



REVIEW ARTICLE

Psychoemotional characteristics in psychosomatic diseases

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Abstract

It was prepared based on the results of the research conducted at the Family and Women Research Institute. This article describes psychoemotional changes in patients with psychosomatic diseases. While the emotions of anger and sadness predominate in patients with cardiological and gastrointestinal diseases, the feeling of fear is more pronounced in patients with endocrinological diseases than other emotional states. In addition, the results of the analysis of the cognitive, emotional, and conative components of the internal appearance of the disease proved that the psychological state of the patient, his attitude to his disease and the treatment process depend on the character of the disease, the possibilities of recovery, the course of the disease and the effectiveness of the treatment.

Keywords: Psychodiagnostic, Psychocorrection, Psychosomatic diseases, Psychoprophylactic measures, Depression, Patients with oncological, Cardiological, Endocrinological, Gastrointestinal diseases.

Introduction

The importance of depression in leading to death is also observed in arrhythmias. According to the International arrhythmia association, depressive symptoms in patients with arrhythmias are leading cause of coronary artery disease and death within a year of follow-up (Karimovna, 2022).

The significance of depression in mortality is particularly high in patients over 60 years of age with coronary heart disease. Studies show that the presence of depression in people over the age of 70 are twice as likely to have it (Karimovna *et al.*, 2023).

Psychosomatic diseases, in which psychological factors play a leading role, include ischemic heart disease and myocardial infarction, arterial hypertension and gastric and duodenal ulcers, bronchial asthma and diabetes, as well as a number of other diseases. One of the important aspects in the psychosomatic direction is the desire to enter the patient's inner world, a comprehensive study of his emotional life, emphasizing the patient's personal role in the medical examination, treatment and prevention of diseases (Melibaeva, R. N. 2021).

The World Health Organization (WHO) defines the concept of health as the physical, mental, spiritual and social perfection of a person. World experience shows that the prevention of non-communicable diseases, and treatment and rehabilitation of patients with somatic, neurological and neurological diseases depends not only on the efforts of physicians but also on timely qualified medical and psychological care (Melibaeva *et al.*, 2020). Advanced medical-psychological services should facilitate the work of physicians, as appropriate specialists are involved in the processes of prevention, diagnosis, treatment, psychological correction a rehabilitation of patients with psychosomatic and somatopsychic pathology, borderline neurological disorders (Narmetova, Y. K. 2016).

However, the results of a study of the state of organization of psychological services in the medical system worldwide show that the specificity of the work of psychologists in the field of medicine is still uncertain (Nasirovna, M. R. 2022, Melibaeva, R. N. 2022). The fact that different approaches to the question of what the status of a psychologist should be in a medical institution and what its main tasks are, shows that

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there is no clear solution to this problem. In addition, despite the high demand for psychological services in the field of medicine among the population, it can be acknowledged that this need is not sufficiently met, and there are a number of reasons for this (Narmetova *et al.*, 2021).

Methodology

Because patient's emotional characteristics, depression, tolerance, and attitudes toward their illness have influenced the course of the disease and the effectiveness of the treatment process, we set ourselves the goal of analyzing research to investigate this issue.

The study included Luscher's color method, the patient's response to his illness (TOBOL), Spielberg-Hanin's method of determining the degree of depression, L.A.Rabinovich's "Four-item emotional questionnaire", E.P.Ilin and E.K.Feshchenko's "Questionnaire for assessing one's own patience" and the socio-psychological questionnaire developed by the author used mathematical statistical methods (Spearman's criterion, Kruskal-Wallis criterion, Kolmogorov-Smirnov Z-criterion, Mann-Whitney U-criterion) in the statistical analysis of quantitative indicators (Narmetova, Y. 2015. Narmetova, Y. 2016, Narmetova, Y. K. 2022).

From the data presented in Table 1, it can be observed that there is a statistical difference in the level of confidence on the Spielberg-Hanin situational anxiety detection scale between representatives of the control group and several groups of patients with different diseases ($H = 82,26; p < 0,001$).

