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# Factors of the Development of Fear of Disease Progression in Patients with Breast Cancer

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## Abstract

**BACKGROUND:** The issue of the influence of psychics on somatic diseases, including cancer, becomes more and more relevant. In cases with cancer, patients face a vital threat, which, in its turn, is manifested as a range of biopsychosocial consequences.

**AIM:** The aim of the study was to reveal the factors of the formation of fear of cancer progression or recurrence in breast cancer patients.

**METHODS:** The sampling included patients from clinical hospitals of Moscow and Saint Petersburg (Russia). The study involved 690 patients aged 30–79 years old. The study was performed with specially selected diagnostic tools that allowed the authors to evaluate the intensity and reveal peculiarities of the development of fear of cancer progression. Statistical analysis was performed by the calculation of the mean arithmetic of the general sampling, the rate, and the ratio distribution by the intensity of fear of cancer progression, and Spearman correlation.

**RESULTS:** Statistically significant associations were revealed between the parameters of intensity and peculiarities of fear of cancer progression and such characteristics of personality as viability, integrated personality, and experiences in a close relationship.

**CONCLUSION:** The obtained results were used to develop methodical recommendations on the improvement of a psychoemotional condition of women diagnosed with breast cancer.

## Introduction

Presently, the issue of the improvement of the quality of life of the population is becoming more and more acute. This issue is especially relevant for patients with malignant neoplasms and is acknowledged at the international level [1]. The analysis of the last decade showed that presently, there is a negative tendency toward an increase in the ratio of women with malignant neoplasms of the reproductive system [2]. The statistics say that Russia occupies the leading position by the rate of cancer morbidity. Among the female population, the breast cancer morbidity rate is 21.8% of the total cancer morbidity rate. In general, the number of women with malignant neoplasms increased by 33.8% during the past decade [3].

Numerous researchers highlight that modern methods of treatment cannot guarantee absolute recovery because oncologic diseases are accompanied by side effects and can lead to functional disorders, which aggravates fear of this disease and possible recurrence [4], [5], [6]. In a commonplace sense, cancer is still perceived as fatal, associated with inevitable death; and treatment is perceived as a long-term and painful process of dying, which contributes to the formation of a wrong picture of the disease significantly reducing the psychological adaptation of patients.

Modern views of adaptive mechanisms observed during a severe chronic disease exist within the conceptual framework of an internal picture of the disease [7], [8]. The issue of the influence of psychics on the development of somatic diseases, including cancer, is very acute. There is significant evidence on the role of anxiety in the development of the disease, which is the most widespread psychological reaction after the diagnostics of cancer [9], [10], [11], [12], [13]. The fear of disease progression is a situation-specific and completely conscious experience that affects the emotional, cognitive, and behavioral spheres. In such situations, patients face a vital threat, which, in turn, can be associated with long-term and exaggerated concerns, which inevitably affects a favorable disease outcome, the general psychological welfare, and the quality of life. Patients that experience fear can form an inadequate evaluation of the situation, which prevents

the formation of effective behavior in situations that require their response to it. However, there is a quite limited range of studies on the diagnostics of anxiety in patients that fear the progression or relapse of the disease.

The aim of the present study was to reveal the factors of fear of disease progression in breast cancer patients. The following tasks were set: (1) To define the concept of "fear of disease progression;" (2) to study the relevant level of its development in breast cancer patients with different social-demographic characteristics, the fear of cancer progression, and peculiarities of its manifestation; (3) to study the individual peculiarities of patients; and (4) to reveal the association between the parameters of factual intensity of fear of cancer progression in cancer patients and the peculiarities of their personality.

### *Literature review*

Diagnostics of cancer is stress itself that strongly affects a patient's psychology. Nearly all scientists highlight that patients diagnosed with cancer face one of the strongest stresses that people can experience in their life [6], [8], [9], [11].

A lot of studies have been dedicated to the evaluation of psychological reactions and psychic disorders that arise after the diagnostics and during the treatment of oncologic diseases [7]. Thus, the study [12] describes the occurrence rate of psychiatric disorders among randomly chosen patients in cancer centers in the USA. It was revealed that in 47% of cancer patients, psychopathological symptoms and disorders developed (unlike in 12–13% of the total population) in 68% of them, adaptation problems were observed, in 8% – organic CNS damage, and in 11% – earlier diagnosed psychiatric disorders.

