PSYCHOLOGICAL CHARACTERISTICS OF WOMEN WITH BREAST CANCER WHO HAVE APPLIED FOR SPECIALIZED MEDICAL CARE LATE

CARACTERÍSTICAS PSICOLÓGICAS DE LAS MUJERES CON CÁNCER DE MAMA QUE HAN SOLICITADO ATENCIÓN MÉDICA ESPECIALIZADA DE FORMA TARDÍA

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ABSTRACT

Long intervals between detecting breast cancer and the beginning of treatment can influence the prognosis of the course of the disease and survival. This research aims to reveal the psychological characteristics of women with breast cancer who applied for specialized medical care late after detecting a mass lesion in the breast. The methods used in the study were a questionnaire, a test method, and methods of mathematical data processing. The Analysis of Variance (ANOVA) method was used as a method of mathematical statistics. The study involved 149 women aged 32 to 80 years (mean age 55 years) with breast cancer of different stages under the care of an oncologist from the time of diagnosis up to 6 months, living in Chelyabinsk city and Chelyabinsk region, Russia, who took part in the study in 2019-2021. Based on empirical research, it was found that women who delayed contacting their doctor to diagnose and initiate treatment of breast cancer had a more positive worldview, a more diverse repertoire of coping strategies, expressed motivational and cognitive components of personal helplessness, and an internal locus of control, compared to women who addressed their physician at the first signs of breast cancer.

Keywords: breast cancer; initiation of treatment; early application factors; discontinuation of treatment; onco psychology.

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RESUMEN

Los largos intervalos entre la detección del cáncer de mama y el inicio del tratamiento pueden influir en el pronóstico del curso de la enfermedad y la supervivencia. Esta investigación tiene como objetivo revelar las características psicológicas de las mujeres con cáncer de mama que solicitaron atención médica especializada tardíamente después de detectar una lesión masiva en la mama. Los métodos utilizados en el estudio fueron un cuestionario, un método de prueba y métodos de procesamiento de datos matemáticos. Se utilizó el método de Análisis de Varianza (ANOVA) como método de estadística matemática. El estudio involucró a 149 mujeres de 32 a 80 años (edad media 55 años) con cáncer de mama en diferentes etapas bajo el cuidado de un oncólogo desde el momento del diagnóstico hasta los 6 meses, que vivían en la ciudad de Chelyabinsk y la región de Chelyabinsk, Rusia, que tomaron parte del estudio en 2019-2021. Con base en la investigación empírica, se encontró que las mujeres que demoraron en contactar a su médico para diagnosticar e iniciar el tratamiento del cáncer de mama tenían una visión del mundo más positiva, un repertorio más diverso de estrategias de afrontamiento, expresaron componentes motivacionales y cognitivos de impotencia personal y un locus interno. de control, en comparación con las mujeres que consultaron a su médico ante los primeros signos de cáncer de mama.

Palabras clave: cáncer de mama; inicio de tratamiento; factores de aplicación temprana; suspensión de tratamiento; oncopsicología.

INTRODUCTION

Breast cancer is an aggressive malignancy and continues to be a disease of great public health importance (Duggan et al., 2020; Ferlay et al., 2018). Primary prevention of breast cancer is currently unavailable, except for prophylactic mastectomy for women genetically at high risk (Dos-Santos-Silva et al., 2022). Therefore, efforts to promote early diagnosis are still a primary focus of fighting breast cancer. Early diagnosis is associated with reduced mortality, and long intervals between breast cancer detection and treatment initiation can impact the prognosis of the disease (Hoxha et al., 2022). Therefore, it is essential to minimize delays in disease detection and diagnosis.

The delay between detecting a mass lesion in the chest, diagnosis, and initiation of therapy may be due to two reasons. First, because of the way the healthcare system works: going to the doctor for the first time, passing diagnostic tests, and receiving a final diagnosis can take months, which can lead to an unfavorable prognosis and survival for some women with breast cancer. Second, the delay in making a diagnosis can be due to the characteristics of the patient herself (social and psychological characteristics, lifestyle, etc.) who, after having detected a potential symptom of breast cancer independently or after a medical examination, does not seek specialized help for a long time (Moskovkin, 2020). This paper will focus on the second group of reasons for delaying a visit to a specialist, namely, the psychological characteristics of women with breast cancer which contribute to a delayed visit to a doctor.

In this regard, this study aims to reveal the psychological characteristics of women with breast cancer who applied for specialized medical aid late after detecting a mass lesion in the breast. Research hypothesis: specific psychological peculiarities exist in women with breast cancer characterized by

early and late application to the doctor after detecting a mass lesion in a breast. Achieving the aim of work has led to the definition of several research tasks: to differentiate the patients with breast cancer by the index of the interval between finding out the symptoms of breast cancer and addressing the doctor based on the analysis of medical records of the subjects; to conduct psychological diagnostics on the sample of patients with breast cancer; to reveal empirically psychological peculiarities of women with breast cancer characterized by late applying for specialized medical help.

