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FEATURES OF METACOGNITIVE BELIEFS OF ADOLESCENTS WITH A HIGH LEVEL OF PERSONAL ANXIETY

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The article contains an analysis of the problems of personal anxiety among adolescents. Anxiety is considered as a property of the personality, which is manifested in the cognitive aspect, emotional reaction, physical reaction and behavior of the individual. The general purpose of the study was to identify the metacognitive beliefs of adolescents with a high level of personal anxiety and was realized thanks to the implementation of such tasks as: identifying adolescents with a high level of personal anxiety, studying personal attitudes towards symptoms, determining and comparing the metacognitive beliefs of adolescents with different levels of personal anxiety, determining predictive power of metacognitions of young people with a high level of personal anxiety.

The results of a study of the prevalence of reactive and personal anxiety among adolescents are presented, a comparative analysis of one's own opinion regarding the presence of symptoms and test results of adolescents with a high level of personal anxiety is carried out. A new approach to the study of personal anxiety from the perspective of metacognitive beliefs is proposed, which is built on the principles of cognitive-behavioral psychology. Metacognition is defined as the basis of automatic thoughts, emotional and physical reactions, and the role of metacognitive processes in the interpretation of information about the level of security, the formation of judgments, assessments. The article proves that the metacognitions of adolescents with a high level of personal anxiety deprive them of flexibility in behavior, limiting the variability of life experience. The metacognitive portrait of young people with a high level of personal anxiety is characterized, in particular: the belief that anxiety is a protection against difficult emotions in anticipation of negative events; a positive attitude towards one's own anxious experiences is reinforced by a desire to prevent negative outcomes. As a result of the conducted research, the prospects for developing a method of targeted psychological influence within the cognitive-behavioral approach have been opened

Keywords: *personal anxiety, metacognitions, anxiety symptoms, negative thoughts, metacognitive beliefs*

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1. Introduction

Ukrainian society is going through a difficult crisis period, which is marked by an increase in the level of anxiety, social tension, existential fears, crisis and depressive states. The uncertainty of the future, the uncontrollability and unpredictability of life, the threat to basic needs generate negative metacognitive beliefs and seriously exacerbate anxious experiences. The problem of aggravation of anxiety states in young people is at the same time a logical reaction to the current situation, on the other hand, a serious challenge that threatens the quality of life, health, adaptability, becomes an obstacle on the way to self-realization, negatively affects all spheres of an individual's life, professional, personal and educational success.

The study of metacognitive phenomena has attracted the interest of representatives of psychological science relatively recently and is actively spreading. The interest of research is due to high practical significance, because in this perspective it is not only about observa-

tion, but also about the ability to manage cognitive processes, to form metacognitive skills. Skills are necessary for effective psychological assistance to today's youth. Despite the certain development of some directions, the problems of metacognitive phenomena of adolescents with high anxiety have been little studied and are at the stage of development.

2. Literary review

A significant number of scientific searches in the study of metacognitive phenomena have an applied orientation, determine the specifics of the impact of metacognition on the effectiveness of cognitive processes in educational activities [1, 2]. The definition of metacognitive processes as a special class of integrative processes, aimed at regulation of cognitive activity, has been formulated [3]. Brown A.L. adds to them forecasting, planning, monitoring and control [4]. The phenomenon of metacognitive activity is studied, the search for definition, components, and structure is underway [3, 5].

In contrast to the problems of metacognitive phenomena, studies of anxiety have a long history and are presented in numerous works. Modern psychological literature presents a number of studies, devoted to psychological, behavioral and physiological manifestations of anxiety. The concept of "anxiety" and its characteristics are considered in detail. Among them are studies on the differentiation of the concepts of "angst", "anxiety", "fear" [6, 7] and the identification of symptoms and features of the mental state of individuals with anxiety [8, 9], which provide a theoretical basis for further empirical research. In particular, applied aspects of overcoming anxiety have been studied, taking into account age characteristics, namely in childhood and adolescence [10]. The American psychologist C. Spielberg made a significant contribution to the development of the topic, separating situational and personal anxiety [11, 12]. However, for practical psychologists, not only the diagnosis and understanding of anxiety states, but also the tools of psychological support become prominent. On this basis, a number of programs for the psychological correction of anxiety have been developed. Taking into account the bodily manifestations of conditions, a bodily-oriented approach [13] is proposed, which involves the treatment of symptoms through their bodily manifestations. Programs taking into account the age characteristics of adolescents [14, 15] are mostly aimed at overcoming specific difficulties, associated with the emergence of anxiety states that are characteristic of this age. Adolescence is also neglected in prevention programs [16], but it has its own characteristics. In addition, the aspects of self-awareness and self-understanding of the personality of young people in a situation of exacerbation of anxiety as a means of psychological assistance, self-help and prevention remain insufficiently studied.

