4(175) 2015
strony: 43-54

Maciej Załuski[1], Agnieszka Matjanowska[2]

MEANING MAKING OF ILLNESS BY CHRONICALLY ILL PATIENTS. SELECTED RESEARCH RESULTS.

[1]Faculty of Health Sciences, Jagiellonian University Medical College
Institute of Nursing and Obstetrics, Department of Health and Clinical Psychology
[2] 5th Military Hospital with Polyclinic in Krakow, Clinic of Internal Medicine

Summary

A serious disease can mean for a patient a loss of aims and plans, which previously guided him through life. The use of cognitive-existential framework may help to explain the sources and enriching ways of coping. The study served three purposes. Assessing the presence of thoughts associated with the creation of meanings of the disease and their effects; answering the question about the links between the meaning-making processes with the level of adaptation to illness, and satisfaction with life.

The analysis included test results from 63 patients treated for Leśniowski-Crohn's disease. The study was correlation-comparative.

In chronically ill patients it was possible to recognize the presence of meaning-making processes of the disease and their effects. The study revealed the interdependences between the multiple processes of thinking and the level of adaptation to chronic illness and quality of life.

A chronic disease has two dimensions: biological and existential. Meaning-making of the disease can be an action which supports the pro-health patient's efforts, arouses positive emotions, as well as an indicator of the difficulty of placing the disease in the current course of life.

Keywords: disease, emotional stress, cognitive-existential psychotherapy

Introduction

Serious health breakdown is an event that directly interferes in one's current and future expectations and aims. This is the case in chronic illnesses – diseases that can be characterised by progressive development and usually irreversible pathological changes. While living with a chronic illness, patients refer to information which is incorporated in their beliefs, core values, as well as aims, plans and life objectives. They compose a set of personal meanings, that is, individualised ways of interpreting the current situation and containing reference to the future. [1]. The role of cognitive assessment and understanding processes in the course of adaptation to illness is commonly known. Currently, these issues are described in models that clearly link the presence of stress and psychical tension to the lack of balance between understanding the current situation and knowledge expressed in the form of generalised understanding of life. Meaning-making of an illness is a function performed by the patient's various mental processes. It serves to support the fitness of basic functions which involve coping with the stress related to the illness and, in a situation that does not surrender to one's interference, or an irreversible situation, it enables the sense of control, achievement and own value to be retained [2–5].

Though the search for understanding is perceived as a profoundly human endeavour, this phenomenon is hard to research empirically. Relationships between the structure of human's personality, meaning-making processes, psychical welfare, adjustment to the results of unfavourable events and personal development are not known.

Meaning-making involves both mental processes and their effects. Among the former, one can mention: thinking about reasons underlying the illness (why?) and its presence in one's own life (why me? why now?), explaining the meaning of illness for one's present and future life (how important is health for me now and why? how do I evaluate health and life?), discovering the objectives which the illness exposes the patient to and the applied treatment procedures (what does the situation tell me about myself and my former life?). There are also other processes: blocking thoughts that invoke only negative emotions, arranging problems caused by the illness on one's mind, supporting memories from the healthy period and evaluating the influence that illness exerts on one's present life.

Among the effects of the process of meaning-making of an illness, two can be mentioned: an explanation for the reasons for the occurrence of the illness and recognising favourable phenomena that accompany the unfavourable situation of health loss [6, 7]. Favourable events involve the recognition of one's personal traits whilst experiencing an unpleasant situation, as well as: improvement in a selected field of life (the effect of making a previously delayed decision), a signal to change one's lifestyle, ceasing to evaluate each situation in a way that emphasises its negative overtone, the acquisition or renewal of one's personal beliefs about oneself, life and priorities, experiencing unusual kindliness or empathy from others.

The research presented in the article was aimed at, among other things, checking whether and, if so, which processes of meaning-making are related to the level of adjustment to life of a patient with a chronic illness. Literature indicates that the patients' creation of a negative image of their illness may cause a series of consequences. It fosters the appearance of demoralising convictions, the management strategy that supports depressive symptoms, and even changes in one's identity [8, 9]. However, if the issue of understanding the illness is somatically present while talking with patient, the conversation serves as a diagnosis of his/her psychical condition and a reason for positive thought.