The numerical data in Table 1 found that the highest rates of situational anxiety were among patients with cardiac disease (mean color 319.7).

However, it can be clearly seen that situational anxiety rates are also high among patients with endocrinological (300.4) and gastrointestinal diseases (253.5) in the later places. Of course, the symptoms characteristic of such serious diseases, the deterioration of health, inevitably lead to a decrease in a person's quality of life and confidence in the future, and consequently, an increase in anxiety, and feelings of discomfort.

According to the data in Table 1, there was also a statistical difference in the level of confidence between these groups on the scale of personal anxiety ($H = 40,46; p < 0,001$). The highest rates of individual anxiety were recorded in the group of patients with oncological diseases (325.6), while in the control group this indicator was found to be the lowest formed (182.1). It is clear from Table 1 that

relatively moderate levels of personal anxiety were observed in other disease groups. Another noteworthy aspect of the data in the table is that while patients with cardiac, endocrinological, and gastrointestinal disorders reported relatively high levels of situational anxiety, patients with oncological disease were predominant in personal anxiety.

Presumably, these results are consistent with Hans Sele's theory of stress, confirming that various diseases occur as a result of involuntary excitation of the autonomic nervous system in response to various stressogenic influences and stress as a reaction to the body's adaptation to different living conditions (general adaptation syndrome). It is not surprising that it leads to disorders of the cardiovascular, endocrine, gastrointestinal system, and therefore the formation of a high level of situational anxiety in such people. Oncological diseases on the other hand, often occur for unknown reasons, and after certain.

The highest result was recorded in the group of patients with endocrine diseases (average color was 275.3). It can be observed that the tendency to depression is high in the group of patients with endocrine diseases. So, it is not surprising that the deterioration of their health has led to a high rate of depression. In the next place, high levels of depression were observed in the group of patients with cardiac disease (270.3), in which all the unpleasant, painful feelings associated with such a diagnosis also led to an increase in depression. The next group of patients with gastrointestinal diseases can be recognized (256.1). Of course, it is natural for patients in all three groups to be somewhat depressed as a result of their diagnosis and severe experiences.

Depression is also found among outpatients (213) and oncology patients (198.1), but it is difficult to deduce from the data in Table 2 that the level of depression in them is not as strong as in patients with acute and painful comorbidities listed. Of course, the fact that the level of depression in the relatively healthy contingent in the control group is much lower than in the patients clearly shows how important health is for a person, for to live a peaceful life.

Statistical analysis of the data obtained using the method of determining the type of disease response (TOBOL) revealed differences in the level of confidence in patients with various diseases on the indicators of their attitude to their disease. The results of the comparative analysis of the Kruskal-Wallis criterion presented in Table 3

Table 1: Differences in anxiety levels in respondents (n = 447)

Indicators	Average colors						H	p
	Oncological diseases	Visitors to the clinic	Cardiological diseases	Endocrinological diseases	Gastrointestinal diseases	Control group		
Situational anxiety	189.5	200.3	319.7	300.4	253.4	121.6	82.26	0.000
Personal anxiety	325.6	205.7	239.7	219.9	210.5	182.1	40.46	0.000

Table 2: Differences in the level of depression in respondents (n = 447)

Indicators	Average colors						H	p
	Oncological diseases (n = 51)	Visitors to the clinic (n = 238)	Cardiological diseases (n = 51)	Endocrinological diseases (n = 68)	Gastrointestinal diseases (n = 10)	Control group (n = 29)		
Depression	198.1	213.0	270.3	275.3	256.1	147.3	31.94	0.000

Table 3: Differences in the type of disease response in respondents (n = 447)