We consider it relevant to investigate personal anxiety as a complex mental formation that manifests itself at the emotional, cognitive, physical and behavioral levels. The possibility of psychological correction and prevention of hyperbolized symptoms by activating the processes of self-awareness and self-acceptance.

3. Research aim and tasks

The aim of the study is to analyze the metacognitive beliefs of adolescents with a high level of personal anxiety in order to determine characteristic negative metacognitions.

To achieve the goal, the following tasks were set:

- 1) Isolation of adolescents with a high level of personal anxiety, study of personal attitude to symptoms.
- 2) Determination and comparison of metacognitive beliefs of adolescents with different levels of personal anxiety.
- 3) Determination of the prognostic power of metacognitions of adolescents with a high level of personal anxiety.

4. Materials and methods

The research was conducted in September-December 2021 among young people from different regions of Ukraine aged 18 to 24 using a Google form that contained the author's questions and questions from the WW-II questionnaire (Why Worry questionnaire) by

Holowka D. W., Dugas M. J., Francis K. , Laugesen, N., SMAI (State – Trait Anxiety Inventori) by C. Spielberg and Y. Khanin. The results were processed using the SPSS program and presented using descriptive statistics, correlation and discriminant analysis.

5. Research results and their discussion

Theoretical part of the study. In the psychological literature, you can find different definitions of the concept of "anxiety". The concept of "anxiety" was first described by Z. Freud and was defined as readiness for danger, which is expressed in increased sensory attention and motor tension, as well as unpleasant emotional experience, which is a signal of danger. The variety of interpretations of the concept of "anxiety" can be reduced to three meaningful aspects: anxiety as a characteristic of the emotional and sensory sphere, as a state of tension and as a personality trait [17]. Most researchers agree on the need to consider it differently – as a situational phenomenon and as a personal characteristic, taking into account the transitional state and its dynamics. In his studies, V. Merlin considers anxiety as a person's tendency to experience a state of angst, which is determined by his/her temperament trait and is one of the main indicators of individual differences and subjective manifestations of unfavorable interaction of the individual with the environment [18]. R. Kettel, C. Spielberger, Y. Hanin recommend distinguishing "anxiety" as a person's emotional state at a certain moment. As Ch. Spielberger notes, anxiety is a personality trait, a tendency to a state of angst in various threatening situations [12]. H. Heckhausen, in a joint study with his colleagues, calls anxiety a personality trait that attracts an individual to perceive a wide range of objectively safe circumstances that contain a threat [19]. S. Rubinstein understands anxiety as a person's tendency to experience angst, an emotional state that arises in situations of uncertain danger and manifests itself in anticipation of an unfavorable development of events [20].

In other words, the authors point to the reactive nature of angst and a chronic state of anxiety. If a person tends to frequently and strongly experience a state of angst, i.e. demonstrates a low threshold for the emergence of an angst reaction, it is said, that he/she has anxiety as a personality trait [18, 19].

In our research, angst is considered as an emotional state, and anxiety as a personality trait that manifests itself in several aspects:

- 1) cognitive aspect – metacognitions, rules of life, thoughts, beliefs, which are characterized by a negative interpretation of the situation and oneself in it, exaggeration, underestimation of one's own capabilities and characteristics, premonition of disaster, failure;
- 2) emotional – despair, excitement, increased sensitivity and insufficient control over one's reactions;
- 3) physical reaction – the body's reaction to emotions and experiences (heart palpitations, dizziness, sweating, trembling, etc.);
- 4) behavioral – actions, caused by cognitive, emotional and physical aspects, often irrational, aimed at avoiding situations of increased anxiety.

