

## PSYCHOLOGICAL DETERMINANTS OF THE DEVELOPMENT OF RESILIENCE AND CONSTRUCTIVE COPING STRATEGIES IN INTERNALLY DISPLACED INDIVIDUALS

**Introduction.** Since the outbreak of the full-scale war with Russia, more than 7.7 million Ukrainians have become internally displaced individuals (IDPs). According to the International Organization for Migration, the share of IDPs in the total population of Ukraine has increased to 17.5 percent, meaning that one in six people has become an internally displaced person. The number of temporarily displaced people is growing every day. The results of a recent survey indicated that at least 60% of internally displaced people are women. At the same time, more than half of the displaced people reported various motives for displacement (lack of food, housing, constant shelling), difficulties and problems in adapting to new conditions. Such forced migration of the population has serious consequences for our country, affecting its economic, social and political life. And the IDPs themselves have faced various kinds of problems: economic, social, psychological, institutional and legal. One of the strategically important areas of support and assistance to internally displaced people is the development of constructive coping strategies for individual behavior as a predictor of people's adaptation to new realities of life, reintegration into a new sociocultural environment and development of effective mechanisms for overcoming stressors that affect the psychological health and well-being of an individual. Accordingly, the issue of implementing an interdisciplinary and integrated approach in the process of finding methods and technologies to help internally displaced people in the context of developing resilience and constructive coping strategies in the context of adaptation to new realities is currently relevant.

At present, there are various trends in the study of coping strategies of personality (L. Antsiferova, I. Vachkov, T. Kryukova, R. Lazarus, R. Moss, S. Nartova-Bochaver, N. Haan, R. White, S. Folkman, J. Schaeffer, etc.) The circle of domestic and foreign studies of psychological phenomena accompanying the experience of life and professional stress, activation of personal coping resources is expanding (K. Abulkhanova, N. Karpova, L. Kitaev-Smyk, A. Leonova, D. Leontiev, V. Morosanova, A. Prokhorov, etc.), the relationship of psychological resources with proactive behaviour (E. Starchenkova, E. Greenglass, C. Ouwehand, D. T. de Ridder, J. M. Bensing). The problem of forming personality resilience is a relatively new issue. In foreign studies by S. Maddi, D. Khoshaba, S. Kobasa (hereinafter referred to as S. Maddi, D. Khoshaba, S. Kobasa), it is determined that hardiness is a personal variable that characterizes the degree of a person's ability to withstand a stressful situation, maintaining internal balance without reducing the success of activities.

The psychological, social and cultural factors that influence the consequences of forced migration are quite diverse. One of the problems that arises in the process of displacement is the problem of adaptation and identification of IDPs. The migration of people to another territory and the change in the way of life are perceived by IDPs as a life crisis, destruction of internal stability, resilience, reduction of resources, and living with trauma. The problem of psychological adaptation to new living conditions and the psychological state of IDPs, which, even if all priority social problems are solved, still makes itself felt for a long time and affects the well-being, behavior, communication, and relationships of IDPs, requires the search for systematic psychological support and assistance. In this context, resilience and constructive coping strategies are resource vectors for IDPs' adaptation to new socio-cultural conditions. This issue has led to the need to study the psychological characteristics of resilience and coping strategies of IDPs, to find ways of their psychological support.

*The purpose of the study* is to theoretically and empirically study the peculiarities of manifestation of resilience and coping strategies of IDPs in war conditions, to develop and implement a program for updating the resources of resilience and constructive coping strategies of individual behavior in the process of adaptation to new sociocultural conditions.

**Modern studies of the phenomenon of resilience in domestic and foreign psychology.** The ability of an individual to successfully overcome adverse environmental conditions,

demonstrating high resistance to stressors, is called resilience, and its presence is more vital and necessary than ever. Modern psychological science is showing increased interest in studying this phenomenon and its role in maintaining human psychological health. Resilience was first described by S. Kobasa (1979) as a set of interrelated personal qualities or traits that distinguish “healthy” managers stressed from “unhealthy” ones<sup>542</sup>. S. Maddi characterized resilience as a set of three interdependent components: involvement, control and risk taking<sup>543</sup>. P. Mund (2016) proposes to supplement the components of resilience with the connection component identified by S. Maddi in 2005 (collaboration – close connection and understanding between the client and the psychologist / psychotherapist) and the culture component identified by the author herself, which is especially relevant for her country – India. According to P. T. Bartone (2006), resilience is a generalized way of functioning of an individual, including engagement (the belief that life is interesting and worthwhile), control (the belief that one can control or influence the outcomes) and risk-taking (an exploratory approach to life)<sup>544</sup>. A person with a “resilient style” has a strong future orientation, or a tendency to look to the future, learning lessons from the past. P. T. Bartone, D. R. Kelly, M. D. Matthews (2013) note that resilience consists of cognitive, emotional, and behavioral characteristics and characterizes a person's ability to maintain a healthy state in turbulent times<sup>545</sup>. In the psychological literature, scholars describe the concept of “hardiness” as a special integrative quality, a system of attitudes, beliefs, and worldview about the environment and inner world that enables a person to survive the impact of stressors of various etiologies while maintaining internal stability and balance. “Hardiness” is a basic platform that promotes the perception and recognition of a person's potential and acceptance of dual vulnerability. Resilience enables a person to overcome difficult life situations and transform personal experience of overcoming into a projection of new opportunities<sup>546</sup>. Summarizing the main approaches to the term resilience, in national psychology it is interpreted as:

- dominant personal resource;
- is an integral psychological trait that develops because of the guidelines for active interaction with the world around us and various situations;
- integral ability to sociopsychological adaptation based on the dynamics of semantic self-regulation.

From the perspective of foreign authors, the phenomenon of resilience is associated with various structures of the human psyche at such levels as the functioning of psychophysiological processes; the work of psychological processes; and the manifestation of personal formations. Undoubtedly, increasing resilience requires certain behavior that will contribute to the readiness to solve life's difficulties. This behavior is called “coping”<sup>547</sup>. It helps to adapt to changing circumstances and helps to cope with stressors<sup>548</sup>. Resilience affects both the assessment of the current situation, which is perceived as less traumatic, and further actions of a person, orienting the individual to preserve their integrity, ensure psychological health and well-being. The main components of resilience are implemented in two blocks: a block of general abilities,

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<sup>542</sup> Khoshaba D., Maddi S. (1994) Hardiness and Mental Health. *Journal of Personality Assessment*. Vol. 63. N 2. P. 265-274.

<sup>543</sup> Maddi S. R., Harvey R. H., Khoshaba D. M., Fazel M., & Resurreccion N. (2009) The Personality Construct of Hardiness. *Journal of Humanistic Psychology*. 49 (3). P. 292-305.

<sup>544</sup> Mund P. Kobasa (2016) Concept of Hardiness (A Study with Reference to the 3Cs). *International Research Journal of Engineering, IT & Scientific Research*. vol. 2, № 1, pp. 34-40.

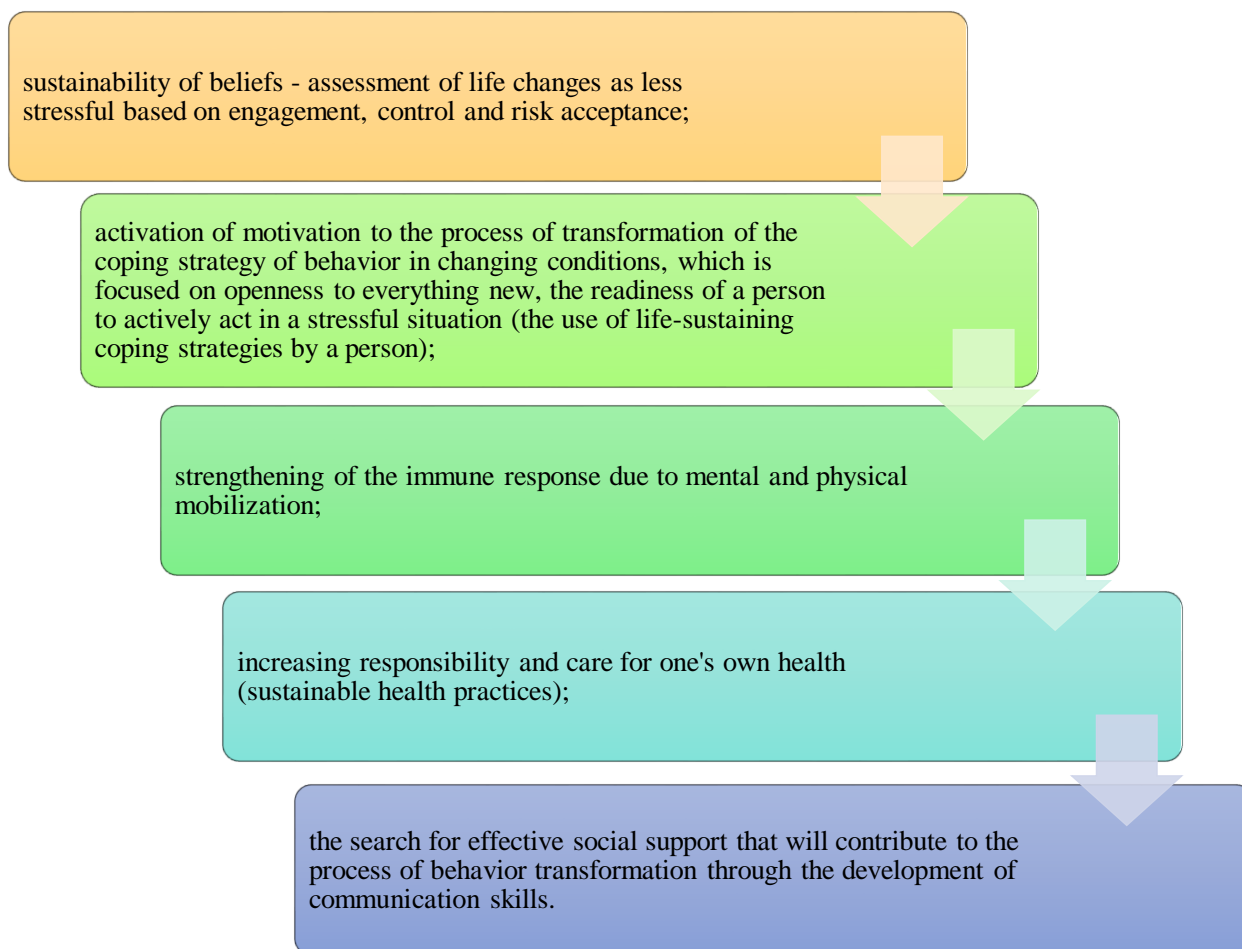
<sup>545</sup> Bartone P. T., Kelly D. R., Matthews M. D. (2013) Psychological hardiness predicts adaptability in military leaders: A prospective study. *International Journal of Selection and Assessment*. vol. 21, № 2, pp. 200-210.

