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ORIGINAL ARTICLES

MEANING OF CHRONIC PAIN IN SITUATIONS OF RISK AND ROUTINE SITUATIONS TO PATIENTS WITH DEPRESSION

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ABSTRACT

INTRODUCTION: The individual response to pain in a specific situation has an influence on the meaning of chronic pain experiences.

AIM: The aim of the present study was to analyze the influence of both situations of risk and routine on the meaning of chronic pain to patients with depression.

MATERIALS AND METHODS: The study included two groups of 16 patients with chronic pain and depression. Group 1 perceived the pain situation as a risk and Group 2—as a routine. The groups were assessed with: 1) quantitative methods: HAM-D-17, Spielberger's questionnaire for state and trait anxiety degree and VAS; and 2) qualitative method—content analysis of the answers to the question "What does the pain mean to you?".

RESULTS: The two samples had close mean ages, respectively 57.81±13.63 (Group 1) and 54.88±10.68 (Group 2). The share of women (87.5%) was predominant over that of men (12.5%). No significant differences were found in the mean values of the quantitative indicators between the groups. The content analysis revealed specific experiences of pain as a punishment, discomfort, and anxiety for Group 1, and as a part of life for Group 2.

CONCLUSION: The way of perceiving the pain situation influences the meaning of chronic pain experiences in patients with depression. The combined assessment of the situation and specific pain experiences reveals information about the psychosocial functioning. It could be used as a method for picking out patients in need of psychotherapeutic and educational interventions aimed at accepting chronic pain as a part of life.

Keywords: *chronic pain experience, depression, situation, content analysis*

INTRODUCTION

Each experience is a specific manifestation of one's individual life, which is formed by the interaction between the consciousness with the object of the experience in a specific situation. Its significance is determined by the personal conception of the experience, hidden into the answer to the question "What does the experience mean to me?" (1,2).

Pain is a multidimensional experience with contextual, emotional, cognitive, and meaningful aspects (3). Four components are necessary for its for-

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mation: a subject (the one who experiences), an object (pain), a relationship between the object and the subject, and a situation. The essence of the pain experience is determined by the significance of pain to the subject in a specific situation (1,2).

At a certain point in time, every objective situation contains specific and precisely arranged material and social components that influence human behavior. Thus, each moment is always different from the next and provokes different emotional and psychological reactions (4). Therefore, pain experiences can vary both between individuals and within the individual. The evaluation and interpretation of each situation (perceived situation) affects the value (significance) that a person attributes to pain (5).

Most phenomenological analyses focus primarily on the content aspects of the experience of chronic pain. Few studies consider the role of emotional (depression and anxiety), personal and situational factors that can be modified by various therapeutic approaches (6).

AIM

The aim of the study was to analyze how the way of perceiving the situation during pain as risk or routine affects the meaning of chronic pain experiences to patients with depression.

MATERIALS AND METHODS

Initially, 61 hospitalized patients with chronic non-malignant pain of different origins and depression were studied. The design of the study has been approved by the Ethics of Scientific Research Committee at Medical University of Varna. The assessment of the mental state of the patients complied with the criteria of ICD -10 for depressive episode. For the assessment of the situation during pain, a model proposed by I. Aleksandrov (2015) was used to study the conditions of the environment and the situations in a hospital setting resulting from them. The question "In what situation do you place your self when you are in pain?" was included in a semi-structured interview, with multiple-choice answers for four situations: a risk situation, an uncertainty situation, a unique situation, and a routine situation. For the purpose of the study, two samples with an equal number of patients (n=16) were separated from the general group: Group 1—perceiving the situation during pain as a risk, and Group 2—perceiving it as routine.

The two groups were assessed with quantitative and qualitative methods. The following scales were selected to assess the patient's condition: 1) Hamilton Depression Rating Scale (HAM-D-17) for assessing severity of depression; 2) Spielberger's State and Trait Anxiety Inventory (STAI) scale (S) for state anxiety degree (STAI form Y-1) and scale (T) for trait anxiety degree (STAI form Y-2); and 3) Visual Analog Scale (VAS) for assessing intensity of pain. A content analysis was used as a qualitative method for analyzing the specifics of experiences related to the meaning of chronic pain. All participants were asked the question "What does pain mean for you?". An analysis of the content of the answers written verbatim by the researcher was performed.

RESULTS

The general group contained 61 patients with chronic pain and depression with a mean age of 55.60±10.90. Each of them was assessed in terms of how they perceive the situation during pain. The results showed that two groups with an equal number of patients (=16) were formed (Table 1). Group 1 perceived the situation of pain as a routine, and Group 2—as a risk. This allowed comparable analyses and comparisons between the two groups to be performed.

The values of the mean ages of the groups were similar (Group 1—57.81±13.63 and Group 2—54.88±10.68). The two groups were composed of an equal number of women (n=14) and men (n=2).

Table 1. Results of the assessment of the situation during pain in the general group.

