

Psychoemotional State and Knowledge in Psoriasis Patients

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Summary. *Background and Aim.* In the modern society, the notion that the patient has to be well informed is highly important. Patients do not only receive information about their diseases, but they are also advised on ways to preserve and strengthen their health. Psoriasis causes multiple psychological problems to patients and their relatives and interferes with their daily life. The aim of the study was to evaluate psoriasis patients' psycho-emotional state and knowledge about the disease.

Material and Methods: The study included 18-year-old or older patients with psoriasis who were treated at inpatient and outpatient units (n=385). In this study, we assessed their sociodemographic data, knowledge about the disease, body mass index, and disease duration. Depression and anxiety were assessed using the Hospital Anxiety and Depression (HAD) scale.

Results. Almost one-half (44.4%) of the test subjects rated their knowledge about the disease as satisfactory. More than one-half (57.4%) of the subjects stated that they received sufficient information about psoriasis in health care institutions. The majority of the subjects (70.1%) learned about their disease from a physician, 48.1% from the Internet, 15.6% in the press, 10.9% from television or radio broadcasts, and 9.1% of the respondents learned about their disease from a nurse. Anxiety and depression were detected in 37.4% and 23.4% of the patients, respectively. Depression was more frequent in the patients aged more than 55 years than in those aged <35 years. Anxiety was more common in women than men, and in the respondents with primary or unfinished secondary education than in those with higher education.

Conclusions. A higher proportion of the patients were aware of the key aspects of the disease, and their knowledge may be classified as satisfactory. The patients with psoriasis, especially women and older people aged more than 55 years, experienced anxiety and symptoms of depression. In this context, patient education about the disease and the avoidance of addictions can improve the management of psychological problems in patients with psoriasis.

Introduction

Most health care institutions of the world have approved recommendations for patient education. Not only do patients receive information about their disease, but they are also instructed about ways to protect and strengthen their health. In the modern society, the notion that the patient has to be well informed is highly important. This means that patients should receive sufficient information about their health status, their disease, possible advantages and risks of the planned treatment, possible alternative treatment options and their possible benefits, risks, and outcomes (1).

One of the reasons why active patient participation is important is that the majority of safety problems arise at the end of the treatment (e.g. medication use errors), and thus they can be noticed by patients themselves (2).

The assurance of patients' active participation requires more than mere support and encouragement by health care professionals. Patients themselves have to be ready to assume more responsibility for their health and its care and protection (3).

In the modern countries of the world, patient education is drawing increasing attention. In Western Europe and the United States, discussions on the importance of patient education started more than 40 years ago (4). It is believed that the majority of patients have limited knowledge about their diseases and frequently feel too shy to address their physicians or nurses directly concerning their problems. Knowledge about the disease and its treatment is highly related to a superior quality of life of patients with chronic diseases (5). Timely information, education, and training may significantly improve patients' situation (6).

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In Lithuania, educational programs for patients with cardiovascular diseases, diabetes mellitus, and asthma are already in place, and there are also programs for children and adolescents with epilepsy as well as programs for their parents. Unfortunately, so far there is no educational program for psoriasis patients in Lithuania. Over the last few decades, there have been only solitary studies evaluating the knowledge of patients with psoriasis (7–9). These studies show that the knowledge of patients is insufficient, and therefore, in order to improve their quality of life, patients should be educated and supplied with maximum knowledge about skin care and therapeutic novelties (10).

Patients with psoriasis experience major psychological, social, and physical discomfort. There is still an erroneous belief in the society that psoriasis is contagious and that it is caused by poor personal hygiene. According to Finlay et al. (11) and Hrehoróv et al. (12), such an erroneous belief makes psoriasis patients withdraw from public life (e.g. abstain from visiting public pools or gyms). Patients feel stigmatized and may start to avoid communication and lose trust in other people.

The psoriasis stigmatization aspect experienced by most patients may significantly impede their quality of life or even cause depression. Psoriasis is one of the chronic diseases that significantly increase the risk of depression and anxiety (13–16). Psoriasis may have a major effect on the lives of patients, their family, and partners (17). Unresolved emotional problems stimulate anger, anxiety, depression, and more frequent alcohol use (18). Gupta et al. have stated that 9.7% of all psoriasis patients contemplated death, and 5.5% of such patients thought about suicide. Psychological tension stimulates unwillingness to undertake treatment on a regular basis (19).

