

## The occurrence of emotional problems in somatic diseases based on psychodermatology

Marta Makara-Studzińska, Iwona Partyka, Piotr Ziemecki,  
Anna Ziemecka

### Summary

**Aim of the study.** The aim of this study is to present selected aspects of psychosocial problems in chronic somatic diseases based on the example of dermatology with an impact on psoriasis as a model type of psychodermatological disease. This review does not include the theoretical basis for somatization as the issue exceeds the size of this article.

**Material and methods.** The analysis of present literature related to the subject.

**Results.** Confirmed the connection between emotional problems and the course of an illness and proved the usefulness of psychodermatology in improving the quality of life of patients with chronic skin diseases.

**Discussion.** Comparison of demographically and culturally varied groups. The use of different research methods evokes the need of unification.

**Conclusions.** Relation between emotional factors and the course of psychosomatic disease is unquestionable and mutual. Promising trends include social support, multidisciplinary care and creating adequate tools for assessment of emotional problems in psychosomatic problems and practical use. Developing research tendencies compare impairment in dermatological problems with other somatic disease.

psychodermatology / quality of life / stigmatization / depression

### AIM OF THE STUDY

The general aim of this study is to present selected aspects of psychosocial problems in chronic somatic diseases based on the example of dermatology with impact on psoriasis as a model type of psychodermatological disease. This review does not include a theoretical basis for somatization as the issue exceeds the size of this article. Although a basic theory of the connection between skin disorders (as a perfect ex-

ample of psychosomatic illness) and emotional mechanisms is briefly explained as an introduction to following issues. Another particular goal of this review is to present a number of researches that show the relation between selected demographic and environmental factors in psychosomatic problem using the example of dermatological and cardiologic diseases. This paper also shows the newest trends of multicenter and culturally-varied studies concerning such factors as quality of life, depression and suicide risk in course of dermatological illnesses and as a consequence highlights the need of creating tools for evaluation of those psychopathological variables. Another important aim of this review is to present a series of analysis that deal with the impact of social support and the phenomenon of

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Marta Makara-Studzińska<sup>1</sup>, Iwona Partyka<sup>2</sup>, Piotr Ziemecki<sup>3</sup>, Anna Ziemecka<sup>3</sup>: <sup>1</sup>Department of Applied Psychology, Medical University of Lublin, <sup>2</sup>Neuropsychiatric Hospital in Lublin, <sup>3</sup>Individual Medical Practice. Correspondence address: iwona.partyka@gmail.com

stigmatization in chronic diseases. In the end, a group of researches of developing direction in psychosomatics is presented, relating to professional multidisciplinary approach and care, as it is of a practical importance for clinicians and patients.

## MATERIAL AND METHOD

Analysis of data from literature on the co-occurrence of somatic diseases and emotional disorders was conducted. The method of this review is a part of a wider literature analysis concerning psychodermatology. Main internet base PubMed has been searched for publications using a key word "psychodermatology" (94 papers researched) and "stigmatization in dermatology" (48 papers researched) with main interest for years 2010 – 2013 and both original (empirical) publications and review papers were included. Multicenter and culturally diverse studies were of the greatest interest out of those 142 articles. Independent research has also been done for terms "psychodermatology" and "stigmatization in dermatology". The rest of publications has been found manually using the list of downloaded documents.

For the needs of the following review, only those publications that highlighted the comorbidity of somatic and dermatologic diseases with emotional problems were included. Studies with significant methodological limitations have been rejected. Differences of opinion among the authors were discussed and resolved by agreement in the review article.

