The Relationship of Psychological Time and Attitudes to Disease in Women with Cancer of the Reproductive System

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Abstract: Despite the high adaptive abilities of the female body, in recent decades, there has been a steady increase in gynecological diseases associated with the impaired reproductive system function. Many critical aspects change when a patient is diagnosed with cancer of the reproductive system. The “black mark” of the diagnosis continues to be a death sentence. Personal fears of incurability, pain, and disabling surgical treatments are at the center of the patient’s mental reactions. Our empirical study presented in this paper revealed that all these factors contribute to the formation of a distorted internal picture of the disease in the patient’s mind, which can lead to the loss of a person’s life-meaning perspective and deformation of psychological time. This article examines certain specifics of the relationship and types of attitude to the disease (according to the Time Experience Scale developed by E. I. Golovakha, A. A. Kronik, the TOBOL methods developed by A. E. Lichko and N. Ya. Ivanov, and the Time Perspective Questionnaire by F. Zimbardo) in women with cancer of the reproductive system, who are subjected to outpatient and surgical treatment.

1. Introduction

In the fast-moving millennium, human life, both external and internal, is subject to time, and not vice versa. And in different life circumstances, a person often loses the ability to focus on the future, and their existence closes on the present. Moreover, it often takes a retrograde character. A person idealizes their past, lives by remembering it, not seeing optimistic forecasts, both for the future and for the present. From the standpoint of personality psychology, these life circumstances are described as biographical crises [1], crucial [9], critical [2] events, psychological crises of a normative, super normative, extraordinary nature [3, 4]. All these crises are associated with a person experiencing stressful life events, critical situations, one of which is a serious illness for a person.

A number of authors argue that a disease situation provokes a crisis in the development of the personality as a whole [10], potentially critical, that is, as a situation of the impossibility of realizing life’s tasks, namely, satisfying needs, achieving goals, implementing relationships, in which a violation of personal identity is possible [7; 11].

In the studies of A. V. Gnezdilov, A. E. Kolosov, and Tkhostov, it is noted that oncological diseases cause the extreme and crisis state of a sick person, destroys individual habitual existence. The suddenness of detecting disease, characteristic of an oncological disease, pierces the entire being of a person, and causes shock [3, 10].

Thus, as E. B. Karpova and V. A. Chulkova note that in its psychological essence, the oncological disease is a crisis in life, in which a person experiences a serious shock and is forced to carry out adaptive activities in accordance with the conditions that this the situation gives him/her [5].

The point that cancer carries a vital threat is shared by V. M. Moiseenko [11]. This author notes that “the unexpectedness and incomprehensibility of the onset and course of the disease contribute to the perception of...
it by patients as a fatal event of his/her life, of his/her existence.” As a result, in people, both healthy and sick, cancer is accompanied by such prejudices and myths that exacerbate the drama of the disease situation.

Among other oncological diseases, the oncological disease of the reproductive system is even more distinguished by great psychological trauma. This is due not only to fear of illness, the occurrence of a life threat, the collapse of plans, but also to the need to undergo crippling surgery, including the fear of losing femininity in connection with the loss of organs symbolizing it [8].

In the adaptation of the cancer patient to the disease, his attitude to the disease is of great importance. It affects the attitude to treatment, the quality of life after treatment, and, according to some, the life expectancy. The extremeness and crisis of the very situation in which a person finds himself/herself result in how an oncological disease affects this attitude. In particular, it forms during the course of the disease and treatment. We can say that this is a process that has certain stability and, at the same time, variability, lasting in time, clarifying and expanding the patient's idea of the disease.

In this regard, we assume that there is a relationship between the type of attitude of women to their illness with oncological diseases of the reproductive system and the transformation of psychological time. To verify this assumption, we conducted an empirical study, the purpose of which was to study the characteristics of the relationship and mutual influence of psychological time with the type of attitude towards the disease in women with cancer of the reproductive system, subject to combined and surgical treatment. The theoretical foundation of the undertaken research is the causal-purpose concept of psychological time developed by E. I. Golovakha, A. A. Kronik, and the typology of psychological response to the disease by A. E. Lichko and N. Ya. Ivanov.