Even though psoriasis is not a life-threatening condition, it negatively affects physical, social, and mental health, which, in turn, affects the quality of life.

Material and Methods

The study included 18-year-old or older men and women with psoriasis who were treated at the inpatient and outpatient Departments of Skin and Venereal Diseases, Hospital of the Lithuanian University of Health Sciences. The study was carried out during 2012–2015 with the permission of Kaunas Regional Biomedical Research Ethics Committee.

All the invited patients agreed to participate in the study. In total, 385 anonymous questionnaires were distributed (response rate, 100%). For the survey, we used an anonymous questionnaire including the questions on the patients' sociodemographic data and disease duration.

Anxiety and depression in patients with psoriasis were evaluated using the Hospital Anxiety and Depression (HAD) questionnaire. This scale is used for surveys of patients treated in general and specialized non-mental health care institutions (20). In 1991, the HAD scale was translated into Lithuanian and has been widely used since (21). The HAD questionnaire consists of 14 items, 7 of which relate to anxiety, and 7 to depression. The evaluation of anxiety and depression was the following: no symptoms (0–7 points), mild symptoms (8–10 points), moderate symptoms (11–14 points), and severe symptoms (15–21 points). Anxiety and depression states were diagnosed when the total score in each subscale of the HAD was ≥ 8 points (8–21 points).

In order to evaluate the psoriasis patients' knowledge about the disease, a questionnaire was designed consisting of the questions on the subjects' general characteristics (sex, age, education level, and harmful habits) and their knowledge about the disease. Since there is no standardized questionnaire for the evaluation of patients' knowledge about psoriasis, questionnaires used in this study were prepared on the basis of the studied literature. The subjects were given the main questions about psoriasis, i.e. the influence of nutrition, stress, anxiety, harmful habits, and physical activity. Each question was supplied with 3 response options: "yes," "no," and "do not know." The respondents' knowledge was evaluated according to the correctly answered questions, i.e. the "yes" responses.

Data Analysis. Statistical data analysis was conducted using SPSS 20.0 and Microsoft Office Excel 2007 software. To assess the internal consistency of the HAD scale, the Cronbach's alpha coefficient was used. It evaluates whether all the questions of the scale sufficiently reflect the research value and allows for adjusting the required number of questions on the scale. The internal consistency of the HAD questionnaire in the general scale was 0.890; in the anxiety domain, it was 0.779, and in the depression domain, 0.868.

Logistic regression analysis, adjusted by marital status, body mass index, smoking, and alcohol consumption, was also used for the assessment of depression and anxiety with sociodemographic factors. The logistic regression analysis was applied to evaluate the association of the symptoms of anxiety and depression with sociodemographic factors (sex, age, education) in the psoriasis patients. The values on the anxiety and depression scales were distributed into 2 groups: HAD-N (HAD-D) ≥ 8 and HAD-N (HAD-D) < 8 . The binary multiple logistic analysis model included only those attributes whose significance in the univariate analysis was $P < 0.1$. Statistical relations and differences between the qualitative assessments of symptoms were evaluated by using the criterion χ^2 . Since the distribution of quanti-

tative variables did not meet the assumptions of normal distribution, the differences between the 2 independent groups were evaluated by applying the Mann-Whitney nonparametric test. The differences and associations were considered to be statistically significant when $P < 0.05$ (the level of statistical significance was set at 5%).

Results

The study included 186 women and 199 men. The patients' age ranged from 18 to 85 years (mean, 46.88 years; SD, 15.83) (Table 1). In total, 76.1% of the patients were undergoing inpatient treatment, and 23.9% had outpatient treatment.

