

# Research Journal of Pharmaceutical, Biological and Chemical Sciences

## Psychological Mechanisms of Internal Picture of Illness at Diseases Oncohematological Profile.

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### ABSTRACT

The results of research of psychological mechanisms of an internal picture of illness at diseases of the oncohematological profile (acute and chronic leukemia) with a support on Y.S. Tkhostova's methodology and concrete methods of research are presented in clause. Obtained data give the basis to approve presence specific under the maintenance and structure of psychological mechanisms of an internal picture of illness at diseases of the of the oncohematological profile (acute and chronic leukemia) and an opportunity of development of more effective programs on psychological rehabilitation of the cancer patients

**Keywords:** an internal picture of illness, psychological mechanisms, diseases of the acute and chronic leukemia.

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## INTRODUCTION

The urgency of research of psychological mechanisms of an internal picture of illness at diseases of the oncohematological profile is caused by complexity, scale, the social importance and pathogenicity of influence of investigated disease on the person both on individual, and on macro social levels of functioning [1]. A problem of the present research are provided with presence of some contradictions between a primary level of scrutiny of an internal picture of illness at oncological diseases of various localizations [2-5] and insufficient level of research of internal picture of illness at diseases of the oncological and hematological structure, described absence of concrete localization of a Cancer tumour [6-8]; latent process of course, with delayed psychological trauma of patients and necessity of duly psychological rehabilitation of patients with diseases of the oncohematological profile [9-12].

The purpose of our work this research of psychological mechanisms of an internal picture of illness at diseases of the of oncohematological profile in this connection.

### Technique

The basic part of research was made with empirical methods: a technique "The Toronto aleksitimicheskaya scale" (TAS) in adaptation of institute it. V.M.Bekhterev [13]; a scale " Measurement of hope " in K.Muzdybaeva's [14] adaptation, F.Zimbardo's questionnaire on time prospect (ZTPI) in A.Syrtsvoj's adaptation [15]; Luscher's color test in L.N.Sobchik's adaptation [16]; the test of a hand of Wagner " Hand test (in adaptation of T.N. Kurbatova) [17], method of picturesque frustration S. Rosenzweig (in N.V.Tarabarina's adaptation) (an adult variant) [18], a technique of diagnostics of animosities (Medley) [19], a technique to study of the rigidity [20]. Methods of quantitative and qualitative data processing: methods of descriptive statistics and comparative statistics (nonparametric criterion U-Манна-Уитни) were included into group of methods quantitative and quality standard of data. Statistical processing was carried out with use of a package of software STATISTIKA 6,0.

The empirical base of research. Total sample size was 104 participants in the study of man. Based on diagnostic criteria from diseases of oncohematological profile in accordance with the provisions of the International Classification of Diseases ICD-10 [21] were formed two experimental groups - patients with acute and chronic group of patients with leukemia (men and women aged 25 to 65 years - 34 human).

### The Basic Part

As approach Tkhostova [22], according to which an internal picture of the disease should be considered as an integral, "complex multilevel education", which includes: 1) sensory fabric; 2) primary signification; 3) secondary signification; 4) personal meaning, made theoretical and methodological foundation in the study of psychological mechanisms internal picture of disease in diseases of oncohematological profile. Dynamism, flexibility, internal picture of disease, "as transitions from sensual fabric for personal meaning and

personal sense of signification through a sensual fabric" [22; P.37] ensuring close linkages and mutual transitions its levels.

The essence of psychological mechanisms internal picture of disease presented a holistic system of psychological factors arising under the influence of a particular psychological situation and ensure the execution of various regulatory functions [23]. In our study, the psychological mechanisms internal picture of disease in diseases oncohematological profile provide the mutual sensual fabrics for personal meaning, which manifests itself in the form of feelings ( interest, anxiety, fear , etc.) , and from personal meaning through signification to the mutual sensual fabric to fabric personal sense, which manifests itself in the form of feelings ( interest, anxiety, fear , etc.) , and from personal meaning through signification to the sensual fabric.

When evaluating the sensory fabric inner picture of the disease, we obtained significantly significant differences of the scale "level of alexithymia" in the groups studied (see Table. 1), indicating that the inability of patients to understand people and to understand their own feelings and experiences.

When evaluating primary signification internal picture of disease-indicator "hopefulness" were witnessed by a statistically significant difference in the expression levels of performance (see Table 1). This suggests that patients with diseases oncohematological profile in the absence of adequate information about blood cancer acquire uncertainty that reinforces their sense of hopelessness.

The study specifics of time perspective in groups of patients with diseases of oncohematological profile (acute and chronic leukemia) reliably identified significant differences on such parameters as time perspective " negative past ", " present fatalistic", "future", " positive past" (see Table 1). Patients with diseases oncohematological profile see past events obnoxious and abhorrent , they have no faith in their own power to influence both the present and future events of his life.

Thus, the study of the primary signification internal picture of disease in diseases oncohematological profile (acute and chronic leukemia), it was found that patients with the feeling of physical discomfort and distress, pain, intensity formed hopelessness, which impairs the ability to analyze and plan the event.