Yang *et al*. [14] in their study described the psychological peculiarities of patients with lymphogranulomatosis on a long-term period of remission. It was revealed that 31% of participants were not satisfied with their life, 47% of patients did not manage to adapt and return to normal "healthy" life after the therapy.

Other authors also noted the symptoms of psychological maladjustment in cancer patients in remission [3]. Zotov [7] provides an example wherein it was revealed that in the group of 266 women who underwent surgery for breast cancer, more than a quarter (27%) were distressed; 23% demonstrated obsessive-compulsive symptoms, 19% – increased anxiety, and 12% – depressive symptoms. Young women (up to 50 years old) primarily show obsessive-compulsive and depressive symptoms. In comparison with patients with a more severe degree of cancer, women with a lighter degree of breast cancer demonstrated higher anxiety and higher intensity of paranoid symptoms [15]. Some studies showed that psychological and social disorders can persist for many years after the treatment [16], and the emotional and cognitive influence of oncologic diseases can negatively affect both medical aspects and psychosocial adaptation of patients [17].

When patients realize that they have a severe disease that threatens their life, they start thinking of the possible development of the disease and its possible progression in the future. Anxiety is understood as a perception of the possibility of progression or recurrence of the disease with all its consequences that affect all the spheres of a patient's life [18]. The anxiety itself about the progression of the disease is a specific and situation-determined emotion that is based on the life experience of a patient with a life-threatening disease [16]. Presently, it is believed that anxiety about the disease recurrence or its progression is a factor of psychological distress and the manifestation of fear in cancer patients because it is associated with a higher level of depression and anxiety, as well as a significant worsening of the quality of life [6].

For the identification of factors of fear formation of the disease progression, it is necessary to study patients' attitudes toward the disease and the intensity of PTSD symptoms and to evaluate the relationship with the relatives and their devotion and personal peculiarities of patients that contribute to coping with stress.

The authors conducted the study that was focused on the identification of peculiarities of a psychological condition in breast cancer patients and factors that provide this condition.

## Methods

### *Sampling characteristics*

The study included 690 women with breast cancer aged 30–79 years old: 30–45 years old – 120 women, 46–60 – 290 women, and 61–79 – 270 women. The disease duration ranged from half a year to 10 years: up to 1 year – 130 women, 1–5 years – 400 women, and more than 5 years – 160 women. Out of 690 women, only 350 did not have comorbid diseases and 340 had different diseases of various degrees.

Fifty women (8%), apart from cancer, had ischemic heart disease. Diabetes mellitus of the 2$^{nd}$ degree was diagnosed in 60 women (9%). Hypertension was revealed in 60 women (9%). Four percent of patients had metastasis. It should be noted that apart from primary comorbid diseases, some women had varicosis, gastritis, TB, as well as two primary comorbid diseases.

The majority of patients had higher education (62.86%), 60 women had unfinished higher education

(8.57%), 60 women had secondary professional education (22.86%) and secondary education (4.29%), and 1.43% of women did not have secondary education. The majority of women were married (60%), 10% of women were single or lived with parents, 18.84% of women were widowed. 590 women had children (85.5%), and only 100 women did not (14.5%).

Apart from the social-demographic characteristics of women, the authors studied their biography. The results of this part of the study are not presented because of the confidentiality policy and the irrelevance of these data for the aim of the study.

### *Diagnostic methods*

The evaluation of the intensity of fear of disease progression in cancer patients was performed with an inventory "Fear of disease progression" [19]. The inventory represents an integrative model of anxiety that includes cognitive, emotional, and behavioral levels. The participants evaluated their emotions by a 10-point scale. The inventory included variants of protective behavior in patients with fear of disease progression: Counseling, self-examination, distraction, suppression of negative thoughts, and positive reformulation.

A short inventory on the evaluation of fear of disease progression includes 15 statements for the respondent to agree with them or to disagree. The statements are grouped by three main scales: Emotional response (fear of medical procedures, general condition before the visit, and excessive emotional tension associated with the disease), family-related fears (fear for the family members, for their emotions, and attitude toward the disease), and fear of self-sufficiency loss (burden for the family, and inability to cope with domestic problems).