<sup>546</sup> Бутузова Л. П. (2015) Життєстійкість особистості у площині її психологічної безпеки. *Fundamental and applied researches in practice of leading scientific schools*. Issue: 6 (12) co-publ.: Publishing office: Accent graphics communications – Hamilton, ON. P. 186-202.

<sup>547</sup> Бабатіна С. І. (2014) Феномен життєстійкості як складової регуляторної системи особистості. Діяльнісно-поведінкові фактори життєздатності людини: матер. всеукр. наук.-практ. конф. (м. Харків, 28-29 листопада 2014 р.). С. 14-16.

<sup>548</sup> Osadchyi, V., Varina, H., Falko, N., Osadcha, K., & Katkova, T. (2021). The peculiarities of the usage of AR technologies in the process of hardiness of future professionals. *Journal of Physics*, 1840 (1).

which includes basic personal attitudes, self-awareness, content, intelligence, and responsibility; a block of special abilities, which integrates soft skills – skills of effective interaction in the social environment, as well as hard skills – skills of overcoming various difficult life situations. The main mechanisms of resilience functioning are viewed through the prism of interdependence – the higher the level of manifestation of resilience components, the more pronounced are such coping strategies as confrontation, seeking social support and decision planning, which allows an individual to successfully overcome stressful situations.

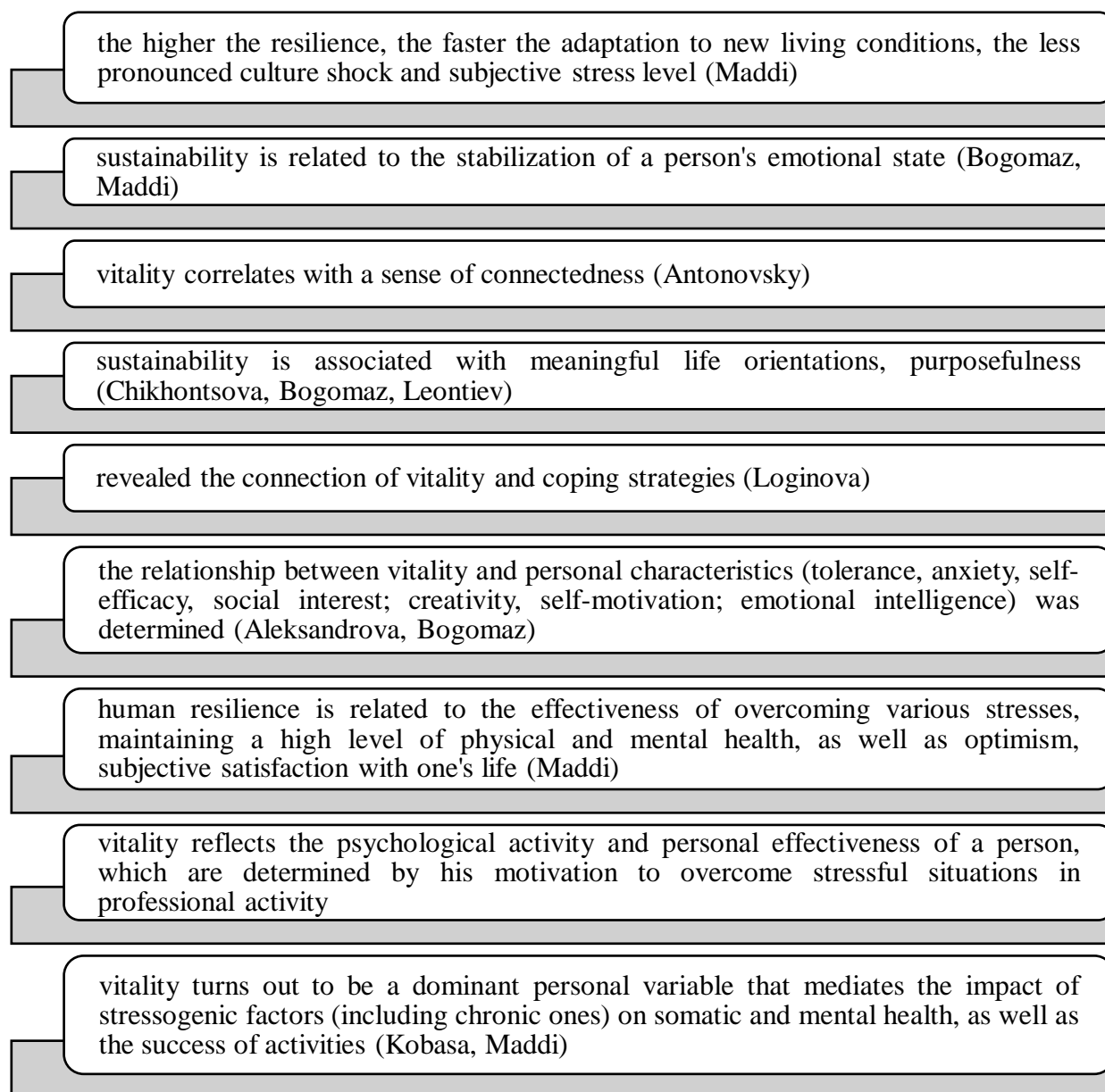


*Fig. 1. The main mechanisms of resilience (according to S. Muddy)*

Resilience is subordinated to the meaning of a person's life, relies on the emotional and volitional sphere, and supports the maximum disclosure of the subject's resources. Constructive life-creating strategies are characterized by people with an optimistic outlook, positive self-esteem, a realistic approach to life, and a strong motivation to succeed. People with high resilience try to influence the outcomes of life events, take an active part in them and, despite their positive or negative construction, try to learn something new. On the other hand, low levels of resilience indicate that people will avoid difficult life situations and perceive them as more threatening (Maddi)<sup>549</sup>. Accordingly, resilience acts as a protective factor in stressful situations, mainly through cognitive assessment and behavior. Namely, people with high resilience approach life actively and realize that they can successfully cope with any tasks, identifying them as meaningful and useful elements, which leads to a decrease in the level of emotional perception of stressful experience.

<sup>549</sup> Maddi S. R., Harvey R. H., Khoshaba D. M., Fazel M., & Resurreccion N. (2009) The Personality Construct of Hardiness. *Journal of Humanistic Psychology*. 49 (3). P. 292-305.

Many foreign and domestic authors study the peculiarities of the relationship between personality resilience and various emotional states and personal characteristics<sup>550</sup>.



*Fig. 2. Features of the relationship between resilience and personal characteristics*

Ukrainian psychologist Y. Zapeka (2019) conducted a study of the resilience of Ukrainian university students in the context of the socio-economic crisis. The author considers resilience as a personal trait and as a person's adaptive potential in overcoming difficult life situations. It is proved that individuals with a high level of resilience have a higher degree of development of meaningful life orientations and a higher level of self-efficacy, and vice versa, students with a low level of resilience have a lower degree of expression of meaningful life orientations. Students with a high level of resilience have a higher level of life productivity, are more emotional and interested in life, are more purposeful, able to control their lives and make decisions freely<sup>551</sup>.

<sup>550</sup> Kulak J. A., Homish D. L., Hoopsick R. [et al.] (2020) Hardiness protects against problematic alcohol use in male, but not female, soldiers. *Psychological Services*. Vol. 23, № 1.

<sup>551</sup> Zapeka Y. (2019) Empirical research of students' hardiness. *Scientific Bulletin of Kherson State University. Series Psychological Sciences*. № 4, P. 87-93.

Foreign researchers A. Azarian, A. A. Farokhzadian, E. Habibi (2016) conducted a study of women aged 20-35 living in the city of Rezvanshahr in Iran to examine the relationship between psychological resilience and four emotional states (depression, anxiety, anger, and positive affect). The study revealed an inverse relationship between the level of women's psychological resilience and the manifestations of depression, anxiety and anger, and a direct relationship between the level of psychological resilience and the index of positive affect<sup>552</sup>. A study conducted by Kowalski C. M., Schermer J. A. (2019) reveals the practical value of psychological resilience, as well as the difference between such concepts as rumination and anxiety. Students filled out a questionnaire assessing their psychological resilience, anxiety, rumination, mental engagement, neuroticism, anxiety, somatisation, coping with stress, and health. An inverse correlation of resilience with neuroticism, rumination, anxiety, and somatisation was found, and a direct correlation with mental engagement, coping with stress, and health. With statistically regulated neuroticism, the relationship of resilience with rumination, health, and coping with stress became insignificant, while the relationship of resilience with anxiety, mental engagement, and anxiety, although weakened, remained forceful. The results indicate that resilience should rather be seen as an individual trait that contributes to psychological well-being<sup>553</sup>. Many studies reveal the relationship between resilience and health, both physical and mental.