LITERATURE REVIEW

Long intervals between detecting breast cancer and starting treatment can affect the prognosis of the course of the disease and the survival of patients. Delays can lead to disease progression, complications in treatment, and death. Scientific studies have focused on either the interval between a woman discovering her breast cancer symptoms and visiting a doctor, the time interval between applying to a health care facility and diagnosis, or the time interval between diagnosis and initiation of treatment (Yung et al., 2020; Moodley et al., 2018; O'Mahony et al., 2017; Alves Soares Ferreira et al., 2017; MohdMujar et al., 2022; Ho et al., 2020; Nnaji et al., 2022; Grosse Frie et al., 2018).

Richards et al., in a systematic review of studies of the duration of breast cancer symptoms and patient survival, note that patients with a 3-month delay in visiting the doctor had a 12% lower five-year survival rate than patients with a shorter delay and patients with a 3-6 month delay had a 7% lower survival rate than patients with a shorter delay (Richards et al., 2014). Additionally, the authors support the assumption that longer intervals between detecting breast cancer symptoms and initiation of treatment are associated with a later stage of the disease. In a study of delayed diagnosis in patients with breast cancer, Robinson E. et al. found that patients with a delay of 6 weeks or more had more advanced disease (35% - stage I, 52% - stage II, 12% = stage III) than patients with less than 6 weeks delay (52% - stage I, 42% - stage II, and 5% - stage III) (Robinson et al., 1986). The authors did not study survival rates. Elwood J.M. and Moorehead W.P. note that the overall delay from the patient's detection of the first symptom to diagnosis adversely affects survival (Elwood et al., 2019). The authors also emphasize that long-term survival is higher in patients with a shorter interval between symptom onset, diagnosis, and initiation of treatment.

In assessing the reasons for the increased time interval between the perception of the first sign or symptom of the disease and the first visit to a doctor among Brazilian women, Medeiros G.C. et al. identified the following reasons: social barriers (social status, income level), limited access to health care and medical information, and individual factors (genetic predisposition, life situation) (Medeiros et al., 2019a; Medeiros et al., 2019b; Medeiros et al., 2021). Al-Azri M. and Al-Awaisi N. dedicated their study to the reasons for the delay in seeking specialized medical care among Omani women with breast cancer. As a result of a qualitative analysis of the medical situations of 17 breast cancer patients, researchers identified six reasons for the delay in seeking medical attention. Denial of breast cancer symptoms, normalization of breast cancer symptoms resulting from hormonal changes, dietary changes, or stress from life circumstances is some of the reasons. A person may misinterpret breast cancer symptoms as symptoms of other diseases or expect more obvious symptoms of breast cancer, seek alternative medicine, receive false assurances or advice from family members, attend colloquies, meet friends, or experience a practical obstacle, such as childcare responsibilities and transportation difficulties. (Al-Azri Mohammed & Al-Awaisi Huda, 2022).

Sainsbury R. et al. came to somewhat opposite conclusions when studying the relation of survival to

the time of diagnosis and the initiation of treatment (Sainsbury et al., 1995). It is necessary to note that the attention of researchers was focused not on the time interval between the detection of symptoms of breast cancer by the patient and seeking medical help but on the time interval between addressing a medical institution and diagnosis and the initiation of treatment. The data obtained by the research team indicate that delays of more than 60 days do not significantly worsen the survival rate. According to scientists, the disease's nature, the aggressiveness of its course, and the use of hormone therapy and chemotherapy influence survival more than the time between contacting a doctor, diagnosis, and initiation of treatment. Studies by Sainsbury R. and Hester R. et al. emphasize that short periods do not allow the patient to come to terms with the diagnosis and find additional information about the effects of different treatment options (Sainsbury et al., 1999; Hester et al., 2021).

Coates A.S., analyzing the opposite conclusions regarding the relationship between the delayed seeking of specialized care and patient survival, highlights the possible reasons for the disagreement (Coates, 1999). First, rapid disease progression, typical for aggressive tumors, can relate to unfavorable outcomes of disease and lower survival rates despite the patient's timely address to the doctor. Second, Coates A.S. notes that not all patients report prolonged neglect of potential cancer symptoms and untimely visits to a medical facility, which may influence the results of studies on the relationship between a delayed visit to a doctor and survival.