Patients' Awareness About the Disease and Approach to Learning. Almost one-half (44.9%) of the subjects rated their knowledge about the disease as satisfactory, 29.6% indicated that they lacked knowledge, 19.7% said that they were well aware of their disease, 2.9% indicated that they knew everything, and 2.9% of the subjects stated that they did not know anything about the disease. More than one-half (57.4%) of the subjects received sufficient information about psoriasis in health care institutions, 33.5% received the information in part, and 9.1% of the respondents stated that they did not receive enough information. The majority of the subjects (70.1%) learned about their disease from a physician, 48.1% from the Internet, 15.6% in the press, 10.9% from television or radio broadcasts, and 9.1% of the respondents learned about their disease from a nurse. According to the results of the study, 47.3% of the subjects received sufficient information about psoriasis treatment methods, 24.7% of the respondents were informed about side effects of psoriasis medications, 41.6% were informed about tests required before prescribing the course of treatment, and 34.2% of the subjects were informed about phototherapy treatment and its adverse effects and contraindications (Table 2). More than one-half (63.9%) of the subjects said that before being discharged home they received enough information about skin care, while 7.5% of the respondents stated that they did not receive sufficient information. In addition, 21.6% of the subjects stated that the information about the medicines administered during the treatment of psoriasis was presented in a complicated way, and 26% of the subjects did not know whether the information was explained in a complicated way.

The majority of the subjects (79.2%) would like a nurse to provide additional information about nutrition, physical activity, addictions, stress, and peculiarities of skin care, while 9.1% of the respondents stated that they did not want such information. In addition, 73.8% of the subjects were of the opinion that training of patients with psoriasis could help them feel safer in the society.

Table 1. Sociodemographic Characteristics of Patients With Psoriasis

Variable	Value	P
Total number of patients	385	
Sex		0.508
Women	186 (48.3)	
Men	199 (51.7)	
Age, mean (SD), years	46.88 (15.83)	
Education		<0.001
Primary	3 (0.8)	
Incomplete secondary	24 (6.02)	
Secondary	127 (33.08)	
Continuing	137 (35.6)	
Higher	94 (24.5)	
Disease duration, mean (SD), years	17.03 (14.07)	
Duration of psoriasis		<0.001
≤10 years	173 (45.2)	
11–20 years	81 (21.5)	
21–30 years	66 (16.8)	
31–40 years	44 (11.3)	
41–50 years	12 (3.1)	
≥51 years	9 (2.1)	

Values are number (percentage) unless otherwise stated.

Table 2. Respondents' Opinion About the Amount of Information on Psoriasis

Variable	N (%)
Received sufficient information about psoriasis treatment techniques	
Yes	182 (47.3)
No	88 (22.9)
Do not know	114 (29.8)
Received sufficient information about the side effects of medicines for psoriasis	
Yes	95 (24.7)
No	150 (39.4)
Partially	138 (35.9)
Received sufficient information about the tests required before prescribing the treatment course	
Yes	160 (41.6)
No	96 (24.9)
Partially	128 (33.5)
Received sufficient information about phototherapy treatment and its adverse effects and contraindications	
Yes	131 (34.2)
No	134 (34.9)
Partially	119 (30.9)

The study aimed to rate the level of the patients' knowledge about the key aspects of psoriasis. The results of the study showed that the majority of the patients knew the key aspects of their disease (Table 3).

Table 3. Results of Assessment of Respondents' Knowledge About Psoriasis

Item No.	Question	Patients' Responses (n=385)	
		Correct	False
1.	Do you need to follow certain dietary rules when you have psoriasis?	317 (82.3)	68 (17.7)
2.	Does stress or nervous tension affect patients with psoriasis?	362 (94)	23 (6)
3.	Can a person with psoriasis infect others?	338 (87.8)	47 (12.2)
4.	Does alcohol significantly affect the course of the disease?	310 (80.5)	75 (19.5)
5.	Is physical activity an important tool in patients with psoriatic arthritis?	203 (52.7)	182 (47.3)

Values are number (percentage).

Assessment of Patients' Psychoemotional Condition. Symptoms of anxiety and depression were diagnosed when the total score of the HAD subscales exceeded 8 points.

The study patients had symptoms of anxiety (37.4%) and depression (23.4%). The symptoms of anxiety and depression were more common in women than men (Table 4).

The prevalence of anxiety and depression among psoriasis patients with respect to the duration of the disease is provided in Table 5.

In the age group of 55–64 years, the probability of the symptoms of depression was by 7 times higher, compared with that in the group of the subjects younger than 35 years (OR=7.28, $P=0.002$).