An example of chronic illness is Leśniowski-Crohn's disease – a vast inflammation of all layers of the alimentary canal walls or only the small intestine. The disease may be diagnosed at any age, but most often between 15 and 25 years of age. The disease has multi-factor aetiology. At present, no casual treatment is known. The aim of the therapy is to suppress the unfavourable natural course of the disease, to control factors that condition the frequency of recurrences and the intensity of symptoms and increasing the quality of patient's life. Diagnosis is spread over time and requires many arduous tests. The disease may also be accompanied by disorders in other organs. An additional risk for 60% of the patients may be the necessity to perform multiple surgeries and, in certain cases, rupture to the alimentary canal [10]. The aforementioned facts show that the disease is an unpredictable, a source of numerous fears and difficulties, and even psychical disorders [11–13]. Research results indicate that the quality of life of patients with Leśniowski-Crohn's disease does not improve in the course of treatment, remaining low immediately after the first episode and after 20 years [14]. For these reasons, medical treatment is sometimes supported by psychotherapy. Meta-analysis of the effectiveness

of using various forms of psychotherapy among patients with inflammatory diseases of the bowel indicated a reduction in the level of anxiety, tiredness and emotional exhaustion, as well as contributing to slowing down recurrences of symptoms and reduced the frequency of hospitalisations [15, 16].

Research issue, aims and research hypotheses

The issue of the research was concerned with the question of whether thinking processes called meaning-making of an illness may be detected in the behaviour of patients treated for chronic illness and whether the said processes and their effects shape the level of adaptation to the illness and satisfaction with life. The research had three objectives. The first one was to determine an average level of intensity of thoughts relating to the meaning-making of an illness. The second one was to evaluate the effects of the said processes. The third one was to obtain answers for the question involving relationships occurring between the intensity of the process of meaning-making and its effects and the level of adaptation to the illness and the quality of life. The following hypotheses were proposed:

Hypothesis I.

The process of meaning-making in patients treated due to their chronic diseases may be diagnosed.

Hypothesis II.

The processes of meaning-making lead to specific effects.

Hypothesis III.

Both the process of meaning-making and its effects contribute to a higher level of adaptation to the illness and quality of life.

Material

Subjects

70 patients from the 5th Military Hospital with Polyclinic in Krakow, Clinic of Internal Medicine and Gastroenterology and Hepatology Clinic of the University Hospital in Krakow participated in the research. Results from 63 women and men were classified for further analysis. The mean age of the participants was 33.94 years (SD = 12.72), the age range: 18 to 79 years. 47.6% of participants were under 30 years of age. The average time from disease diagnosis to the moment when the research was performed was 6.95 years (SD = 5.85), range: from 5 months to 22 years. 54% of participants had been ill for no more than 5 years. The majority of patients (76.2%) were those who had disease aggravations once a year or more often. 27% of participants had additional complications.

Research tools applied

An original questionnaire form and 3 test questionnaires were used for research purposes – Acceptance of Illness Scale [17], The World Health Organization Quality of Life questionnaire (WHOQOL–BREF) [18] and Rumination Scale [19].

The questionnaire included issues testing the effects of the process of meaning-making: 1. explaining the reasons for the presence of disease in one's own life, 2. remembering favourable situations which occurred in the course of treatment, which were not directly related

to its progress, 3. introducing changes in the scope of life goals in order to better adjust them to the current assessment of the situation and 4. discovering the aim/meaning of the illness.

The Acceptance of Illness Scale is a tool which is used to evaluate the level of the patient's adaptation to the situation involving the illness. Adaptation is evaluated with the use of 8 statements that describe the consequences of health loss. Internal compliance of the scale expressed with the use of the Cronbach's alpha ratio amounted to 0.91.

The Quality of Life Questionnaire makes it possible to evaluate 4 fields of the patient's activity: somatic, psychological, social and environmental. Internal compliance of the scale expressed with the use of the Cronbach's alpha ratio amounted to 0.94.