## RESULTS

A basic theory of the connection between somatic and emotional mechanisms is briefly explained as an introduction to following issues and dermatological problems are a perfect example of psychosomatic illness. A group of studies presented below, basic and pioneer, prove the relation between emotional factors and show that the course of a disease in psychosomatic problems is unquestionable and mutual. Skin is very important for proper mental and physical functioning of a person, because as the largest and

most visible area of the human body it plays an essential role in interpersonal relations, influences the self-image, self-esteem, as well as the perception of the individual by the surrounding [1]. The relationship between skin and the central nervous system results, among others in the fact that the two organs derive from the same germ layer - the ectoderm and are controlled by the same hormones and neurotransmitters [2]. Psychodermatology deals with interaction between dermatology, psychiatry and psychology. The prevalence of mental disorders in patients with skin diseases is estimated between 30 to 60% [3]. The combination of dermatology and psychiatry gave rise to a field which comprehensively deals with the interactions between the immune, nervous and hormonal system called NICS. The interaction between the nervous system, the immune system and skin occurs due to the information carried by relays [4]. In the first systematic study of mental disorders among people with skin diseases conducted by Hughes et al. a higher prevalence of mental disorders among dermatological clinic patients' than among the general population was observed. The researchers also noticed that the prevalence of mental disorders among patients hospitalized for dermatological reasons is higher than among patients from other wards [5].

An interesting and promising series of researches show the relation between selected demographic and environmental factors in psychosomatic problem (on the example of dermatological and cardiologic diseases). The connection between somatic diseases and mental disorders is multiplicitous, for example mood-lowering can be an outcome of an emotional reaction to disease and hospitalization in a mentally healthy person or a symptom of mental adaptive, stress-related, or depressive disorders. Psychiatric disorders can be categorized into mental disorders of organic substrate- somatogenic, stress-related mental disorders- psychogenic, mental disorders comorbid with somatic diseases, somatoform disorders, and mental disorders arising as a result of adverse effects and drug interactions – iatrogenic [6]. Drugs used in treating dermatological diseases e.g. steroids and retinoids may also influence mental disorders [7]. A general model of the link between the impact of environment and health includes many fac-

tors, such as environmental demands, individual cognitive appraisal of stress, especially traumatic events that occurred in childhood and in adulthood, and existing coping resources of patients. If environmental demands are found to be very threatening, and at the same time coping resources are viewed to be inadequate, such perception is presumed to result in highly negative emotional stress including panic and depressive symptoms [8]. The connection between somatic diseases and emotional disorders concerns many fields of medicine and the search for medical and demographical variables, which will determine risk groups continues. The correlation of patients undergoing myocardial revascularization (CABG) can be provided as an example. It was proven that in the preoperative period anxiety correlates with age. This means that the subjective, consciously perceived feelings of anxiety and tension, accompanied by the activation or stimulation of the autonomic nervous system are dependent on the patients' age. In patients with increased levels of neuroticism a higher level of anxiety was noted. Before and after CABG depression intensity correlates with patients' education level. Low level of education is a factor increasing depression among patients in the perioperative period. Patients with better interpersonal relationships, communication skills, and abilities to express their emotions and needs are less susceptible to depressive disorders [9]. In a similar manner, the evaluation of other chronic diseases including dermatological diseases are conducted.

The newest trends of multicenter and culturally-varied studies concern on such factors as quality of life, depression and suicide risk in course of dermatological illnesses. As a consequence the findings of those researches highlight the need of creating an adequate tool for evaluation of those psychopathological variables in medical daily care, as using different research methods for the same problem provokes difficulties. Analyzing psychological consequences of somatic diseases it is essential to be aware of their impact on various aspects of life's quality. Of clinical significance is not only the severity of symptoms of mental disorders, but also their impact on everyday life [10]. Independent of comorbidity of mental disorders, skin disorders themselves may significantly influence the quality of life [11]. In

recent years the concern about the quality of life of patients, including dermatological patients increased. This resulted in a number of tools being created to evaluate the influence of skin conditions on the degree of life quality of affected patients, additionally, a significant problem of stigmatization, which often refers to patients with skin lesions was noted [12]. Although researchers for Polish adaptation of Quality of Life in Depression Scale emphasize that when creating the tools for evaluation of life quality, patients suffering from depression were observed: the patients spontaneously evaluated the impact of depression on their own life, referring to the needs (e.g. love, companionship, care) and retrospectively, they identified the healing process with the growing number of needs which they could themselves satisfy. This approach to the quality of life allows to look at the patient not only through the prism of health, employment or its lack, or having a wide network of social contacts. What is essential is the manner in which all these factors affect the ability to meet individual, well understood, needs. This underlines the necessity for an individual approach to each patient in the context of life quality and choosing appropriate tools for this purpose [13].