Indicators	Average colors					H	p
	Oncological diseases (n = 51)	Visitors to the clinic (n = 238)	Cardiological diseases (n = 51)	Endocrinological diseases (n = 68)	Gastrointestinal diseases (n = 10)		
Harmonic	201.0	235.1	190.5	200.5	234.0	35.82	0.000
Ergopathic	187.6	227.6	227.9	251.1	183.7	9.61	0.087
Anosognosic	196.2	231.9	196.3	193.9	187.0	80.24	0.000
Anxious	258.1	205.5	252.3	299.0	244.4	68.95	0.000
Hypochondriac	293.9	189.9	244.8	290.4	294.4	60.46	0.000
Neurasthenic	252.9	200.0	289.9	295.6	235.4	80.26	0.000
Melancholy	278.4	194.7	235.7	286.5	239.4	39.63	0.000
Apathetic	242.1	216.3	222.8	291.2	217.7	46.45	0.000
Sensitive	281.1	219.1	197.2	289.4	237.7	80.94	0.000
Egocentric	268.3	202.5	277.5	275.8	276.7	65.99	0.000
Paranoid	287.8	218.1	225.4	260.2	187.6	52.57	0.000
Dysphoric	284.7	214.8	258.8	242.7	185.9	45.37	0.000

revealed reliable statistical differences between groups on the following types of relationships: harmonic ($H = 35.82$; $p < 0.001$), anosognosic ($H = 80.24$; $p < 0.001$), anxious ($H = 68.95$; $p < 0.001$), hypochondric ($H = 60.46$; $p < 0.001$), neurasthenic ($H = 80.26$; $p < 0.001$), melancholic ($H = 39.63$; $p < 0.001$), apathetic ($H = 46.45$; $p < 0.001$), sensory ($H = 80.94$; $p < 0.001$), egocentric ($H = 65.99$; $p < 0.001$), paranoid ($H = 52.57$; $p < 0.001$), dysphoric ($H = 45.37$; $p < 0.001$).

Harmony is the correct assessment of one's state, that is, the assessment of it without exaggeration or reduction. He is characterized by a tendency to seriously try to restore his health during treatment, and if the prognosis for his health is not good, he pays more attention to thinking about his loved ones, and relatives. This means that the higher the scores on the scale, the better the harmonic relationship type is formed.

In our study, the highest rates were recorded among outpatient visitors (average color 235.1), who were mostly those who came for a medical examination or were not diagnosed with any serious illness. Probably for this reason, they showed a relatively high level of harmonic response to their disease.

At the same time, it was noted that among patients with gastrointestinal diseases, the harmonic type of attitude to their disease is clearly expressed. In our opinion, patients with gastrointestinal diseases face the problem of overcoming the symptoms of the disease, proper nutrition for treatment,

diet several times a day, and if these conditions are not met, the symptoms of the disease immediately intensify. The strong need to avoid such discomforts and pains in daily life may have provided the motivation for serious initiation of treatment in patients with gastrointestinal diseases as well as the formation of a harmonic type of relationship.

As can be seen from the data presented in Table 3, low levels of harmonic response to their disease are observed among patients with oncological, endocrinological, and especially cardiological diseases. In our opinion, patients with cardiological and endocrinological diseases often do not feel exactly how serious their disease is. They are preoccupied with their own worries in professional, social, and domestic life and do not have enough time to focus on restoring their health. Patients with oncological diseases, on the other hand, suffer from not being able to find answers to questions about why fate is so unfair to them, why fate has punished them with such relentless pain, and deny their disease without realizing it. It is possible that such negative emotions may have led to the formation of a low level of harmonic response type to their disease in patients with such diseases.

An ergopathic attitude toward one's own illness is related to the state of dive from that illness. It was found that there were no statistical differences in confidence levels between different disease groups on this scale ($H = 9.61$; $p > 0.05$). It is likely that the majority of patients, regardless of

their disease group, work diligently against occupational stressors, approaching their work activities with great responsibility, and therefore may suffer from cardiological, endocrinological, and gastrointestinal diseases.

An anosognosic approach to one's illness means a tendency to actively deny one's illness or to try not to think about its consequences even if one accepts one's illness and to engage in self-medication without a doctor's examination in the hope of self-healing. As noted earlier, there were statistical differences in the level of confidence on this scale.

According to the data presented in Table 3, the anosognosic type of attitude was most pronounced in the group of patients who visited the outpatient clinic. Patients who visit the clinic may have a strong tendency to deny the disease, that is, the type of anosognosia attitude because they have noticed that they have symptoms of the disease and are now undergoing a medical examination or because they have little information about their disease.