The Rumination Scale questionnaire is a tool which evaluates the presence of 5 categories of thinking processes, the function of which is meaning-making of an illness. The patient takes a stance on 19 statements, using the 4-point Likert-type scale. The questionnaire also makes it possible to evaluate the power of conviction regarding the reasons for the disease and the content of attributes. The thinking categories included in the tool are as follows: 1. persistent contemplation of the disease – despite the passing of time, patients still recall the period of their health, remember their feelings at the time of the first episode, focus on negative changes in their lives and persistently ask questions concerning the reasons for the illness; 2. consideration of the sense of life and drawing conclusions from the disease – patients consider their convictions towards themselves and life, expectations from life and life goals, as well as formulate specific conclusions concerning the disease; 3. recognition of benefits – patients try to recognise the positive moments which accompanied their treatment, small, favourable situations that are not necessarily related to the progress of their treatment; 4. intrusive rumination concerning the reason for the disease – immediately after the first episode, patients constantly focus on the symptoms of their disease, the reasons underlying the illness, memories from the initial period of treatment; 5. blocking negative thoughts and analysing problems – patients refrain from thinking only about bad things, try to organise problems caused by the illness in their thoughts and search for solutions. Internal compliance of the scale expressed with the use of the Cronbach's alpha ratio amounted to 0.91. The questionnaire also allows for assessment of the strength of beliefs about the causes of disease and the contents of attribution (item 20).

Research procedures applied

The research involved evaluation and correlation procedures. Data for the analysis were collected by individual and one-time measurements, with the use of a set of questionnaires during the patients' stay in the wards. The statistical analysis was based on non-parametric tests to evaluate the significance of differences (Wald–Wolfowitz runs test, Tukey's HSD test for uneven groups), Spearman's rank correlation coefficient (rho) and Fisher–Snedecor distribution in order to determine the significance of results of the variance and regression analysis. Level $p < 0.05$ was assumed as statistically significant. Calculations were made with the use of the following software: Statistica 10.0 and IBM SPSS.

Table 1. **Thoughts categories. Descriptive characteristics**

Thought type.	M	SD	Range
1. Persistent contemplation of the disease	6.71	4.87	0–15
2. Consideration of one's convictions and drawing conclusions from the disease	6.29	3.26	0–12
3. Perceiving favourable situations	3.73	1.50	0–6
4. Intrusive focus	8.90	4.15	0–15
5. Blocking negative thoughts and analysing problems	5.22	2.28	0–9
6. Power of convictions explaining the reasons underlying the illness	0.89	0.97	0–3
Total	28.57	8.43	0–60

Results

Hypothesis I. The process of meaning-making in patients treated due to their chronic diseases may be diagnosed.

Table 1 shows the quantitative characteristics of 6 categories of thoughts present in patients under research.

In the majority of thoughts, their frequency assumed average value. While assessing the level of understanding of the presence of illness in their lives, the participants obtained a result closer to the left border (no understanding or rather no understanding). In the case of thoughts consisting in perceiving favourable situations accompanying the treatment, the patients' evaluations ranged between an average and maximum result (the actual range of results fell within: 2.23 and 5.23 pts). The greatest individual differences were observed in the category of persistent contemplation of the illness (the actual scope of results fell within: 1.84 and 11.58 pts.).

Hypothesis II. The processes of meaning-making lead to specific effects.

In the initial period of treatment, the vast majority of patients (86%) incessantly thought about the reasons underlying the presence of illness, and 86% of the patients still bothered about the reasons underlying the illness and the possibility of its avoidance. These people persistently contemplated the fact of coming down with the illness, 34% of the patients explained the reasons of their illness, however, the power of their convictions was low and differentiated only slightly (the actual range of results fell within: 0 and 1.86 pts). 59% of the patients considered the significance and role of their illness in life, which means, at the same time, that 41% of participants tried not to perceive its presence.

Perception of the aim of the illness was a rare phenomenon. In the group under research, 24% of the patients reported that they thought about the disease as an event with an aim other than only its resolution. One person perceived a positive message.

63% of the patients tried to see small, favourable situations and changes in their lives, despite the illness, and 55% of those among this group were able to recall them.