*Table 1. Modern studies of the phenomenon of personality resilience in psychological science*

<b>Scientists</b>	<b>Description of the research results</b>
G. Mazzetti, M. Vignoli, G. Petruzzello, L. Palareti (2019)	argue that transformational leadership as a work resource develops resilience as a personal resource, which in turn increases employee engagement and ultimately improves their health, and call on HR departments to provide training to employees that helps build leadership skills and, as a result, improve their resilience
J. L. Judkins, A. Moore, T. L. Collette (2020)	American researchers devoted a chapter of the book "The Rutledge Encyclopedia of Psychology Applied to Everyday Life" to the influence of leadership on resilience. According to the authors, leaders with good resilience indicators have a positive impact on the behavioral patterns of other group members, building their resilience and initiating positive social changes in the group and, subsequently, in society as a whole
S. R. Maddi (2016)	shows that resilience is negatively associated with gambling behavior. Gambling behavior is perceived as an example of a coping strategy to avoid (rather than solve problems) the continuous stresses of life.
Rothschild-Varibrus V., Fritzsche L., Korzhenevskiy S. (2020)	The authors agree that resilience is a buffer in a situation of distress and a part of the normalizing function of the human adaptive system. It is emphasized that the significance of the contribution of some resilience parameters to protection against suicidal behavior depends on many individual and sociocultural factors. Nevertheless, experts agree that suicide risk is associated with a weakening of the individual's resilience reserves and can be reduced as a result of targeted psychological intervention
Hamre K. V., Einarsen S. V., Hoprekestad O. L. (2020)	Norwegian researchers have studied the relationship between long-term workplace bullying and subsequent changes in psychological resilience, as well as whether resilience is a factor that affects the degree to which a person is exposed to bullying. The study strongly suggested that less resilient individuals were bullied more often, adjusted for age, gender, and exposure to bullying at the start of the study. Long-term accumulated exposure to bullying was more likely to predict changes in the resilience of the subjects than to determine how susceptible a person would be to bullying based on their resilience indicators
P. T. Bartone, J. J. Valdes, A. Sandvik (2016)	found that many people feel that their health and psychological well-being deteriorate when they are stressed. It is noted that the neuropsychological processes characteristic of resilient people are not well understood. This study examines the relationship between psychological resilience and some indicators of cardiovascular health based on the observation of 338 middle-aged people participating in an educational program on national security. The hierarchical regression analysis shows that, without additional effects due to age or gender, a high level of resilience is associated with a high level of high-density lipoprotein and a lower body mass index. Low resilience leads to an increase in total cholesterol in the blood in relation to high-density lipoprotein, which is a risk factor for cardiovascular disease. These findings suggest that psychological resilience contributes to the body's

<sup>552</sup> Azarian A., Farokhzadian A. A., Habibi E. (2016) Relationship between psychological Hardiness and Emotional Control Index: A Communicative Approach. *International Journal of Medical Research and Health Sciences*. 5, 5 (S), p. 216-221.

<sup>553</sup> Kowalski C. M., & Schermer J. A. (2018). Hardiness, Perseverative Cognition, Anxiety, and Health-Related Outcomes: A Case for and Against Psychological Hardiness. *Psychological Reports*.

	resistance to disease through its effects on cholesterol production and metabolism.
E. A. Makiabadi (2016)	An Iranian researcher has found a significant positive relationship between productive family interaction and psychological resilience in groups of parents with disabled children and healthy children.
A. Narad (2018).	An Indian author has found that the home environment has a strong positive influence on the resilience of schoolchildren. At the same time, students in private schools receive more support at home compared to students in public schools, which results in significantly higher resilience scores. There are also significant differences between boys and girls in resilience, with boys being more likely to accept risk.
J. R. Maramis, J. Cong (2019)	found an inverse relationship between the level of professional burnout of nurses in a hospital in Manado, Indonesia, and their psychological resilience. The authors recommend that further research should consider additional factors that influence resilience and use a wider range of research methods.
A. G. Thomassen, S. W. Hystad, B. H. Johnsen, G. E. Johnsen, J. C. Laberg, J. Eid (2015)	Norwegian researchers have noted that while many studies have shown the link between resilience and cohesion and mental health in the military context, most of them do not consider baseline mental health symptoms, which is an oversight. The present study examines the joint effect of resilience and cohesion in a prospective model, considering baseline mental health symptoms among Norwegian military personnel deployed to the peacekeeping operation in Kosovo. The results of the study strongly suggested that both resilience and cohesion contributed to the improvement of stress. For subjects with high levels of resilience, neither did the level of cohesion influence the increase in mental health complaints. On the other hand, subjects with low resilience scores were less likely to report mental health problems if cohesion scores were high
I. C. Giurcă, A. Cătană, R. Sassu, M. D. Bucută (2017)	researchers note that there are many studies on the impact of being in a war zone (a major stressor) on the health of the military. Some studies focus on protective factors that can prevent several problems that veterans experience after being in a war zone. The authors studied the relationship between the personal characteristics of military personnel (resilience and coherence), coping strategies and mental health indicators (level of stress perception and anxiety) in about anticipation of a stressful situation. It was intended to determine whether these indicators would have any effect on increasing the level of psychological resilience of military personnel deployed to Afghanistan. The characteristics of the subjects were assessed before their participation in international military operations. Two hypotheses were proposed: 1) a high level of coherence and resilience will help to cope more effectively with the main stressors in a situation of anticipated stress; 2) active coping with a focus on the stressor will be associated with a lower level of emotional distress.
Ä. G. Thomassen, S. W. Hystad, B. H. Johnsen, G. E. Johnsen, P. T. Bartone (2018)	The authors use a prospective modelling approach to examine whether resilience has an indirect effect on post-traumatic stress symptoms through the coping strategy of avoidance. The study involved 163 Norwegian military personnel deployed on international operations between 2009 and 2010. The method of regression analysis was used, with the main symptoms of post-traumatic stress, intensity of combat experience, and deprivation of the opportunity to meet their immediate needs as variables. The results indicated that the effect of resilience on the development of post-traumatic stress symptoms was manifested through a reduction in the use of the avoidance coping strategy. It was concluded that the tendency to use this strategy is a factor of vulnerability to the development of post-traumatic stress symptoms, while resilience, on the contrary, is a factor of the opposite.
Wang X., Wong J. Y.-H., Zhai L. (2019)	Chinese researchers have suggested the existence of a mediating role of achievement/failure avoidance motivation between resilience indicators and depression symptoms. The study involved military personnel and cadets. The authors concluded that subjects with low levels of resilience and behavioral activation and high levels of behavioral inhibition had more severe symptoms of depression.
M. Nordmo, O. K. Olsen, J. Hetland, R. Espevik, A. B. Bakker, S. Pallesen (2020)	consider resilience as an advantage in stressful conditions and correlate it with improved military performance. Recent evidence suggests that resilience may be associated with resilience to sleep disorders. The purpose of this study is to examine the moderating role of resilience in the relationship between sleep quality and performance in a sample of naval cadets under stressful training conditions. The cadets first completed a general questionnaire and then a daily diary assessing sleep quality during a 30-day training mission across the Atlantic Ocean. Daily performance was assessed using peer ratings. The results of the multilevel analysis showed a positive impact of resilience on work performance and sleep quality. Cadets with a high level of resilience suffered less from poor sleep quality, including after accounting for neuroticism. The results indicate that resilience mitigates the impact of poor sleep quality on work performance.
D. Bank and L. Cannon	in their research, considered the impact of "hardiness" on the relationship between stressors and psychosomatic pathology. They found that individuals with well-defined hardiness qualities experience stress much less frequently and do not perceive minor troubles as stressful
C. Hang	found that people with high levels of resilience are more likely to stay healthy and perceive changes in their lives as positive. Research has indicated that resilience has a positive impact on coping resources, increasing overall self-efficacy. Individuals with high levels of resilience have higher cognitive scores and more developed coping strategies.

To summarize, we understand resilience as a personal quality that emphasizes attitudes that motivate a person to turn stressful life circumstances into new potential opportunities. A person's perception of the changes that occur to them as opportunities allows them to take advantage of the available internal resources while maintaining internal balance. Resilience as a personality trait, characterized by the degree of overcoming given circumstances and, ultimately, the degree to which a person overcomes himself or herself, determines the effectiveness of the efforts made by the subject to work on himself or herself and on the circumstances of his or her life. The main components of resilience are the person's conviction in his or her readiness to cope with the situation and openness to everything new<sup>554</sup>. Resilience includes three components: involvement, which regulates a person's enjoyment of the activity; control, which enables a person to maintain an active life position, to choose their trajectory of life formation and development; risk taking, which stimulates justified risk and helps to integrate life experience into the process of solving current problems<sup>555</sup>. Resilience is linked to successful adaptation, personal self-efficacy, life creativity, psychological well-being, and is positively correlated with coping strategies aimed at effectively solving life problems<sup>556</sup>.