For the identification of the factors that influence the fear of disease progression in women with breast cancer, the following methods were selected:

1. The viability test by Leontiev [20] focuses on the study of the belief system, understanding of the personality, the surrounding world, and the relation with the environment. The scale includes three components: Involvement, control, and risk-taking. The expression of these components and viability, in general, prevents the development of internal tension in stress situations due to proper stress management.
2. "Experiences in a close relationship" [21]: The test contains 36 statements that make up two scales: The anxiety scale in a close relationship (i.e., the level of assurance in the reliability and responsiveness of a significant person) and the scale of avoidance of a close relationship (i.e., a degree of discomfort experienced during the development of psychological attachment to another person and formation of dependence).
3. The self-structural Ammon test [22], [23] is a clinical test developed based on the concept of dynamic psychiatry. According to the theory of Ammon, the structure of a personality and psychic is determined by a range of "Self-functions" that make up a person's identity. The scales correspond to the main six self-functions: Aggression, Anxiety/Fear, External Self-Limitation, Internal Self-Limitation, Narcissism, and Sexuality. Each of these functions can be constructive, destructive, and deficient.

### *Statistical analysis*

The initial task to form two contrast groups was not fulfilled because there was a lack of patients with pathological fear. Thus, at the second stage of the study, the authors performed correlation analysis between the parameters of fear of disease progression and parameters of patients' personalities and their experiences in a close relationship. The revealed correlations provided grounds for certain conclusions.

Methods of statistical analysis included the calculation of the arithmetic mean, the rate and ratio distribution of patients by the intensity of fear of cancer progression, and calculation of the Spearman correlation coefficient.

### *Ethical considerations and confidentiality*

The study was conducted according to the principles of ethics and confidentiality. Patients with breast cancer volunteered to participate in the study and undergo the required examination of their general health and evaluation of fear of cancer progression, and the study of their peculiarities based on their previous life experience. First, patients were informed on the aims and tasks of the study, its structure, and procedures. Second, the study included only methods implemented for studies by different scientific schools. Third, confidential information about the participants was not disclosed.

## Results

### *Intensity of fear of cancer progression in patients with breast cancer*

A high level of the intensity of fear of cancer progression was revealed in 26.07% of patients. The majority of patients evaluated the intensity of their fear as 5–7 points by a 10-point scale, i.e., average intensity; 33.33% of patients evaluated the intensity of fear as low.

During the study, it was revealed that 46.38% of patients doubted that the treatment would be successful.

At the same time, nearly the same amount of patients (40.58%) were absolutely sure that the treatment would be successful, and only 13.04% of patients did not believe in the possibility of recovery and the effectiveness of the therapy.

It was revealed that 17.39% of patients often had thoughts about death and other negative emotions and cognitive images. The majority of participants (56.52%) evaluated their negative thinking as a manifestation of the average intensity of negative images and 26.09% of patients evaluated their negative thinking as a manifestation of high intensity of negative images associated with negative thoughts and feelings.

It should be noted that the cognitive component of fear of cancer progression and recurrence includes the respondents' belief in the benefits of anxiety and vigilance. Thus, 39.13% of patients were absolutely sure that the feelings of anxiety and concern are beneficial; 47.83% of patients doubted that anxiety was beneficial; and 13.04% of patients did not believe in the benefit of anxiety at all.

The results of the study of the cognitive component of fear of cancer progression that reflects the degree of the subjective condition of anxiety awareness indicated that the majority of patients with breast cancer felt moderate anxiety.

Fear, anxiety, and concern about the possible progression of the disease provoke certain types of defensive behavior. Thus, the majority of patients (50.72%) that felt anxiety applied for doctor's counseling and monitoring of their diseases. More than one-third of patients (33.33%) always tried to visit doctors as soon as they felt anxiety about possible cancer recurrence. Only 15.94% of patients reported that they applied to doctors quite rarely.

It should be noted that 53.62% and 20.29% of patients responded that they tried to suppress negative thoughts and anxiety often and always, respectively. However, a significant part of women with breast cancer who felt fear of cancer progression rarely tried to suppress negative thoughts: 24.64% of patients responded that they tried to suppress the increasing anxiety quite rare.

Many patients who experienced fear of cancer progression tried to persuade themselves that everything would be fine using such a model of defensive coping behavior as positive reformulation (43.48%); 36.23% of patients responded that they were involved in self-persuasion most of the time.

The results on the character of fear of breast cancer progression indicate that, in general, the majority of patients are concerned about becoming a burden for their families and losing their self-sufficiency, independence, and their common status in the society.