As far as the changes in the scope of life goals are concerned, the patients under research chose the following solutions: (1) previous values and life goals do not change after disease

diagnosis and the commencement of treatment; (2) values and goals are replaced by new ones; (3) values and goals become less important, however, alternative ones do not replace them; (4) all previous values and goals are no longer significant, the only goal being to achieve is the longest period of remission. Every second patient declared a replacement of his/her previous values and goals. 36% of the patients stated that their values and goals before illness diagnosis had not change after the diagnosis and the commencement of treatment. 13% of the patients reported that their values and goals had become less important and new ones had replaced them or the only goal became to achieve the longest period of remission.

Meaning-making processes and achieved results

Explanation of the presence of illness in one's life was linked to thinking processes, the content of which were one's own convictions, expectations and life goals, as well as specific conclusions drawn from the illness. Frequent consideration of convictions coincided with a stronger power of understanding (Spearmen's rho = 0.38; $p < 0.01$). By using a test from the Wald–Wolfowitz runs test, the statistical significance of intergroup differences involving the reviewed variables ($Z = 2.85$; $p < 0.004$) was confirmed.

Patients remembering the presence of favourable events in the course of their treatment more often considered the convictions they had about themselves and their lives, expectations they had towards life and its goals; they drew conclusions from their illness, blocked out negative thoughts and considered the problems caused by the illness more often. Results of the variance analysis in the case of considering convictions were as follows: $F(1.1) = 5.22$; $p < 0.02$. The Tukey's HSD test confirmed that the difference between average values in the individual groups formed by patients who remembered and those who did not remember favourable situations are statistically significant at the assumed level. The relationships were repeated in the case of thinking in the form of blocking out negative thoughts and considering the remaining $F(1.1) = 4.82$; $p < 03$. The Tukey's HSD test also confirmed the presence of differences between average values in the given groups. Consequently, it may be stated that the aforementioned categories of thinking processes support the recollection of favourable moments accompanying the illness.

Remembering favourable events was linked to the explanation of reasons for the illness $F(1.1) = 6.42$; $p < 0.01$. Patients with a stronger conviction regarding the reasons for the illness remembered more favourable events and changes. The intergroup difference turned out to be statistically significant at a level of $p < 0.02$. However, the research procedure which was applied did not enable the direction of those relationships to be revealed.

Perception of the goal of the illness corresponded to the frequent consideration of the current convictions, goals and expectations from life ($Z = 2.83$; $p < 0.04$; Wald–Wolfowitz runs test). Similar relationships were observed when the effect of the meaning-making process was the replacement of previous life goals with new ones. Patients who behaved in such a way, considered their convictions, goals and expectations from life more frequently than those who tried to live according to the previous goals. Variance analysis confirmed the relationships $F(1.3) = 2.78$; $p < 0.04$, and the result of the Tukey's HSD test for uneven groups – the significance of differences between the average values. The patients who focussed only on maintaining the longest possible asymptomatic period or did not have values or goals and with no new ones, were more willing to contemplate their illness, focusing on negative changes,

persistently coming back to the question regarding the underlying reasons and thinking back to the period before illness. The people who had replaced their former goals with new ones less often contemplated the illness, while those whose life goals have not changed, contemplated the least often. However, the application of the Tukey's HSD test for uneven groups did not confirm a statistical significance between the average values, which means that the aforementioned relationships should be treated rather as a mere suggestion.

Hypothesis III. Both the process of meaning-making and its effects contribute to a higher level of adaptation to the illness and quality of life.

The average level of adaptation to the illness in patients taking part in the research amounted to 28.57 pts. (SD = 8.44) and was linked to the frequency of disease exacerbation occurrences. The difference in the level of adaptation in the subgroup of patients who had exacerbations once a year or more often and the remaining patients was average (Cohen's d = 0.60). The application of a single-factor variance analysis revealed a sinusoidal relationship between the level of adaptation to the illness and the period of time since the moment of coming down with the illness. Patients suffering for less than 2 years and more than 12 years obtained the lowest results at the adaptation level. The quality of life in the environmental domain decreased successively, along with the course of treatment. Parameters in the other domains did not change, assuming values within the range from 12.87 (somatic domain) to 15.46 pts. (environmental domain). The greatest differentiation of the assessments was observed in the psychological domain, the scope of which – taking into account standard deviation – oscillated between: 11.41 and 17.03 pts., converted.