A promising and developing tendency in psychodermatology is based on the assumption that the impairment in skin diseases is similar to other chronic illnesses. The study of Rapp et al. conducted on 317 patients with psoriasis revealed that these patients report limitations of physical and mental functioning, which are comparable to the quality of life in cancer, inflammatory diseases of the joints, heart diseases, hypertension, diabetes and depression. They also revealed a linear relationship between the severity of psoriasis and life quality deterioration [14].

Research on depression in dermatological diseases is one of the most popular and mainstream trend in psychodermatology. Frequent co-occurrence of depressive symptoms and suicidal ideation among patients with psoriasis is confirmed. Gupta et al. studied 217 patients with psoriasis using the Carroll Rating Scale For Depression, a scale which also includes questions concerning suicidal ideations. Death wish was expressed by 9.7% of the respondents, half of which (5.5%) admitted to suicidal tendencies and considerations on how to end their own life. Correlation be-

tween severity of depression and the presence of suicidal ideation was observed. The authors conclude that the coexistence of severe depression and suicide risk should not only be attributed to life-threatening diseases such as cancer [15]. Everyday mood deterioration caused by this disease was connected with decreased life quality and a higher incidence of depressive symptoms [16]. The comparison of depression severity between patients with psoriasis and other dermatological diseases such as acne vulgaris, alopecia areata and atopic dermatitis was also conducted. The highest level of depression was exhibited by patients with mild or moderately severe acne and in hospitalized patients suffering from psoriasis with skin lesion covering more than 30% of the body [17].

Started about 20 years ago, and nowadays willingly revived, a series of researches on stigmatization, clearly understandable in skin diseases, led to practical conclusion and applications concerning social support for patients with chronic dermatological problems. Stigmatization is a type of social stigma which leads to the alienation and rejection of an individual person and thus making normal interpersonal relationships impossible [18]. Social support in skin diseases correlates with a better quality of life and a lower sense of stigma. Ginsburg et al. noted that the sense of stigma, sensitivity to other people's opinions, anticipation of rejection and avoidance of social interactions are associated with a significant impact on patients' quality of life and further the onset of depressive symptoms whereas a handshake or touching of the skin of somebody suffering from psoriasis has a therapeutic effect as it signifies acceptance and understanding [19]. However, social relationships among individuals experiencing serious/chronic diseases are sometimes ambiguous. Schwartzman et al. assessing the correlation between coping patterns and interpersonal behaviors among depressed women revealed that participants who were overly compliant and submissive in their social interactions (low autonomy) were more likely to engage in oppositional coping behaviors. What this possibly suggests is that in their social interactions, depressed individuals may behave in a submissive manner in an effort to elicit support and attention. These requests for attention often become bothersome and result

in social partners withdrawing and becoming more hostile. In turn, rather than becoming more dependent, the depressed individual might react by becoming overly defiant and aggressive when coping with social stressors [20]. The sense of stigma and shame associated with the awareness that the skin changes are visible to the surrounding, sense of isolation, the fear of being rejected by the "healthy" environment and low self-esteem may lead to the divulgence of disturbances in the mental sphere in the form of depression, anxiety or addiction [21]. Gupta et al. questioned 137 patients with moderate or severe psoriasis if, within the last month, they have experienced a situation where people deliberately avoided physical contact because of their disease: 36 patients from this group (26.3%) confirmed the existence of such a stigmatizing situation. For all those who have been stigmatized, with one exception, lesions were visible: on the face, neck, forearms, and hands. Patients experiencing stigma were found to have significantly higher levels of depression compared with those who did not experience this type of social situations [22]. Important to highlight is the fact that negative impact of psoriasis on daily life manifested itself most strongly in the age groups between 18 and 45. Those respondents had more problems with social relationships and showing themselves in public as well as with professional and financial functioning. This may be explained by the fact that early adulthood is the period for determining social relationships and establishing interpersonal contacts and that stigmatization has a greater influence on daily life of the individual suffering from it. Older age of psoriasis onset is associated with lower comorbidity of psychosocial pathologies [23].

