

THE WORLDVIEW OF WOMEN HAVING BREAST CANCER UNDER THE FAVORABLE AND UNFAVORABLE COURSE OF THE DISEASE

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Abstract: Reduction of oncological disease morbidity and mortality is one of the paramount tasks of healthcare worldwide. The objective of this research is to study particularities of worldview in women having breast cancer under the favorable and unfavorable course of the disease. During the study, specific features of worldview have been found in women diagnosed with an oncological disease: female patients with the unfavorable course of the disease are convinced of their own luck and ability to control the events taking place. The pronouncement of these assumptions can serve as a predictor of the unfavorable course of the disease. The research findings act as a scientific basis for developing a psychological support system for BC patients.

Keywords: breast cancer, worldview, world assumptions, favorable course of the disease, remission, stable disease, spreading, recurrence, disease proliferation.

1 Introduction

The increase of oncological disease cases is noted throughout the world. As measured by specialists of the International Agency for Research on Cancer (IARC), 19,3 million new cancer cases and about 10 million cancer deaths were registered in the entire world in 2020 (Ferlay et al., 2020). In 2020, according to the cause of morbidity, breast cancer (11,7%) outpaced lung cancer (11,4%) as the world's most frequently diagnosed cancer (Ferlay et al., 2020). Among the female population of the world, breast cancer is the most frequently diagnosed cancer and the major cause of death due to cancer (Sung et al., 2021).

According to the data of the IARC, in Russia, the leaders of 2020 in terms of morbidity are colorectal cancer (13,1%), followed by breast cancer (12,7%), lung cancer (10,8%), prostate cancer (7,9%), and gastric cancer (6,3%). In 2020 mortality figures, Russia's first place among oncological malignant diseases is held by lung cancer (17,4%), with gastric cancer (8,9%), colon cancer (8,1%), breast cancer (7,4%), and pancreatic cancer (6,6%) pulling up (Ferlay et al., 2020).

So, according to the said statistics, it is breast cancer that is the most widespread among the world's female population. This disease bears a threat to subjects' physical health and life and varies in force and intensity of its psycho-traumatic impact. More specifically, on top of stress associated with the fear of death, a woman having breast cancer experiences emotional strain consisting in the fear of losing femininity due to the post-surgery cosmetic defect. In the oncological disease situation, women feel anxiety, insecurity, depression, and worry, which fuels exhaustion of the nervous and immune systems and entails the decrease of adaptive capacities. Subsequently, similar symptoms can have a negative impact on the course of the disease, effectiveness of treatment, and convalescence. In such a situation, the high importance of the system of world assumptions behind one's worldview is revealed.

The oncological disease can affect the world assumptions held by a subject, however, as the subject copes with the stress situation, her worldview can rebuild itself, thus ensuring the woman an opportunity to adapt to the new conditions of her life, as well as the feeling of security and stability. As of today, studying the specific features of worldview of women having breast cancer is a relevant topic. By finding out differences in the world assumptions system of women with the favorable and unfavorable course of the oncological disease, psychological predictors of the onset of disease remission or, conversely, emergence of complications can be discovered.

2 Literature Review

When analyzing studies available, several groups of factors associated with the breast cancer development risk can be found. Considering reproductive factors of breast cancer development, Li et al. (2015) note that in nulliparae, the risk is almost twice as high as compared to women having given birth to three and more children. The authors also emphasize the association of a later age of the first childbirth (after 35) and the emergence of breast cancer as compared to women who have had children before 20 (Li et al., 2015). Breastfeeding, the prolonged one especially, can lead to reducing the breast cancer development risk: cancer morbidity goes 4,3% down per each 12-month period of breastfeeding (Collaborative Group on Hormonal Factors in Breast Cancer, 2002). A number of researchers point out that menstrual characteristics (early menarche onset age, late menopause age, some types of menopause) can act as risk markers for the development of malignant neoplasms of breast (Li et al., 2007; Brinton et al., 2018; Collaborative Group on Hormonal Factors in Breast Cancer, 2002). The evidence of relation between women's use of oral contraceptives with the emergence of breast cancer was described in the world epidemiological study by the Collaborative Group on Hormonal Factors in Breast Cancer (2002).