No significant relationships were noted between the effects of the meaning-making process and the level of adaptation to the illness and quality of life. Explanation of the presence of the illness, discovering an additional goal, as well as perception of favourable situations did not have any impact on a higher level of adaptation to the illness and the quality of life. In the case when life goals changed, a negative relationship was observed: the loss of previous goals while not replacing them with new ones coexisted with a lower level of adaptation to the illness (Spearmen's rho = 0.30; $p < 0.05$) and a lower quality of life in the social domain (Spearmen's rho = 0.30; $p < 0.05$).

The relationships between the reviewed variables and 5 thinking categories presented themselves slightly differently. Processes of persistent contemplation of the illness, posing questions regarding the underlying reasons and thinking back to the period before illness correlated with a lower level of adaptation to the illness (Spearmen's rho = 0.49; $p < 0.01$) and a lower quality of life in the psychological domain (Spearmen's rho = 0.29; $p < 0.05$). Similar solutions were observed in the case of intrusive focusing on the symptoms of the disease and reasons underlying its presence in life. Frequent consideration of the aforementioned subjects coincided with a lower level of adaptation to the illness (Spearmen's rho = 0.41; $p < 0.01$) and a lower quality of life in three domains: psychological (Spearmen's rho = 0.29; $p < 0.05$), social (Spearmen's rho = 0.36; $p < 0.01$) and environmental (Spearmen's rho = 0.26; $p < 0.05$). Perceiving favourable events and positive moments coincided with a higher level of adaptation to the illness (Spearmen's rho = 0.33, $p < 01$) and a higher quality of live in the social domain (Spearmen's rho = 0.35; $p < 0.01$) and the environmental domain (Spearmen's rho = 0.26; $p < 0.05$).

In order to confirm the observed relationships, an analysis of multiple linear regression was performed with the use of the following independent variables: five categories of thinking, four effects (understanding reasons underlying the presence of the illness, reporting favourable changes which are not related with the course of treatment, discovering the significance of illness itself, changing life goals) and two demographic variables: the sex and age of the patients taking part in the research. A model was generated that explained 45% of variability of the variable: adaptation to the illness. The model was well adjusted to the data, higher than average forecast values, no collinearity occurred and it generated the following parameters: $R = 0.67$; $F_{(6.55)} = 7.36$; $p < 0.00001$, estimation error 6.61. The following independent variables were included in the model (Beta = –0.42; $p < 0.002$), recognition of positive moments and favourable situations in the course of treatment (Beta = 0.28; $p < 0.009$), remembering favourable situations and changes (Beta = 0.22; $p < 0.04$) and (with negative signs): a change in life goals, male sex and intrusive rumination. These variables, however, did not achieve the assumed statistical significance.

Discussion

The results which were obtained were compared with those obtained while testing patients who had undergone rehabilitation after brain incidents and in the treatment of the first leukaemia attack [20]. The greatest effects of the difference between groups in the average values were observed in the following cases: power of convictions concerning the reasons for the illness – greater in neurological and oncological patients (Cohen's d = 1.15), frequent consideration of one's convictions and conclusions from the disease – greater in patients with Leśniowski-Crohn's disease (Cohen's d = 0.53), blocking negative thoughts out and considering problems – more frequent in patients with Leśniowski-Crohn's disease (Cohen's d = 0.46).

Reasons underlying a cerebral stroke or diagnosing leukaemia seemed easier to explain for the patients, the reasons for Leśniowski-Crohn's disease were definitely harder to explain, despite the fact that patients with the Leśniowski-Crohn's disease ruminated more often about the reasons underlying their illness and its symptoms immediately after the diagnosis (Cohen's d = 0.39). What additionally differentiated the groups of patients taking part in the research were the fact that patients with Leśniowski-Crohn's disease more often perceived favourable situations and positive moments (Cohen's d = 0.41).