The probability of the symptoms of anxiety was

Table 4. Distribution of Symptoms of Anxiety and Depression According to the HAD Scale in Patients With Psoriasis

Criteria	All subjects	Men n=199	Women n=186	P
Anxiety				
<8 points	241 (62.6)	153 (76.8)	88 (47.3)	<0.001
≥8 points	144 (37.4)	46 (23.2)	98 (52.7)	
Depression				
<8 points	295 (76.6)	168 (84.4)	127 (68.2)	0.001
≥8 points	90 (23.4)	31 (15.6)	59 (31.8)	

Values are number (percentage).

Table 5. Prevalence of Anxiety and Depression Symptoms Among Psoriasis Patients Depending on Their Age and Duration of the Disease

Criterion	Number of all Subjects	Those Experiencing Symptoms of Anxiety	Those Experiencing Symptoms of Depression
		n (%)	n (%)
Duration of psoriasis, years			
≤10	173	64 (37.0)	36 (20.8)
11–20	81	25 (30.8)	26 (19.7)
21–30	66	28 (42.4)	19 (28.8)
31–40	44	15 (34.1)	11 (25.0)
41–50	12	7 (58.4)	4 (33.3)
≥50	9	5 (55.5)	4 (44.4)
		$P=0.635$	$P<0.001$
Age, years			
≤35	101	28 (27.8)	8 (7.9)
35–44	57	18 (31.6)	9 (15.8)
45–54	89	39 (43.8)	20 (22.5)
55–64	82	17 (37.4)	30 (36.6)
65–74	45	4 (40.0)	21 (46.6)
≥75	10	4 (40.0)	2 (20.0)
		$P=0.378$	$P<0.001$

by fourfold higher in women than in men (OR=4.72, $P<0.001$) and in the group of the subjects with primary or incomplete secondary education than in those with higher education (OR=4.42, $P=0.034$).

Discussion

Psoriasis is incurable, but it can be successfully controlled, and thus patients should actively participate in the treatment planning and execution process since the very start. Knowledge about the disease and its treatment is of great importance to patients (10). Skiveren et al. have stated that knowledge is highly important for patients for their self-care. According to the data of these researchers, patients had good knowledge about the disease but lacked knowledge about risks and disease complications (22). According to Murzaku et al., knowledge about proper nutrition is essential for patients to be able to control the course of the disease and to prevent exacerbation of the disease caused by improper nutrition (23). In our study, 44.4% of the respondents stated that their knowledge about the disease was satisfactory, one-third of the patients stated that they lacked relevant knowledge, and 20% of the respondents stated that they had good knowledge about the disease. The majority of the respondents provided correct answers to basic questions about psoriasis. However, most (79.2%) respondents stated that they would like to get more information from their nurses about nutrition, physical activity, stress management, and skin care. According to Renzi et al., well-informed patients arrive to their physicians for consultations significantly more satisfied with their condition, compared with those whose knowledge is poor (24). For this reason, the aim of physicians is to teach patients and their families to understand bodily changes and to help them make well-grounded decisions concerning the treatment of psoriasis.

Health specialists should investigate the sources of their patients' information about diseases and disease-related behavior, should evaluate the reliability of the information, and should inform their patients about the best available sources of information (25). When asked about the main source of information about health, the majority of Europeans indicated that such sources were health professionals (physicians, nurses, pharmacists, etc.). Such responses were presented by 61.9% of Irish respondents and by 61.8% of Spanish subjects (26). The results of our study showed that for 70% of the respondents the physician was one of the major sources of information, while only 9.1% of the subjects indicated that the nurse was such a source. These differences may be partially explained by the fact that 48% of our respondents searched for information on the Internet, and 15.6% in the press.

Research data (27–30) have shown that patient education is frequently delegated to the nurse who performs an important role in the process of nursing, education, and treatment of patients. However, in our study, the greater part of the nurses thought that education of patients should involve physicians or physicians together with nurses.

Psoriasis varies by its course, severity, and response to treatment. Individual exacerbation of the disease causes anxiety and depression, which impair social and professional achievements as well as the quality of life (31).

According to literature data, between 3% and 17% of the European population experience various symptoms of depression (32, 33). Psoriasis may cause more anxiety than other chronic diseases or even cancer (34) do. Some authors state that anxiety may be as common as depression (35, 36), while in our study – as well as in others (34, 37, 38) – anxiety in psoriasis patients was more common than depression.