Anxiety in adolescence is understood as an individual-psychological feature, which is manifested in the

tendency of the individual to frequent and intense experiences of angst, as well as in a low threshold for its occurrence. K. D. Spielberger divides reactive and individual anxiety [11]. Such angst arises in any person who is in anticipation of troubles or difficulties, mobilizes all the resources of the body, which allows a serious and responsible approach to solving the problem. Psychologists V. V. Krasnova and A. B. Kholmogorova investigated the problem of personality anxiety and jointly developed a psychological portrait of a student with a

high level of anxiety, and also, based on the analysis of students of the first and last years, proved that situational anxiety is more related to adaptation, while personal anxiety is more related to the relevance of existential issues [21, 22].

Experimental part of the study. At the first stage of the experimental study, we studied the prevalence of reactive and personal anxiety among young people, as well as made a comparison with their own opinion about the presence of symptoms (Table 1.)

Table 1

Prevalence and personal opinion about the presence of anxiety symptoms in adolescents

Anxiety level	Reactive anxiety				Personal anxiety			
	Respondents number (%)	Respondents number who treat themselves as an anxious person (%)			Respondents number (%)	Respondents number who treat themselves as an anxious person (%)		
		yes	no	Don't know		yes	no	Don't know
Low level (<30)	22.6	28.6	42.9	28.6	9.7	–	66.7	33.3
Medium level (31–45)	41.9	53.8	30.8	15.4	38.7	41.7	41.7	16.7
High level (>46)	35.5	100	–	–	51.6	93.8	–	6.3

Thus, most of the interviewed respondents have a high or medium level of personal anxiety (51.6 % and 38.7 %, respectively), which indicates the presence of existential worries, angst and uncertainty in their own ability to cope with the situation. It is interesting, that 43.6 % of the total number of respondents consider themselves an anxious person, 28.6 % of surveyed respondents with a low level of reactive anxiety consider themselves an anxious person, which may indicate a lack of awareness of the symptoms, a certain "fashion" for the concept, or a secondary benefit from such a positioning of oneself.

Let's move on to a more detailed analysis of indicators of personal anxiety. Concern is caused by the high percentage of respondents who answered that they do not consider themselves an anxious person and have a medium level of personal anxiety (41.7 % of respondents). Accordingly, young people with a certain level of anxiety do not attach importance to their own experiences, avoid relevant situations, and normalize some symptoms. This complicates the provision of preventive psychological help, because indeed, 2.14 % of them turned to a psychologist. Accordingly, 25.53 % of the respondents of the group with a high level of personal anxiety consulted or are currently working with a psychologist, but 91.49 % of the respondents of this group received information from doctors about the connection of anxiety with certain existing symptoms. Thus, young

people with a high level of personal anxiety have physical manifestations of anxiety, received relevant information from doctors and consider themselves an anxious person (93.8 %). Most young people with high and medium levels of personal anxiety do not receive professional psychological help.

Based on the understanding that metacognitive beliefs play a key role in the initiation and maintenance of worry, in order to deepen knowledge about the basis of the obtained indicators, namely, the identification of young people as an anxious personality and seeking psychological help, we conducted a correlation analysis (Pearson correlation statistical method) between the results of questionnaires SMAI (State - Trait Anxiety Inventori) by C. Spielberg - Y. Hanin and WW-II (Why Worry questionnaire) by Holowka D. W., Dugas M. J., Francis K., Laugesen, N., a questionnaire for self-assessment of positive and negative metacognitive beliefs. The level of personal anxiety is correlated with metacognitions about anxiety as a defense against difficult emotions if something bad happens (WWIIR3 $p=.000$). And also that experiences themselves prevent negative outcomes (WWIIR4 $p=.007$). That is, metacognitions regarding the protective functions of anxiety states are associated with a high level of personal anxiety. Let's move on to the metacognitive portrait of adolescents with different levels of personal anxiety (Fig. 1).