Situation during pain	(N)	(%)
Risk	16	26,70
Risk, uncertainty	5	8,20
Risky, routine	2	3,30
Uncertainty	8	13,50
Uncertainty, unique	1	1,60
Uncertainty, routine	12	18,40
Routine	16	26,70
Unique	1	1,60
Total	61	100,0

The share of women (87.5%) was predominant compared to that of men (12.5%). The distribution of the two groups with regard to the conduction of antidepressant treatment showed differences. The share of patients in Group 1 undergoing regular treatment was 75%, 12.5% had discontinued their treatment, and 12.5% had never been treated. The share of patients in Group 2 undergoing regular treatment was 56.3%, 37% of the subjects had discontinued their treatment, and 6.3% had never been treated for depression.

According to the results of the quantitative methods the two groups had a high degree of state and trait anxiety and moderate pain intensity. The severity of depression showed differences—moderate for Group 1 and mild for Group 2 (Table 2). A T-test was performed to look for statistically significant differences between the mean values of the studied indicators. The results showed no such differences between the scores of the applied quantitative methods (Table 3).

A content analysis was used to analyze the content of the patients' answers to the question "What does pain mean for you?". The analysis was aimed at finding specific meaning of chronic pain experiences. A category of experiences that was considered specific was the one that included units (words or phrases) with a similar semantic meaning that occur significantly more frequently in the answers of one group than in the other group, where they were recorded at single frequencies. The dominant category of experiences encompassed the highest number of semantic units, compared to the other categories of experiences.

After the initial processing of the data and their subsequent ranking, six categories of experiences related to the meaning of chronic pain were identified for the two groups: pain as limitation, pain as suffering, pain as punishment, pain as discomfort, pain as anxiety, and pain as a part of life (Table 4).

The results of the content analysis showed:

- Specific experiences for Group 1, perceiving the pain situation as a risk were: pain as punishment, pain as discomfort, and pain as anxiety.
- Specific experience for Group 2, perceiving the pain situation as routine, was pain as a part of life.
- Experiences like pain as suffering and pain as a limitation had similar frequencies in both groups.
- Experiences of pain as a part of life were both specific and dominant to Group 2 (Fig.1).

Table 2. Mean values of the indicators in groups.

Group	Group I (risk)		Group II (routine)	
Indicator	Mean	SD	Mean	SD
Depression severity	16,8125	6,44173	14,1875	5,95784
State anxiety degree	57,5625	12,39338	48,5000	13,29662
Trait anxiety degree	55,3125	12,37050	50,1875	12,10079
Pain intensity	6,5000	2,19089	5,1875	2,37259

Table 3. Degree of severity and significance of the differences between the mean values of the studied indicators in groups.

Pairs of indicators by groups	Degree of severity (t)	Degree of significance (p)
HAM-D1 & HAM-D2	1,059	,306
SA1 & SA2	1,959	,069
TA1& TA2	1,143	,271
VAS1 & VAS2	1,652	,119

Legend: HAM-D1 – mean value of severity of depression of group 1; HAM-D2 – mean value of severity of depression of group 2; ST1 – mean value of state anxiety of group 1; ST2 – mean value of state anxiety of group 2; VAS1 – mean value of pain intensity of group 1; VAS2 – mean value of pain intensity of group 2.

DISCUSSION

The two selected groups had similar mean ages and gender distributions. No statistically significant differences were found with regard to the severity of

Table 4. Content analysis of the answers to the question "What does pain mean to you?".

Category of experiences	Group 1 (risk)	Group 2 (routine)
Punishment	Punishment – 2 Harassment – 2 Death – 1 **Total: 5**	
Discomfort	Unpleasant feeling – 2 Discomfort – 2 **Total: 4**	Discomfort – 1 **Total: 1**
Suffering	Suffering – 3 **Total: 3**	Burden – 2 Tormenting sensation – 1 **Total: 3**
Anxiety	Restlessness – 1 Stress – 1 **Total: 2**	
Limitation	Obstacle – 2 **Total: 2**	Limitation – 2 Obstacle – 1 **Total: 3**
Part of life		Way of life – 2 Part of life – 5 Daily life – 2 **Total: 9**

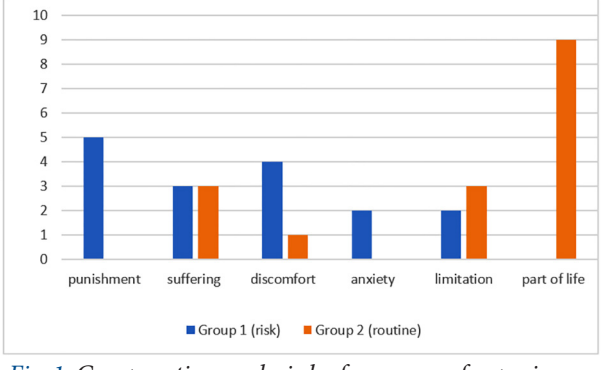

Fig. 1. Comparative analysis by frequency of experiences related to the essence of pain between the two groups.

depression, the levels of state and trait anxiety, and the pain intensity. The differences between them consisted in the assessment of the situation during pain. For Group 1, the situation during pain was a risk, carrying a real threat to one's health and life or potential harm. The threat was associated with anxiety, experiences of uncertainty, helplessness, a tendency to catastrophize, hypervigilance, and fear of pain. Such emotional and cognitive disturbances are a predisposition to maladaptive behavior in patients with chronic pain. For Group 2, the situation during pain was a routine. It is a situation to which the individual has become accustomed and has accepted it. The acceptance of pain is associated with greater resistance to pain and more protective factors counteracting the stress of daily routine (1,7).