The results of our study as well as those conducted by other researchers confirmed that women with psoriasis more frequently experienced anxiety and depression than men (34, 37, 39, 40). The results of our study were also in line with those of other studies showing that elderly patients more frequently complained of symptoms of depression (40–44). Anxiety was found to be more common in patients with lower education levels (41, 45).

The treatment of chronic diseases, including psoriasis, is a long process requiring continuous effort, and thus patient education about the disease is of utmost importance (46). The education should be long-term in order to allow patients to learn at their pace and to prevent information overload. Patients have to learn to live with their disease in the most comfortable way.

This is the first study in Lithuania analyzing the psychosocial status of patients with psoriasis. The obtained results facilitate a better understanding of social life in psoriasis patients who experience symptoms of anxiety and depression and would help in the development of educational programs about this condition.

Conclusions

A significant proportion of patients were aware of the key aspects of the disease, and their knowledge was considered satisfactory. However, about half of the respondents stated that information about pharmaceuticals for psoriasis they received was too complicated. The majority of the subjects never heard about biological preparations for psoriasis, and about one-third of the subjects had no idea what phototherapy was. The majority of the subjects learned about their disease from their physicians,

and only one-tenth of the respondents received such knowledge from their nurses. The majority of the patients believed that learning was important in order to feel safer in the society and wanted a nurse to provide additional information about the disease. Patients with psoriasis – especially women and older people (over 55 years of age) – experienced anxiety

and symptoms of depression. In this context, patient education about the disease and avoidance of addictions can improve the management of psychological problems of patients with psoriasis.

Statement of Conflict of Interest

The authors state no conflict of interest.

Žvyneline sergančių pacientų žinių apie ligą ir psichoemocinės būklės vertinimas

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Raktažodžiai: pacientas, žvynelinė, žinios, slaugytojas, psichoemocinė būklė.

Santrauka. Šio kiekybinio aprašomojo tyrimo tikslas – įvertinti žvyneline sergančių pacientų žinias apie ligą ir jų psichoemocinę būklę.

Metodika. Į tyrimą buvo kviečiami 18 metų ir vyresni į stacionarą guldomi ir poliklinikoje apsilankę pacientai. Tyrime sutiko dalyvauti visi kvieštieji. Buvo atliekamas vienmomentis tyrimas. Pacientams buvo pateikiami klausimynai ir laukiama, kol jie užpildys. Užpildytus klausimynus pasiimdavo pati tyrėja. Iš viso išdalyti 385 anoniminiai klausimynai. Juos užpildė ir grąžino 385 respondentai (atsako dažnumas – 100 proc.). Klausimynu buvo renkami socialiniai demografiniai duomenys, vertintos žinios apie ligą, kūno masės indeksas, ligos trukmė. Depresijai ir nerimui vertinti naudota Nerimo ir depresijos (HAD) skalė.

Rezultatai. Beveik pusė (44,4 proc.) tiriamųjų savo žinias apie ligą įvertino patenkinamai, 29,6 proc. nurodė, kad jiems žinių trūksta. Nerimo ir depresijos simptomai atitinkamai nustatyti 37,4 proc. ir 23,4 proc. žvyneline sergančių pacientų. Depresijos simptomai vyresniems kaip 55 metų pacientams pasireiškė dažniau nei jaunesniems, dažniau moterims nei vyrams.

Išvados. Didesnioji dalis pacientų žino pagrindinius ligos aspektus, savo žinias vertina patenkinamai. Didžioji dalis ligonių mano, kad mokymasis turi reikšmės saugiau jaustis visuomenėje pačiam ligoniui, ir norėtų, kad slaugytojas suteiktų papildomų žinių apie ligą. Nerimo ir depresijos simptomai moterims pasireiškė dažniau nei vyrams. Vyresniems kaip 55 metų respondentams depresijos simptomai pasireiškė dažniau nei jaunesniems. Atsižvelgiant į tai, pacientų mokymas apie ligą, stresą, žalingų įpročių vengimą gali pagerinti žvyneline sergančių pacientų psichosocialinių problemų valdymą.

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