FEATURES OF DEFENSE MECHANISMS OF MEN WITH ONCOLOGIC DISEASES

S. Kolkova, M. Ivanova
Krasnoyarsk State Medical University, Krasnoyarsk, Russia

Abstract
Psychological defense mechanisms aim to overcome the frustrating impact of disease and a complex set of anxiety disorders. However, these mechanisms are not always effective in overcoming stress. Psychological support has a positive effect in the treatment of patients with cancer. To implement an individual approach, it is important to explore some psychological characteristics of the patient. Among other studies, the study of psychological defense mechanisms is of special importance. In this research a comparative study of psychological defense mechanisms of patients with cancer and healthy people is presented. The Life Style Index (LSI) method, compiled on the basis of the ego-defenses profile, was used. As it was revealed, the predominant mechanism of psychological defense among cancer patients is “denia”, while among healthy people it is “suppression”. Other protection mechanisms are also different among patients with cancer and healthy people. Consequently, detection of differences in the studied samples may indicate that there is a change of psychological defense mechanisms in case of cancer.

Keywords: oncology patients, related to disease, defense mechanisms, denial, suppression, projection, compensation, displacement, intellectualization

Relevance
The importance of studying psychological defense mechanisms is particularly relevant nowadays due to the successful development of psychotherapy and therapy, as well

Kolkova Svetlana Mikhailovna – Candidate of psychological science, Associate professor, Clinical psychology and psychotherapy department, Krasnoyarsk State Medical University, Krasnoyarsk, Russia;
Address: 1, Partizan Zheleznyak street, Krasnoyarsk, 660022; phone: +7 (391) 221 91 45;
E-mail: kolkova67@mail.ru
as their implementation in virtually all areas of medicine. Search of the content “targets” for psychological correction of patient personality - one of the most complex and demanding task of psychology. It is particularly important to investigate psychological factors (sources) of the disease and attitudes towards it (Isaev, 2011; Kolkova, 2015; McWilliams, 2014; Mendelevich, 2011; Nikolskaia, Granovskaya, 2011; Popova, Glybochko, 2013).

Among the significant factors influencing the attitude to illness and awareness of its frustrating (blocking the basic needs of the individual) character, are threats to identity and related anxiety. Psychological defense mechanisms are aimed at overcoming a sense of frustration and a complex set of anxieties resulting from disease. Such mechanisms include repression, regression, isolation, projection, introjection, the treatment itself, the appeal in its opposite, sublimation and others. Not by chance, for the first time more than 100 years ago, Freud defined the concept of “defense mechanisms” as “defense Ego” in conflict situations that give rise to concern and as a result, a neurotic symptom. Psychological defense mechanisms in their essential manifestations of unconscious mental activity, emerging in ontogeny based on genotypic properties of interaction with the individual, specific historical experiences of the individual in a particular social environment and culture, could aggravate, mitigate or neutralize the personal reactions to emotionally significant stimuli. Such incentives may turn into a disease (Fedorenko, 2014; Hasan, Fedorenko, 2014; Yu, & Sherman, 2015; Kolkova, 2009).

One of the most dangerous diseases is cancer. This diagnosis is a chronic massive psychological trauma, which is likely to impact on the psychological defense mechanisms of cancer patients. However, psychological defense mechanisms are not always effective to overcome this stress (Marrazzo, Sideli, Rizzo, Marinaro, Mulè, Marrazzo, La Barbera, 2016; Akechi, 2015).

Psychological support having a positive effect on the mental state of cancer patients increases attitude for recovery, and survival rate increases. However, their efficacy depends on psychological features of patients. Hence it follows the importance of a deeper study of psychological features of sick people, particularly their psychological defense mechanisms. Gender is also of great importance. Therefore, it is better to differentiate males and females in the study (Husson, Vissers, Denollet, & Mols, 2015; Mersdorf, Vargay, Horváth, & Bányai, 2014).
To overcome the effect of frustrating disease (especially psychosomatic pathology), and a complex set of anxieties in humans, there are so-called psychological defense mechanisms which control threatening conditions according to modern American psychologist Richard Lazarus. Such mechanisms include repression, regression, isolation, projection, introjection, the treatment itself, the appeal in its opposite, sublimation and other (Caprino, & Massimo, 2014).