The following results were obtained after the analysis of the inventory "Emotional response": none of the patients experienced expressed fear for their future, fear of pain, and long-term therapy; 17.39% of patients reported mildly expressed fear for themselves and 82.61% – moderately expressed fear, which indicated an adequate response of the majority of patients to their oncological disease; 21.74% of patients had expressed fear for their families, for their family members' future in case of possible death, fear to bring grief and suffering to their families; and 30.43% of patients reported mildly expressed fear for their families and 47.83% – averagely expressed.

### *Association between the intensity of fear of cancer progression and personal characteristics of patients with breast cancer*

The correlation analysis revealed that negative correlations are significant between the level of general viability in cancer patients and the intensity of fear of cancer progression ($r = -0.38133$; $p < 0.01$) and their negative thinking, i.e., the parameters of the occurrence rate of negative images and thoughts associated with fear of cancer progression ($r = -0.39655$; $p < 0.001$) (Table 1).

**Table 1: Results of the correlation analysis of the parameters of viability and intensity of fear of cancer progression**

| Survey scale | Involvement | Control | Risk-taking | General viability |
|---|---|---|---|---|
| Intensity of emotions | −0.281* | −0.286* | −0.556*** | −0.381** |
| Conviction in the effectiveness of therapy | −0.007 | −0.024 | −0.003 | 0.024 |
| Negative thinking | −0.328** | −0.308** | −0.215 | −0.397*** |
| Conviction in the benefits of fear | 0.022 | −0.059 | 0.028 | 0.164 |
| Doctor's counseling | −0.113 | −0.187 | −0.047 | −0.017 |
| Self-examination | −0.061 | −0.124 | 0.051 | −0.077 |
| Distraction | 0.008 | −0.019 | −0.022 | 0.103 |
| Suppression of negative thoughts | 0.201 | 0.139 | 0.229 | 0.194 |
| Positive reformulation | 0.300* | 0.222 | 0.304* | 0.317** |
| Emotional response | −0.231 | −0.214 | −0.168 | −0.261* |
| Family-induced fear | −0.050 | −0.083 | 0.097 | −0.182 |
| Fear of self-sufficiency loss | −0.294* | −0.291* | −0.217 | −0.286* |

*p<0.05; **p<0.01; ***p<0.001.

The correlation analysis of the peculiarities of the personal self-structure reflecting the integrity of its identity and the intensity and peculiarities of fear of cancer progression in patients allowed the authors to make some important conclusions.

First, it should be mentioned that the number of significant correlations between the specified parameters was lower than in the previous case (Tables 2 and 3).

The intensity of fear of cancer progression directly correlates with the level of the development of destructive aggression in patients, which is manifested as deformation of the normal capacity of active interaction with the surrounding environment ($r = 0.303559$; $p < 0.05$).

The peculiarities of the development of other self-functions in patients also contribute to the development of fear of cancer progression, which was shown by the results of the correlation analyses (Table 3).

**Table 2: Results of the correlation analysis between the parameters of the self-structure of personality and the intensity of fear of cancer progression**

| Survey scales | A1 | A2 | A3 | C1 | C2 | C3 | O1 |
|---|---|---|---|---|---|---|---|
| Intensity of emotions | −0.073 | 0.304* | 0.317** | −0.042 | 0.408*** | 0.234* | −0.201 |
| Conviction in the effectiveness of therapy | −0.007 | 0.120 | 0.087 | −0.087 | 0.108 | −0.057 | −0.029 |
| Negative thinking | −0.198 | 0.227 | 0.242* | −0.098 | 0.316** | 0.141 | −0.179 |
| Conviction in the benefits of fear | −0.012 | 0.091 | −0.111 | −0.095 | −0.019 | −0.036 | −0.042 |
| Doctor's counseling | −0.103 | 0.183 | 0.201 | −0.025 | 0.252* | 0.206 | −0.074 |
| Self-examination | −0.057 | 0.117 | 0.017 | 0.118 | 0.076 | 0.114 | −0.018 |
| Distraction | −0.042 | −0.220 | 0.196 | −0.032 | 0.133 | −0.071 | −0.066 |
| Suppression of negative thoughts | 0.110 | −0.133 | −0.033 | 0.064 | −0.063 | −0.252* | 0.186 |
| Positive reformulation | 0.415*** | −0.119 | −0.009 | 0.270* | −0.054 | −0.170 | 0.268* |
| Emotional response | −0.108 | 0.204 | 0.156 | −0.078 | 0.231 | 0.033 | −0.122 |
| Family-induced fear | −0.032 | 0.121 | −0.008 | −0.011 | 0.128 | 0.048 | 0.024 |
| Fear of self-sufficiency loss | −0.200 | 0.220 | 0.213 | −0.023 | 0.297* | 0.252* | −0.160 |

*p<0.05; **p<0.01; ***p<0.001. A1–constructive aggression, A2–destructive aggression, A3–deficiency aggression; C1–constructive fear, C2–destructive fear, C3–deficiency fear; O1–external constructive self-limitation.