The anxious type of attitude to one's own illness means constantly being overwhelmed by the worsening of the disease, fear of complications, fear that treatment may be ineffective and even dangerous. Constantly looking for new ways of treatment, hunger for additional information about the disease and treatment methods, and frequent changes of treating physicians are important features that are characteristic of the representatives of the anxious type. Unlike hypochondriac-type attitudes, anxious-type attitudes are more interested in objective information (analysis results, doctor's conclusions) than in complaining about their own health, listening carefully to information about the onset and course of symptoms in others.

According to the data presented in Table 3, the highest rates for the type of anxious attitude to their disease were recorded in patients with endocrine diseases (average score was 299). As medical experts have always pointed out, endocrine diseases (especially diabetes) are based on the emotional changes that occur in a person's life as a result of intense stress, and negative emotions, including anxiety, and fear. Probably for this reason, the type of anxious attitude to their own disease is more pronounced among patients with endocrine diseases than among other categories of patients. It is not surprising that the subjects who visited the polyclinic reported relatively low rates of anxiety-type attitudes, probably because they had not yet recognized themselves as patients and did not have a deep understanding of the symptoms and consequences of the disease.

The next scale is an indicator of the hypochondriac-type response to one's illness, assessed by reflecting the state of over-emphasis on illness, uncomfortable feelings, and conditions. The need to tell everyone, including doctors, nurses, acquaintances and relatives, about their illness is obvious. The exacerbation of the disease is characterized

by traits such as a tendency to seek out diseases that do not exist. He tries to notice the various side effects of the drugs on his own. Such patients have a desire to be treated, but do not believe in the effects of drugs, the qualities of whimsy are clearly felt.

According to the data presented in Table 3, the hypochondriac-type attitude (whimsy) to their disease is formed at a much higher rate among patients with mainly gastrointestinal, oncological and endocrinological diseases. The lowest rates were found in polyclinic visitors. Perhaps because patients who have visited the clinic have not yet perceived themselves as a "full patient," they may not have developed such a negative attitude and mood.

The next scale is the neurasthenic-type response scale to one's illness, which is reflected in the onset of negative emotions such as pain, discomfort, and generally deteriorating health such as anger, resentment, and resentment. He can vent his anger and grief on anyone he encounters during a period of intense nervousness but then apologize with a guilty conscience. Their inability to bear the pain, inability to accept the pain, and impatience is evident in his actions, but the situation ends with an apology when he realizes that his action is wrong.

According to the data in Table 3, the highest rates of neurasthenic-type response to their disease were noted in our study among patients with endocrinological and cardiological diseases. Probably, the appearance of such diseases is often associated with the strong manifestation of nervousness, excitement and other negative emotions in stressful situations, so they may be more pronounced neurasthenic type of reaction to the disease.

The lowest rates were recorded in polyclinic visitors, as the majority of patients in this category did not experience persistent painful, uncomfortable sensations, so they may not have developed the neurasthenic response type to their disease described above.

The melancholic type of attitude to one's own illness reflects the experience of "sticking" to the disease, insecurity in treatment, and doubts about the effectiveness of treatment. From depressive thoughts to suicidal thoughts, such people are attracted to them, and because they are pessimistic about everything, they have doubts about the success of treatment, even when they are objectively positive and satisfied.

According to the data presented in Table 3, melancholy-type attitudes towards their disease are very high among patients with endocrinological and oncological diseases. In our opinion, the fact that the possibility of treating oncological and endocrinological diseases is much more limited than other diseases, the fact that such patients are more difficult to treat, may have led to a loss of confidence in their treatment.

The apathetic type of attitude to one's own disease means that the patient is absolutely indifferent to his own

destiny, to the consequences of the disease, to the results of treatment. Passive obedience to treatment and procedures in spite of serious warnings, grief, loss of interest in life, in general, everything that previously interested him, laxity in activity, behavior and interpersonal relationships, and apathy are clearly expressed in such patients.

