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## PSYCHOLOGICAL ADAPTATION TO CHRONIC SOMATIC DISEASE: ASPECTS OF COPING

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### Abstract

The article describes the results of the empirical study that indicates the relationship between coping behavior of a patient in a chronic disease with other indicators and predictors of the effectiveness of adaptation to the disease. It was found that such parameters as the understanding of the course of the disease, the identification of its symptoms and the assessment of negative consequences are decisive in the choice of more adaptive coping strategies in the conditions of the disease, such as "Optimism", "Hope" and "Problem solving planning". These behavioral strategies help patients achieve better treatment outcomes rather than avoidance and distancing strategies. These strategies help patients get rid of intense unpleasant emotions, but they do not help in solving problems, which is fundamental in the conditions of illness. At the same time, certain combinations of perception of the disease and coping with it also determine the indicators of adherence to treatment and quality of life. Patients who are optimistic about their condition and plan their further treatment are more committed, but have a lower emotional background. Patients choosing avoidant stress management experience less negative emotions but are less effective in treatment.

**Keywords:** coping behavior, coping with illness behavior, adaptation to chronic illness, somatic disease, cystic fibrosis.

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## INTRODUCTION

The analysis of models of behavior change about to health and risky behavior allows to conditionally consider the activity of an individual in relation to his health as: 1) having certain stages of transition from pathology to normal functioning (Charmaz, & Rosenfeld, 2009); 2) moving individual to along the axis of the disease-health continuum (Meyer et al., 1985); 3) the result or an important component of the process of self-regulation of the individual in the conditions of the disease (Nikolaeva, 2009). Exactly it is the description of the mechanisms of self-regulation that is not limited to the stages of readiness and the strength of the person's intention to change behavior, but considers the active use of strategies by the person to overcome the undesirable state (Helgeson, & Zajdel, 2017). Within this approach, the authors increasingly consider such constructs as the perception of the disease (Sirota, et al., 2014), the internal picture of the disease and treatment (Yaltonsky, & Abrosimov, 2014), compliance, the patient's quality of life in their relation to the indicators of his coping resources and coping strategies (Yaltonsky, et al., 2014).

The relevance of this study is due to a significant increase in the practical and theoretical developments of modern clinical psychology in the field of personal adaptation to the available disease, emphasizing the importance of healthy and health-conscious patient behavior for improving the efficiency of his treatment and rehabilitation processes (Pfeffer, et al., 2003).

## MATERIALS AND METHODS

In this study took part 80 patients with cystic fibrosis (cipher in ICD-10 E84.0) of male (n=35) and female (n=45) sex, undergoing planned inpatient (n=60) and out-patient (n=20) treatment, aged from 18 to 28 years (average age -  $23.7 \pm 4.8$  years). The course of the disease was characterized by a diffuse severe symptomatic picture (impaired respiratory and digestive functions), which manifested in early childhood and caused a high probability of death. The clinical base of the study was the cystic fibrosis laboratory of the Research Institute of Pulmonology (Russian Federation, Moscow).

When examining patients, the following psychodiagnostic methods were used:

1. "A brief questionnaire of the perception of the disease" (Yaltonsky, et al., 2017).
2. The questionnaire "The personal meaning of the disease" (based on the classification of Z. Lipowski (Lipowski, 1985).

3. Questionnaire of emotional response to the disease (Yaltonsky, et al., 2017).
4. Questionnaire "Adherence to treatment for cystic fibrosis" (Masterson, 2007).
5. Quality of life questionnaire (SF-36 Health Status Survey, Ware J.E., et al., 1993).
6. Method for the psychological diagnostics of coping with stressful and problem situations for the individual (Ababkov et al., 2010).
7. The questionnaire "Coping behavior in cystic fibrosis" (Abbot, 2001).

The SPSS statistical data processing software package was used (v.24, 2017)

## RESULTS

The use of the methods of factor and cluster analysis of data obtained in the study of coping behavior strategies allowed us to identify two clusters-groups within the sample of patients with cystic fibrosis: group A (n = 42) and group B (n = 35). The first group consisted of patients with a predominance of the factor "Adaptive coping". The indicated factors included the strategies "Optimism" (the value of the factor load  $r = 0.937$ ), "Hope" ( $r = 0.803$ ), "Positive reevaluation" ( $r = 0.771$ ), and "Problem Solving Planning" ( $r = 0.686$ ). Group B included patients with a predominance of the factor "maladaptive coping". This factor included the strategies "Escape/Avoidance" ( $r = 0.885$ ), "Acceptance of responsibility" ( $r = 0.826$ ), "Confrontation" ( $r = 0.763$ ).

