

Research Article

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# Dynamics of the components of the value-semantic sphere in the process of implementing the technology of psychological rehabilitation of the population living in conditions of military conflict

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## Abstract

**Introduction.** The relevance of the research is determined by the need to analyze the dynamics of the value-semantic sphere of the civilian population living in conditions of local armed conflict and substantiate psychological technologies that contribute not only to reducing symptoms of distress, but also to restoring life meanings and prospects for the future. The purpose of the study was to study the changes in the components of the value-semantic sphere during the implementation of the program of psychological rehabilitation of civilians in the conflict zone. **Methods.** The sample included 494 respondents (208 men, 286 women) aged 19 to 53 years, divided into experimental and control groups. The diagnostic complex included the SAN method (well-being–activity-mood), an express method for assessing social isolation, a morphological test of life values, a test of life orientations (SOE) and a scale of basic beliefs (WAS). The 12-week rehabilitation program was aimed at stabilizing the emotional state, developing communicative resources and forming progressive life-meaning strategies. **Results.** In the experimental group, after participating in the program, there was a statistically

significant improvement in SAN scores, a decrease in subjective social isolation, an increase in the importance of self-realization values, social contacts and one's own prestige, increased goal setting and meaningfulness of life, as well as positive dynamics of basic beliefs about the benevolence and justice of the world, luck and the image of "I"; in the control group No comparable changes have been recorded. Gender differences in the nature of value-semantic dynamics are noted. **Discussion.** The results allow us to consider the developed program as a significant tool for psychological support of the civilian population in conditions of armed conflict and indicate the prospects for further longitudinal studies of the mechanisms of transformation of the value-semantic sphere in the rehabilitation process.

### **Keywords**

military conflict, value-semantic sphere, civilian population, meanings, values, meaningful strategies, technology of psychological rehabilitation

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## **Introduction**

Armed conflicts are extreme situations that create conditions for massive psychological stress among the civilian population. Civilians in a local armed conflict may experience the unforeseen effects of multiple stressors: direct threat to life, destruction of habitual social structure, loss of property and instability, uncertainty of the environment.; Such conditions can lead to the development of a wide range of psychological disorders, adjustment disorders, post-traumatic stress and, of course, to the transformation of fundamental life meanings and values.

Research over the past two decades has significantly expanded the understanding of how the extreme stress of combat transforms the human psyche: armed conflict initiates

the development of specific extreme mental states (Alexandrovsky, 2022), acute stress reactions and reactive states (Chepur, 2024), and chronic forms of psychopathology, including post-traumatic stress disorder (Bonkalo, 2023). Considerable attention in the research is paid to the processes of adaptation of the civilian population to the conditions of uncertainty and unpredictability typical of military conflicts (Deryagina and Bulatetsky, 2021; Protsenko, 2024). However, these studies, although they reveal the clinical and psychopathological picture, pay less attention to the fact that under the influence of prolonged extreme exposure, profound transformations occur not only in the psychopathological sense, but also in the personal organization as such.

Thus, personal and professional deformations that develop under conditions of prolonged stress are described (Amsalem et al., 2025), however, the mechanisms of value-semantic sphere restructuring underlying these deformations remain insufficiently investigated. In other words, if it is known what changes in the human psyche under the influence of conflict (symptoms of PTSD appear, maladaptation develops, destructive behavioral patterns form), then it remains unclear "how" and "why" these changes occur at the level of the semantic organization of the individual, and, most importantly, how these processes can be reversed through purposeful psychological rehabilitation.

The relevance of the research is determined by the need for: (1) a comprehensive analysis of structural changes in the value-semantic sphere of the civilian population under the influence of armed conflict, considered not in isolation, but as the fundamental basis of other psychopathological and personal deformations; (2) the development and empirical testing of psychological rehabilitation technologies capable of not only reducing clinical symptoms, but also providing constructive experience. extreme situations and the restoration of a positive life perspective; (3) to identify the mechanisms of dynamics of the value-semantic sphere in the process of rehabilitation intervention and the factors that determine the variability of psychological outcomes.

The purpose of the study is to analyze the dynamics of the components of the value-semantic sphere of the civilian population in the process of implementing psychological rehabilitation technology in the context of armed conflict and to identify the mechanisms of constructive transformation of the semantic organization of personality.