According to the results of the study presented in Table 3, the apathetic type of response to one's own disease would be most pronounced in patients with endocrine disorders. Perhaps, on the one hand, the possibility of treating endocrine diseases (in the case of diabetes) is much more limited than the prospects for treatment of other diseases, on the other hand, patients with endocrine diseases lose interest in life a cold mood may be predominant.

The sensitive type of attitude to one's own disease implies the predominance of the qualities of hypersensitivity, subtlety, and responsiveness. People around him immediately notice the illness of such a person, but the patient does not want to show pity to those around him, revealing his feelings of compassion. That is why such a patient tries to avoid the eyes of others, does not like to be a "burden" on them. Eventually, such a patient's relationship with others changes, and the onset of interpersonal relationships is significantly reduced after the diagnosis of the disease.

Looking at the data in Table 3, representatives of the group of patients with endocrinological and oncological diseases differed from the representatives of other groups on the sensitive type of their disease response. These results can be explained by the fact that endocrinological and oncological diseases in society often cause emotional distress with the label "lifelong diagnosis" or "chronic pain." Of course, such an interpretation of the disease can be very distressing for people who are constantly active in their professional and social life, creating feelings of humiliation, and humiliation. Perhaps this is why it is precisely in patients with endocrinological and oncological diseases that the sensitive type of response to their disease is most evident.

The egocentric type of attitude to one's own disease is expressed in the "acceptance" of the disease and, of course, in the desire to present the disease to everyone and "benefit" from it. In other words, such patients are not interested in the condition of their loved ones, trying to show others how much they are suffering, trying to attract the attention of others. Communication with others is always a pleasure to talk about their ailments and illnesses to the last detail. Emotional instability, frequent variability, and the perception of others as rivals are characteristic of such patients.

The following considerations can be made by referring to the data presented in Table 3. The egocentric type of attitude to one's own disease is clearly expressed in all types of diseases, except for patients who visit the polyclinic, and this result is clearly reflected in the fact that patients are truly

"wrapped" in their own diseases and ailments. This means that patients with any difficult-to-treat disease develop an egocentric attitude toward the disease, demonstrating their suffering to others, trying to attract the attention of others, and not being interested in the condition of their loved ones.

The paranoid type of attitude to one's own illness means that the illness is perceived as a complication of some external cause. According to such a patient, the disease was deliberately formed by someone as if by some kind of influence on him. He looks at conversations about himself and his illness with extreme sensitivity and suspicion. When a disease occurs, there is always a tendency to blame someone for its complications. In most cases, they blame the medical staff and want them to be punished.

According to the results of the study presented in Table 3, the highest rates of paranoid-type attitude to their disease are observed among patients with oncological diseases.

On the one hand, as stated in one of the rules of the subjective control locus, in many cases a person tends to associate it with his own efforts when he succeeds in a field, and to blame others when he fails. On the other hand, information about the objective causes of oncological disease in a patient who has not yet been isolated cannot be clearly stated not only by the patient himself, but also by medical professionals. There is no clear information in the medical field on the extent to which the origin of these diseases depends on a person's behavior, their lifestyle, or external (e.g., environmental) factors. In our opinion, since the exact relationship between the occurrence of oncological diseases and their unhealthy lifestyle is still unknown, patients with such diseases may have a stronger tendency to blame the paranoid type of attitude to the disease, i.e. others (e.g. medical staff).

The dysphoric type of attitude to one's illness is defined as the predominance of sadness, anger, and hatred of healthy people. In such a person, the guilt of others in their own illness is highly formed. It requires special attention to itself and is skeptical of the success of treatment. Aggressive and sometimes despotic relationships with loved ones predominate.

In our study, the highest rates of dysphoric response type to their disease were observed in the oncological group. However, the main point to note in this picture is that the type of dysphoric attitude to their disease in patients with gastrointestinal diseases is even lower than in patients visiting the clinic. Approximately a similar result was observed in the analysis of the paranoid type of attitude to one's own disease eating", self-destruction, self-destruction (Table 3).