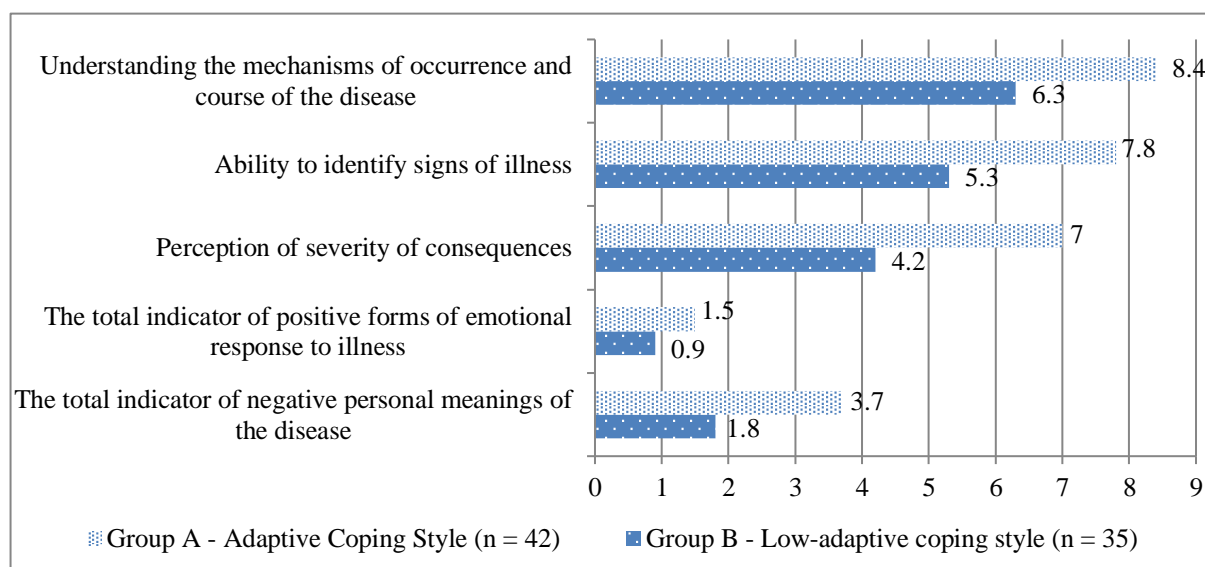


Figure 1. Statistically significant differences among the indicators of personality self-regulation under conditions of illness in the selected groups.

The analysis of indicators reflecting the process of self-regulation of the individual in the conditions of the disease (the perception of the disease, the personal meaning of the disease,

the emotional response to the disease) revealed the following. In the group of patients adaptively coping with the disease (group A), were statistically significantly higher compared with group B the following characteristics of the perception of the disease: “Understanding” ( $8.4 \pm 1.35$  vs.  $6.3 \pm 2.83$ ;  $p = 0.040$ ), “Identification” ( $7.8 \pm 1.61$  against  $5.3 \pm 1.87$ ;  $p = 0.003$ ), “Consequences” ( $7.0 \pm 2.0$  against  $4.17 \pm 2.25$ ;  $p = 0.005$ ). At the same time, for group B (with low-adaptive coping) compared with group A (with adaptive coping), a statistically significantly higher ( $3.7 \pm 0.82$  vs.  $1.85 \pm 1.57$ ;  $p = 0.002$ ) were total negative meanings of the disease (“Enemy”, “Punishment”, “Weakness”, “Threat”) and statistically significantly lower ( $1.55 \pm 0.85$  versus  $0.88 \pm 0.6$ ;  $p = 0.041$ ) is the total indicator of a positive emotional response to illness (“Hope”, “Surprise”, “Confidence”, “Joy from overcoming”, “Gratitude for support”).