Detailing the genetic risk factors of breast cancer, authors note that women who have had breast cancer cases among their nearest blood relatives risk developing breast cancer 1,5-2 times more (Familial Breast Cancer Working Group, 2001). Alongside this, the higher risk of breast cancer was observed in the female patients exposed to radiation at any age (Kaiser et al., 2011).

As for endogenous breast cancer emergence factors, many researchers emphasize that endogenous estrogens increase the risk of breast cancer: there is the direct relation between the blood estrogens level and the risk of developing malignant neoplasms (Yager & Liehr, 1996; Bolton et al., 1998; Colditz 1998; Thomas et al., 1997; Zanetta et al. 2000, Suzuki et al., 2009). Progesterone plays the key part in the development of breast, and according to experimental findings, progesterone metabolites can both reduce and increase the risk of breast cancer (Wiebe, 2006).

Although the interest in the problem of the oncological disease of breast in women is growing, the circle of psychological phenomena studied within this sphere is quite limited. It should be noted that works by P. Revidi (1983), H. J. Eysenck (1994), L. Temoshok (1987), Y. Chida (Chida et al., 2008), I. G. Malkina-Pykh (2008), M. G. Ivashkina (2010), N. V. Tarabrina (Tarabrina et al. 2006), D. A. Tsiring (Tsiring et al., 2019), and others describe psychological prerequisites of the development of malignant neoplasms. As breast cancer risk factors, these authors identify restraint in expression of emotions (Revidi, 1983; Temoshok, 1987; Rautalin et al., 2018; Fasano et al., 2020), the marked feeling of guilt and lack of self-confidence (Revidi, 1983), the external locus of control and low significance of the health value (Ivashkina, 2010), non-productive strategies of coping (Chida et al., 2008; Fasano et al., 2020), feelings of hopelessness and one's own helplessness (Temoshok, 1987), rigidity of attitudes (Revidi, 1983), the feeling of despair and depression (Revidi, 1983), and so on.

On top of its threat to physical health and life, breast cancer is distinguished by the force and intensity of its traumatizing impact which consists in the fear of losing femininity due to the post-surgery cosmetic defect suffered. This disease can be perceived as a factor disrupting one's social and psychological adaptation and affecting one's relationships with others, too. J. Fasano et al. (2020) emphasize the role of psychological features in coping with stress caused by the prolonged treatment process. H. J. Eysenck (1994) notes that in case of getting cancer, a person having such personality traits as self-sacrifice, conformity, suppression of anger, manifestation of anxiety, worry, and some others faces death more quickly than people with other personal features do.

The high importance of the system of world assumptions is revealed in the situation of the oncological disease. A subject's world assumptions turn out to be affected by the strong stressful event, so, change of the existing assumptions and "destruction" of the worldview are observed. For the subject, the worldview and view of one's own self provides the needed support to lean on and the feeling of stability in the dynamic conditions of the present-day reality. Using the system of world assumptions which constitute worldview, one structures one's own experience and forms the model of behavior. According to M. A. Padun and A. V. Kotelnikova (2012), "World assumptions are generalized, implicit, stable ideas of man about the world around him, his own self, and relations between the self and the world" (p. 98).

As one copes with the stress, one's system of world assumptions is regained, yet it differs from the previous one which used to be there before facing the traumatic situation of the oncological disease. Restoration of worldview which ensures a subject the feelings of security and stability becomes an especially essential and urgent process in the situation of coping with stress, mental and social adaptation to the new realia of life (Sirota & Moskovchenko, 2014). With regard to this, it seems important and relevant to find out particularities of worldview in patients having an oncological diagnosis under various courses of the disease. This research deals with exploring the hallmarks of worldview in women having breast cancer under the favorable and unfavorable course of the disease, in particular: remission of the disease (complete healing or reduced activity of the lesion and its clinical symptoms), stable disease (minor growth or reduction of the tumor without new any lesions emerging), spreading of the process (the pathological process invading the organ or even the entire body), tumor recurrence (the malignant disease coming back after the period of remission), tumor proliferation (new distant metastases emerging with possible qualitative changes in the structure of the neoplasm).