The term “defense mechanisms” first appeared in 1894 in the work of Austrian psychoanalyst Sigmund Freud “The neuro-psychoses of defense” and has been used in a number of his later works (“Studies on hysteria”) to describe the fight against the disease, or unbearable thoughts and affects. Later the term was abandoned and replaced by the term “repression”. The relationship between these two concepts, however, remains uncertain (Freud, 1897).

In the annex to the work of “Inhibitions, Symptoms and Anxiety”, Freud returns to the old notion of protection, arguing that its application has its advantages, “as we enter it for the common symbols of all the techniques that I use in the conflict, and which may lead to a neurosis leaving the word “expulsion” for a special method of protection, it is best studied by us at the initial stage of our research”. The argument that repression has an exclusive position in the psychoanalytic theory of space among mental processes is in opposition to other processes serving the same purpose. Namely, “I am from the instinctive protection requirements” is directly refuted here. The value of the displacement is reduced to a “special method of protection”. This new understanding of the role of repression requires research of other specific ways to protect and comparison of such methods discovered and described by researchers working in the psychoanalytic tradition. Regression and reactive changes (reaction formation), isolation and “destruction” - all of them are considered to be protective equipment used in obsessional neurosis.

The function and purpose of psychological defense is to weaken the intrapersonal conflict (stress, anxiety), due to contradictions between the unconscious instinctual impulses and lessens (internalized) the requirements of the environment, resulting from social interaction. Attenuating the conflict, the protection regulates human behavior, increasing
its flexibility and balancing the mind (Hyphantis, Almyroudi, Paika, Degner, Carvalho, & Pavlidis, 2013).

State of the problem

The problem of studying psychological defense mechanisms is significant at present; it is well known that these same mechanisms occur throughout the human life. These mechanisms can be vividly traced during the human disease. According to the World Health Organization (WHO) and the International Agency for Research of Cancer one of the most dangerous and widespread diseases is cancer. It kills about 8.5 million persons per year. This number includes 3 million people who are dying in Russia. This diagnosis can affect the psychological defense mechanisms of cancer patients.

Important factors that can help a person cope with the psychological trauma are social institutions: family, friends, work, school, etc. Results depend on the impact of these institutions. At the same time, studies show that the use of psychotherapy in the case of cancer also has a positive effect: the mental state of the patient improves, mood for recovery becomes higher, the survival rate of these patients increases. However, it is not effective for everyone. Hindrance to psychological health can appear to be mechanisms of unconscious psychological defense that are not always effective to overcome the stress associated with the disease. Therefore, the aim of this work is to study psychological defense mechanisms of cancer patients.

Materials and methods

The study was held during the immediate treatment of patients in the “Krasnoyarsk Regional Clinical Oncology Center named after A.I. Kryzhanovsky”. This center provides medical care to cancer patients: diagnostics (medical examination, specimen collection), hospitalization, treatment of oncology patients. The study involved 38 males with cancer and 38 healthy subjects.

The “Life Style Index” (LSI) method was used to identify psychological defense mechanisms in cancer patients. The peculiarity of this method is that the number of claims assessed subjects “right/wrong”; it has a separate form with the authorization and instructions, as well as the form for entering the responses that allows a possible break in the performance of this technique. The test included eight kinds of defense mechanisms: repression, denial,
displacement, compensation, reaction formation, projection, intellectualization (rationalization) and regression. Each of these protective mechanisms corresponded to 10 to 14 statements describing the personality of human responses that occur in various situations.

Positive responses for each of the eight scales were counted in accordance with the key. Then, positive responses on severity level of psychological defense mechanisms were calculated for each scale according to the formula, as well as the overall intensity of psychological defense mechanisms. According to the results a profile of ego defenses was compiled.

**Results and their discussion**

The results that were obtained after the use of the “Life Style Index” method, are presented in Table 1 and Figure 1.

Table 1.