### ***Prevalence and clinical manifestations of stress disorders among the civilian population in areas of armed conflict***

Accumulated epidemiological data indicate a high prevalence of psychopathological symptoms among citizens exposed to combat operations. Students living in active conflict zones have a statistically significant increase in vegetative, somatized, asthenic, and depressive-anxiety symptoms (Denisov, Abramov, and Plotnikov, 2015). Moreover, 55.95% of the civilian population have a marked deterioration in mental health with changes in self-efficacy parameters both in professional activities and in interpersonal interaction (Kovalenko, 2016). A critical mechanism has been identified in the

pathopsychological study of chronic stress caused by combat: patients show not just a lack of personal resources in general, but a shortage of constructive coping strategies while strengthening maladaptive behavioral patterns (Abramov, 2015).

However, based on the clinical and dynamic analysis in the study of N.P. Soboleva (2017), a model of psychotherapeutic rehabilitation was developed, which made it possible to identify the mechanism: structured psychotherapeutic work can not only reduce symptoms, but also qualitatively change the way personal functioning is organized under conditions of ongoing stress; we can rely on the conclusion that psychological disorders with prolonged The impact of conflict is not an inert state, but a dynamic process that is subject to targeted correction.

### ***Differentiation of psychological resources and gender-specific adaptation***

Extreme conditions of armed conflict have a differentiated effect on personal potential depending on gender: in women, a decrease in adaptability is much more pronounced than in men (Abramov et al., 2015). More critical is the identification of the mechanism of maladaptation: the key trigger of emotional disorders and frustration is a sense of loss of meaning. The psychopathological process, therefore, is not reduced to pure anxiety or depression as phenomenological symptoms – it is based on the destruction of the semantic system of personality, which requires interventions aimed not at reducing individual symptoms, but at restoring the semantic framework as an integral structure.

Empirical data demonstrate a regular organization of psychological factors in the process of experiencing conflict. Different types of experience of a situation show a direct correlation with specific configurations of individual psychological characteristics (Novikova, 2024). At the same time, the semantic and value parameters of a personality are of decisive importance, rather than temperamental traits as such. With the destructive type of experience, the high internal organization of psychological characteristics is paradoxically manifested precisely through the value-semantic level, which indicates that a person is actively but maladaptively restructuring his semantic sphere.

Studies of the subjective well-being of civilians in areas of armed conflict show a paradoxical picture: the majority of respondents have indicators in the range of moderate values, which can be regarded as the absence of serious psychopathology (Solovyova, 2016). However, a more detailed analysis reveals an important mechanism: individuals with increased subjective well-being are characterized by the presence of positive personality traits that function as internal psychological buffers.

### ***Mechanisms of value-semantic transformation under the influence of threat and loss***

Cross-cultural analysis of the psychological changes of the inhabitants of geographically and historically different zones of armed conflict – Yugoslavia and Donbass – He identified

the typological identity of psychological shifts despite various etiological factors of conflict (Ryadinskaya, 2018): armed conflict initiates a deep reassessment of life values and meanings, a weakening of future orientations and a decrease in motivational activity in relation to constructive planning of life prospects, and the described changes represent a universal psychological response of the individual to a large-scale existential threat.

An analysis of the mechanisms of value reassessment reveals the central role of the fear of death as a catalyst for rethinking life priorities (Abakumova et al., 2024). Under the influence of this existential fear, there is a development of depressive decreased activity and the actualization of unproductive coping strategies. It is critically important that the restructuring of the value hierarchy reflects a realistic reformatting of priorities: for civilians in areas of intense hostilities, the survival and preservation of the family come to the fore, while concern for the future of children occupies a dominant place in the system of motives.

Value-semantic transformations under the influence of intense military stress reveal a dichotomous character: progressive changes associated with a reassessment of priorities towards deeper and existentially significant values are possible, as well as regressive destructive processes manifested in the degradation of the value system and orientation towards primitive survival (Volobuyev, Kovalchishina, Volobuyev, 2023). The variability of outcomes indicates that the direction of value changes depends on the presence of certain psychological conditions that mediate the transition from maladaptive reactions to constructive transformation. At the level of ontological analysis, the traumatic experience of armed conflict does not transform individual value contents, but transforms the entire personality structure, including the level of self-identity (Magomed-Eminov, 2024).