**Table 3: Results of correlation analysis between the parameters of self-structure of the personality and intensity of fear of cancer progression (continue)**

| Survey scales | O2 | O3 | Q1 | Q2 | Q3 | H1 | H2 |
|---|---|---|---|---|---|---|---|
| Intensity of emotions | 0.282 | −0.013 | −0.103 | 0.331 | 0.326 | −0.183 | 0.456 |
| Conviction in the effectiveness of therapy | 0.059 | −0.135 | −0.010 | 0.178 | 0.082 | −0.032 | 0.114 |
| Negative thinking | 0.264 | −0.015 | −0.248 | 0.145 | 0.204 | −0.285 | 0.290 |
| Conviction in the benefits of fear | −0.110 | −0.063 | −0.179 | −0.011 | 0.010 | −0.099 | 0.069 |
| Doctor's counseling | 0.078 | −0.027 | −0.111 | 0.131 | 0.201 | −0.112 | 0.294 |
| Self-examination | 0.142 | 0.012 | 0.063 | 0.076 | 0.105 | 0.057 | 0.181 |
| Distraction | 0.002 | −0.305 | −0.035 | 0.100 | 0.080 | −0.019 | −0.003 |
| Suppression of negative thoughts | −0.082 | −0.130 | 0.185 | 0.134 | -0.049 | 0.070 | 0.090 |
| Positive reformulation | −0.064 | 0.119 | 0.274 | 0.055 | 0.008 | 0.309 | 0.041 |
| Emotional response | 0.225 | 0.035 | −0.169 | -0.007 | 0.216 | −0.110 | 0.265 |
| Family-induced fear | 0.149 | 0.002 | −0.045 | 0.029 | 0.177 | −0.031 | 0.198 |
| Fear of self-sufficiency loss | 0.291 | −0.001 | −0.167 | 0.161 | 0.302 | −0.177 | 0.392 |

O2–external destructive self-limitation, O3–external deficiency self-limitation; Q1–internal constructive self-limitation, Q2–internal destructive self-limitation, Q3–internal deficiency self-limitation; H1–constructive narcissism; H2–destructive narcissism.

The parameters of destructive anxiety as one of the self-functions provide high intensity of anxiety because of their disease ($r = 0.330628$; $p < 0.01$), negative thinking ($r = 0.315855$; $p < 0.01$), frequent visits to doctors ($r = 0.252308$; $p < 0.05$), and fear of the loss of self-sufficiency and independence ($r = 0.297054$; $p < 0.01$).

Deficiency anxiety as one of the self-functions is a factor that provokes the fear of cancer progression in patients with breast cancer: Its intensity ($r = 0.238319$; $p < 0.05$), negative thinking ($r = 0.25243$; $p < 0.05$), and fear of the loss of self-sufficiency ($r = 0.25139$; $p < 0.05$).

The higher the parameters of constructive external self-limitation, the higher the parameters of patients' desire for self-control ($r = 0.267865$; $p < 0.05$) (Table 3).

Strict external limitations provide high intensity of fear of cancer progression ($r = 0.282373$; $p < 0.05$) and fear of possible loss of self-sufficiency ($r = 0.290914$; $p < 0.05$). The parameters of deficiency external self-limitation negatively correlate with the ability of a person to distract from negative thoughts about their disease ($r = 0.305533$; $p < 0.01$).

Constructive internal self-structure becomes the source of a person's motivation to cope with negative thinking and anxiety for their health ($r = 0.267865$; $p < 0.05$). A high level of destructive internal self-limitation enhances the intensity of anxiety ($r = 0.282373$; $p < 0.05$), which is often associated with negative thinking and emotions ($r = 0.263554$; $p < 0.05$), enhances fear of the loss of common lifestyle and achieved social status ($r = 0.290914$; $p < 0.05$).

During the study, the authors revealed some close correlations between the peculiarities of the acquired experience in close relationship and fear of cancer progression (Table 4).