<table>
<thead>
<tr>
<th>The defense mechanisms</th>
<th>Number of persons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Denial</td>
<td>14</td>
</tr>
<tr>
<td>Suppression</td>
<td>3</td>
</tr>
<tr>
<td>Regression</td>
<td>0</td>
</tr>
<tr>
<td>Compensation</td>
<td>3</td>
</tr>
<tr>
<td>Projection</td>
<td>9</td>
</tr>
<tr>
<td>Displacement</td>
<td>1</td>
</tr>
<tr>
<td>Intellectualization</td>
<td>6</td>
</tr>
<tr>
<td>Reaction formation</td>
<td>2</td>
</tr>
</tbody>
</table>

![Figure 1. Indicators of severity of psychological defense mechanisms in cancer patients](image-url)
The analysis of the results of the study by the “Life Style Index” method revealed that the most evident psychological defense mechanisms in the group of patients with cancer were denial (37%), projection (24%), intellectualization (16%), suppression (8%), compensation (8%), reactive formation (5%), and substitution (2%). The psychological mechanism of regression was not revealed in this group (Figure 1).

The quantitative results can be represented in Figure 2.

![Figure 2. Quantitative indicators of defense mechanisms in cancer patients](image)

The average values of psychological defense mechanisms are represented in Table 2 and Figure 3.

<table>
<thead>
<tr>
<th>The defense mechanisms</th>
<th>Average severity of psychological defense mechanisms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Denial</td>
<td>59.2</td>
</tr>
<tr>
<td>Suppression</td>
<td>41.2</td>
</tr>
<tr>
<td>Regression</td>
<td>6.5</td>
</tr>
<tr>
<td>Compensation</td>
<td>39.8</td>
</tr>
<tr>
<td>Projection</td>
<td>49.2</td>
</tr>
<tr>
<td>Displacement</td>
<td>35.1</td>
</tr>
<tr>
<td>Intellectualization</td>
<td>41.6</td>
</tr>
<tr>
<td>Reaction formation</td>
<td>12.8</td>
</tr>
</tbody>
</table>
The second part of the study was carried out on healthy subjects, that is, those who did not have cancer in their medical history. The following results were obtained by the “Life Style Index” method:

Table 3.

Quantitative indicators of defense mechanisms in healthy persons

<table>
<thead>
<tr>
<th>The defense mechanisms</th>
<th>Number of persons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Denial</td>
<td>3</td>
</tr>
<tr>
<td>Suppression</td>
<td>10</td>
</tr>
<tr>
<td>Regression</td>
<td>2</td>
</tr>
<tr>
<td>Compensation</td>
<td>7</td>
</tr>
<tr>
<td>Projection</td>
<td>5</td>
</tr>
<tr>
<td>Displacement</td>
<td>6</td>
</tr>
<tr>
<td>Intellectualization</td>
<td>2</td>
</tr>
<tr>
<td>Reaction formation</td>
<td>3</td>
</tr>
</tbody>
</table>
Figure 4. Indicators of psychological defense mechanisms severity in healthy persons

Analyzing the results of the study by the “Life Style Index” method, it was revealed that the most evident psychological defense mechanisms in the studied group of healthy subjects were suppression (27%), compensation (19%), displacement (16%), the projection (14%), denial (8%), reaction formation (5%), regression (6%), and intellectualization (5%), see Figure 4.

Quantitative indicators of protection mechanisms in healthy control subjects are represented in Figure 5.

Figure 5. Quantitative indicators of protection mechanisms in healthy control subjects

The average values of psychological defense mechanisms in healthy control subjects are shown in Figure 6.
Figure 6. Average values of the psychological defense mechanisms severity in cancer patients

Moreover, based on the results of the study, quantitative indicators of psychological defense mechanisms of cancer patients can be compared to those in healthy persons, see Figures 7 and 8.