### ***The effectiveness of psychological rehabilitation***

Integrated approaches to the rehabilitation of civilians, combining medical, psychological and psychotherapeutic components, demonstrate effectiveness in restoring adaptive functioning (Kivorkova and Solovyov, 2017). Structured rehabilitation work aimed at increasing stress tolerance and correcting emotional disorders ensures not only the reduction of individual symptoms, but also the harmonization of personal functioning as a whole. With timely implementation of rehabilitation measures in the early stages of development, the risk of developing stable emotional, cognitive and behavioral deficits is significantly reduced (Shirokira and Yershova, 2018).

Thus, the aim of the study was to study changes in the components of the value-semantic sphere during the implementation of the program of psychological rehabilitation of civilians in the conflict zone.

## Methods

### *Study Design*

#### *Stage 1. Baseline Assessment (2023)*

At the first stage, an empirical study of the psychological characteristics of civilians living under armed conflict conditions was conducted. The main objective of this stage was to identify baseline indicators of the value-meaning sphere, meaning-in-life strategies, well-being, and social isolation/connectedness. The data obtained served as the rationale for justifying the need to develop and test a targeted rehabilitation technology.

At this stage, the following psychodiagnostic tools were used:

1. **SAN Technique (Well being–Activity–Mood)** (V. A. Doskin, M. P. Miroshnikov et al., 1973) is designed to assess the functional psychoemotional state. The technique includes 30 bipolar adjective pairs organised into three corresponding scales; higher scores indicate positive well being, high activity, and favourable mood; lower scores reflect discomfort, apathy, and depressive states.

2. **Morphological Test of Life Values (MTLV)** (V. F. Sopov, L. V. Karpushina, 2001) diagnoses the structure and hierarchy of life values. It comprises 112 items organised into two blocks: 8 terminal values (self development, spiritual satisfaction, creativity, social contacts, personal prestige, achievements, material status, preservation of individuality) and 6 life domains (professional life, education and learning, family life, social activity, hobbies, physical activity). Higher scores indicate the significant importance of a given value within the personality structure.

3. **Meaning in Life Orientations Test (MLOT)** (J. Crumbaugh, L. Maholick, 1964; adapted by D. A. Leontiev, 1988) consists of 20 items organised into 5 subscales: goals in life, process of life, life effectiveness, locus of control–Self, locus of control–Life. Each item is rated on a 7 point scale. Higher scores indicate life meaningfulness, presence of goals, and active engagement in the life process; lower scores suggest lack of meaning and inner emptiness.

4. **Social Isolation Assessment Technique** (D. Russell, M. Ferguson, 1978) is designed to evaluate subjective feelings of loneliness and social alienation; high scores indicate a pronounced sense of social isolation; low scores suggest favourable inclusion in social connections.

5. **World Assumptions Scale (WAS)** (R. Janoff Bulman, 1989; adapted by M. A. Padun, A. V. Kotelnikova, 2008) measures fundamental beliefs about the world and the self. It consists of statements organised into 5 domains: benevolence of the world, justice of the world, self image, luck, and beliefs about control. Higher scores reflect positive basic beliefs; lower scores indicate destructive beliefs about the world, others, and one's own competence.

## *Stage 2. Development and Implementation of the Rehabilitation Programme (2024–2025)*

At the second stage, based on the analysis of the empirical data obtained, a program was developed for the formation of a value-semantic sphere and meaningful strategies (hereinafter referred to as the FSWS program) for civilians living in armed conflict. The program is based on the theoretical principles of existential psychology, the theory of self-determination and a personality-oriented approach, and aims to activate personal potential through a purposeful rethinking of life priorities and the development of adaptive meaning-based strategies in conditions of ongoing stress.

The purpose of the program was to activate the personal resource and transform regressive semantic strategies into progressive ones through work with the value-semantic sphere of personality.

The program was implemented for 12 weeks (the total amount was 72 hours). The program's structure implied a consistent immersion of the participant in self-improvement: from awareness of resources to acceptance of the need to transform life prospects. A mandatory element was the continuous monitoring of changes in the psychoemotional state and beliefs of the participants. The general scheme of the program is presented in Table 1.

