeat against the disease, their feeling of being unneeded and helpless. She underlines that some of the analysed variables may be predictor variables of life quality of patients with dermatoses. For the general indicator of life quality these include, among others, helplessness strategy and the feeling of being a burden, somatic symptoms, acceptance of disease, aggravation of symptoms of the disease and age. This means that better adaptation to a life with the disease correlates with milder symptoms, younger age and higher degree of acceptance of the disease [4]. The same was confirmed in the author's own study. Similarly, research conducted by B. Meding and G. Swanbeck revealed that 81% of patients with skin conditions experience difficulties in social and emotional life [8].

According to a research study conducted by P.M. Brooks on the musculoskeletal disorders, the quality of life of patients is conditioned by a number of sociodemographic factors [9]. When examining the various aspects of peripheral neuropathic pain K. Meyer-Rosberg, A. Karnstrom, E. Kimman and others pointed to the low degree of acceptance and poor adaptation of the patients to neurological disorders (AIS score – 18.76). They also found that sociodemographic characteristics influence the intensity of pain and its assessment [10]. In a study on the factors that determine the acceptance and the adaptation to cancer M. Kołpa et al. obtained an average AIS score of 25.35, and emphasized the impact of socioeconomic variables on the degree of acceptance of cancer [11]. A. Czerw obtained similar results for patients with breast cancer [12], and U. Religioni for patients with lung cancer [13].

The comparison of the average AIS scores obtained in the author's own study in the analysed three groups of dermatosis cases with the scores obtained by patients with other psychosomatic disorders showed that the respondents enjoy a relatively high degree of acceptance of the disease. Lower scores were obtained by women with migraine (24.23), patients with kidney failure (24.5) and patients with heart failure (23.5) [14]. In the study conducted by A. Zalewska et al. on patients with psoriasis the average score in the AIS questionnaire was similar to the score obtained in the author's original study (26.53) [15].

According to research conducted by I. Żelazny et al. patients with atopic dermatitis, psoriasis, eczema, common acne declare that their disease affects the quality of their life more than basal cell carcinoma, papillomatosis or facial moles. The size of the lesions is less significant – sometimes it does not correlate with decreased quality of life. The location of changes is significant – the most bothersome lesions include those on the face, hands and genitalia [16].

In the author's own study a statistically significant correlation was found between the age of patients with common acne and the feeling of self-sufficiency and the self-esteem. The older the age the lower the self-esteem of patients and the stronger the feeling of lack of self-sufficiency. R. J. Lasek and M. M. Chrei obtained similar results. They demonstrated that the quality of life of patients is decreased by 20% with every decade of their life. A patient's age has a greater effect on the quality of life than the aggravation of symptoms or the sex of the patient [17]. A similar correlation between the age and the feeling of lack of self-sufficiency was found by M. Monso et al. in a study on the quality of life of patients with chronic obstructive pulmonary disease. A similar correlation was identified by U. Religioni in patients with cancer [18].

According to the researchers drug treatment and psychological support are aimed at reducing the symptoms associated with the disease, increasing the physical fitness

and exercise tolerance, as well as improving the general mental condition and management of the disease of the patient. These factors influence the subjective quality of life as perceived by the patients themselves [19]. C.G. Foy et al. also present a correlation between patients' age and the quality of life in patients with chronic obstructive pulmonary disease. They underline the significance of physical exercise and exertion for the improvement in patients' functioning [20].

The author also found a correlation between education level and the degree of acceptance of the disease. People with higher education demonstrated significantly higher degree of acceptance of their disease than people with secondary and vocational education. The relation pertained to all groups of patients. The feeling of being a burden to people was less common among patients with higher education who also had higher self-esteem arising out of their self-worth. In a study on risk factors of nipple cancer in women and on the ways the disease is handled, J.P.H. Janssens, M. Vandeloo also point to a significant correlation between education level and the self-worth of patients [21]. The relation was confirmed by N. Sonino, E. Tomba, GA. Fava in a research study on the psychosocial attitude to endocrine diseases. The results revealed that patients with higher education adapt more effectively to the disease, have higher self-esteem and do not depreciate themselves due to the disease [22].

In the author's own study no statistically significant correlations between patient's sex, the moment of occurrence of the first symptoms and the questions from the AIS questionnaire were found. Nonetheless, one should emphasise that the above correlations were found by some researchers [23]. The research conducted by H. Rolka et al. showed that girls (56%) are more likely than boys (36%) to have a low self-esteem [24]. It can be connected with the fact that girls grow up faster than boys, which manifests in earlier occurrence of the first symptoms of disease.

It was found that an older age of patients correlates positively with stronger feeling of lack of self-sufficiency in case of the respondents with atopic dermatitis. A similar correlation was found by T. Rzepa in a group of patients with common acne [25]. A group of patients with atopic dermatitis was also subject to a study of the disease acceptance level by H. Kimata. The study demonstrated that the degree of acceptance of the disease is determined by psychological factors, the degree of itching and skin inflammation. These factors were deemed significant both in case of children and adults. The patients who suffered from the disease were characterised by greater neuroticism and anxiety levels than healthy individuals. Furthermore, they demonstrated a stronger propensity to bottle up feelings, in particular aggression, a tendency to drive out tension and reluctance, and an inability to handle anger [26].

CONCLUSIONS

Treatment of skin diseases cannot be based solely on drug treatment of skin lesions, but it should comprise professional support associated with the psychological aspects of the disease.

Patients with psoriasis are a special group of patients with skin diseases who need to be provided with comprehensive psychological support. Men who suffer from skin diseases struggle with low self-esteem and the feeling of being dependent on other people more frequently than women with the same condition. Patients with poor education demonstrate a significantly lower degree of acceptance of the disease compared to patients with higher education. Older patients need psychological support significantly more often than younger patients. The former ones see themselves as unneeded and troublesome to the circle of people around them.

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