**Psychological characteristics of internally displaced people as a result of military aggression.** An internally displaced person (IDP) is a citizen of Ukraine, a foreigner or a stateless person who is legally residing on the territory of Ukraine and is entitled to permanent residence in Ukraine, who was forced to leave or abandon his / her place of residence as a result of or to avoid the negative consequences of armed conflict, temporary occupation, widespread violence, human rights violations and natural or man-made emergencies<sup>557</sup>. The initial intrapersonal conflict between the lack of positive motivation to move and the physical inability to stay at home, being in an extreme life situation, and difficulties in adapting to a new place, determined the formation of a specific IDP experience that goes beyond the ordinary and every day. When deciding to leave their places of residence, people found themselves in a situation where their living space was being destroyed: their life guidelines were being destroyed, and they had no clear and precise ideas about the future course of events. The duality of the situation was the need to make a choice, which in any of its variants was accompanied by anxious uncertainty, a sense of guilt over missed opportunities and the inability to predict the outcome of events. Accordingly, about internally displaced people is accompanied for some time by intense emotional experiences, a state of shock (related to coming under fire, seeing the dead, losing loved ones and homes, etc.), and severe stress associated with a long-term stay in conditions that threaten the life of a person or his or her loved ones. Bagheri Masood notes that about forced migration contributes to high dissatisfaction with life changes and contributes to the development of depression, psychasthenia, paranoia and schizoid disorders.

The analysis of psychological problems and mental disorders of IDPs shows that they are systemic in nature, affecting all major areas of personality: communicative, emotional, behavioral, cognitive, and motivational.

Violations in various areas of IDP mental health, overlapping with each other, can lead to profound psycho-traumatic consequences for the individual. Intoxicated of hostilities since 2022, hundreds of thousands of Ukrainians have been forced to seek refuge in other regions of our country, adjusting to new sociocultural conditions. Adaptation to new sociocultural conditions is a complex process, which, if successfully completed, allows a person to achieve compatibility with the new cultural environment, accepting its traditions while maintaining their own and acting in accordance with them. In the process of adaptation, IDPs undergo significant changes in their

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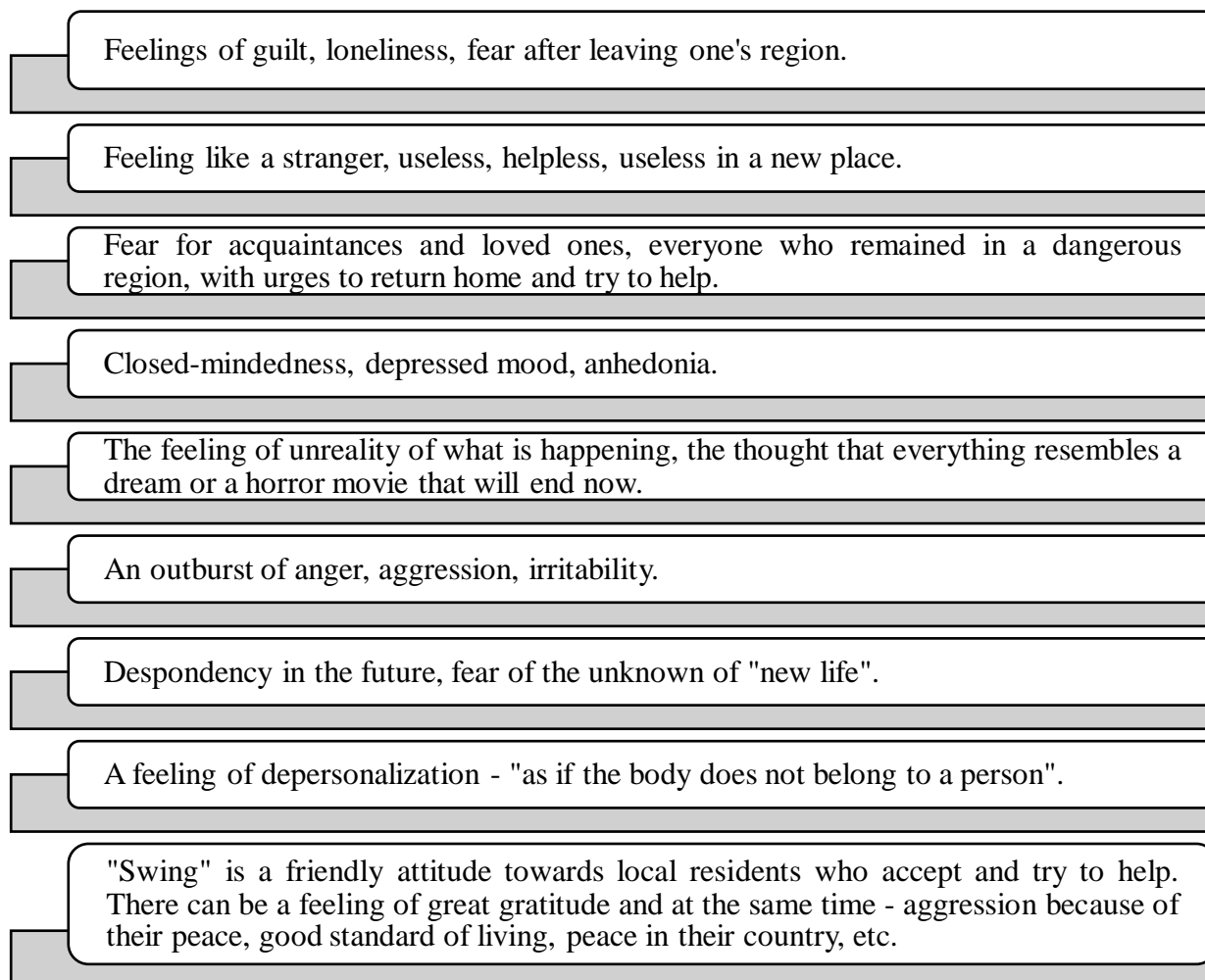
<sup>554</sup> Титаренко Т. М., Ларіна Т.О. (2009) Життєстійкість особистості: соціальна необхідність та безпека: навчальний посібник. К.: Марич, 2009. 76 с.

<sup>555</sup> Ларіна Т. О. (2007) Вплив життєстійкості на життєві домагання особистості. Актуальні проблеми психології. Збірник наукових праць Інституту психології імені Г. С. Костюка АПН України. Т. 7, № 12. С. 86.

<sup>556</sup> Маннапова К. Р. (2012) Життєстійкість в системі поняття життєздатності. Вісник Харківського національного педагогічного університету імені Г. С. Сковороди. Психологія. Вип. 44 (1). С. 143-150.

<sup>557</sup> Проценко О. О. Внутрішньо переміщені особи як категорія теоретизування та соціальної практики. Грані. 2018, 21 (4), 47-55.

personalities, which are reflected in a decrease in self-esteem and the level of claims, deformation of value orientations and social attitudes. According to the results of the research, it was determined that the majority of IDPs (85%) are maladapted, which is manifested in a hypothetical type of response, chaotic nature of activity, a tendency to take a defensive position, externalism and escapism. The emotional background of IDPs is lowered, with emotional tension and a tendency to unreasonable concern about minor problems, irritability, and anxiety.



*Fig. 3. Features of the "IDP syndrome"*

The situation in which IDPs find themselves radically changes the entire structure of their motives and needs, which are the most important regulators of human behavior, and makes it difficult to meet the needs of different levels – from basic to higher ones – for self-respect and self-realisation. Changes in the motivational sphere begin for IDPs even before they leave, when obstacles to meeting needs of different levels lead to increased reactions of fear, anger, aggression, and gradually become permanent determinants of behavior. The social situation of forced migration can be characterized as a crisis and even extreme (i.e., threatening health and life)<sup>558</sup>. During the survey of internally displaced people from the territory of hostilities, they expressed the following opinions: “no confidence in the future”; “no job prospects”; “you need to have strong nerves to at least survive”. In turn, an analysis of the results of an IDP survey conducted because of the Open Space for IDPs “Same Here” in Zaporizhzhia revealed that 65 percent of IDPs had “survivor syndrome”. Survivor's syndrome is an incredibly strong feeling of guilt, shame, and regret when a person manages to save his or her life or if his or her life is easier and simpler than that

<sup>558</sup> Гожда К. Є., Рекотова О. П. (2018) Генезис поняття «внутрішньо переміщених осіб». Молодий вчений. 4 (2), 659-662.



of friends and family. Feelings of guilt and shame can be experienced by those who have decided to leave the country, as well as those who have remained in a peaceful region where it is quiet. In other words, the survivor syndrome is felt as follows: “I survived – I am guilty”; “I could not help – I am ashamed”; “I am not enough, and my help is always not enough. This does not stop the war overnight. The feeling that others are doing more, and I am just useless”; “I am safe here, and therefore ashamed of those who are hiding in a bomb shelter and hear all the horror on the contact line”; “guilt if you do not feel pain at loss. And also if there are no tears, or they are “not enough”; “guilt and shame if you try to live as before, if you want to smile and respond to jokes”; “to continue working and earning when “others have lost their jobs and are struggling to make ends meet”; “I was more fortunate than others. And it is not deserved”. When IDPs find themselves in a new social environment, some of their personal qualities, behavioral patterns, attitudes, views, and values are rebuilt. The social environment, which we define as the “host population”, in turn, while meeting the adaptation needs of forced migrants, must also adjust and adjust the existing social cultural and functional system. That is, along with the characteristics of IDPs, their social environment is changing. Among the main indicators of successful sociocultural adaptation of migrants, G. Soldatova names the establishment of positive ties with the new social environment, solving everyday life problems (school, family, work, everyday life)<sup>559</sup>. Research has also shown that IDPs are characterized by self-doubt, distrust of the environment, people and psychosomatic manifestations. Feelings of loss of control over the situation, incompetence, and unfulfilled desires are expressed by IDPs in feelings of anger, aggression, and unmotivated hostility. The primary state of stress that arises when life is threatened, which a moment ago was well-established, peaceful and not threatening, can be described as a reaction of the psyche with progressive disorders of vital functions: understanding, perception, thinking, etc., when a person does not understand what happened, why and what exactly happened to him or her. The state of psychological shock is maintained and intensified by the escapist effect of denial of reality, escape from it, when a person not only does not perceive the misfortune that has fallen, but is unable to integrate objective facts into his or her consciousness. Such an imbalance of state rapidly leads to a state of affect, which has either aggressive or apathetic forms, depending on the gender and emotional characteristics of the person. Usually, the states of aggression and apathy are sinusoidal, i.e., they replace each other. Only the instinct for self-preservation and family involvement can save a person in this state from deep depression with suicidal tendencies. Fear, uncertainty, despondency, increased anxiety, decreased activity, difficulties in adapting to the new environment, guilt, a sense of “destruction of inner harmony and peace”, unwillingness to start all over again, aggressiveness – these are the dominant states and experiences by IDPs at different stages of adaptation to the new sociocultural environment. Accordingly, it is important from the sociocultural perspective to have a systematic and comprehensive approach to the organization of psychological support for IDPs and assistance in integration into new realities of life.