**Table 1**  
*The general scheme of the Program*

Stage (Block)	Volume	Tasks and Focus of Work (Content)
Block I. «Emotional Status and Flexibility of Behavioral Programs»	16 hours (2 weeks)	Goal: the focus is on working with the «self-concept» and self-regulation skills. Participants study the physiological and psychological mechanisms of stress, learn methods to reduce anxiety, and work on forming a positive identity, which often erodes under conditions of chronic threat. Exploring states and self-regulation: – Analysis of physiological, psychological, and mental status. – Development of a high level of self-awareness and the ability to control oneself. – Control of destructive manifestations (aggression, impulsivity, anxiety). – Activation of self-motivation and social activity processes.

Stage (Block)	Volume	Tasks and Focus of Work (Content)
Block II. «Social Interaction»	20 hours (4 weeks)	<p>Goal: to teach a person experiencing war stress to communicate positively, be active in establishing contacts with others, avoid withdrawing into oneself, and restore communication skills. Restoring communicative resources:</p> <ul style="list-style-type: none"> <li>– Overcoming withdrawal and restoring lost communication skills.</li> <li>– Developing the ability to exchange not only ideas but also volitional impulses to achieve common goals (coordinating actions).</li> <li>– Working with emotional unification/separation within the group.</li> <li>– Teaching safe communication in the online space as a coping strategy.</li> </ul>
Block III. «Planning a Life Perspective»	36 hours (6 weeks)	<p>Goal: for the individual to build new life-meaning strategies, develop skills to use new life prospects, learn to preserve and accumulate resources necessary for personal growth, form adequate life realities, and reshape life-meaning orientations.</p> <p>Building the future (Transformation):</p> <ul style="list-style-type: none"> <li>– Developing skills to use new life prospects.</li> <li>– Learning to preserve and accumulate resources for personal growth. – Forming an adequate perception of life realities.</li> <li>– Final reshaping of life-meaning orientations (from regression to progress).</li> </ul>

In addition to standard psychocorrective techniques and role-playing games, the program was based on problem-based learning methods. Participants were offered specially modeled problematic issues and situations that require the activation of hidden personal resources, making non-standard decisions in conditions of uncertainty, and developing skills to adapt to a new reality.

### ***Stage 3. Evaluation of the effectiveness of the Program (2025)***

At the third stage, the developed rehabilitation program was empirically tested and its effectiveness was evaluated on an independent sample using an experimental design with control and experimental groups.

#### ***Study participants***

The sample consisted of 494 respondents permanently residing in conditions of armed conflict, aged from 19 to 53 years ( $M = 35.4$ ,  $SD = 10.2$ ). Gender distribution: 208 men (42.1%) and 286 women (57.9%).

The groups were formed as follows:

- Control group ( $n = 247$ ): 104 men and 143 women. The participants in this group did not receive rehabilitation intervention and served as a baseline for comparison.
- Experimental group ( $n = 247$ ): 104 men and 143 women. The participants actively participated in the FSWS program for 12 weeks.

The alignment of groups according to the main socio-demographic variables and initial psychological indicators was confirmed at the initial stage.

Criteria for inclusion in the study: permanent residence in an armed conflict zone during the last 12 months, age from 19 to 55 years, absence of acute psychotic disorders, informed consent to participate in the study. All respondents participated in the ascertaining study (the first stage) and gave written consent to participate in the third stage. Contact with potential participants for inclusion in the testing of the program was carried out through the telecommunication channels indicated in the initial questionnaires of the first stage.

#### ***Methods of statistical data analysis***

To process the data obtained and identify statistically significant differences between the control and experimental groups, as well as changes within each group, a package of statistical methods was used: descriptive statistics, verification of the normality of the data distribution using the Shapiro–Wilk criterion, the Wilcoxon T-test (to compare indicators within the same group before and after the intervention), Mann-Whitney U-test (to identify differences between the control and experimental groups at the stages before and after the intervention),  $\varphi$  is the criterion of the Fisher angular transformation (for comparing the relative frequencies (fractions) of qualitative features in two independent samples).