Figure 7. Comparison of quantitative indicators of psychological defense mechanisms between the studied samples
Figure 8. Comparison of quantitative indicators of psychological defense mechanisms between the studied samples

From these graphs it is evident that the predominant mechanism of psychological defense in patients with cancer is “denial” while in healthy persons it is “suppression”. The rest of the defense mechanisms are also different. With respect to the frequency of occurrence, the second place is taken by “projection” in cancer patients and “compensation” in healthy persons. The third place is taken by “displacement” in healthy subjects and “intellectualization” in patients with cancer.

Recommendation

In case of some ineffectiveness of psychological defense, training was worked out to develop the ability of sensory awareness and awareness of unconscious psychological defense mechanisms. It is offered as one of the possible options of psychocorrection for cancer patients.

The training consists of two stages:

1. The objectification of emotions and feelings, the development of sensory and physical awareness.

2. Awareness of the true emotions, feelings and forms of protective response.

The first step of the training is a “touch” of cancer patients to their own states of the body, emotions, and feelings. It is physical and sensory awareness. Cancer patients are expected to receive a new experience: they recognize a feeling, not noticed before. Awareness of information from the sense organs, awareness of internal body sensations takes place during specially organized exercises by the method of introspection. For this purpose a
patient’s attention is paid to parts of the body which are “escaping” from awareness. The body is felt as a whole, sometimes there is a “reconciliation” of the person with his body. Self-monitoring of sensory and body states is a necessary step on the path to personal development because it allows a person to focus on the present.

The second step of training is a “touch” of cancer patients to their own unconsciouness and awareness of their own true feelings, emotions and forms of protective responses. For this purpose patients objectify affective states that are ambivalent and cause an internal conflict between the socially approved and disapproved emotions. To raise their awareness of this conflict an imaginary situation can be used, for example, a meeting with unusual human - someone who has a serious physical injury. It actualizes unconscious forms of protective responses (identification, projection and transference).

The objectification of affective states occurs with the modified method of compassion for the situation. There is the scheme of modification of the method:

1. The level of the first reactions:
   A. Video demonstrating a disabled girl with no hands and only one foot is effective for the cancer patients.
   B. Cancer patients are asked to mark down their sensations in the body and the emotions that have arisen while they were watching the movie.
   C. Cancer patients are asked to describe those moments from their own life experience which help understand and explain their first reaction.

2. The level of emotional reactions:
   A. Cancer patients are suggested to imagine themselves as a movie character, to imbue with her feelings and to describe their feelings and emotions without assessing.
   B. Cancer patients are suggested to compare their own feelings with the feelings of the movie character and to explain what and why they are different.

3. The level of rational comprehension:
   A. Cancer patients identify key moments in the movie’s own perception (differentiation of the senses to the socially approved and disapproved, the etiology of these feelings, psychological defense mechanisms).
B. Cancer patients actualize the relevant psychological information in connection with the selected key moments.

The result of the second stage of training is the awareness of the cancer patients of the true feelings and emotions, their own unconscious psychological mechanisms of defense, the participants are aware of the internal conflict between the socially approved and disapproved emotions and feelings.

**Conclusion**

The study involved two samples of males: patients with cancer and persons without cancer. Persons with the disease covered a large nosological group, they were examined in the following departments of the oncology center: department of thoracic surgery, department of urological surgery, department of oncological surgery of head and neck tumors.

As a result, the study revealed difference between psychological defense mechanisms of the investigated samples, which may indicate that there is a change in psychological defense mechanisms in case of cancer. Any reaction of people to serious illness associated with psychological defense mechanisms that affect the life of the patient, the quality of his life by one way or another, was registered. Psychological protection can help to maintain the inner world with changes in external factors. But it is not always effective to overcome the stress associated with the disease. Unconscious psychological defense mechanisms may interfere with psychological health. In these cases, the proposed training can be used to develop patients’ sensory awareness and awareness of unconscious psychological defense mechanisms.

The practical relevance of the study is that it is possible to interpret the information to provide people and clinical psychologists working in the hospital with necessary recommendations. It is also possible to use the information in future studies to compare the results of this study with the results received in samples of females and children.

**References**


McWilliams, N. (2014). *Psychoanalytic Diagnosis: Understanding personality structure in the clinical process.* Moscow : Class. (in Russian)