In patients with oncological, cardiological, endocrinological and gastrointestinal diseases, measurements were made on the scales of "Joy", "Anger", "Fear" and "Sadness" with the help of L.A. Rabinovich's "Four Modal Emotional Questionnaire". As can be seen from the

Table 4: Four modal emotional differences in respondents (n = 118)

Indicators	Average colors				H	p
	Oncological diseases (n = 49)	Cardiological diseases (n = 28)	Endocrinological diseases (n = 31)	Gastrointestinal diseases (n = 10)		
Joy	44.57	71.04	71.29	63.80	16.43	0.001
Anger	44.28	78.79	63.42	67.95	19.67	0.000
Fear	56.12	56.88	69.60	52.10	3.82	0.281
Sadness	54.60	71.29	54.84	64.95	5.17	0.160

data in Table 4, only significant statistical differences were found between the studied disease groups on the scales of "Joy" (n = 16.43, $p < 0.001$) and "Anger" (n = 19.67, $p < 0.001$). There are no statistical differences in confidence levels on the "Fear" and "Sadness" scales ($p > 0.05$).

According to the data presented in Table 4, the average colors on the scales of "Joy" and "Anger" in patients with oncological diseases were significantly lower than in other disease groups (44.6 and 44.3, respectively).

Thus, the data in the table show that while patients with cancer have very low levels of emotions of joy and anger, emotions of fear and sadness are also moderately expressed compared to other disease groups (56.1 and 56.4, respectively). From these results, it can be concluded that which modality of emotions dominates in the daily life of patients does not play a significant role in the development of oncological diseases.

In groups of patients with cardiological, endocrinological and gastrointestinal diseases, it is possible to observe the predominance of emotions in one mode or another. For example, in patients with cardiological and gastrointestinal disorders, emotions of anger and sadness predominate, while in patients with endocrine disorders, feelings of fear are more pronounced than in other emotional states.

In addition, the results of the analysis of the cognitive, emotional, conative components of the internal manifestations of the disease proved that the patient's psychological condition, attitude to his illness and treatment process depends on the nature of the disease, recovery opportunities, course and treatment effectiveness. Our empirical studies have reaffirmed the need for psychological care for the patient from the day he or she is diagnosed, diagnosed, and informed of his or her diagnosis.

We believe that the earlier psychological help is started, the higher the effectiveness of treatment. Our observations have shown that physicians often feel the need to refer a patient to a psychologist, but delay the referral to a psychologist consultant, and even some physicians are frustrated with this. This leads to secondary and even tertiary complications of the disease, leading to a violation of the patient's socio-psychological adaptation to the conditions of the disease. In many cases, physicians refer to a patient's psychological condition as a last resort after the treatment process has not yielded its effectiveness, after the patient

has become completely depressed. Timely psychological assistance, the organization of psychological support to the process of medical treatment will help to prevent such desperate situations.

Conclusion

Based on the results of the study, the following conclusions and practical recommendations can be made:

- In cardiac patients under the influence of the disease changes primarily in the psycho-emotional state, because the heart is closely associated with the concept of "life", a sudden heart attack in the patient is strong fear, anxiety, which leads to a sharp decline in self-esteem and self-confidence, instability, creates a number of problems such as disbelief in the future and worsens the patient's socio-psychological adaptation. Therefore, psychological care in these diseases should be focused primarily on the emotional sphere, to form the right attitude of the patient to his disease, to improve his quality of life.
- In gastroduodenal pathology, our studies have shown that in patients under the influence of the disease, irritability, conflict, frustration, increased aggression, internal dissonance lead to an attack of the disease and prevent complete recovery of the patient. Therefore, psychological assistance in these diseases should be focused on the psycho-emotional sphere, interpersonal relationships.
- Patients with diabetes, the most common of the endocrine diseases, also feel the need for psychological help. This disease leads to significant changes in the emotional-personal and volitional spheres in the patient. Therefore, psychological care should be aimed at providing these patients with adequate knowledge about their disease, timely nutrition and medication, as well as the use of cognitive-behavioral therapy aimed at ensuring strict adherence to diet.

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