2. Materials and Methods

An empirical study was carried out on the basis of oncology clinics in Barnaul, Russia. The total sample size was 50 people aged 30 to 55 years. The study involved women with cancer of the reproductive system (cancer of the uterus, cervix, breast, and ovary).

All subjects were divided into two groups. The first group (25 women) consisted of patients on outpatient treatment with a disease duration of up to 7 months. The subjects did not have a complicated course of the disease, metastasis, and they were not prescribed surgical treatment at the moment. The second group (25 women) consisted of patients undergoing surgical treatment. All participants in this group experienced preoperative therapy during the treatment process. At the time, they were after complete or partial removal of the reproductive system organs.

The following methods were used in the study: (1) a theoretical analysis of psychological sources on the investigated problem; (2) questioning; (3) methods of psychodiagnostics of questioning type; and (4) qualitative and quantitative analysis of empirical data. The study was carried out using the time perspective questionnaire developed by F. Zimbardo and adapted by A. Syrtsova and O. V. Mitina. Also, the authors employed the methods of the time experience scale by E. I. Golovakha, A. A. Kronik, and the TOBOL method by A. E. Lichko and N. Ya. Ivanov. Data processing was performed using the computer program SPPS 21.00.

3. Research Results

To identify the emotional attitude to their illness in women with cancer of the reproductive system, we used the TOBOL method. On the one hand, it allows one to distinguish the dominant type of attitude towards the disease, and on the other hand, to trace the complete picture of the disease based on the profile of average ratings of scales.

Thus, the study demonstrates that the dominant types of attitude towards the disease in cancer patients to be combined with treatment have harmonious (45.8%) and ergopathic (33.3%) types. According to the study, the leading type of attitude towards the disease in cancer patients with surgical treatment is the alarming type (35%).
To check the reliability of differences in the types of attitude to the disease in patients with surgical and combined treatment, we performed a comparison procedure using the non-parametric U-Mann-Whitney test for independent samples.

Thus, a significant difference in the following scales was revealed: a harmonious type \( U = 171; p < 0.007 \), an ergopathic type \( U = 172; p < 0.015 \), an alarming type \( U = 115; p < 0.000 \), a neurotic type \( U = 156.5; p < 0.006 \), and a dysphoric type \( U = 127.5; p < 0.001 \).

Further, an analysis of the relationship between the characteristics of the psychological time of cancer patients and their relationship to their own illness was carried out. Correlation analysis was used to identify a reliable relationship between attitudes toward one's illness and indicators of the psychological time of patients with outpatients.

So, it was found that cancer patients with a harmonious type of attitude towards the disease are characterized by the perception of time as smooth \( r = 0.551 \) at \( p = 0.030 \), continuous \( r = 0.521 \) at \( p = 0.009 \), organized \( r = 0.503 \) at \( p = 0.011 \). But at the same time, they experience the psychological present as empty \( r = 0.660 \) at \( p = 0.000 \), less pleasant \( r = -0.463 \) at \( p = 0.023 \) and monotonous \( r = 0.491 \) at \( p = 0.015 \).

The correlation of the ergopathic type scale and the present hedonic scale \( r = 0.461 \) at \( p = 0.023 \) was revealed. Therefore, with high severity of moving away from the disease to work, the temporary orientation to the hedonistic present in cancer patients with outpatient treatment will occupy a dominant position. Therefore, the psychological time is experienced by them as unlimited \( r = 0.444 \) at \( p = 0.030 \).

With high rates of neglect of their disease, in cancer patients, the orientation toward the future \( r = 0.644 \) at \( p = 0.001 \) will dominate, the present will feel infinite \( r = 0.447 \) at \( p = 0.029 \) and diverse \( r = 0.672 \) at \( p = 0.000 \).

And with the severity of the sensitive type of attitude to their illness in women on oncology, the psychological time will be experienced as slow \( r = 0.476 \) at \( p = 0.019 \), smooth \( r = 0.805 \) at \( p = 0.000 \), unpleasant \( r = -0.628 \) at \( p = 0.001 \). Therefore, organization \( r = 0.711 \) at \( p = 0.000 \) is necessary for patients of this group to achieve a more or less stable state of health, which is their main goal and value.