The population study by Arndt V. et al. revealed that long delay of a patient is associated with old age, benign mastopathy in the anamnesis, obesity, patient ignorance of out-patient service features, and non-participation in general dispensary examinations (Arndt et al., 2002). The researchers emphasize that the obtained data make it possible to identify risk groups among the population, which tend to postpone visiting a doctor when the first signs of the disease appear to reduce mortality by promoting the early detection of breast cancer. In a study of delayed diagnosis in women, Ermiah E. et al. found that an interval of more than 3 months was associated with larger tumor size, metastasis to regional lymph nodes, high incidence of late clinical stages, and the appearance of metastases (Ermiah et al., 2012). A study by Mujar M. et al. showed that the time between diagnosis and initiation of treatment has no effect on overall survival (Mujar et al., 2013). It is important to note that the median time between the dates of diagnosis and treatment was 18 days; here, scientists have not assessed longer intervals of delayed initiation of therapy. Williams F., as a result of a systematic review, concludes that self-early detection of the first signs of breast cancer, diagnosis, and initiation of treatment within 90 days increases the survival rate of patients, as well as critically does not reduce the indicators of their quality of life, general health and well-being (Williams, 2015).

Our 2019-2021 study identified psychological characteristics of women with breast cancer that act as predictors of early or late initial healthcare seeking (Tsiring et al., 2022; Tsiring et al., 2021a; Tsiring et al., 2021b). The subjects were women with different stages of breast cancer. According to the obtained data, the stage of women with breast cancer seeking medical care depends on their self-attitude, assessment of their own value and significance, belief in control of events that happen to them, and internal locus of control in the areas of achievement and industrial relations. Nevertheless, it is necessary to assess the length of the time lag from the anomaly detection in the breast until the visit to the doctor and the role of psychological characteristics of personality not only in the treatment delay but also in the length of the interval from detecting breast cancer symptoms to seeking a medical diagnosis, to which this study is devoted. The time between the date of the first self-examination, mammography, or ultrasound and the date of the first visit to a doctor for a diagnosis defines the above time lag.

METHODS

The study involved 149 women aged 32 to 80 years (mean age 55 years) with luminal breast cancer of different stages (stage I - 70 people, stage II - 59 people, stage III - 25 people, stage IV - 5 people) under the care of an oncologist from the time of diagnosis up to 6 months, living in Chelyabinsk city and Chelyabinsk region, Russia. The sample of respondents consisted of two groups depending on the interval of postponement of a visit to a doctor when a mass lesion in the breast was detected: women who applied to a medical facility more than 90 days after the detection of breast cancer symptoms (N=40) and women who applied to a medical facility less than 90 days later (N=104). The Bioethics Committee of the National Research Tomsk State University (Tomsk, Russia) (No. 5 of February 11, 2021) approved the study. Patients were notified about the goals and objectives of the study and signed written informed consent for the study.

Surveys, tests, and mathematical data processing were used as research methods. There was an individual form for testing and a questionnaire survey. A socio-demographic questionnaire was used to collect data. The method of mathematical statistics was Analysis of Variance (ANOVA) in SPSS for Windows 20.0 RUS statistical software.

RESULTS

According to the obtained data, women who applied to a medical facility more than 90 days after the detection of breast cancer symptoms (N=40) differ from women who applied earlier (less than 90 days) (N=109) according to indicators of worldview, coping behavior, personal helplessness, and subjective control (Table 1).

Table 1. Psychological characteristics of women with breast cancer who applied for specialized medical care late after the detection of a mass lesion in the breast

PSYCHOLOGICAL VARIABLES	MEAN VALUES OF INDICATORS		P
BENEVOLENCE OF THE SURROUNDING WORLD	29.2	32.1	0.08
FAIRNESS	20.4	22.7	0.029
SELF-IMAGE	24.3	26	0.007
LUCK	26.7	28.8	0.08
PERSUASION OF CONTROL	23.2	25.9	0.05
CONFRONTATIONAL COPING	8.2	9.1	0.06
DISTANCING	8.8	10.9	0.04
SELF-CONTROL	12.6	14.2	0.08
PROBLEM-SOLVING PLANNING	10.8	13.2	0.02
POSITIVE REASSESSMENT	10.1	12.9	0.02
THE RIGIDITY OF THOUGHT	3.1	1.2	0.008
ASTHENIA	2.8	0.7	0.08
THE VOLITIONAL COMPONENT OF PERSONAL HELPLESSNESS	6.2	4.1	0.08
THE MOTIVATIONAL COMPONENT OF PERSONAL HELPLESSNESS	5.5	3.8	0.079
GENERAL INTERNALITY	13.6	16.8	0.03
INTERNALITY IN THE AREA OF ACHIEVEMENTS	4.2	6.3	0.08
INTERNALITY IN FAMILY RELATIONSHIPS	3.8	6.6	0.005
INTERNALITY IN INTERPERSONAL RELATIONSHIPS	4.9	6.8	0.017

Thus, women with delayed treatment have a more positive picture of the world; they have more expressed beliefs about the benevolence of the surrounding world (p=0.08), fairness of what happens (p=0.029), good luck (p=0.08), and control over events (p=0.05). Such women have a more positive self-image (p=0.007).