The groups did not differ in terms of the frequency of persistent contemplation of their illnesses. In both groups there were patients who were prone to thinking back to the period before the illness, recalling emotions from the initial period of treatment, emphasising negative changes in their lives and persistently asking questions about the underlying reasons for it.

Searching for the reasons underlying the disease was a common phenomenon in the group under research. In her article, written as a result of the meta-analysis covering research under processes of meaning-making for negative life events, Park stated that this is a frequent phenomenon and continues for a long time [6]. Research results indicate that nearly 80% of patients with diagnosed cancer, a serious neurological problem or the sudden death of a spouse try to explain the reasons for such events, though many do not manage to do so [21]. 52% of the patients with tinnitus wondered why the disorder had happened to them [22]. All patients with a damaged spinal cord which had occurred as the result of an accident asked the question:

why me? and all, except one, got an answer. Explaining the reasons underlying a chronic illness, in the broadest sense, was observed in the group from 40% to 58% of the neurological and oncological patients due to SM [23, 7].

Understanding the reasons underlying the presence of the illness in the lives of 34% patients with Leśniowski-Crohn's disease has a slightly lower result. Attention should be paid to the types of attributions used in the group undergoing the research. Patients referred to fate, coincidence, no justice in life and God's plan for being what condemned them to suffering. The research shows that the explanations, in which the world is an unpredictable place, impossible to control, increase stress [24]. Patients with a damaged spinal cord also presented positive attributions.

What can we say about the effects of the process which involves finding the meaning and aim in the disease? This rather unfortunate expression may suggest looking for a positive meaning in an unfavourable event. In fact, it refers to looking for meaning and aim in life with a disease. 24% of the patients with Leśniowski-Crohn's disease stated that they found sense in their lives with the disease. In comparison, the same opinion was expressed by 44% of the patients being treated for SM [7].

As far as the relationships between meaning-making processes, their effects and the level of adaptation to the illness are concerned, coherent information in literature cannot be found. Oncological patients who looked for understanding of the illness during the first 11 months suffered from a lowered sense of well-being 18 months following the completion of effective treatment [25]. Patients, who did not look for the reasons underlying the critical event in their lives, showed better adaptation during the subsequent 18 months [26]. On the other hand, the patients who were able to explain the event and discover its sense during the first 6 months, showed a lower level of distress one year after the event. Consequently, the meaning-making processes are not adaptive in nature if they do not lead to positive effects. Research covering a group of 67 patients with a damaged spinal cord showed relationships between the understanding processes and the level of subjective welfare and the exacerbation of depressive symptoms. Frequent explanation of the reasons underlying the damage coincided with a lower level of wellbeing, whereas, the achievement of understanding – with a higher level [27]. That is why, frequent and persistent contemplation of the disease and, at the same time, weaker convictions about the reasons was characteristic for the group of patients with Leśniowski-Crohn's disease.

Results of a series of research prove that absorption in meaning-making is one of the dimensions of human personality. It occurs alongside a negative assessment of oneself and environment, fearfulness and a tendency to worry, dissatisfaction with the past and a sense of the inability to influence the present and no satisfactory social relationships. On the other hand, patients focusing on meaning-making readily ask questions, are eager to obtain information and are interested in their experiences [28]. For these reasons, meaning-making processes may lead to either favourable or unfavourable outcomes.

A change in life goals constitutes an example of the adaptation of convictions and aims to the assessment of the disease and its treatment. Diagnosing a serious illness may pose difficulties in achieving one's aims, which results from the loss of previous interests, for example [21]. The most frequent solution used in the group which took part in the research, consisted in replacing previous life goals with alternative ones, more adjusted to the assessment

of the current life situation. The patients, who did just this, contemplated their disease less often and in a different way to the patients who did not replace their lost life aims with new ones. The latter showed the lowest level of adaptation to the illness and the quality of life in the psychological domain. Data from literature confirm that resignation from the realisation of unattainable goals and replacing them with new ones affords protection against the occurrence of the symptoms of psychical disorders [29].