An interesting situation is observed in egocentric type of attitude to the disease in women with cancer. With a high severity of care for the disease with the requirement for exceptional self-care, cancer patients who are subject to outpatient treatment will experience a time experience as spasmodic \( r = 0.645 \) at \( p = 0.001 \), less pleasant \( r = -0.508 \) at \( p = 0.011 \), compressed \( r = 0.645 \) at \( p = 0.001 \). Their negative past will dominate \( r = 0.645 \) at \( p = 0.001 \).

In turn, for cancer patients with surgical intervention, a correlation analysis also showed the presence of the relationship of the scales of types of attitude to the disease with the scales of experience of time.

Thus, it was found that patients with a harmonious type of attitude to their illness experience their psychological time as smooth \( r = 0.510 \) at \( p = 0.011 \), but empty \( r = 0.686 \) at \( p = 0.000 \), continuous \( r = 0.532 \) at \( p = 0.007 \) but less pleasant \( r = -0.589 \) at \( p = 0.002 \), and they have an orientation toward the hedonistic present \( r = 0.490 \) at \( p = 0.015 \). This suggests that the orientation toward pleasure in the present prevails over the feeling of helplessness and hopelessness.

It was found that with a high degree of severity of immersion in work from the disease, the value of the negative past for cancer patients rises more and more \( r = 0.518 \) at \( p = 0.010 \). But, at the same time, the fatalistic mood in the present is decreasing \( r = -0.632 \) at \( p = 0.001 \).

The results of the correlation analysis showed the presence of a strong relationship between the types of attitude to the disease of the second block in cancer patients with surgical treatment with the scales of the fatalistic present, the speed of the passage of time, as well as the fragmentation, discontinuity of the present. For cancer patients with an alarming type of attitude toward their disease, the psychological present is experienced as less pleasant \( r = -0.694 \) at \( p = 0.000 \), intermittent \( r = 0.516 \) at \( p = 0.010 \), compressed \( r = 0.472 \) at \( p = 0.020 \), fragmented \( r = 0.505 \) at \( p = 0.012 \). Therefore, the only resource for a happy future \( r = 0.556 \) at \( p = 0.005 \) is the positive past \( r = 0.476 \) at \( p = 0.019 \).
Interesting correlations turned out to hypochondriacal type of attitude to the disease in women with cancer. Due to the focus on subjective painful and other unpleasant sensations, cancer patients experience their present as unorganized \( (r = 0.536 \text{ at } p = 0.007) \), fragmented \( (r = 0.577 \text{ at } p = 0.007) \) with a focus on the negative past \( (r = 0.505 \text{ at } p = 0.012) \), in connection with which, cancer patients perceive the future as sad and dull \( (r = 0.835 \text{ at } p = 0.000) \).

The neurasthenic type scale also highly correlates with the void scale of the present \( (r = 0.636 \text{ at } p = 0.001) \), with a focus on the fatality of fate \( (r = 0.887 \text{ at } p = 0.000) \) and with a negative correlation of the future \( (r = -0.534 \text{ at } p = 0.008) \). This is due to the fact that patients cannot plan their future, because everything is too volatile. Thus, the integrity of the picture of the future life due to the disease is violated. And with a sensitive type of relationship with their disease, cancer patients experience their present as unorganized \( (r = 0.557 \text{ at } p = 0.003) \), fragmented \( (r = 0.666 \text{ at } p = 0.001) \), compressed \( (r = 0.548 \text{ at } p = 0.006) \), limited \( (r = 0.631 \text{ at } p = 0.001) \), spasmodic \( (r = 0.689 \text{ at } p = 0.000) \), with a focus on the fatalistic present \( (r = 0.575 \text{ at } p = 0.003) \).

According to the dysphoric type of attitude towards the disease in patients with surgical treatment, the correlation is traced with the scales of the fatalistic present \( (r = 0.491 \text{ at } p = 0.015) \), the diversity of the present \( (r = -0.462, \text{ at } p = 0.023) \), its fragmentation \( (r = 0.579, \text{ at } p = 0.03) \) and with the pessimistic mood of the future \( (r = -0.496 \text{ at } p = 0.014) \). Consequently, with a high degree of aggressiveness in responding to the disease, cancer patients will have a perception of the present as monotonous and fragmented. Consequently, the fatalistic present will be the leading temporal orientation.