The developing trends put an impact on social support and the phenomenon of stigmatization in chronic diseases. This evokes the idea of practical use of discovered correlations and a multidisciplinary medical and psychological care has been proven to be an important direction. The obvious relationship between psychosocial factors and skin diseases has been long postulated. There is a widespread belief that many dermatological diseases are caused by stress, are correlated with specific personality traits or occur as a result of complication resulting from mental disorders. Although awareness of this problem

among dermatologists is increasing, the coexisting mental disorders are often unrecognized and are considered to occur less frequently than they actually do. Thus a need for a biopsychological approach to patients with skin diseases arises [24, 25]. The multidisciplinary approach, namely the collaboration of specialists from the fields of psychiatry and dermatology and co-leading of the diagnostic process and treatment is essential for patients with psychodermatological diseases [26]. Dermatologists emphasize the importance of collaborating with psychiatrists as psychological factors play a significant part in such difficult to treat, chronic diseases of the skin as eczema, psoriasis and neurodermatitis [27, 28]. However, patients with skin diseases with factors of psychological background often refuse the proposal of a psychiatric consultation, even though it was proven that the cooperation between primary care physician, dermatologists and psychiatrists is very useful and effective in the treatment of such disorders [29]. Psychological aspects related to the course of psoriasis became the basis for making various types of psychotherapeutic measures, as additional forms of treatment. In case of the stress factor which triggers psoriasis, it is important to remove or limit it. Also stress caused by disease itself is common in the course of the disease. In both cases, psychological support is an important matter [30], and contemporarily support groups for patients with psoriasis began to form. The interactions between patients and their education are important factors of breaking the stigma experienced [31].

## DISCUSSION

This review presents various trends in the field of psychodermatology as an example of psychosomatic issue, starting from the very basic and pioneering studies through tendencies that arouse interest or controversy and ending at the developing and worth to continue directions of research. A vast number of publications has been reviewed and that gives an opportunity to notice the tendencies and deficiencies. A serious limitation for such a general review was that various skin diseases were studied for psychosomatic angle. This arouse a question whether include

all kinds of diseases or rather choose one and treat it as an example. Authors decided to focus on psoriasis with just a hint of other skin diseases. The cultural and other demographic differences pay important role in stigmatization in dermatological diseases and this trend is promising but little research has been done on this issue so far. One of the difficulties in comparison and conclusion was due to the fact that different research methods has been used by the authors of empirical studies for the same general problem.

## CONCLUSION

This review proves that skin disorders are a perfect example of psychosomatic illness. A group of studies presented above shows that the relation between emotional factors and the course of a disease in psychosomatic problems is unquestionable and mutual. Researches present that lower quality of life, depression and stigmatization are commonly experienced in patients with dermatological illnesses and it is of a great value to create and use adequate tools for evaluation of those psychopathological variables in medical daily care. The developing trends put an impact on practical use of discovered correlations and a multidisciplinary medical and psychological care has been proven to be an important direction for further research and clinical practice (algorithmic detailed care plan, easy to use and accurate diagnostic tool for physicians to assess emotional problems in their patients, available multidisciplinary centers for chronically ill patients). An impact should be put on comparison of patients with dermatological and other chronic diseases, although it seems to be a difficult subject in term of methodology. A promising trends should include researches that notice different emotional and social expectations and difficulties in demographically varied groups.

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