

## Dissociation Of Time Perspective Of Personality With Oncohematological Disease

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### ABSTRACT

The relevance of the problem under investigation is conditioned by the fact that a person in the situation of the disease, especially the disease with a poor prognosis in the first place, transforms the system of the value-meaningful priorities, organizing time perspectives, which are drastically changing its structure and length. The resulting changes of the time perspective in the situation of the disease significantly affect the outcome and quality of life. The aim of the research is to study the dissociation of time perspective of the individual patients with hematological disease. The basic method to study this issue is the experimental method, which allows revealing the specifics of the dissociation of time perspective of the individual patients with oncohematological disease. The research results, obtained by the authors are as follows: the basic element of the time perspective of the individual patients with oncohematological disease is the fatalistic present, which is dissociated from the future and the positive past. Negative past is not dissociated, as it is a source of maintaining the experience of the fatalistic present. The increasing share of the future, its integration into the structure of the time perspective of the individual patients with oncohematological disease will allow activating the productive mechanisms of coping with the disease, which has a prognostic significance in the subjective attitude to their own disease. The paper submissions may be used in the provision of psychological assistance to patients with oncohematological disease.

### KEYWORDS

Time perspective of the individual, oncohematological diseases, dissociation

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## Introduction

Lifetime of a man is organized in his mind on a subjective level and is structured in a temporary perspective with a certain level of discreteness of its parts - past, present and future. The time perspective is characterized by its length, structure, event-fullness, emotional and value attitude and forms a normal personal

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resource. A person in the situation of disease, especially the disease with a poor prognosis in the first place, transforms the system of the value-meaningful priorities, organizing time perspectives, which are drastically changing its structure and length. The resulting changes of the time perspective in the situation of the disease significantly affect the outcome and quality of life

The modern research of the psychological time problem can single out three main areas: 1) the typological area which studies on the one hand the specificity of personal time, where people are initially divided into types for some different reasons; on the other hand, the accentuation of different types of an individual attitude to the time, with later possible matching these types to personal characteristics; 2) causative-objective area considers the personal organization of time, as well as the factors affecting the characteristics of the organization and the ratio of structural components of personality's time perspective (past, present, future); 3) cognitive-motivational area, in which the main emphasis is focused on human intentionality, his desire to anticipate future events and targets.

Case-sectoring within the bibliometric analysis by the keywords "time perspective" based on scientific electronic library e\_Library, identified the following directions of research: the time perspective as a whole (Kravchenko, 2008), the time perspective of the future (Maksimenko, 1998; Maksimenko, 2006; Maksimenko et al., 2014).; developmental aspects of time perspective (Avdulova, 2009; Bylchenko, 2009; Janicki, et al., 2012.); time perspective of an individual (Lobanov & Mikhailova, 2010; Demina & Smirnova, 2013).

According to the results of the thematic analysis of the time perspective studies it was found that clinical and psychological aspect of the study of person's time perspective is not actually presented, while the situation of the disease, especially oncological one, for both objective and subjective reasons affects the structure and content of the time perspective.

According to the Federal State Statistics Service of the Russian Federation over the past 15 years there has been an intense growth of the newly reported cases of cancer (for the period of 2000-2014 the increase in the number of newly reported cases of cancer was 1.4 times) (Federal State Statistics Service).

Given the high mortality rates of oncological patients, experience of a disease situation in this nosology group is accompanied by fear of death and life limitation in the subjective picture. Oncological disease changes parameters of time perspective of the individual, which in turn has a significant prognostic impact on the general attitude toward the disease, thereby activating the productive mechanisms of overcoming the disease.

According to F. Zimbardo and J. Boyd's definition (2010), time perspective is "... the attitude of a person to the time, and is the process by which the longstanding flow of existence is merged into the time categories, what helps to organize our life, to structure it and to give meaning to it »(Zimbardo & Boyd, 2010), which reflects the attitudes, beliefs and values related to time (Golovakha & Kronik, 1984).