The described results indicate that the parameters of the patient's subjective perception of the available disease are an important predictor of the choice of strategies for coping with a severe disease. Comprehensive assessment of the disease as sufficiently understandable, having recognizable manifestations at the bodily level and serious negative consequences for later life, activates the system of protective-coping mechanisms of self-regulation of the personality, which are aimed at increasing its adaptation and directly overcoming of the disease (Rasskazova, 2016). The underestimation of the relevant parameters of the perception of the disease is reflected in the choice of protective-avoiding and confrontational behavior. Although such methods of response and perform an important protective function in relation to negative emotional states, however, in terms of the disease are regarded as low-adaptive, because they reduce the individual's readiness for active actions to overcome the disease. Also, as factors determining the choice of low-adaptive coping-strategies, negative personal meanings and intense emotional experiences attributed to the disease can be considered. The patient's belief in the insuperable and fatal situation of the disease also leads to attempts to reduce (by avoiding) the accompanying negative emotions and, as a rule, to a reaction of “fading” to actively overcoming the disease (Krasovskij, et al., 2019).

The next section of this study was a comparison of indicators of adaptation to the disease (adherence to treatment, quality of life) among representatives of selected groups A and B. Patients characterized by the choice of strategies adaptive in disease conditions (group A) compared with patients of group B showed statistically significantly higher rates of adherence to treatment with antibiotics (oral  $\pm 4.5 \pm 0.85$  versus  $3.33 \pm 0.78$ ,  $p = 0.004$ ; in the form of an

aerosol -  $3.33 \pm 1.83$  against  $2.0 \pm 1.15$ ,  $p = 0.050$ ), which is an effective method for the prevention and relief of the leading symptoms of cystic fibrosis.

For selected groups of patients with cystic fibrosis, differing in the choice of coping behavior strategies, the analysis of the subjective assessment of the quality of life (based on the SF-36 questionnaire) revealed, in particular, that patients with low-adaptive behavior in the disease statistically significantly higher rate such indicators of their quality of life as “Intensity of pain” ( $87.39 \pm 17.23$  versus  $55.3 \pm 19.86$ ;  $p = 0.001$ ) and “Role functioning due to emotional state” ( $77.83 \pm 32.84$  versus  $46.6 \pm 42.22$ ;  $p = 0.050$ ). At the same time, these same patients show lower overall health scores ( $49.0 \pm 17.26$ ,  $35.54 \pm 18.54$ ;  $p = 0.049$ ).

Disease adaptation parameters		Group A - Adaptive Coping Style (n = 42)	Group B - Low-adaptive coping style (n = 35)	Signifi cance of differences
		Me±SD, scores		
Adherence to the treatment	Oral antibiotics	4.5±0.85	3.33±0.78	P=0.00 4
	Taking antibiotics aerosol	3.33±1.83	2.0±1.15	P=0.05 0
The quality of life	Pain intensity	55.3±19.86	87.39±17.23	P=0.00 1
	Emotional condition	46.6±42.22	77.83±32.84	P=0.05 0
	General condition health	49.0±17.26	35.54±18.54	P=0.04 9

Table 1. Statistically significant differences among indicators of adaptation to disease in the selected groups.

The choice of coping strategies focused on emotions is conditioned by the need of a person who has fallen into the conditions of the disease in maintaining his social and role (family, civil, professional) functions. The use of conscious strategies of distancing and distracting from a disease allows an individual to experience less intense negative emotions and to maintain his mental activity at the level “before the illness”. At the same time, the “I-concept”

of such patients includes a low level of general health. Within this variant of the internal picture of the disease, the patient relieves himself of negative emotions along with painful sensations. The identification and distortion of the sensory and emotional levels of perception of illness, which can mediate undesirable results of treatment and the course of the disease, are traced (Harchenko, et al., 2015).

Patients coping with problems in the conditions of the disease, on the contrary, note a decrease in the emotional background due to the non-fulfillment of their role-playing functions. However, they feel their active resistance to the disease and self-efficiency, which, perhaps, allows them to rate their overall health as higher.

Analysis and synthesis of the results of the study served as the basis for the following

### **CONCLUSIONS**

1. The choice of strategies for coping with the disease patient's behavior can be considered as one of the system-forming factors that determine the characteristics of adaptation and self-regulation of the individual in a chronic disease.

2. The empirical data obtained within clinical and psychological studies indicate that among coping strategies one can distinguish low-adaptive coping strategies with the disease (aimed at stopping negative emotional states due to the existing disease) and adaptive strategies (addressing specific problems related to overcoming the disease).

3. The perception of the disease, the cognitive assessment of the disease as a threat and the attributed personal meaning of the disease can be considered as predictors of the choice of coping behavior and, accordingly, adaptation in the conditions of the disease. Indicators of the success of adaptation to the disease may be adherence to treatment and the specifics of the subjective assessment of the patient's quality of life.