**Table 4: Results of the correlation analysis between the parameters of close relationship experience and the intensity of fear of cancer progression**

| Survey scales | Anxiety | Avoidance of intimacy |
|---|---|---|
| Intensity of emotions | 0.204 | 0.228 |
| Conviction in the effectiveness of therapy | 0.151 | 0.122 |
| Negative thinking | 0.349 | 0.197 |
| Conviction in the benefits of fear | −0.002 | −0.010 |
| Doctor's counseling | 0.227 | 0.214 |
| Self-examination | −0.008 | −0.033 |
| Distraction | 0.158 | 0.161 |
| Suppression of negative thoughts | 0.032 | 0.006 |
| Positive reformulation | −0.074 | −0.020 |
| Emotional response | 0.445 | 0.453 |
| Family-induced fear | 0.176 | 0.161 |
| Fear of self-sufficiency loss | 0.391 | 0.299 |

Statistically significant correlations were revealed between the intensity of negative thinking and anxiety in patients and their anxiety in a close relationship, as well as the fear of the loss of self-sufficiency.

The avoidance of intimacy and inability to establish a relationship with close people, which are based on the patients' previous experience, determine a strong emotional response to the disease and fear of the loss of self-sufficiency.

## Discussion

The analysis of the protocols of the study showed that, in general, among women with breast cancer of different ages, there were more women characterized by a normal and rational attitude toward their disease [24].

The majority of women reported that the intensity of fear of cancer recurrence or progression was average. The awareness of the source of fear of cancer progression at the cognitive level in the majority of patients provokes doubts in the benefits of medical interventions and therapeutical measures in coping with their disease.

Such distribution is not accidental. Subjective perception of the effectiveness of treatment is primarily formed by a widespread and stereotypic view of cancer as an incurable and lethal disease. However, the instinct of self-preservation, hope for the better, and believe in one's uniqueness, and miracles become the source of faith. Fear and anxiety provoked in patients after the diagnostics of breast cancer are often accompanied by thoughts about

death and negative images associated with the end of life.

Patients with a higher level of viability (as a trait of character) try to suppress the arousing fear of cancer progression by positive reformulation of negative thoughts and feelings and controlling their emotions ($r = 0.317046$; $p < 0.01$), they rarer fear for themselves and painful therapy, its duration and intensity ($r = -0.26089$; $p < 0.05$), and their fear of losing their independence and self-sufficiency, changing their common lifestyle and achieved social status ($r = -0.28610$; $p < 0.05$) is less intensive.

Destructive aggression developed in the family is based on the prohibition for the personality to be independent and have self-identity. A person's tendency to destroy the relationship, sudden anger, irritability, and proneness to conflicts become the sources of the development of fear of cancer progression.

The results of the correlation analysis showed that the fear of cancer progression was explained by a destructive and deficiency development of self-functions, which affected the disintegrated personal identity of the participants.

It was revealed that patients with a negative experience in a close relationship, who doubted the feelings and love of their close people, overemotionally reacted to cancer, feared for their health, feared of suffering, pain, and persistent negative thinking ($r = 0.445431$; $p < 0.001$), as well as feared to become disabled, lose their social status, and independence ($r = 0.390861$; $p < 0.001$). The intensiveness of emotional reaction and fear of the loss of independence can be affected by such a tendency as avoidance of a close relationship ($r = 0.45301$; $p < 0.001$) and ($r = 0.299357$; $p < 0.05$).

The obtained results provided grounds for the development and approbation of methodical recommendations on psychological help and support for patients with breast cancer in clinical hospitals of Moscow (Russia). Programs of psychological support were focused on the correction of personal peculiarities formed in patients based on the previous experience. Training sessions on the establishment of borders, adequate reaction to disease, social adaptation, communication, and acceptance of themselves and their body contributed to the decrease in the intensity of fear of cancer progression in patients and, in general, the improvement of the medical-rehabilitation period.

## Conclusion

The following conclusions were made based on the study results:

1. The majority of participants experienced moderate fear of cancer progression. This fear stayed within the limits of normal psychological conditions and did not lead to psychological or social maladjustment.
2. The presence of patients with a high level of fear of cancer progression indicated the influence of certain psychological factors that determined the appearance and development of phobic disorders.
3. There are significant inverse correlations in patients with breast cancer between the intensity of fear of cancer progression and the level of viability.
4. The main factor that determines the intensity of fear of cancer progression is a disturbance of personal identity expressed in a disbalance of the personality structure provided by the disintegration of its main self-functions.

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