The personality appears an active agent, integrating, organizing and coordinating time at various levels of the regulation (Abulhanova & Berezina, 2001). The time perspective of a person appears as an integrating phenomenon that ensures the integrity of the individual (Zimbardo & Boyd, 2010; Kravchenko, 2008; Lipetskiy, 2013; Tarabrina, Agarkov & Bykhovets, 2007).

Focusing on the concept of dissociation, offered by Ludwig A.M. (1983), dissociation is considered as a systemic misalignment of mental phenomena and is implemented in the following characteristics: changes in critical thinking; violation of the sense of time; a sense of loss of behavior control; changes in emotional expression; changes in body image; disorders of perception; changing the meaning or significance of actual situations or situations that occurred in the past; sense of age regression (Tolstih, 2010).

Oncological disease in clinical psychology is seen as a crisis and extreme situation, which has a number of specific features: a sudden onset, the inability to control the situation, the staging of the disease and reactions to it, the destruction of the previously existing worldview.

In the situation of oncological disease functioning of personality is disordered, what manifests itself in the inability to realize their life values and goals within the framework of the same behavior model. According to modern research, patients with oncological disease feel hopelessness of their position, which blocks the usual course of life; there is frustration of spiritual needs; hopelessness leads to the loss of the subjective meaning of life; transformation of the system of life values; reassessment of the way of life (Lipetskiy, 2013).

Oncohematological diseases are characterized by the systematic destruction that may lead to the lesion of other organs and tissues, as well as the fact that all extramedullary hemoblastoses are able to affect bone marrow secondarily. The main treatment is chemotherapy (intravenous administration of highly toxic potent drugs in high doses), the duration of which is determined by the oncologist, depending on the morphological form and stage of oncohematologic disease. In the absence of chemotherapy the time from identifying disease to death is often 1 to 5 months. The quality of life of patients with oncohematological disease is determined primarily by immune vulnerability, and therefore most of the time patients are forced to be in specialized hospital (in order to avoid extraneous external infections).

In a situation of oncological hematological diseases dissociation supports discontinuity and disintegration of person's time perspective at the level of event organization of the past, present, future.

### **Materials and Methods**

An empirical study was carried out at the premises of a "Kursk Regional Clinical Oncology Center". The total sample number was 100 people aged 24-60 years. The experimental group consisted of 50 examinees (37 men and 13 women; average age is  $46,4 \pm 5,96$ ) with oncohematologic disease (S91 "Lymphoid leukemia" ICD-10) with a primary lesion of the lymph nodes and bone marrow (leukemia variant characterized by the presence of tens and hundred thousands of white blood cells in 1 ml of blood). The patients in the experimental group revealed the proliferation of undifferentiated or poorly differentiated, blast cells and malignant disease flow. Bone marrow biopsy specimen from the sternum in patients with lymphoid leukemia observed blast cells, the number of which ranges from 10.46 to 14.18% (Xav. = 12.84%). In peripheral blood it has been a sharp increase in the number of blasts at individual mature elements and the absence of transitional ripening forms.

The characteristic feature of blast cells in peripheral blood and bone marrow in patients with lymphoid leukemia is the absence of clear signs of differentiation in one of the hematopoietic lines, as well as the simultaneous presence in tumor cells



the signs of lymphoid and myeloid origin. According to the results of ultrasound examination the patients in the control group revealed infiltrative lesion of the spleen, liver and lymph nodes. All the patients of the experimental group received cytostatic treatment with systematic monitoring of hemogram indicators (1-2 times a week). Since cytostatic therapy is accompanied by intense cellular decay, patients also received drugs that inhibit the synthesis of uric acid (regimen and dosage were calculated individually for each patient, depending on the parameters of blood).