## Results

### ***Results of the participant survey on the usefulness of the programme (self-report)***

After completion of the FSZhS programme, a survey was conducted with participants from the experimental group (n = 247) to assess the subjective significance and perceived effectiveness of the rehabilitation intervention. The results across the main question blocks are distributed as follows:

- **Assessment of the programme's content and quality.** The vast majority of participants provided a positive evaluation of the programme: 84.6 % of men and 89.4 % of women noted its informativeness and practical value. Participants highlighted the effectiveness of systematic problem-area coverage, video materials, and situational modelling in re-evaluating life difficulties and activating personal potential.
- **Dynamics of personal attitudes and life meanings.** A substantial portion of the sample (30.7 % of men and 37.2 % of women) reported significant personal changes over the 12-week programme. Qualitative shifts in worldview and goal-setting were noted: increased positivity in life perception (63.15 %), greater meaningfulness of life activities (71 %), and the emergence of motivation to plan for the future. Behavioural manifestations included professional changes (11 % of participants changed their job) and improved physical indicators (normalisation of blood pressure, reduction of somatic symptoms of chronic conditions).
- **Self-understanding and socio-communicative skills.** More than half of the participants (53.8 % of men and 64.3 % of women) reported a qualitative improvement in self-understanding and enhanced competence in interpersonal interactions. A considerable portion of the sample expressed an intention to continue personal development through further education.
- **Future orientation and long-term plans.** 89.5 % of participants stated their intention to apply the acquired knowledge and skills in the long term. Behavioural changes towards a healthier lifestyle included engagement in physical development (47.1 % of men) and creative self-expression (59.4 % of women).

The subjective evaluations obtained indicate that the FSZhS programme met the participants' expectations and served as a catalyst for re-evaluating life priorities and reorienting towards constructive future planning.

### ***Dynamics of Respondents' Indicators According to the SAN Method***

At the initial stage of the study, participants in the experimental group exhibited reduced indicators of psycho-emotional state. 50.9–55.2 % of respondents reported unfavourable well-being. 55.7–62.2 % demonstrated an average level of activity. Mood corresponded

to normal values – likely due to the activation of protective personal resources. Only 5.9–8.4 % of participants showed favourable well-being at the initial stage.

After completion of the FSZhS programme, a significant dynamics in psycho-emotional indicators was observed in the experimental group. Mean values of well-being increased from 3.13–3.23 to 4.48–5.37 points (a gain of 43–66 %). Activity increased from 4.07–4.21 to 4.64–5.45 points (a gain of 14–29 %). Mood improved from 4.16–4.53 to 5.35–5.61 points (a gain of 24–29 %).

The differences between pre- and post-programme measurements were statistically significant ( $p < 0.05$ , according to Fisher’s angular transformation  $\varphi$ -criterion). The most pronounced dynamics were observed among women, especially in the well-being indicator (66 % gain) (Table 2).

**Table 2**

*Mean values of the experimental group respondents’ indicators before and after participation in the programme (SAN method, points)*

Indicator	Before participation (men, n=104)	Before participation (women, n=143)	After participation (men, n=104)	After participation (women, n=143)
Well-being	3,13 ± 0,27	3,23 ± 0,17	4,48 ± 0,29	5,37 ± 0,48
Activity	4,07 ± 0,43	4,21 ± 0,32	4,64 ± 0,35	5,45 ± 0,17
Mood	4,16 ± 0,28	4,53 ± 0,26	5,35 ± 0,23	5,61 ± 0,17

In the control group (which did not participate in the programme), minimal changes in psycho-emotional indicators were recorded. There was a 2.0–2.1 % decrease in unfavourable well-being, a 0.7–1.7 % increase in activity, and a 3.6 % improvement in mood over the same period. These minor changes can be interpreted as a result of natural fluctuations in external conditions (e.g., reduced intensity of hostilities) rather than as an effect of a targeted intervention.

### ***Dynamics according to the social isolation level assessment***

Before the programme, nearly half of the men (48.2 %) and 40.5 % of women did not perceive themselves as socially isolated, despite objectively difficult living conditions. However, a third of respondents exhibited a pronounced tendency towards loneliness. Among them, 36.3 % were men and 33.2 % were women. Notably, 6.7 % of respondents reported a deep sense of isolation directly linked to the traumatic experience of losing children during hostilities.

After the programme, a decrease in social isolation indicators was observed in the experimental group. Statistical analysis using Fisher's angular transformation  $\varphi$ -criterion confirmed the significance of positive changes ( $p < 0.05$ ). Significant shifts were found on the «moderate isolation level» scale among men and on the «high isolation level» scale among women.

Over the same period, no substantial changes were observed in the control group. Fluctuations in indicators were situational and lacked statistical significance.

### ***Dynamics according to the MTZhts method (Method for Assessing Life-Meaning Orientations)***

The mean values across the method's scales are presented in Table 3.