**The main coping strategies of personal behavior in crisis situations.** The term “coping” comes from the English word “to cope”. The term “coping” was first used by L. Murphy in 1962 in a study of ways children overcome developmental crises. Later, the study of coping mechanisms was closely related to the study of psychological stress. The psychological literature shows two approaches to the definition of coping. Supporters of the first approach consider coping as a broad concept that consciously transforms the situation into strategies and mechanisms of psychological protection. In foreign sources, the following concepts are used: “active coping”, “transformational coping”, “regressive coping”, “avoidance coping”<sup>560</sup>. Coping, according to S. Folkman and R. Lazarus, is a dynamic interaction of a person with a difficult situation, a certain level of cognitive, behavioral and emotional efforts aimed at eliminating external or internal contradictions. The authors of this definition talk about attempts, about human efforts, i.e., the very

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<sup>559</sup> Ibidem.

<sup>560</sup> Ebata A. T., Moos R. H. (1991) Coping and adjustment in distressed and healthy adolescents. *J. of Appl. Develop. Psychol.* Vol. 12. № 1. P. 33-54.

process of overcoming life difficulties<sup>561</sup>. Scholars of the second approach distinguish between coping and defense as specific forms of behavior. N. Haan defines that coping and defense are based on identical processes, but have opposite directions. A person uses coping strategies because of experience and own resources. Thanks to coping strategies, an individual can respond to stress and manage the current stressor<sup>562</sup>. The main coping strategies include:

1. “Problem-solving” is a rational strategy for finding additional solutions, which is made possible by a high level of cognitive and emotional processes. This coping strategy is impossible without the use of analysis, synthesis, and forecasting.

2. “Seeking social support” – is implemented through a person's need for social interaction, which is exacerbated when seeking support in difficult situations. The peculiarity of this strategy is the person's sense of need, the ability to confide in others, receive support and feedback.

3. “Avoidance is a strategy that aims to completely abstract from a problematic situation to preserve one's own emotional and physical strength<sup>563</sup>.”

In the modern scientific psychological literature, coping is interpreted as a changeable, dynamic process, the stable patterns of which form different behavioral strategies or personal styles of response to stressors. Studies of coping behavior allow us to distinguish two types of coping behavior: 1) problem-oriented (coping strategies are aimed at overcoming a specific source of stress); 2) emotion-oriented (coping strategies are aimed at overcoming anxiety caused by a stressor). Both types of coping behavior are more often considered in the context of emotional regulation, meaning that the trigger for active actions is always emotional arousal caused by a stressor. Later, the concept of proactive coping emerged in the structure of other types of coping strategies: 1) reactive coping, aimed at counteracting stressors; 2) anticipatory coping, focused on overcoming a threat that is likely to occur in the near future; 3) preventive coping, aimed at accumulating resilient resources that can reduce the severity of stressful events that may occur in the future or reduce the likelihood of current stressful situations; 4) proactive coping, aimed at creating resources that are designed to manage future stressful situations, it is not chosen in response to a specific stressor, but determines readiness for potential stressors in general<sup>564</sup>. This approach is being actively studied within the framework of the resource-based approach to stress management, in which the theory of “Conservation of Resources” (COR), proposed by S. Hobfall, is widely known. The essence of the resource approach is the efficiency of the distribution of available resources in terms of the presence of core resources that perform the function of controlling and organizing the distribution of other resources. Therefore, the loss of resources is considered to be the cause of ineffective adaptation, which in turn leads to a secondary loss of resources, which, according to the feedback principle, intensifies the subsequent maladaptation<sup>565</sup>. K. Matheny proved that the essence of the preventive coping strategy is to prevent the impact of stressors, either by transforming the cognitive assessment when perceiving the conditions of the situation, or by increasing resistance and resilience to the impact of stressors<sup>566</sup>. Based on the resource-based approach, we present a system of mechanisms for developing constructive coping strategies for individual behavior in difficult life circumstances. Modern psychology considers coping as an important condition and process within the framework

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<sup>561</sup> Antonovsky A. (2009). Health, stress, and coping. 255 p.

<sup>562</sup> Cash M. L., & Gardner D. (2011) Cognitive hardiness, appraisal and coping: comparing two transactional models. *Journal of Managerial Psychology*. 26 (8). P. 646-664.

<sup>563</sup> Василенко М. (2009). Сучасні напрями психологічних досліджень копінг-стратегій. Проблеми загальної та педагогічної психології: збірник наукових праць Інституту психології ім. Г. С. Костюка Академії педагогічних наук України. Т. 11. Ч. 7. С. 95-107.

<sup>564</sup> Войцеховська О. (2016). Сучасні напрями досліджень копінг-стратегій особистості. Педагогіка і психологія професійної освіти. № 2. С. 95-104.

<sup>565</sup> Varina, H., Osadchyi, V., Goncharova, O., & Sankov, S. (2022). Features of introduction of components of gamification in the course of development of constructive strategies of overcoming youth's life crises. *CEUR Workshop Proceedings*, 3104. 87-105.

<sup>566</sup> Mund P. Kobasa (2016) Concept of Hardiness (A Study with Reference to the 3Cs). *International Research Journal of Engineering, IT & Scientific Research*. vol. 2, № 1, pp. 34-40.

of an individual's social adaptation, which can be characterized by three components: the ability of the body and psyche to produce the most adequate reactions to external psychological stimuli; the ability of the body and psyche to quickly adapt to new environmental conditions; the ability to maintain psychological stability and balance<sup>567</sup>. Accordingly, constructive coping strategies for internally displaced people in the process of overcoming stressors are aimed at actively transforming a stressful situation, overcoming traumatic circumstances, resulting in a sense of growth of their capabilities, self-confidence, and strengthening themselves as a subject of their life.

**Results of an interdisciplinary study.** The interdisciplinary empirical study was implemented because of the Laboratory of Health Psychology and the Laboratory of Psychophysiological Research of Melitopol Bohdan Khmelnytsky State Pedagogical University. The study was conducted as part of the research topic of the Department of Psychology: "Psychological principles of actualization of resourcefulness and resilience of a personality: conceptualization and development"(State registration number: 0121U110568). As a result of military aggression and to create a safe educational environment for participants in the educational process from areas where active hostilities are ongoing and regions that are under temporary occupation, in particular, certain communities in Zaporizhzhia region, in May 2022, Bohdan Khmelnytsky Melitopol State Pedagogical University was relocated and legally re-registered in Zaporizhzhia. Under these conditions, about 85% of teachers and 67% of students became internally displaced. Accordingly, the need to implement a study aimed at developing resilience and constructive coping strategies for internally displaced people has become particularly relevant in the realities of our university.

The methods used in the study are: the method of analyzing theoretical sources, studying best practices and results of empirical research by foreign and domestic scientists on the problem of developing adaptive coping strategies of individual behavior in uncertain stressful conditions; designing and modelling the technological and empirical construct of introducing AR technologies into the program for the development of constructive coping strategies of behavior of internally displaced people; psychodiagnostic methods; methods of mathematical statistics. The study involved 40 students with the status of internally displaced people. The sample was randomized using the stratification method. The respondents had previously obtained written consent to participate in the study. The final stage of the study was conducted in September 2022.

The empirical study was conducted in two stages:

1. The ascertaining stage involved conducting a psychodiagnostic examination in an online format using Google Forms. The following methods were used as part of the ascertaining stage:

- The CISS Coping Behaviour in Stressful Situations (CISS), which is aimed at identifying the dominant coping strategy (task-oriented coping; emotion-oriented coping; avoidance-oriented coping; isolation/distraction subscale; social distraction subscale);

- The "Stress Level Test" by V.Y. Shcherbatykh is aimed at determining the presence of signs of stress – intellectual, behavioral, emotional and physiological;

- S. Muddy's resilience test (adapted by D. Leontiev, O. Rasskazova, 2006), developed as part of the study of factors that contribute to the successful overcoming of stressors and reduction of internal tension. The author defines resilience as a certain existential courage that allows a person to be less dependent on situational experiences, to overcome constant basic anxiety, which is actualized in a situation of uncertainty and the need to make a choice.

2. The formative stage of the study involved the development and testing of the program "Resilience and constructive coping strategies: a vector for successful adaptation of internally displaced persons". The program was implemented in October-November 2022 because of the educational hub of the Melitopol Open Centre for Assistance "Same Here". Considering

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<sup>567</sup> Предко В. В. (2020) Складна життєва ситуація як провідна умова формування життєстійкості особистості. Теоретичні і прикладні проблеми психології, 2020. С. 74-99.

the trends in the development of information technology, elements of augmented reality were integrated into the program. The program participants were divided into two subgroups:

- experimental, where students took part in the training programme “Resilience and constructive coping strategies: a vector of successful adaptation of internally displaced persons” with elements of augmented reality technologies based on the BYOD concept;

- control group, where students participated in the program “Resilience and constructive coping strategies: a vector of successful adaptation of internally displaced persons” using only traditional psychological technologies and practices.