The control group included examinees with hematological diseases "Iron deficiency anemia» (D50 according to ICD-10) (50 persons). The result of laboratory tests of patients with iron deficiency anemia shows significant decline in blood hemoglobin level ( $X \pm \sigma = 57,2 \pm 4,86$ ) and, as a result, the color index ( $x \pm \sigma = 0,67 \pm 0,14$ ); the tests also revealed a decrease in the level of iron of blood serum ( $X \pm \sigma = 10,6 \pm 1,12$ ) with the increasing serum iron-binding capacity. To the time of psychodiagnostic examination the patients were in remission. Examination of patients was carried out in hospital, in the individual form and on terms of informed consent.

The research methods: the method of "Life Line", the questionnaire of time perspective by F. Zimbardo and J. Boyd (2010), a questionnaire of time orientation by J Nyutten, (2004), the dissociation scale (DES) adapted by N.V. Tarabrina (2007), a questionnaire of values by Schwartz. Statistical Methods: Descriptive methods (histogram of average values, standard deviation), relative (non-parametric U-Mann-Whitney test), correlation (r-test of Spearman rank correlation) and multivariate statistics (regression analysis). Processing of the results was carried out using Windows (MC Excel) software package.

The organization of the research was carried out successively in several stages. At the initial stage of the research the study of time perspective of the individual oncohematologic patients was carried out at the extension level, at the level of the ratio of structural components (the past, the present, the future) and that of orientations. At the second stage of the study the structural and content analysis of time perspective of oncohematologic patients was carried out using the method of correlation analysis. The aim of the third phase of the study was to evaluate the dissociation vector effect on the structural -level organization of time perspective of oncohematologic patients using regression analysis.