**Table 3**

*Features of the life value structure among experimental group respondents (mean values in stens,  $M \pm SD$ )*

Life values	Before participation (men, n=104)	Before participation (women, n=143)	After participation (men, n=104)	After participation (women, n=143)
Self-development	4,17±0,39	4,34±0,65	6,52±1,43	7,12±0,39*
Spiritual satisfaction	4,11±0,61	4,21±1,73	5,15±0,96	5,73±1,23
Creativity	3,92±0,64	5,76±1,18	4,17±1,23	6,56±0,67
Active social contacts	5,91±0,86	5,95±1,23	6,45±0,85	7,81±0,22
Personal prestige	5,93±0,38	4,72±1,23	7,57±0,54*	5,65±0,83

Life values	Before participation (men, n=104)	Before participation (women, n=143)	After participation (men, n=104)	After participation (women, n=143)
High material status	7,74±0,89	7,91±2,56	7,74±0,78	7,86±1,57
Achievements	4,82±0,75	4,13±2,73	5,93±0,83	4,47±1,86
Preservation of personal individuality	4,46±0,72	4,51±0,84	4,98±0,62	5,23±0,23

**Note:** \* — the differences are statistically significant ( $p < 0.05$ ) according to the Wilcoxon signed-rank test.

At the stage of the ascertaining cut ("Before"), the value of "High financial status" dominated in both gender subgroups (men: 7.74±0.89; women: 7.91±2.56), reflecting the high importance of resource support for survival in extreme conditions. At the same time, higher-order values ("Self-development", "Spiritual satisfaction", "Creativity") occupied lower positions in the hierarchy, especially among men. In addition to the material factor, women had relatively higher positions in "Active social contacts" and "Creativity," which indicates the continued need for communication and self-expression even in a stressful environment.

After the implementation of the program ("After"), structural shifts in the value hierarchy of the respondents were recorded:

1. Men showed a statistically significant increase in the importance of the "Own prestige" value (from 5.93 to 7.57 walls,  $p < 0.05$  according to the T-Wilcoxon criterion). There is also a tendency to increase the importance of the values of "Self-development" (from 4.17 to 6.52) and "Achievements" (from 4.82 to 5.93).
2. Women recorded a statistically significant increase on the scale of "Self-development" (from 4.34 to 7.12 walls,  $p < 0.05$ ). In addition, the indicators on the scales of "Active social contacts" (up to 7.81) and "Creativity" (up to 6.56) increased significantly.

In the control group, there were no statistically significant changes in the hierarchy of life values over the same period, and the priority structure remained rigid.

### ***Dynamics of respondents' indicators according to the CSR methodology***

At the stage of the ascertaining cut ("Before"), the profile of life sense orientations was characterized by a moderate decrease in indicators for all subscales relative to the

normative values. The most problematic areas were the "Locus of control – I" (especially in women:  $20.22 \pm 3.12$ ) and "Goals in life" (in women:  $20.28 \pm 4.32$ ), which indicated a lack of goal setting and a feeling of inability to control the events of their own lives in conditions of uncertainty (Table 4).

**Table 4**

*The average values of the GCSE test subscales among the respondents of the experimental group before and after participating in the program ( $M \pm SD$ )*

Subscales	Before participation (men, n=104)	Before participation (women, n=143)	After participation (men, n=104)	After participation (women, n=143)
Life goals	26,71±2,19	20,28±4,32	35,41±2,22*	29,15±1,12
Life process	25,37±4,65	28,16±2,65	31,15±1,14	37,16±1,17*
Life effectiveness	25,13±3,32	21,38±3,43	29,13±2,31	33,27±1,18*
Locus of control «Self»	21,47±2,73	20,22±3,12	29,34±2,15	29,23±2,27
Locus of control – life	29,34±3,45	23,83±3,84	36,13±2,51	31,24±1,52
Meaningfulness of life (overall score)	96,32±3,61	91,37±2,56	106,31±11,21	101,31±12,13

**Note:** \* — the differences are statistically significant ( $p < 0.05$ ) according to the Wilcoxon signed-rank test.

After the implementation of the program ("After"), positive dynamics was recorded in all parameters of the methodology, however, the statistical significance of the changes ( $p < 0.05$  according to the Wilcoxon T-test) was selectively revealed:

1. Men showed a statistically significant increase on the scale of "Goals in life" (from 26.71 to 35.41 points). This indicates the formation of clearer life plans and the restoration of a temporary perspective for the future. There is also a pronounced positive trend on the scale of "Locus of control – life" (from 29.34 to 36.13), indicating an increase in confidence in the ability to control their own destiny.