Conclusions

The research confirmed the majority of proposed hypotheses. The results obtained can be summarised in the form of the following conclusions:

1. The nature of a disease, its curability, the arduousness of its symptoms and the disorganising effect on the patient's life reflect the presence of meaning-making processes.
2. The effects of the aforementioned processes are spread variously. In the group under research, this occurred in the range from 24% of participants (discovering the aim of the disease) to 55% (remembering favourable changes and positive situations accompanying the treatment).
3. Despite the fact that each patient considered the reasons for the presence of the illness in his/her life in the initial period of treatment, only 30% of them had a low level of understanding. At the same time, a large majority of patients still repeated the questions about the reasons underlying their illness and considered the negative consequences of their current lives.
4. The majority of patients perceived the meaning and role of the disease in their lives.
5. Every second patient could recall small, favourable situations and changes which accompanied their treatment, which were not directly related to the process of their recovery, revised their previous values and life aims, and replaced them with new ones. 13% of the patients reported the destructive effect of their disease on the previous goals or reducing them to only one – maintaining remission of the disease.
6. Relationships between meaning-making processes and the explanation of the reasons underlying the disease and remembering favourable moments were observed. Consideration of one's convictions, values and life goals played a crucial role.
7. Processes of coping with the disease, focused on meaning-making, disclosed multiple relationships with the level of adaptation and the quality of the patients' lives. A negative relationship involved the intrusive searching for the reasons underlying the illness and focusing on symptoms immediately after the diagnosis and persistent contemplation of the disease during its treatment.
8. A conversation with a somatically ill patient concerning the effect of his/her disease on life is of a diagnostic nature, removes sources of variance between the assessment of the situation and a general understanding of life, protects against the creation of a negative image of the disease and supports favourable thoughts.