When assessing the secondary signification internal picture of disease - we got an alarm reliably significant differences in the groups studied (see Table 1). For patients with diseases oncohematological profile (acute and chronic leukemia ) are characteristic experiences fear of death , pain, which is probably the socio- psychological effects of the changes in life that entails is a blood disorder.

Secondary signification internal picture of disease in diseases oncohematological profile (acute and chronic leukemia) defined anxiety that arises in response to the cognitive evaluation of their illness.

**Table 1: Mean values and significant differences for the levels of internal picture of disease patient groups oncohematological profile (acute and chronic leukemia) and a group of healthy individuals (U-Mann-Whitney test,  $p \leq 0,05$ ;  $U_{emp.} < U_{cr.}$ ).**

#	Diseases hematology Indicators	Cancer patients				Healthy (3)		(1)-(3)		(2)-(3)	
		Acute leukemia (1)		Chronic leukemia (2)		$X_{med.} \pm \sigma_x$	qualitative	$U_3$ мп.	p	$U_{emp.}$	p
		$X_{med.} \pm \sigma_x$	qualitative	$X_{med.} \pm \sigma_x$	qualitative						
<i>The sensual fabric</i>											
1.	Alexithymia	78,35± 11,62	High	83,67± 9,78	Maximum	66,50± 8,98	Medium	30 1,0*	0,0 00	55,5*	0,0 00
<i>The primary signification</i>											
2.	Hopefulness	15,88± 4,57	Medium	15,83± 4,95	Medium	26,02± 3,44	Maximum	66, 0*	0, 00 0	18,5*	0,0 00
3.	Negative past	3,28± 0,62	Maximum	3,21± 0,78	Maximum	2,58± 0,70	Medium	345, 0*	0, 00 0	147,0*	0,0 13
4.	Hedonistic currently	3,21± 0,65	Maximum	3,01± 0,68	Maximum	2,91± 0,50	Medium	579, 5*	0, 04 8	-	-
5.	Future	2,35± 0,58	Minimum	2,34± 0,51	Minimum	2,84± 0,34	Medium	564, 0*	0, 03 3	171,5*	0,0 45
6.	Positive past	3,49± 0,80	Medium	3,66± 0,70	Высокий	3,74± 0,39	Maximum	-	-	-	-
7.	Fatalistic present	3,35± 0,52	Medium	3,34± 0,30	Medium	2,84± 0,64	Medium	590, 5*	0, 00 0	143,5*	0,0 11
<i>The secondary signification</i>											
8.	Anxiety	2,2± 1,13	Maximum	2,83± 1,34	High	0,91± 0,99	Minimum	49, 4,5*	0,0 00	76,5*	0,0 00
<i>The personal meaning</i>											
9.	Personal maladjustment	0,62±0, 35	Maximum	0,71±0, 31	Maximum	1,14± 0,24	Minimum	66, 7,0*	0,0 03	37,0*	0,0 00
10.	Collective conformity	57,04± 12,49	Maximum	59,80± 13,71	Maximum	46,19± 11,68	Medium	41, 5,5*	0,0 00	126,5*	0,0 04
11.	Hostility	13,85± 2,19	Medium with a trend towards lower	13,67± 1,92	Medium with a trend towards lower	14,07± 1,95	Medium with a trend towards lower	-	-	-	-
12.	Aggressiveness	22,92± 7,30	Medium	22,63± 4,38	Medium	20,65± 6,94	Medium	16, 4,0*	0,0 00	-	-
13.	Cynicism	49,12± 10,36	Medium with a trend towards higher	47,67± 10,20	Medium with a trend towards higher	32,35± 8,13	Medium with a trend towards lower	50, 2,5*	0,0 06	64,0*	0,0 00
14.	Rigidity	29,91± 5,59	Maximum	27,92± 5,57	Medium	17,87± 4,34	Medium	11, 9,0	0,0 00	39,0	0,0 00

In the study of personal meaning internal picture of disease we have found significant differences in the groups studied on such indicators as "personal adaptation coefficient", "factor of group conformity," "level of aggression" and "level of cynicism" (see Table. 1). This suggests that blood cancer patients are more prone to personal maladjustment arising under the traumatic event (diagnosis - cancer of the blood) and supports the growth of psychological tension.

When assessing performance rigidity as a manifestation of secondary signification internal picture of disease we have significant differences in the groups studied (see Table 1 ), which indicates the continuing trend towards the conservation of its facilities, behaviors , ways of thinking and the inability to change the personal point of view . In a situation with hematological diseases deformed professional and family status of the person, causing personal maladjustment sick people , manifested destructive ways of responding , aggressive, cynical and rigid behaviors .

The research of the psychological mechanisms internal picture of disease in diseases oncohematological profile (acute and chronic leukemia) was carried out using the procedures of the correlation analysis and factor analysis .

Correlation analysis of interrelations of levels parameters of sensual fabrics, personal meaning to indicators of primary and secondary levels of signification internal picture of disease in diseases oncohematological profile (acute and chronic leukemia) revealed in a special personal meaning temporal manifestations of cancer patients (see Table . 2).