During the study, the dominant coping strategy among young people was identified. According to the results of data processing, avoidance-oriented coping prevails in 40% of the respondents. That is, the desire to avoid the impact of a stressor by replacing an unpleasant activity or situation with distraction, communication, immersion in one's own world, and unproductive activities. This indicates a significant decrease in the adaptive capacity of respondents intoxicated of a stressor. In addition, 62.5 percent (10 people) of them choose distraction as an avoidance, and 37.5 percent (6 people) choose social distraction from events and situations that are stressful for them. In stressful situations, these students can avoid solving their problems by avoiding contact with others, being aggressive towards them, aiming at social isolation and using defense mechanisms.

The diagnostics revealed that 25% of the total number of respondents in stressful situations choose task-oriented coping. In stressful situations, these students are focused on rational analysis of the problem, creation, and implementation of a plan for solving a complex stressful situation. This is manifested in such forms of their behavior as independent analysis of the problem, seeking help from others, searching for additional information, and critical analysis of stressors.

The dominant coping behavioral strategies of 25% of students were found to be emotionally oriented. For these students, it is not typical to perform specific actions aimed at solving stressful situations. This style of behavior is manifested in the form of attempts not to think about problems at all, involving others in their experiences, the desire to forget in a dream, or compensating for negative emotions with food. A group of students who choose emotion-focused coping use cognitive, emotional, and behavioral efforts to reduce emotional tension.

The impact of hostilities, pandemic conditions, social and economic instability on all spheres of life of temporarily displaced people is definitely perceived as stressful. Changes in the social, economic and educational spheres are driving the emergence of stress and the results of its destructive impact.

The survey found that in the current realities of constant physical and psychological danger, only 7.5% of respondents experience moderate stress, and 57.5% of students experience severe stress, of which 20% of respondents experience severe emotional and physical stress, and 15% of respondents have complete exhaustion of adaptive energy.

According to the results of the resilience study (the ascertaining stage), the respondents showed a dominance of a low level of development of the general resilience index (72.5% – 29 people). Accordingly, the majority of IDPs with low resilience in the context of adaptation are characterized by low sociability, often high anxiety, they live for today or yesterday, often feel dissatisfied with their lives, and lack of confidence in their ability to control the events of their lives. They are often characterized by fatalism, the belief that a person's life is beyond conscious control, that freedom of choice is illusory, and that it is pointless to make predictions about the future. They prefer not to think about their future, and set goals situationally and usually not on their own. They are more dependent on the situation and the opinions of others, often prone to “self-digging” and self-flagellation, and are unable to value themselves and accept themselves as they are. The dominance of low scores on the “risk-taking” (60% – 24 people) and “control” (55% – 22 people) scales indicates that most respondents do not enjoy certain activities, and any external influence in the process of activity is perceived as stressful, causing tension and anxiety. IDPs also experience a certain helplessness and difficulties in self-realisation and building a life strategy. The dominance of low scores on the “engagement” scale (47.5% – 19 people) indicates

difficulties in building a constructive communication space in the new environment, low desire for interaction, immersion in the inner world and their experiences, and a feeling of being “outside of life”.

The above quantitative and qualitative results of the study suggest a predominantly negative emotional state of internally displaced people and the prevalence of low levels of resilience and unconstructive behavioral strategies. High levels of stress and depletion of adaptive resources, increased anxiety, and the negative impact of emotional reactions on activities and interpersonal relationships are the result of forced changes in the daily lives of IDPs. The relevant results indicate the need to develop and integrate into the system of psychological support for IDPs a program for the development of resilience and constructive coping strategies in the context of adaptation to a new sociocultural environment.

Based on the model of forming constructive coping strategies of individual behavior, we developed a psycho-correctional program “Resilience and constructive coping strategies: a vector of successful adaptation of internally displaced persons”, which included constructs of augmented reality technologies. The program is based on the principles of rational-emotive therapy (RET), which is focused on correcting irrational thoughts, attitudes, and negative emotional experiences. By the nature of its focus, the program can be defined as aimed at developing an understanding of one's strengths, their limits, and opportunities to expand and use them in one's life as effectively as possible, developing self-regulation skills and overcoming negative emotional states. A well-implemented program can lead to positive personal changes, improved life balance and personal empowerment. The aim of the program is to develop coping behavior as a means of increasing the personal resources of internally displaced people. In the context of the program, we identified the skills that allow us to make positive predictions about the constructiveness of coping strategies. They are related to emotional response, reassessment of the situation and solving an objective problem, transformation of the situation, namely

1) the ability to cope with negative emotions, including anxiety, excitement, and fear. It is associated with managing feelings and maintaining emotional balance. This skill implies a constructive attitude to negative emotions as a signal of the internal state and the need for change; possession of a certain arsenal of self-regulation tools, mastery of one's own emotions, stress relief instead of suppression of emotions, etc.;

2) self-control, which includes the ability to control thoughts, including negative ones, and false self-blame, which can lead to ineffective coping;

3) the ability to assess the situation flexibly. The constructiveness of coping reflects the nature of the internal representation of the situation and the process of cognitive assessment of the situation and oneself in the situation;

4) the ability to constructively transform the situation, which includes the following internal activities: orientation in the problem, identification, and formulation of the problem, its description in specific terms, setting goals, working out alternatives, possible solutions, choosing the best one and implementing it;

5) the ability to seek and accept help if it is really needed, without refusing to do so because of the thought of possible destruction of self-respect, the desire not to worsen the opinion of others about oneself, or the unwillingness to show one's weakness and lose independence;

6) the ability to provide support to another person in a difficult situation.

The structural and logical blocks of the program “Resilience and constructive coping strategies: a vector for successful IDPs” are presented in Table 2.

An innovative feature of the program was the integration of a set of augmented reality elements into each block of the program. The augmented reality elements are implemented through mobile applications and are based on the concepts of BYOD (Bring Your Own Device), i.e. the use of personal devices (tablets, laptops, smartphones) in the psychocorrectional process, and Mobile Augmented Reality Education.

*Table 2. Program structure “Resilience and constructive coping strategies: a vector of successful adaptation of internally displaced persons”*

Program block	Tasks of the block
Motivational	<p>The main tasks of the block:</p> <ul style="list-style-type: none"> <li>- Ensure positive motivation to participate in the program through familiarization with its purpose and content;</li> <li>- development of internal cognitive motivation;</li> <li>- motivation for transformational learning;</li> <li>- Development of readiness for self-changing and self-development</li> </ul> <p>Techniques: brainstorming, case-study, iso-techniques, role-play, web quest            Exercises: “Motives for achieving the goal”, “My values”, “Pros and cons of our problems”, “In two years”, “Get out of the circle”, “What I really want”, “Setting goals”, “Visualizing achieving the goal”, “Internal signaller”, “Frustration”, “Success”</p>
Emotional and intellectual	<p>The main tasks of the block:</p> <ul style="list-style-type: none"> <li>- studying the individual peculiarities of the emotional and behavioral sphere of internally displaced people.</li> <li>- presentation and assimilation of information on the disclosure of the concept of coping strategy, stress resistance, emotional creativity and resilience, their role in human life in the process of adaptation to a new sociocultural environment;</li> <li>– development of emotional creativity and resilience.</li> <li>- development of emotional and intellectual abilities for emotional self-regulation, external regulation of emotions, understanding of emotions and emotional awareness.</li> </ul> <p>Techniques: art collage, training exercises, online diary “Map of the Emotional World”, brainstorming, simulation exercises, storytelling, crossover            Exercises: “Unusual impressions and emotions”, “Emotional memory”, “My emotional experience”, “Emotional reflection”, correction of prejudices about the emotional world of a person was carried out through exercises: “Stereotypes of emotion awareness”, “Words-feelings”, “Irrational thoughts”, “Emotion-event-thought”, “10 situations”, which are also aimed at forming the ability to understand and adequately perceive emotions, projective drawing “The Magic World of Emotions”</p>
Regulatory and behavioral	<p>The main tasks of the block:</p> <ul style="list-style-type: none"> <li>- enriching the experience of self-knowledge, arousing interest in participants' own psycho-emotional states, teaching them to identify states;</li> <li>- development of skills in progressive relaxation, autogenic training, ideomotor training and sensory image reproduction. – Optimization of psycho-emotional states through: 1) development of effective goal-setting techniques,</li> <li>2) development of techniques for self-regulation of emotional states,</li> <li>3) development of skills and abilities for effective self-organisation of activities and living space in new conditions,</li> <li>4) developing self-confidence and constructive coping strategies</li> </ul> <p>Techniques: transformational game “Spread your wings”, solving competence-based and problem-based tasks, autogenic training, interactive games, concept maps, creative thinking, brainstorming, visioning and futuring            Exercises: among the psycho-gymnastic techniques aimed at developing self-control and self-regulation of emotions was a visualisation exercise. Participants had to “build” an image in their minds that would help them relax and take control of their emotions. At this stage, the following exercises were used: “Draw a mood”, “My negative emotions”, “Causes of negative emotions”, “Scaling emotions”, “Emotion path”, “Self-expression”, and the visualization exercise “Temple of silence”, “Pass the emotion”, “Unexpected guest”, “Headbands”, “Story with three emotions”, “Verbalization of others' emotions”, “Talking on the phone”, “Epithets”, “Manipulative warm-up”, “Amortization”, “Accepting the emotions of others, Reflecting emotions, Constructive relationships, Relaxation against stress, The essence of the purpose of autogenic training, Imaginary reproduction of movements (ideomotor training), “How to influence any mental state through an image”, as well as the exercises “Neuromuscular relaxation session”, “Autogenic training session”, “Ideomotor training session”, “Sensory reproduction of images”</p>
Reflexive	<p>Main tasks:</p> <ul style="list-style-type: none"> <li>- Awareness of personal changes, summing up the results of the work, collecting information from participants on the extent to which their expectations from the program have been met;</li> <li>- analysis of transformational changes in the emotional and behavioral spheres;</li> <li>- designing the future based on the formed competences</li> </ul> <p>Techniques: discussion, case method, storytelling, art diary            Exercises: “Letter”, “Problem-solving”, “Cognitive rehearsal”, “Mastery”, “Awareness of emotions”, “Positive interpretation”, “Tracing old feelings”, “Hidden feelings”, “Empty chair”, “Ways to cope with stress”, “Relaxation”, “Emphasizing commonality”, “Emphasizing significance”, “Expressing and reflecting feelings”, “Exaggeration”, “Irrational ideas”, “My judgements”, “Rational ideas”, “Coping with resentment”, “I have to – I want to”, “War”, “I am angry ... people are angry with me...”, “I hate...”, “Confronting aggression”</p>