3 Research Methodological Framework

Given the relevance of the problem of breast cancer prevalence and development, current prerequisites for exploring psychological particularities of BC patients in various disease courses, the objective of this work has been worded as follows: to study specific features of worldview of women having breast cancer with the favorable and unfavorable course of the disease. The research objective has conditioned determination of a number of research tasks. Alongside diagnosing hallmarks of worldview in female patients having breast cancer with the favorable and unfavorable disease course, the authors intend to find out average indicators of pronouncement of their world assumptions and to compare the resulting figures with the normal values of the questionnaire. They also expect to empirically confirm worldview distinctions in the female BC patients having the favorable and unfavorable course of the disease. Completing these research tasks and achieving the said objective will further on allow identifying psychological factors which contribute to better remote effectiveness of treatment. The indicators of worldview of women having the favorable or unfavorable disease course can act as a criterion to forecast the progress of the disease.

The general layout of the empirical research was determined by the objective and tasks of the work. In line with the research objective, the sampling was made up of two clinical groups. The

first group of the tested ones (N=89) included women having breast cancer with the favorable course of the disease (remission of 6 months and more or a stable disease status). The second group of the tested ones included the female BC patients with the unfavorable course of the disease (N=52): those in conditions of the pathological process spreading, in the situation of recurrence of the malignant disease after a remission period, or of tumor proliferation.

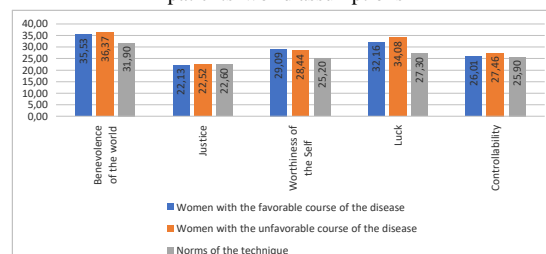
The empirical research was based at the State Budget-funded Healthcare Institution "Chelyabinsk Regional Clinical Center for Oncology and Nuclear Medicine", Chelyabinsk, Russia. The research was conducted within January-June of 2021 and covered the total of 141 women aged 33 to 80.

As the research methods, the authors used questionnaire survey, testing, and mathematical data processing methods. Testing and questionnaire survey were conducted on an individual basis. The questionnaire enabled the authors to collect data on social and demographic parameters. R. Janoff-Bulman's World assumptions scale as adapted by M. A. Padun and A. V. Kotelnikova (2012) was used as the research technique. Mathematical methods of statistical data processing are represented by the descriptive statistics ones and nonparametric comparison methods (Mann-Whitney U-test). In this study, average indicators were used that allow evaluating the difference in pronouncement of the tested ones' psychological characteristics as compared to the normal values set by the techniques. The nonparametric Mann-Whitney U-test enabled the authors to identify significance of distinctions in values of the characteristics under study between the two samples: the women being at the remission stage and those having the oncological diagnosis at the baseline.

4 Results and Discussion

During the conducted study of particularities of worldview in women under the favorable and unfavorable course of the disease, distinctions in a number of indicators have been found. Figure 1 shows the results of exploring world assumptions in women having breast cancer, as well as the reference norms of the technique used.

Figure 1 Correlation of average values on indicators of BC patients' world assumptions



Source: authors' own processing

According to the findings, the assumptions about luck and benevolence of the world are more pronounced in women having the oncological diagnosis under the favorable and unfavorable course of the disease as compared to norms of the questionnaire. One's idea about luck is associated with the individual's assumption about being a lucky person on balance. Women having breast cancer with the unfavorable course of the disease are convinced of their luck to a greater extent. In spite of difficulties in treatment of the disease, the women stay alive, which enables them to make a conclusion about their own luck.

The assumption about benevolence of the world around one implies a subject's conviction in it being safe or unsafe to trust the world. This assumption is pronounced in both groups under study. Women having breast cancer believe the world is safe and people around them are in general kind and trustworthy. In the BC patients, the assumption "Worthiness of the Self" implying one's being sure of the fact that one is a person worthy of love and respect is more pronounced as compared to norms of the questionnaire. In the situation of the threat to life and health, the

women having the oncological disease are convinced of the value and importance of their own Self to a greater extent.