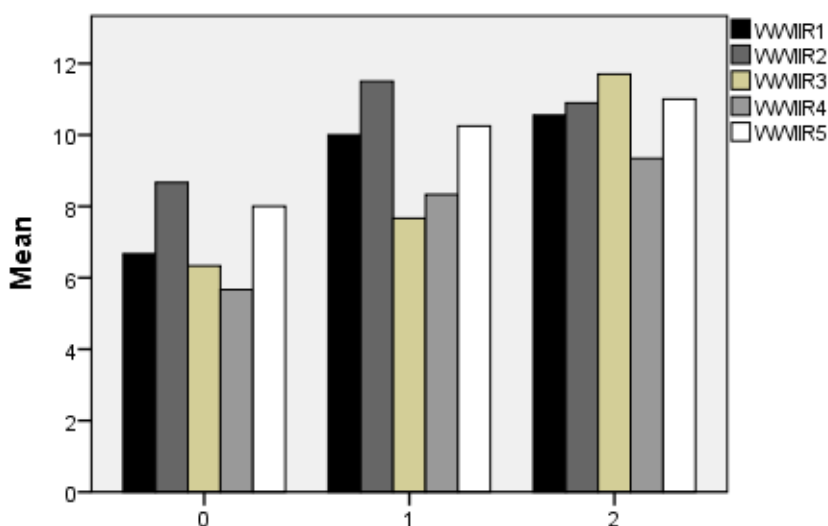


Fig. 1. Peculiarities of metacognitive beliefs of young people with different levels of personal anxiety: 0 – low level of personal anxiety, 1 – medium level of personal anxiety, 2 – high level of personal anxiety.

Youth with an average level of personal anxiety differ in the expressiveness of WWIIR1 and WWIIR5 questionnaire scales, where anxiety is considered as a help in solving problems and a positive personality quality. Thus, young people of this group have a positive attitude towards their own anxiety, have a misconception about anxiety as a condition that helps in solving problems. Corresponding metacognitions are not supported by anxious thoughts as a defense against difficult emotions in anticipation of negative events (WWIIR3), whereas high-anxious youths are more likely to have these thoughts. A positive attitude towards one's own anxious experiences is reinforced by the desire to prevent negative outcomes. The attitude towards one's own anxiety as a motivator (WWIIR2) is characteristic of all groups of interviewees, in particular young people with a low level of anxiety, thus it can be concluded, that such metacognitions are characteristic of young people in general. According to the results of the discriminant analysis, 67.9 % of the original grouped observations are classified correctly, which is a fairly high indicator for predicting group membership based on metacognitive beliefs.

In addition, taking into account the connection between the metacognitions of young people and their personal anxiety, we think it is reasonable to assume, that it is the work with cognitions that can speed up the psychotherapeutic work, aimed at breaking the supporting cycle, in which metacognitions significantly affect the variability of life experience. In our study, the prospects for the development of a method of targeted psychological influence have been opened, however, the development of such a method requires more thorough empirical research to form a scientific foundation.

6. Conclusions

1. It has been determined, that a high level of personal anxiety among adolescents is a common phenomenon in Ukraine (51.6 %). A high level of personal anxiety is indicated by physical symptoms, so young people often correctly interpret their condition on their own, and

rarely receive specialist advice. In contrast to adolescents with a high level of anxiety, the attitude towards their own state of adolescents with a medium level of anxiety is marked by ignoring. Young people without obvious physical manifestations of anxiety tend to ignore the existing symptoms.

2. It has been proven, that metacognitive beliefs play not the only, but a key role in the formation and maintenance of the level of personal anxiety of young people. They are determined by the basis of certain thoughts and reactions, which take away the flexibility of reactions to life events, thereby significantly limiting life experience. Metacognitive beliefs of young people with a high level of personal anxiety compared to other groups of young people are characterized by beliefs about anxiety as a protection against difficult emotions in anticipation of negative events, a positive attitude towards one's own anxious experiences and a desire to prevent negative outcomes.

3. It has been found, that metacognitive beliefs have a prognostic function. The role of metacognitive processes consists in the interpretation of information about the level of security, the formation of judgments, assessments. On the basis of this information, young people carry out behavioral activity, implementing selected strategies, which generates new negative experiences and strengthens beliefs. Accordingly, the correction of metacognitions within the cognitive-behavioral approach opens up new opportunities for accelerating the process of psychological assistance and enriching self-help programs for anxiety states.

Conflict of interest

The authors declare that they have no conflict of interest in relation to this study, including financial, personal, authorship, or any other, that could affect the study and its results, presented in this article.