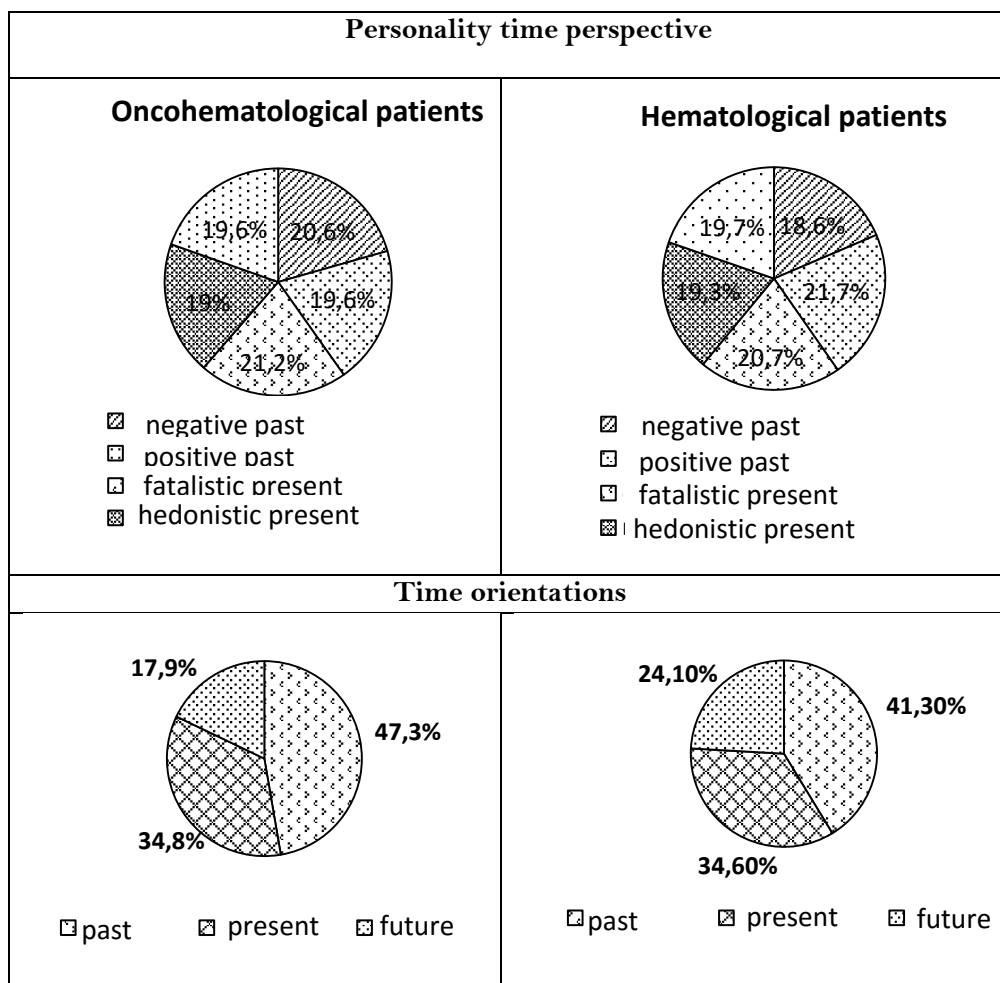
## Results

The time perspective of the individual with oncohematological disease was studied in the parameters of extension, the ratio of the structural components (negative past, positive past, fatalistic present, hedonistic present, future), in the orientation content. The study result of time perspective of the individual oncohematologic patients at the level of extension revealed the limitations of time perspective by the past events ( $x \pm \sigma = 12,4 \pm 4,28$ ), while in hematologic patients the individual extension of time perspective ( $x \pm \sigma = 14,31 \pm 5,46$ ) is characterized by the predominance of the present and the past. The level of the ratio of the structural components of the individual time perspective of oncohematologic patients revealed predominance of the fatalistic events of the present ( $x \pm \sigma = 3,51 \pm 0,54$ ) and of the negative past ( $x \pm \sigma = 3,41 \pm 0,61$ ) with a decrease of the hedonistic present ( $x \pm \sigma = 3,15 \pm 0,32$ ). In patients with hematologic disease time perspective of a personality is characterized by the significant ( $p = 0.031$ ) prevalence of the present fatalistic events ( $x \pm \sigma = 3,49 \pm 0,54$ ) and of the positive past ( $x \pm \sigma = 3,66 \pm 0,72$ ) with

significant reduction of the negative past ( $x \pm \sigma = 3,13 \pm 0,37$ ) and the hedonistic present ( $x \pm \sigma = 3,24 \pm 0,44$ ).

Fatalistic present in oncohematologic patients is supported by the content of the negative past. The negative assessment of their past by oncohematologic patients is due to the fact that the events of the past are seen as the cause of the disease development. In hematological patients the fatalistic present is supported by the positive assessment of their past: the present in situation of disease is characterized by the fatalistic nature compared to the event-filled past.

Graphical representation of the ratio results of the structural components of time perspective in patients with oncohematological disease is shown in the shared distribution diagram (Figure 1).



**Figure 1.** Diagram of structural components shared distribution of personality time perspective and time orientations in oncohematological and hematological patients.

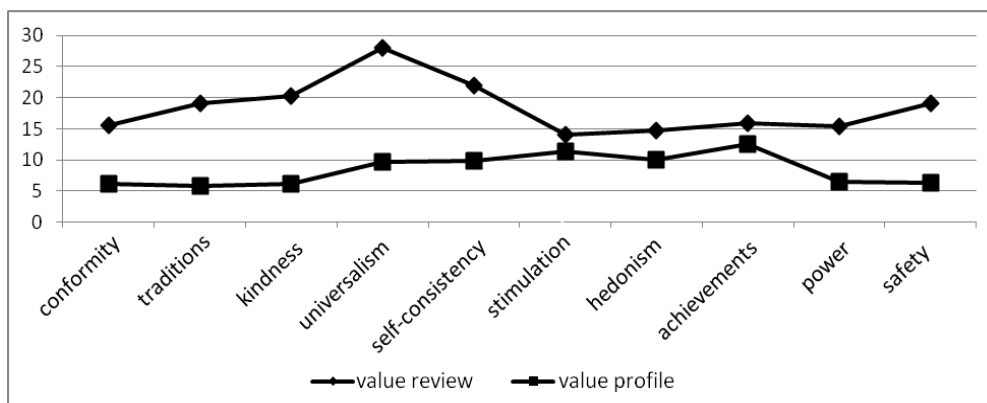
At the level of time orientations oncohematological patients revealed predominance of future arrangements ( $x \pm \sigma = 3,97 \pm 0,82$ ) and the past ( $x \pm \sigma = 3,90 \pm 0,68$ ). In hematological patients in time orientations system the future ( $x \pm \sigma = 4,03 \pm 0,61$ ) and the past ( $x \pm \sigma = 3,94 \pm 0,61$ ) arrangements are also prevalent with the deficiency of the present arrangements ( $x \pm \sigma = 3,86 \pm 0,61$ ). The assessment of