4. Discussion

Based on the data obtained, we can draw the following conclusions: high scores on a scale of harmonious and ergopathic types of attitudes to the disease in women with outpatient treatment suggests that mental and social adaptation in patients is not significantly impaired. Patients, adequately assessing their condition, actively participate in the treatment of the disease, comply with the regimen prescribed by the doctor. However, there are “withdrawals” from thoughts about the disease, which is a kind of substitution of the goals of maintaining and maintaining health with other goals.

High indicators of alarming and neurasthenic types of attitudes towards the disease in women with cancer with surgical treatment suggest that this group of patients is characterized by the intrapsychic orientation of a personal response to the disease. The emotional-affective sphere of relations in such patients is manifested in the following maladaptive behavior: reactions of the type of irritable weakness, anxious, depressed state, “departure” to the disease, etc.

The results of the correlation analysis show that the types of attitude to the disease, according to A. E. Lichko, have a specific relationship with the perception of psychological time in cancer patients with surgical treatment. Based on the data obtained, we can conclude that the types of attitudes towards the disease in cancer patients subject to surgical treatment have a more differentiated perception of time than cancer patients with outpatient treatment. Cancer patients with surgical treatment are characterized by the fact that the significance of the fatalistic present is markedly increased – the sensations of fragmentation, disorganization, and discontinuity of the present increase markedly.

Most likely, the reason for this is that for these patients, the surgery is accompanied by organic defects. In addition to purely physical suffering, this category of patients carries a powerful negative mental load, the patient is in a seriously stressful situation, often prolonged.

5. Conclusion

The results of the study can be used in consultative, psychological, and training work to provide psychological assistance in the formation of the patient's adequate attitude to the disease and treatment by optimizing time orientations, perception of the present, and future, as well as psychological time in general. This is all confirmed by certificates on the implementation of research results in practice.

Our study showed how many unlit aspects remained that needed further consideration. Research on the psychological time of cancer patients stimulates the growth of positive therapy in this category of people.
But the problem of the psychological time of cancer patients deserves much more attention than is currently being paid to it.

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References

[1] Akhmerov, R. A. (1994). Biographical personality crises (Abstract of Diss. of Cand. of Psychological Sci.). Moscow, Russia.

[2] Vasilyuk, F. E. (1984). Psychology of experience (analysis of overcoming critical situations). Moscow, USSR: MSU Publishing House.

[3] Gnezdilov, A. V. (2007). Psychology and psychotherapy of losses. St. Petersburg, Russia: Rech Publishing House.

[4] Golovakha, E. I., & Kronik, A. A. (2008). Psychological personality time. Moscow, Russia: Smysl.

[5] Karpova, E. B., & Chulkova, V. A. (2007). Oncological disease as a psychological crisis. In L. A. Tsvetkova (Ed.). Materials of the Scientific-Practical Conference "Ananyevskiy Chteniya - 2007" (pp. 556-557). St. Petersburg, Russia: St. Petersburg State University.

[6] Lichko, A. E., & Ivanov, N. Ya. (2001). An improved version of the questionnaire for the psychological diagnosis of types of attitude to one disease. Guidelines. St. Petersburg, Russia: Piter.

[7] Muzdybaev, K. (1999). The experience of time in times of crisis. Psychological Journal, 21(4), 5-21.

[8] Mendelevich, V. D. (2008). Clinical and medical psychology. Moscow, Russia: MEDpress-inform.

[9] Ralnikova, I. A. (2012). The restructuring of the system of life prospects of a man in the context of crucial events. (Dissertation of Doctor of Psychological Sciences). Barnaul, Russia.

[10] Tkhostov, A. Sh. (2002). The psychology of physicality. Moscow, Russia: Smysl.

[11] Chulkova, V. A., & Moiseenko, V. M. (2011). Psychological problems in oncology. Practical Psychology, 3, 45-57.