There were significant differences between the two groups in terms of the specificity of experiences related to the meaning of chronic pain. A content analysis of the answers to the question "What does pain mean to you?" was used as qualitative method. Most qualitative studies of chronic pain experiences are performed through interpretative phenomenological analysis through which the researcher seeks, on the basis of detailed descriptions obtained through an interview, to interpret what is said by the subject and thus to understand the meaning of the experiences. Less often, a content analysis is used, in which certain units and categories are fixed in the descriptions of experiences on the basis of which conclusions are made both about their meaning and about the underlying mental phenomena (6,8). The subject of the analysis is the frequency of appearance

in the text of a certain semantic unit (quantitative content analysis) and its meaning associated with the text (qualitative content analysis). Semantic units are individual words or word combinations from the text (1,8). These distinctive aspects of the analysis emphasize its advantages in determining the specific and dominant experiences in the present study. Six different categories of experiences, which occur in the two studied groups, but with different frequency and specificity were formed through analysis.

Specific experiences for Group 1 were pain as punishment, pain as discomfort and pain as anxiety. The experience of pain as punishment was both dominant and specific. The concept of pain as punishment is set semantically in the Ancient Greek word „ποινή" (poinḗ), (from which the English word "pain" originates), which means not only pain but also sanction, punishment, redemption (9). In some patients with chronic pain and depression, the physical pain is perceived as punishment, resulting from a feeling of guilt, associated with depression. M. Bush (1989) considers that unconscious guilt has an extremely vast power over human behavior and plays an important role in psychopathology, manifesting in unexpected and varied forms. He associates unconscious guilt with unconscious irrational beliefs about deserved punishment (10). According to G. Engel (1959), pain is involved in the formation of objective relationships as well as in the building of the concepts of good and evil, reward and punishment, right and wrong. It becomes an effective means of assuaging guilt and thus influences object relationships (11).

Next in frequency was the experience of pain as discomfort. It is a manifestation of the sensory aspects of pain as an unpleasant sensation. Some authors identify the focus on the physical aspects of pain as the most significant challenge in the management of chronic pain (12).

Pain as anxiety was the next specific experience for Group 1. It has been proven that the fear of pain can lead to increased sensitivity to pain and focusing on it (hypervigilance). People who are afraid of pain experience more signals of threat and are less able to ignore pain-related information (13).

The experiences of pain as suffering and as a limitation were registered with similar frequencies in both groups. The limitations due to chronic pain could be considered in several aspects: temporal, physical, and psychological. The temporal aspects are the result of the limitations associated with setting future life goals, which necessitate a change of priorities. The physical aspects of chronic pain limitations refer to the physical inability to cope with everyday life, which puts the individual in a limited framework of functioning. The psychological aspects of chronic pain limitations stem from psychological factors supporting the constant pain, such as the fear of pain exacerbation and the use of ineffective coping strategies (14). Suffering is defined as a harrowing experience that has a profound impact on a psychophysiological and existential level (15). A qualitative study identifies that loneliness, along with the feeling of not being taken seriously by healthcare providers and the fear of an uncertain future, reinforced the suffering of chronic pain (16).

The experience of pain as a part of life was both specific and dominant for Group 2. The acceptance of pain predicts an adaptive coping with it and demonstrates an optimistic outlook on life (14).

The results show that the two groups were similar in terms of the sensory and emotional aspects of pain, but differ in the content aspects. The share of the patient undergoing regular antidepressant treatment was larger for Group 1 (75%), compared to that of Group 2 (56.3%). The registered specific experiences of Group 1, perceiving situation during pain as risk, revealed maladaptive responses and lower resilience to pain (17). Therefore, the patients need not only antidepressant treatment, but also an application of cognitive behavioral psychotherapy, included in interdisciplinary approaches to chronic pain management. According to Wenzel et al. (2011) the manipulation of four interrelated variables of emotions, situations, thoughts, and behaviors is sufficient to achieve change in cognitive appraisal and maladaptive behaviors that maintain impaired functioning in patients with chronic illness (18). It is proven that the cognitive state can modulate the affective-motivational component of pain (19). The assessment of the situation during pain could be a starting point for picking out those patients with chronic pain and depression who need improvement of their psychosocial functioning through adaptive coping strategies despite pain.

CONCLUSION

The assessment of the situation during pain influences the expression of specific experiences in patients with depression and chronic pain. Perceiving the situation as a risk is associated with experiencing pain as punishment, discomfort and anxiety, while perceiving the situation as routine—with experiencing pain as a part of life. The combined assessment of the situation and specific pain experiences reveal information about the psychosocial functioning and the need for psychotherapeutic and educational interventions aimed at accepting chronic pain as a part of life.

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