the differences' significance of time orientations indicators significant prevalence of the past arrangements ( $p = 0.024$ ) and those of the future ( $p = 0.031$ ) is revealed in hematological patients compared to oncohematological patients (Fig. 1).

The time perspective of oncohematological patients is characterized by the limited extension mostly with negative events of the past, as it is the past, where patients find the causes of the disease. Herewith the present is assessed as fatalistic, the main content of which is the situation of oncologic disease and the treatment procedure. Reducing the share of the future in the structure of time perspective of the individual, as well as time arrangements for the future is due to the high mortality rates in patients if this nosological group.

In hematologic patients the time perspective of the individual is limited to the positive events of the past and the present; having previous life experience out of the situation of disease and comparing it with the current situation of hematological disease, requiring long-term treatment, an individual assess past events as positive. The situation of the disease is seen as fatalistic as full recovery forecast in most cases turns out to be unfavorable. Reducing the severity of time arrangements for the future is also linked to the need for lifelong maintenance therapy.

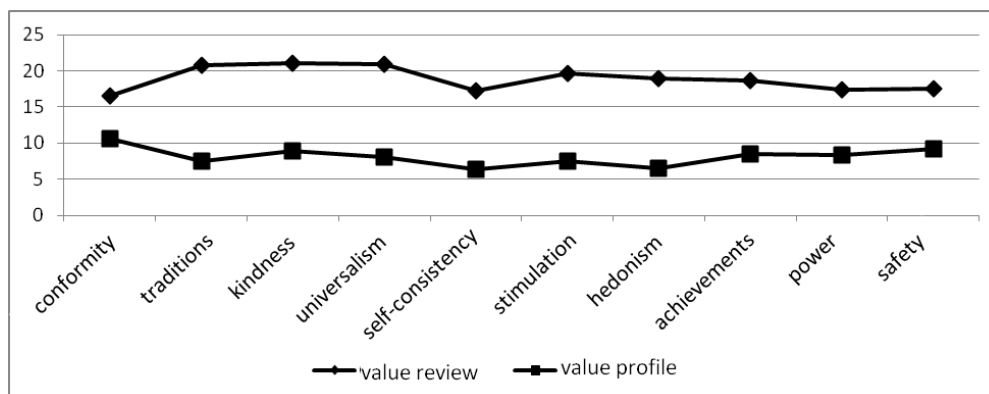
The content of the time perspective of oncohematologic patients is determined and regulated by the system of value orientations. The study of the value orientations system in oncohematologic patients revealed a mismatch of the value orientations system at the level of ideas and at the level of implementation of the behavior, which is reflected in the prevalence at the level of ideas of kindness values, of universalism and autonomy; at the level of behavior predominant are the values of , mode of action, autonomy and independence), kindness (characterized by benevolence, the desire to preserve the welfare of loved ones) and security (manifested in maintaining the stability of the relationship for themselves and others) (Figure 2).



**Figure 2.** The average profile of value orientations system.in oncohematological patients.

At the level of individual priorities the system of value orientations in oncohematological patients, reflecting the value orientations, implemented in behavior is characterized by a significant prevalence of achievement values (which manifests itself in social competence, implemented for the purpose of social approval) and stimulation (manifested in the pursuit of novelty and deep feelings) (Figure 3).