The introduction of augmented reality components into the training program allows not only to visualize space, certain states and behavioral systems, but also makes it possible to create a poly-modal stimulation that allows, on the one hand, to actualize the cognitive and intellectual capabilities of the individual, and, on the other hand, to model an adaptive system of emotional and behavioral reactions.

The results of the formative stage of the study revealed positive dynamics in the adaptive capacities, emotional states and coping strategies of the respondents. Within the framework of the formative stage, the respondents were divided into two groups – control and experimental, the respective samples are not coherent because of the influence of different conditions. The dynamics of changes in the dominant behavioral strategy is shown in Fig. 4.

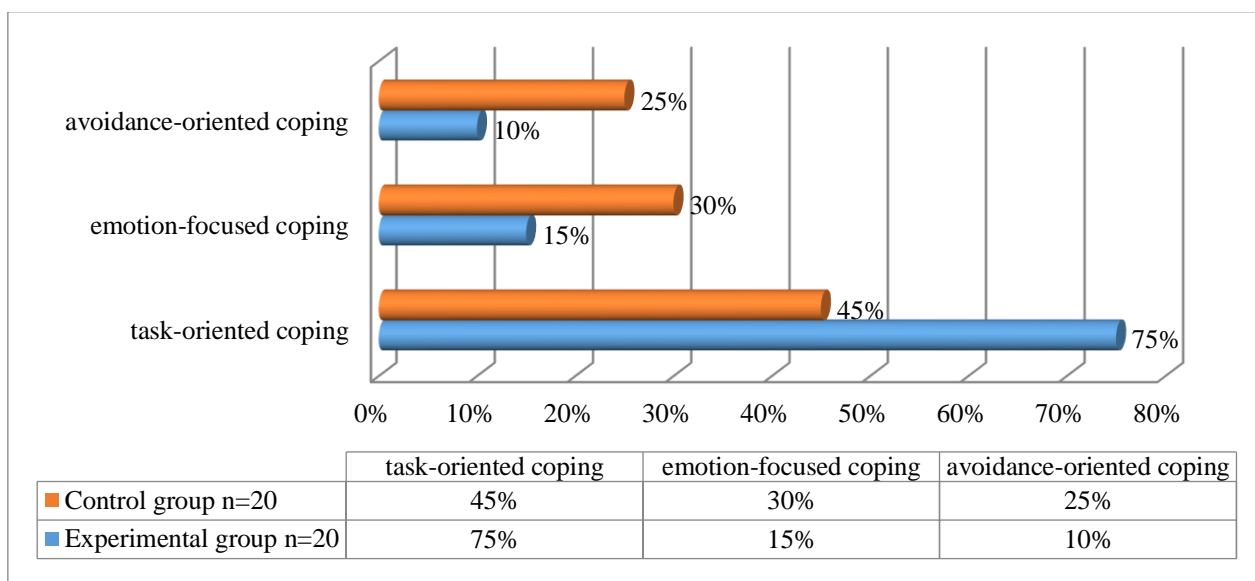
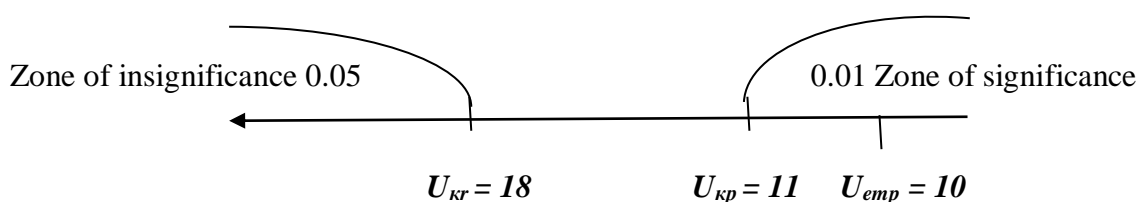


Fig. 4. Dynamics of dominant coping behavior in stressful situations among internally displaced people (n = 40)

According to the results of the formative experiment, we observe an increase in the number of respondents with dominant task-oriented coping strategies: in the experimental group 72.5%, which is 3 times more than at the baseline stage of the study; in the control group 45%, which is 1.8 times more than at the baseline stage of the study. According to the results of the experimental impact, in both groups there is also a decrease in the number of respondents with dominant coping strategies focused on emotions and avoidance. However, in the experimental group that participated in the training program with the inclusion of augmented reality elements, the dominance of non-constructive behavioral strategies decreased by 2 times. Using mathematical data processing and the Wilcoxon-Mann-Whitney U test, we found that  $U_{emp} = 10$ , with  $U_{kr}$  values equal to 18 for  $P = 0.05$  and 11 for  $P = 0.01$ . According to the statistical tables of critical values

$$U_{kr} = \begin{cases} 18 \text{ для } P \leq 0,05 \\ 11 \text{ для } P \leq 0,01 \end{cases}$$

the "axis of significance" looks like this:



The obtained value of  $U_{emp}$  fell into the zone of significance, so hypothesis H1 about the difference is accepted, and hypothesis H0 about the similarity is rejected. Thus, it can be argued that the integration of augmented reality elements into the program "Resilience and constructive coping strategies: a vector of successful adaptation of internally displaced persons" leads to a statistically significant increase in the level of manifestation of constructive coping strategies in internally displaced persons.

The emotional-intellectual and regulatory-behavioural blocks of the program are focused on awareness of one's own emotions, correction of negative emotional states and development of self-regulation skills. As a result of the program, positive changes in the levels of stress and stabilization of mental states were observed (Fig. 5).

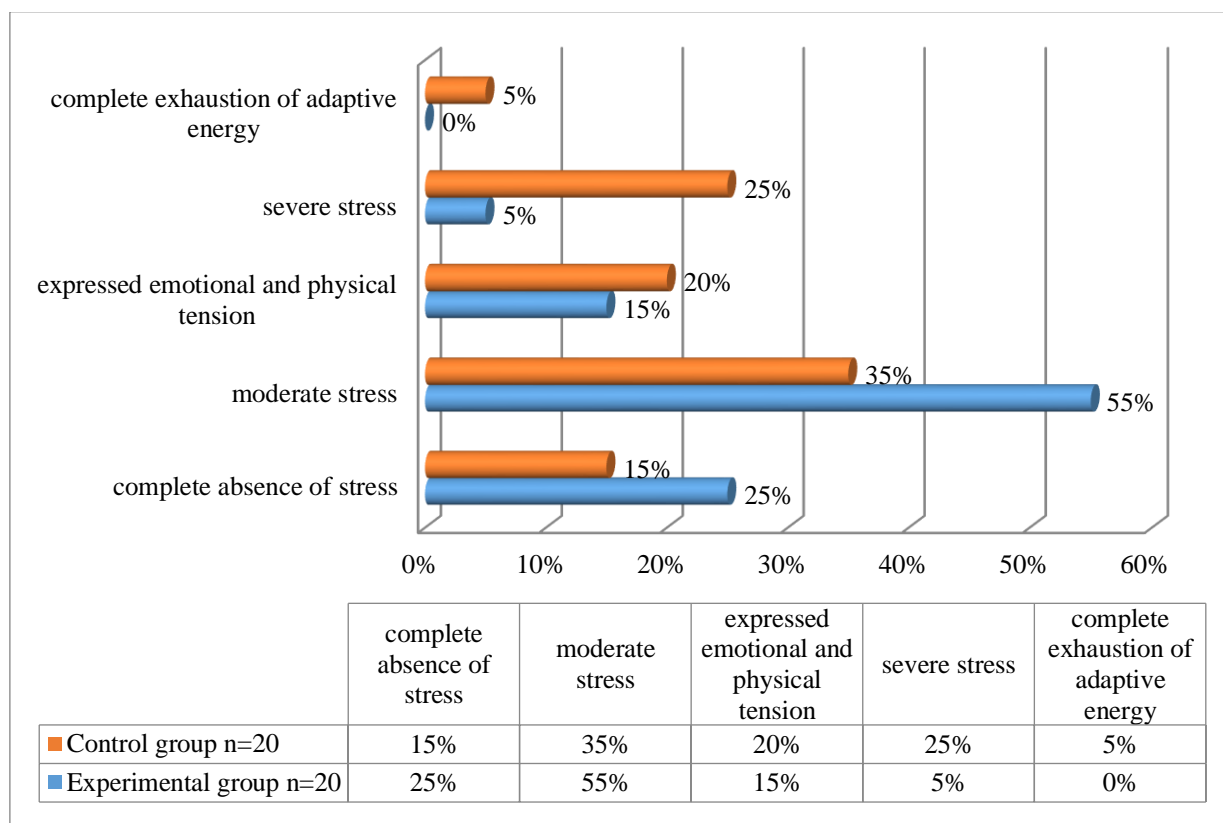


Fig. 5 Dynamics of stress levels among internally displaced people (n = 40)