Speaking about the differences in coping behavior among the studied groups of women with breast cancer, let us note that women who delayed visiting a doctor for more than 90 days more often than women who visited a doctor earlier applied coping strategies of confrontation (p=0.06), distancing (p=0.04), self-control (p=0.08), problem-solving planning (p=0.02), and positive reassessment (p=0.02).

The following differences were found in the expression of indicators of personal helplessness. The rigidity of thought (p=0.008), as a part of the cognitive component of personal helplessness, and asthenia (p=0.08), as a manifestation of the emotional component of personal helplessness, were more pronounced in women who visited a doctor at the first symptoms of breast cancer. The volitional (p=0.08) and motivational (p=0.079) components of personal helplessness were more pronounced in women who visited a doctor with a delay of 90 days or more.

Indicators of general internality (p=0.03), internality in the area of achievements (p=0.08), and internality of family (p=0.005) and industrial relations (p=0.017), characterizing the level of subjective control, have different severity among the studied groups of women.

DISCUSSION

The world, as seen by women with breast cancer who have delayed visiting a doctor, is not threatening; the events are not random and are subject to the laws of justice. The women's picture of the world is represented, among other things, by their beliefs: "I am a good person, and I can feel protected from trouble." Basic concepts and a good worldview allow the subject to be more self-confident and cope with difficulties. However, the belief in the benevolence and fairness of the world and the positive self-image do not allow the individual to discover various kinds of negative body symptoms in time, testifying a disease, and apply for specialized help in time.

When coping with difficulties, women inclined to postpone the beginning of diagnostics and treatment make efforts aimed at separating from a situation and reducing its importance, at regulating their feelings and actions, and also changing a situation, including an analytical approach to solving the problem, as well as at creating a positive meaning of a situation. Such a variety of the repertoire of coping strategies allows them, most likely, to cope with difficulties productively, endowing them with confidence that problems are solvable and a way out of a difficult situation is possible to find. However, such an attitude to problems entails a delay in solving several problems, including those associated with the detected disease symptoms.

The study of personal helplessness among women with breast cancer revealed differences in the severity of the cognitive, motivational, and volitional components. Women visiting a doctor at the first sign of breast cancer are characterized by difficulties in changing their reaction to new conditions and a particular resistance to change, suggesting a logical delay in going to a doctor. However, the obtained data show the opposite, which makes it possible to suggest that pronounced cognitive rigidity manifests itself in a typical stress response for such respondents: interaction with a more

competent specialist rather than postponing the visit. This peculiarity, combined with other personal characteristics, is a prerequisite for early seeking medical help. Asthenia, also characteristic of the subjects in this group, implies increased fatigue, unstable mood, weakened self-control, and loss of the ability to prolonged mental and physical exertion, and is also a factor in timely visits to a medical facility at the first symptoms of the disease.

The volitional component is characterized by the low formation of volitional qualities of personality (lack of initiative, indecision, reduced organization, persistence, and commitment). The motivational component of personal helplessness includes external locus of control, failure avoidance motivation, low self-esteem, low level of pretensions, and fear of rejection. These deficits cause women to be passive to their own health and are a prerequisite for late application to a health care facility.

Women characterized by late seeking medical care are more internalized than women who sought medical care less than 90 days after the onset of symptoms. Internality indicates that the cause and source of activity in implementing a choice, action, or way of behaving belong to the person's own activity as a subject. The internal locus of control encourages people to be sure that control over their lives belongs to them alone. Women who delay the process of diagnosis and the beginning of treatment are ready to take responsibility and are confident in their own abilities.

CONCLUSION

Assessing the length of the time interval from detecting an anomaly in the breast until a visit to a doctor is an urgent problem of modern medical practice. To solve this problem, it is necessary to involve the efforts of other sciences, including psychology, in medical research. The obtained results of our study allow us to identify the psychological factors of a late application for specialized medical care after detecting a mass lesion in the chest (during self-examination or physician's examination). Women inclined to postpone visiting a doctor for diagnosis and treatment have a more positive worldview, a more diverse repertoire of coping strategies, pronounced motivational and cognitive components of personal helplessness, and an internal locus of control. The revealed features can be considered risk factors of late application to the doctor and used in medical and psychological practice.

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