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## References

- Ababkov, V.A., Vasserman, L.I., & Trifonova, E.A. (2010). *Coping with stress: Theory and psychodiagnosics*. Rech'. ISBN: 978-5-9268-0952-4
- Abbott, J., Dodd, M., Gee, L., & Webb A.K. (2001). Ways of coping with cystic fibrosis: implications for treatment adherence. *Disability and rehabilitation*, 23(8), 315-324. <https://doi.org/10.1080/09638280010004171>
- Charmaz, K., & Rosenfeld, D. (2009). *Chronic illness*. In: *New Blackwell Companion to Medical Sociology*. Wiley-Blackwel, 312–333. ISBN: 9781405188685
- Harchenko, S.A., Grehov, R.A., Sulejmanova, G.P., Mjakishev, M.V., & Zborovskaja, I.A. (2015). Psychological features of patients with systemic lupus erythematosus. *Modern Problems of Science and Education*, (5). Retrieved September, 01, 2021 from <https://science-education.ru/ru/article/view?id=22051>
- Helgeson, V., & Zajdel, M. (2017). Adjusting to Chronic Health Conditions. *Annual Review of Psychology*, (68), 545-571. <https://doi.org/10.1146/annurev-psych-010416-044014>
- Krasovskij, S.A., Amelina, E.L., Kashirskaja, N.Ju., Voronkova, A.Ju., & Zonenko, O.G. (2019). Dynamics of indicators of the national register of patients with cystic fibrosis in 2011-2017. *Siberian Medical Review*, 2(116), 14-18. DOI: 10.20333/2500136-2019-2-14-18
- Lipowski, Z.J. (1985). Psychosocial reactions to physical illness. In: *Psychosomatic. Medicine and Liaison Psychiatry*. Springer, 141–75. [https://doi.org/10.1007/978-1-4613-2509-3\\_8](https://doi.org/10.1007/978-1-4613-2509-3_8)
- Masterson, T.L. (2007). *Predictors of Infection Control Adherence in Individuals with Cystic Fibrosis*. Doctoral Dissertation Abstract, Kent State University.
- Meyer, D., Leventhal, H., & Gutmann, M. (1985). Common-sense models of illness: The example of hypertension. *Health Psychology*, 4(2), 115-135. <https://doi.org/10.1037/0278-6133.4.2.115>

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- Nikolaeva, V.V. (2009). *Psychosomatics: physicality and culture*. Akademicheskij Proekt. ISBN: 978-5-8291-1165-6
- Pfeffer, P.E., Pfeffer, J.M., & Hodson, M.E. (2003). The psychosocial and psychiatric side of cystic fibrosis in adolescents and adults. *Review Journal of Cystic Fibrosis*, 2(2), 61-68. [https://doi.org/10.1016/S1569-1993\(03\)00020-1](https://doi.org/10.1016/S1569-1993(03)00020-1)
- Rasskazova, E.I. (2016). Psychological factors of health-related behavior: towards an integrative model. *Theoretical and Experimental Psychology*, 9(4), 124–139. ISSN: 2073-0861
- Sirota, N.A., Moskovchenko, D.V., & Yaltonskaya, A.V. (2014). Coping behavior of women with cancer of the reproductive system. *Medical Psychology In Russia*, 1, 10. doi:10.24411/2219-8245-2014-00007
- Ware, J., Snow, K., Kosinski, M., & Gandek, B. (1993). *SF36 Health Survey: Manual and Interpretation Guide*. The Health Institute, New England Medical Centre. ISBN: 1891810065
- Yaltonsky V.M., Yaltonskaya A.V., Sirota N.A., & Moskovchenko D.V. (2017). Psychometric properties of the russian version of brief illness perception questionnaire. *Psihologicheskie Issledovaniya*, 10(51), 1. Retrieved September, 01, 2021 from <http://psystudy.ru/index.php/num/2017v10n51/1376-yaltonskii51.html>
- Yaltonsky, V.M., & Abrosimov, I.N. (2014). Coping with the disease behavior of adults with cystic fibrosis. *National Psychological Journal*, 3(15), 56–61. <https://doi.org/10.11621/npj.2014.0307>
- Yaltonsky, V.M., Abrosimov, I.N., & Proshina, M.V. (2020). Perception and coping with systemic chronic disease in adolescents. *Mental Health of Children and Adolescent*, 20(2), 20-26. ISSN: 2305-9133