According to the secondary survey, it was found that the experimental group significantly reduced the level of severe emotional and physical stress (15%), the manifestation of severe stress (5%) and the complete depletion of the personality's adaptive energy (0%). At the same time, the percentage of respondents (25%) who are completely stress-free has increased, which is due to the development of constructive coping strategies and the development of self-regulation skills. The prevalence of moderate stress (55%) is directly related to the respondents' perception of the current situation of military operations as threatening and unstable. However, possession of constructive skills to overcome stressors does not cause excessive emotional and physical stress. Positive results were also found in the control group. Using mathematical data processing and the Wilcoxon-Mann-Whitney U test, we found that  $U_{emp} = 16$ , with  $U_{kr}$  values of 26 for  $P = 0.05$  and 18 for  $P = 0.01$ . According to the statistical tables of critical values of

$$U_{kr} = \begin{cases} 26 \text{ для } P \leq 0,05 \\ 18 \text{ для } P \leq 0,01 \end{cases}$$

Accordingly, the "axis of significance" looks like this:





The obtained value of  $U_{\text{emH}}$  fell into the zone of significance, so hypothesis H1 about the difference is accepted, and hypothesis H0 about the similarity is rejected. Thus, it can be argued that the integration of augmented reality elements into the program leads to a statistically significant reduction in the level of stress among internally displaced people.

After the program was implemented, the overall resilience index doubled:

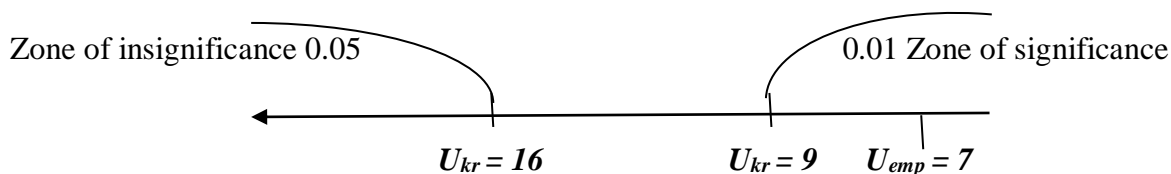
- in the control group, a high level was found in 40% (8 people), an average level – 45% (9 people), and a low level – 15% (3 people). These indicators indicate the effectiveness of the program using traditional psychocorrectional exercises;

- in the experimental group, 60% (12 people) showed a high level, 35% (7 people) an average level, and 5% (1 person) a low level. The implementation of augmented reality technologies stimulates immersion in real-life situations, which increases the overall resilience index. Generalized indicators of the development of resilience components of the program participants are presented in Appendix E.

Using mathematical data processing and the Wilcoxon-Mann-Whitney U test, we found that  $U_{\text{emp}} = 7$ , with  $U_{kr}$  values of 16 for  $P = 0.05$  and 9 for  $P = 0.01$ . According to the statistical tables of critical values of

$$U_{kr} = \begin{cases} 16 \text{ для } P \leq 0,05 \\ 9 \text{ для } P \leq 0,01 \end{cases}$$

Accordingly, the "axis of significance" looks like this:



The obtained value of  $U_{\text{emH}}$  fell into the zone of significance, so hypothesis H1 about the difference is accepted, and hypothesis H0 about the similarity is rejected. Thus, it can be argued that the integration of augmented reality elements into the program leads to a statistically significant increase in the overall resilience index.

Thus, based on the results of the formative stage of the study and the integration of augmented reality elements into the training program, we have identified positive dynamics in the development of resilience and constructive coping strategies in internally displaced people, a decrease in the level of destructive stress, mastering emotional and physical self-regulation skills, which actualizes the emergence of adaptive resources of the individual.

**Conclusions and Prospects for Further Research.** The change in the paradigm of existence and interpersonal interaction of modern society has a direct impact on the state of psychological well-being and resilience of the individual. The analysis of literary sources of information allowed us to identify resilience as a system of beliefs of an individual that can contribute to the development of a person's readiness to choose to participate in situations of increased complexity, to maintain control over them and manage them, to be able to perceive even negative events as experience and successfully cope with them. A resilient person is a person who can have resilient beliefs (namely, involvement, control, risk), who leads a resilient lifestyle (maintaining his or her physical and mental health), and who can use resilient coping to overcome stressful and difficult life situations.

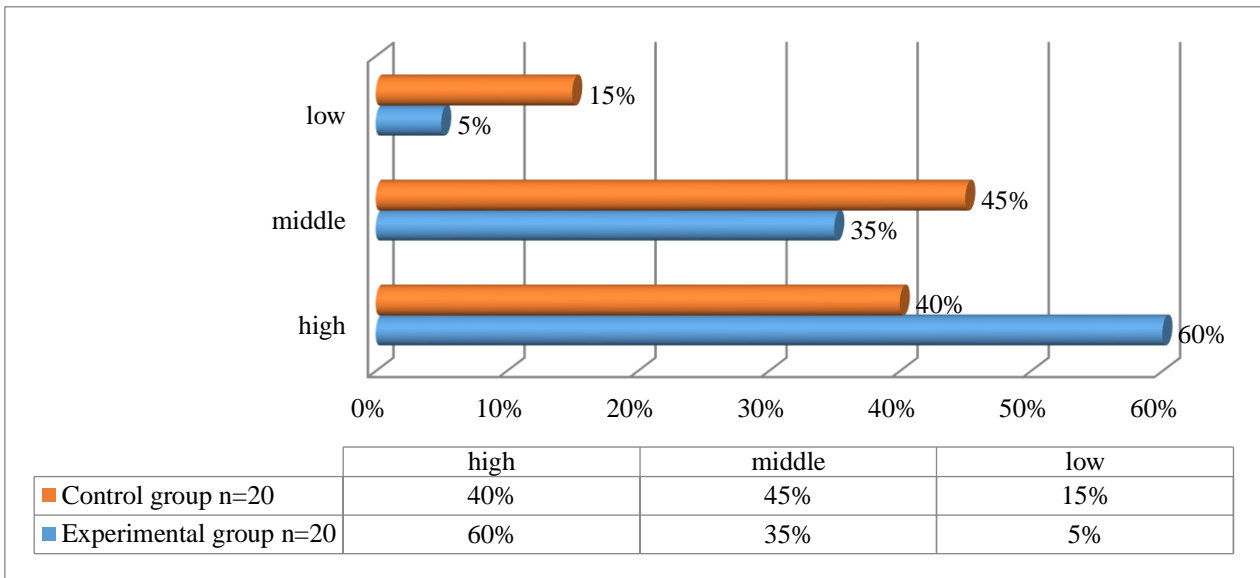


Fig. 6. Dynamics of the general index of personality resilience

The analysis of research on psychological coping has allowed us to consider coping as a form of adaptive behavior of an individual in a stressful situation to achieve such goals as minimizing the negative impact of external circumstances and maintaining emotional balance by adapting or transforming situations. In the context of overcoming stressors, scientists distinguish between reactive coping, which is aimed at counteracting stressors; anticipatory coping, which is aimed at overcoming a threat that is likely to occur in the near future; preventive coping, which is aimed at accumulating resilient resources that can reduce the severity of stressful events that may occur in the future or reduce the likelihood of current stressful situations; proactive coping, aimed at creating resources that are designed to manage future stressful situations, it is chosen not in response to a specific stressor, but determines readiness for potential stressors in general. All coping strategies perform two main functions, one of which is related to the regulation of behavioral actions, the other is related to the regulation of the emotional sphere. During the theoretical analysis, it was determined that constructive coping strategies of internally displaced people in the process of overcoming stressors are aimed at actively transforming the stressful situation, overcoming traumatic circumstances, resulting in a sense of growth of their capabilities, self-confidence, and strengthening themselves as a subject of their life.

The empirical section of the paper presents the results of the statement and formative research. The results of the ascertaining study revealed the dominance of a negative emotional state among internally displaced people, as well as a low level of resilience and non-constructive behavioral strategies. High levels of stress and depletion of adaptive resources, increased anxiety, and the negative impact of emotional reactions on activities and interpersonal relationships are the result of forced changes in the daily lives of internally displaced people. As part of the formative research, the program “Resilience and Constructive Coping Strategies: A Vector for Successful IDPs” with the implementation of augmented reality elements was tested. In the process of implementing the program, the effectiveness of integrating augmented reality components into the structure of classical training was proven. Based on the results of the formative stage of the study and the integration of augmented reality elements into the training program, we found positive dynamics in the development of resilience and constructive coping strategies in internally displaced people, a decrease in the level of destructive stress, mastering emotional and physical self-regulation skills, which actualizes the emergence of adaptive resources of the individual. The empirical study statistically proved that the use of augmented reality technologies contributes to the actualization of the psycho-correctional effect of training programs by updating the individual approach; respondents learn constructive behavioral strategies and adaptive mechanisms for responding to stressors much easier through direct involvement

in a simulated situation and through graphic abstractions and three-dimensional models to acquire new experience.

Prospects for further research include analysis of modern approaches to organizing systematic support for IDPs, as well as integration of the developed program into the system of comprehensive assistance to IDPs at the initial stages of adaptation to a new sociocultural environment; development of recommendations for professionals aimed at increasing the resilience, stress resistance, adaptability and social competence of IDPs; development of a system of support for IDPs in the context of reintegration in the post-war period.

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