**Table 2: Correlation of interrelations of levels parameters of sensual fabrics, personal meaning to indicators of primary and secondary levels of signification internal picture of disease in personality disorders oncohematological profile (acute leukemia)**

Data	Negative past	Hedonistic currently	Future	Positive past	Fatalistic present
Collective conformity	-0,10	-0,16	0,19	0,17	-0,09
Cynicism	-0,32	0,05	-0,55**	0,45**	-0,11
Aggressiveness	0,17	-0,12	0,37*	0,30	0,25
Hostility	0,20	-0,2	-0,24	-0,42*	0,12
Hopefulness	-0,07	0,23	-0,21	0,25	-0,16
Rigidity	-0,09	0,45**	0,06	-0,28	0,37*
Alexithymia	-0,54**	-0,36*	-0,55**	-0,37*	-0,28
Anxiety	0,13	0,00	0,36	0,18	0,18
Personal maladjustment	-0,03	-0,17	0,17	0,09	0,17

\*\* - Statistical significance at  $p \leq 0,01$ ; \* - Statistical significance at  $p \leq 0,05$ ;

In patients with chronic leukemia lack of a common orientation to the future is accompanied by disturbing attitude, fear of death. Positive past is connected with high hopes, and fatalistic currently characterized helpless, hopeless and aggressive attitude to the future life, which is predetermined and it is impossible to affect individual actions (see Table 3).

**Table 3: Correlation of interrelations of levels parameters of sensual fabrics, personal meaning to indicators of primary and secondary levels of signification internal picture of disease in diseases oncohematological profile (chronic leukemia)**

Data	Negative past	Hedonistic currently	Future	Positive past	Fatalistic present
Collective conformity	-0,17	-0,51	0,43	0,13	0,41
Cynicism	-0,36	-0,06	-0,64*	-0,19	-0,60*
Aggressiveness	0,19	0,10	0,56	0,25	0,59*
Hostility	-0,10	-0,33	-0,16	-0,09	0,04
Hopefulness	-0,34	-0,01	-0,15	0,58*	-0,70*
Rigidity	0,22	0,25	0,02	-0,14	0,18
Alexithymia	-0,78**	-0,53	-0,56	-0,22	-0,26
Anxiety	0,30	0,29	0,81**	0,42	0,31
Personal maladjustment	0,23	-0,57	0,52	-0,23	0,26

\*\* - Statistical significance at  $p \leq 0,01$ ; \* - Statistical significance at  $p \leq 0,05$ ;

Thus, in patients with diseases oncohematological profile (acute and chronic leukemia) dissociation time perspective, discrete perception of his career with the fixation and focus on one of the segments of his own life are notes. This category of patients experiencing dissatisfaction with life in the present, to compensate for the inferiority of the memories of the past, or high hopes for the future. But these plans do not have a real basis for the present and not supported by personal responsibility for their implementation.

In order to identify the structure and content of psychological mechanisms internal picture of disease in diseases oncohematological profile (acute and chronic leukemia), we used the procedure varimax rotation of interrelations of levels parameters of sensual fabrics, personal meaning to indicators of primary and secondary levels of meaning is possible to establish the following system factors. In patients with acute leukemia revealed a five-factor structure in which the first element is a backbone for power factor combines with the highest positive load performance "level of cynicism" (0.832) and "level of aggression" (0.877) and can be interpreted as "factor sensitivity and aggressive behavior". Given the proportion of the total variance and the combination of variables in the structure factors, the following four factors can be interpreted as: "factor rigid behavior in relation to the present and indifferent predetermined future", "tolerance factor", "hope factor", "factor of pain, loss and regret about the past."

In patients with chronic leukemia revealed a three-factor structure in which the first element is a backbone for power factor combines with the highest positive load performance "level of cynicism" (0.807), "aggressiveness" (0.814), "future" (0.876) "anxiety" (0.823), and which can be interpreted as a "factor of pain and regret, neglect disease demonstration aggressive behaviors in the future." Taking into account the proportion of the total variance and the combination of variables in the structure factors, the following two factors can be described as "a predetermined factor and hopeless future, pain and regret", "factor hedonistic attitude toward time and life, tolerance".

## CONCLUSION

The study found that in cancer patients prevail reduced ability to understand and to understand their own feelings , hopelessness, lack of plans for the future, high personal importance of the disease and pathological fixation concern and all that goes with it , emotional chronic stress ( anxiety related to the difficulties of life , mistrust, fears) , jam on emotionally negative experiences , destructive ways to respond to , a high level of aggressiveness developed ability to cynicism , rigidity behaviors.

## Scientific findings

The results suggest to the existence of specific psychological mechanisms of internal picture of illness in diseases of oncohematological profile (acute and chronic leukemia). These mechanisms are the basis in development of the program of psychological rehabilitation of patients with diseases of oncohematological profile undertaken by psychocorrectional impact on their psychological mechanisms of internal picture of illness.

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