The assumption about one's ability to control events happening to one is pronounced to a greater extent in women with the unfavorable course of the disease. On the one hand, pronouncement of this indicator can be indicative of the fact that they undertake responsibility and aim to regulate their own life with the help of control. Such control turns out to be productive if a subject's composure is justified by the external conditions. On the other hand, excessive control can lead to suppression of emotional reactions in difficult situations and inhibition of actions. The world assumption about justice of the world around one is pronounced in women with the favorable and unfavorable course of the disease at approximately the same level. This assumption expresses one's certainty of the fact that good and bad events are distributed among people according to the principle of justice: everyone gets what they deserve.

Further on, the authors verified the significance of distinctions using the nonparametric comparison method, Mann-Whitney U-test, as applied to pronouncement of the indicators of worldview – world assumptions among the BC patients (Table 1).

Table 1 Results of comparison of world assumptions in women having breast cancer

World assumptions	Average rank		U	p
	Women with the favorable course of the disease	Women with the unfavorable course of the disease		
Benevolence of the world	99,16	108,24	3549,5	0,334
Justice	99,60	105,02	3665,0	0,562
Worthiness of the Self	103,06	97,00	3666,0	0,519
Luck	96,60	115,63	3165,0	0,043
Controllability	97,32	113,57	3272,5	0,083

Source: authors' own processing

According to the findings, women with the unfavorable course of the disease differ significantly from those having the favorable disease course in the indicators of Luck ($p = 0,043$) and Controllability ($p = 0,083$). The women being at the disease proliferation stage, in case of recurrence or tumor spreading note they are quite lucky people and think fortune favors them. Evaluating their life, the female patients with the unfavorable course of the disease stress they are lucky more often than others are; they recollect they had to count on a lucky coincidence earlier in life.

Personal world assumptions can undergo dramatic change under the influence of traumatic events suffered by an individual, the oncological disease included. So, it is possible that the assumption about their own luck could form in the women after being diagnosed with the disease and/or in the process of treatment. The women having breast cancer in the situation of the unfavorable disease course can convince themselves of being lucky and fortunate in life, thus calming themselves down and comparing themselves to ones whose disease unfolds in a more severe form and leads to the lethal outcome.

Alongside the assumption about luck, the one about controllability is more pronounced in women with the unfavorable course of the disease as compared to those having the favorable disease course. The assumption about controllability implies a subject's belief that people can prevent difficult events by their actions. Thus, if one is more cautious, one behaves correctly, and pays more attention, and then one will be able to escape negative events. Under the unfavorable course of the disease, the female patients are convinced they can control events happening to them and can act so that the situation lines up in their favor.

According to the data obtained, women with the unfavorable course of the disease (proliferation, spreading, recurrence) are on the one hand convinced that fortune favors them, they are lucky in general, and they can hope for a lucky coincidence. On the other hand, in the same female patients, the assumption about their ability to control developments so as to opt for a more advantageous behavior strategy in difficult life situations is pronounced.

5 Conclusion

As of today, there is only a limited quantity of studies highlighting specific psychological features of BC patients. The research conducted allows finding out hallmarks of worldview in women having the oncological diagnosis and outlining the prospects for further research works. As groups to be studied, the authors opted for women with the favorable and unfavorable course of the disease. These groups were selected for identifying particularities of worldview which contribute to better remote effectiveness of treatment.

World assumptions making up an individual's worldview have an effect on the individual's thinking, behavior, and emotional condition. In survivors of the traumatic event and in persons who have not experienced any, world assumptions related to one and to the world around one can differ considerably. At this stage of research, the authors suppose that pronouncement of assumptions about luck and controllability can serve as a predictor of the unfavorable course of the disease. This conclusion needs more evaluation in the course of further empirical studies of the influence of women's assumptions about their own luck and controllability on their chances of survival.

The research findings can act as a scientific basis for developing a psychological support system for BC patients.

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