References

1. Oleś P. Wprowadzenie do psychologii osobowości. Warsaw: Scholar Publishing House; 2013, p. 129.
2. Jasiecka D. Kryzysy zdrowia a możliwości zmagania się z cierpieniem choroby somatycznej. Szt. Lecz. 2010; 1–2: 21–41.
3. Heszen I. Pozytywne emocje w negatywnych sytuacjach: skąd się biorą i jak zmieniają radzenie sobie. In: Heszen I, Życińska J. ed. Psychologia zdrowia: w poszukiwaniu pozytywnych inspiracji. Warsaw: Academica Publishing House; 2008, p. 139–150.
4. Załuski M, Motyka M. Model tworzenia znaczeń Crystal Park i Susan Folkman. Ann. Univ. Paed. Cracov. St. Psychol. 2014; 159 (7): 103–114.
5. Proulx T, Inzlicht M. The five "A" s of meaning maintenance: finding meaning in the theories of sense-making. Psychol. Inq. 2012; 23: 317–335.
6. Park C. Making sense of meaning literature: An integrative review of meaning making and its effects on adjustment to stressful life events. Psychol. Bull. 2010; 136: 257–301.
7. Pakenham K. Benefit-finding and sense-making in chronic illness. In: Folkman S, ed. The Oxford handbook of stress, health, and coping. New York: Oxford University Press; 2011, p. 242–268.
8. Williams G. Chronic illness and the pursuit of virtue in everyday life. In: Radley A, ed. World of illness: Biographical and cultural perspectives on health and disease. London: Routledge; 1993: 92–108.
9. Garnefski N, Kraaji V. Do cognitive coping and goal adjustment strategies used shortly after myocardial infarction predict depressive outcomes 1 year later? Cardiov. Nurs. 2010; 25(5): 383–389.
10. Eder P, Łodyga M, Łykowska-Szuber L, Bartnik W, Durlik M, Gonciarz M, Kłopocka M, Linke K, Małecka-Panas E, Radwan P, Rydzewska G. Wytyczne Grupy Roboczej Konsultanta Krajowego w Dziedzinie Gastroenterologii i Polskiego Towarzystwa Gastroenterologii dotyczące postępowania z pacjentem z chorobą Leśniowskiego-Crohna. Gastroenter. Prakt. 2013; 2: 18–37.
11. Guthrie E, Jackson J, Shaffer J, Thompson D, Tomenson B, Creed F. Psychological disorder and severity of inflammatory bowel disease predict health-related quality of life in ulcerative colitis and Crohn's disease. Am. J. Gastroenterol. 2002; 97: 1994–1999.
12. Sajadinejad M, Asgar K, Molavi H, Kalantari M, Adibi P. Psychological issues in inflammatory bowel disease: an overview. Gastroenterol. Res. Pract. 2011; 2012: 1–12.
13. Camara R, Gander M, Begre S, von Kanel R. Post-traumatic stress in Crohn's disease and its association with disease activity. Front. Gastroenterol. 2011; 2: 2–9.
14. Canavan C, Abrams K, Hawthorne B, Drossman D, Mayberry J. Long-term prognosis in Crohn's disease: factors that affect quality of life. Aliment. Pharmacol. Ther. 2006; 23(3): 377–385.
15. Andrew M, McCombie A, Mulder R, Gearry R. Psychotherapy for inflammatory bowel disease: A review and update. J. Crohns Colitis. 2013; 7: 935–949.
16. Schoultz M, Atherton I, Watson A. Mindfulness-based cognitive therapy for inflammatory bowel disease patients: findings from an exploratory pilot randomised controlled trial. Trials. 2015; 16:379. doi:10.1186/s13063-015-0909-5.
17. Juczyński Z. Narzędzia pomiaru w promocji i psychologii zdrowia. Warsaw: Psychological Test Laboratory of the PPA; 2001: p. 168–172.
18. Kowalska M, Skrzypek M, Danso F, Humeniuk M. Ocena wiarygodności kwestionariusza WHOQOL-BREF w badaniu jakości życia dorosłych, aktywnych zawodowo mieszkańców aglomeracji górnośląskiej. Przegl. Epidemiol. 2012; 66: 531–537.
19. Załuski M. Skala Ruminacji — opis kwestionariusza i wstępna analiza psychometryczna. Paper submitted for publication in the magazine: Probl. Pielęg. 2015.
20. Załuski M. Korzystne i niekorzystne efekty procesów myślowych pacjenta w przebiegu leczenia choroby somatycznej. International Conference "Innovation in Education, Nursing Practice and Research". Krakow, 12–13 September 2015.
21. Davis C, Wortman C, Lehman D, Silver R. Searching for meaning in loss: Are clinical assumptions correct? Death Stud. 2000; 24: 297–540.
22. Davis C, Morgan M. Finding meaning, perceiving growth, and acceptance of tinnitus. Rehabil. Psychol**.** 2008; 53: 128–138.

23. Bulman R, Wortman C. Attributions of blame and coping in the "real world". Severe accident victims react on their lot**.** J. Pers. Soc. Psychol**.** 1977; 35: 351–363.
24. Janoff-Bulman R, Yopyk D. Random outcomes and valued commitments: existential dilemmas and the paradox of meaning. In: Greenberg J, Koole S, Pyszczynski T, ed. Hand-book of experimental existential psychology. New York: Guilford Press; 2004: 122–138.
25. Kernan D, Lepore S. Searching for making meaning after breast cancer: Prevalence, patterns, and negative affect. Soc. Sci. Med. 2009; 68: 1176–1182.
26. Silver R, Updegraff J. Searching for finding meaning following personal and collective traumas. In: Markman K, Proulx T, Lindberg M, ed. The psychology of meaning. APA; 2013: 237–255.
27. Davis C, Novoa D. Meaning-making following spinal cord injury: Individual differences and within-person change. Rehabil. Psychol. 2013; 58(2): 166–177.
28. Steger M, Kashdan T, Sullivan B, Lorantz D. Understanding the search for meaning in life: personaly, cognitive style, and the dynamic between seeking and experiencing meaning. J. Pers. 2008; 76 (2): 199–228.
29. Garnefski N, Kraaij V. Cognitive coping and goal adjustment are associated with symptoms of depression and anxiety in people with acquired hearing loss**.** Int. J. Audiol. 2012; 51: 545**–**550.

Address: mzaluski@cm-uj.krakow.pl