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References

1. Metcalfe, J. (2009). Metacognitive Judgments and Control of Study. *Current Directions in Psychological Science*, 18 (3), 159–163. doi: <https://doi.org/10.1111/j.1467-8721.2009.01628.x>
2. Dotsevych, T. I. (2016). Metakohnityvna kompetentnist sub'iekta pedahohichnoi diialnosti u vyshchii shkoli. Kyiv, 42.
3. Vatan, Yu. P. (2022). Structure and nature of metacognitive activity. *Scientific Bulletin of Uzhhorod National University. Series: Psychology*, 3, 10–14. doi: <https://doi.org/10.32782/psy-visnyk/2021.3.2>
4. Brown, A. L. (1997). Knowing when, where, and how to remember: a problem of metacognition. *Illinois*, 152.
5. Zaitseva, O. O. (2020). Motyvatsiini chynnyky rozvytku meta kohnityvnoi aktyvnosti u strukturi akademichnoi samorehuliatcii studentiv. Kharkiv, 228.
6. Bokhonkova, Yu. O. (2020). Osobystisna tryvozhnist yak sotsialno-psykholohichna problema. *Fundamental and applied research in the modern world*. Boston: BoScience Publisher, 205.
7. Haliieva, O. M. (2019). Conceptual differentiation of «worry» and «anxiety». *Psychology and Social Work*, 24 (1 (49)). doi: [https://doi.org/10.18524/2707-0409.2019.1\(49\).185763](https://doi.org/10.18524/2707-0409.2019.1(49).185763)
8. Geiser, F., Kleiman, A., Albus, C., Conrad, R. (2012). Angststörungen. *Der Internist*, 53 (11), 1289–1295. doi: <https://doi.org/10.1007/s00108-012-3069-7>
9. Levitt, E. E. (2015). *The psychology of anxiety*. Routledge, 187. doi: <https://doi.org/10.4324/9781315673127>
10. Pauschardt, J., Renschmidt, H., Mattejat, F. (2010). Assessing child and adolescent anxiety in psychiatric samples with the Child Behavior Checklist. *Journal of Anxiety Disorders*, 24 (5), 461–467. doi: <https://doi.org/10.1016/j.janxdis.2010.03.002>
11. Spielberger, C. D. (2013). *Anxiety and behavior*. Academic press, 413.
12. Spielberger, C. D.; Spielberger, C. D. (Ed.) (2013). *Conceptual and Methodological Issues in Anxiety Research*. *Anxiety: Current Trends in Theory and Research*. Vol. 2, 481–493. doi: <https://doi.org/10.1016/b978-0-12-657402-9.50013-2>
13. Zhyvtsova, H. A. (2021). Psykhokorektsiia tryvozhnosti zasobamy tilesno-orientovanoi terapii. Kherson, 74.
14. Petrenko, V. Ye. (2015). Psykholohichna korektsiia tryvozhnosti starshoklasnykiv riznykh typiv zahalnoosvitnykh navchalnykh zakladiv. Kyiv, 273.
15. Dolhopolova, O. V., Tereshchenko, N. M. (2017). Kompleksna prohrama psykhokorektsii sotsialnoi tryvozhnosti v pidlitkiv. *Naukovyi visnyk Khersonskoho derzhavnoho universytetu. Serii: Psykholohichni nauky*, 4 (2), 26–30.
16. Werner-Seidler, A., Perry, Y., Calcar, A. L., Newby, J. M., Christensen, H. (2017). School-based depression and anxiety prevention programs for young people: A systematic review and meta-analysis. *Clinical Psychology Review*, 51, 30–47. doi: <https://doi.org/10.1016/j.cpr.2016.10.005>
17. Freud, S. (1922). The Unconscious. *The Journal of Nervous and Mental Disease*, 56 (3), 291–294. doi: <https://doi.org/10.1097/00005053-192209000-00046>
18. Merlin, V. S. (2005). *Psikhologija individualnosti*. Moscow, 542.
19. Aseev, V. G., Elkonin, D. B., Davydov, V. V., Markova, A. K., Ilin, E. P., Kovalev, V. I., Khekkhauzen, Kh. (2018). Sootnoshenie motivatsii uspekha, boiazni neudachi i uspeshnosti uchebnoi deiatelnosti podrostkov, 30, 346.
20. Brodovska, A. (2015). Do vyznachennia poniattia «tryvozhnist» u psykholohichnii literaturi. *Psykholohichni pratsi*, 21.
21. Krasnova, V. V., Kholmogorova, A. B. (2011). Sotsialnaia trevozhnost i studencheskaia dezadaptatsiia. *Psikhologicheskaia nauka i obrazovanie*, 1, 140–150.
22. Holowka, D. W., Dugas, M. J., Francis, K., Laugesen, N. (2000). Measuring beliefs about worry: A psychometric evaluation of the Why Worry-II Questionnaire. Poster presented at the 34 Annual Convention of the Association for the Advancement of Behavior Therapy. New Orleans.

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