The system of value orientations in hematological patients is also characterized by the mismatch of values at the level of ideas and their realization in behavior. At the same time at the level of ideas significantly prevailing are the values of kindness ( $p = 0.034$ ), universalism ( $p = 0.040$ ) and traditions ( $p = 0.013$ ), which appear in the respect and acceptance of social norms and traditions, the manifestation of goodwill in interaction with loved ones, their understanding and tolerance. At the level of implementation in behavior significantly prevailing are the values of conformity ( $p = 0.004$ ), security ( $p = 0.014$ ) and kindness ( $p = 0.021$ ), which is manifested in kindness, maintaining stability and security in the interaction with loved ones, as well as containment and prevention of actions which can cause harm to others or do not conform to social expectations (Figure 3).



**Figure 3.** The average profile of value orientations system in hematological patients.

The study results of value orientations system in hematological patients revealed a contradiction: the content of the system of values at the level of ideas does not correspond to the implemented ones; understanding, tolerance and protection of welfare, autonomy and independence, as well as the desire to maintain stability of the relationship are declarative; in real interaction patients demonstrate social competence, realized for the purpose of social approval, as well as deep absorption in their own feelings.

## Discussions

In solving the problem of structural and content analysis of time perspective in oncohematological patients using the method of correlation analysis (Spearman's r-rank correlation test,  $r < 0,05$ ) parameters of individual time perspective and value orientations, the following results are obtained: directly proportional relations between the value of achievements and the future ( $r = 0,47$ ); inversely proportional are relations between universalism values and the future ( $r = -0,62$ ), the fatalistic present and stimulation values ( $r = -0,38$ ), achievement ( $r = -0,54$ ) and kindness ( $r = -0,39$ ). The content of the individual time perspective in oncohematological patients is realized in the value of universalism, stimulation, achievements and kindness. Hematological patients find directly proportional statistically significant interrelations between the values of kindness and indicators of the future ( $r = 0,44$ ), as well as the values of independence and negative past indicators ( $r = 0,37$ );



inversely proportional interrelations are found between the indicators of the fatalistic present with the values of traditions ( $r = -0,48$ ) and hedonism ( $r = -0,56$ ). The content of the individual time perspective in hematological patients is realized in the values of traditions, hedonism, independence and kindness.

The dissociation study of time perspective in oncohematological patients was carried out using the method of multiple regression analysis. As a result of research of the dissociating level oncohematological patients revealed high indicators ( $x \pm \sigma = 0,57 \pm 0,34$ ), while hematological patients have dissociating level that corresponds to a range of average values ( $x \pm \sigma = 0,24 \pm 0,09$ ). According to the results of multiple regression analysis (backward single-step method) it is revealed that time perspective in oncohematological patients is dissociated at the level of the positive past ( $\beta = -0,557$ ;  $p = 0.042$ ), the future ( $\beta = 1,204$ ;  $p = 0.018$ ) and time arrangements for the future ( $\beta = -1,051$ ;  $p = 0.015$ ).

### Conclusion

The main element of the individual time perspective in oncohematological patients is the fatalistic present, which dissociates not only with the future, but with the positive past. The negative past is not dissociated, as it is a source of maintaining the experience of the fatalistic present. With the reduction of the overall length of time perspective the present and the future in it are dissociated.

Increase in the share of future, its integration into the structure of the time individual perspective in oncohematological patients will allow activating the productive mechanisms of coping with the disease, which is prognostic ally significant in the subjective attitude to their own illness. Willingness to live and overcome the disease in oncohematological patients should be associated with the formation of arrangements for the future. The favorable prognosis of treatment is formed among other things on the basis of subjective attitude of patients with lymphoid leukemia to the process of treatment, to the disease, which is integrated in the overall trajectory of time perspective, which in part of the future includes cognitive, emotional, volitional capacity of coping with the disease.

### Recommendations

The obtained results are experimental psychological argument for the need to introduce neuropsychological block in the system of psychotherapeutic impact, which includes the tasks aimed at increasing reciprocal organizations to improve the general level of constructive activity in order to create alternative to the stereotyped models of mental activity and patterns of behavior.

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### Disclosure statement

No potential conflict of interest was reported by the authors.

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