2. Women showed statistically significant shifts on the scales of "Life process" (from 28.16 to 37.16 points) and "Life effectiveness" (from 21.38 to 33.27 points). These changes reflect an increase in satisfaction with the current moment of life (perception of the life process as interesting and fulfilling) and a reassessment of the passed life path as productive.

According to the integral indicator "Meaningfulness of life", an increase was recorded in both groups (for men: from 96.32 to 106.31; for women: from 91.37 to 101.31), which confirms the overall effectiveness of the intervention in terms of restoring semantic regulation. The lack of statistical significance on some scales may be explained by the inertia of deep semantic structures that require a longer time for complete transformation. В контрольной группе за аналогичный период статистически значимых изменений профиля СЖО не выявлено. Колебания средних значений по шкалам «Цели» и «Локус контроля» не превышали ошибки измерения, что подтверждает устойчивость дефицитарного смыслового состояния при отсутствии психологической помощи.

### ***The dynamics of respondents' indicators according to the WAS methodology***

The results of the comparative analysis in the experimental group before and after participating in the program are presented in Table 5.

**Table 5**  
*Mean scores of experimental group respondents on the WAS (M ± SD)*

Scales	Before participation (men, n=104)	Before participation (women, n=143)	After participation (men, n=104)	After participation (women, n=143)
Benevolence of the world	4,2±1,35	4,3±1,25	6,9±1,31*	5,7±1,28*
Justice	5,6±1,67	4,7±1,23	7,7±1,26*	8,9±1,32**
Self-image	5,5±2,31	5,4±1,17	8,4±1,54**	7,7±1,22*

Scales	Before participation (men, n=104)	Before participation (women, n=143)	After participation (men, n=104)	After participation (women, n=143)
Luck	4,5±1,17	4,3±1,42	8,9±1,33	8,6±1,32
Belief in control	6,3±1,32	5,3±1,64	6,4±1,37	7,2±1,51*

**Note:** \* — the differences are statistically significant ( $p < 0.05$ ) according to the Wilcoxon signed-rank test.

At the stage before the start of the program ("Before"), the profile of the respondents' basic beliefs was characterized by a deformation of cognitive schemas: the lowest values were recorded on the scales of "Goodwill of the world" (men: 4.2±1.35; women: 4.3±1.25) and "Luck" (4.5±1.17 and 4.3±1.42, respectively); ideas about the hostility of the environment and the unpredictability of events. A relatively safe resource was the "Belief in control" (men: 6.3±1.32; women: 5.3±1.64), reflecting the desire to maintain agency even in extreme conditions.

After completion of the program ("After") A positive transformation of the system of basic beliefs has been revealed. Statistically significant changes ( $p < 0.05$  and  $p < 0.01$  according to the Wilcoxon T-test) were recorded for most parameters:

1. The indicators on the scale of "Goodwill of the world" have increased (for men, the growth has increased from 4.2 to 6.9; for women, from 4.3 to 5.7;  $p < 0.05$ ). Respondents began to perceive the social environment as supportive more often, and the level of threat expectation decreased.
2. The most pronounced dynamics was noted on the "Luck" scale (high statistical significance of changes  $p < 0.01$  in both subgroups: growth to 8.9 in men and 8.6 in women). Faith in the "Justice" of the world has also significantly strengthened (especially among women: growth from 4.7 to 8.9;  $p < 0.01$ ).
3. Scores on the "Self-image" scale have significantly increased (men to 8.4,  $p < 0.01$ ; women to 7.7,  $p < 0.05$ ). The participants began to evaluate their own value and competence more highly.
4. Women showed an increase in the indicators on the scale of "Beliefs about control" (from 5.3 to 7.2;  $p < 0.05$ ), which indicates a decrease in feelings of helplessness. For men, this indicator remained consistently high (6.3 – 6.4), i.e. this resource remained intact.

Thus, during the course of the program, participants can note a cognitive restructuring of traumatic experience: the image of the world transformed from "hostile and chaotic" to "more just and benevolent," and the image of "I" from "victim of circumstances" to "worthy and successful subject."

In the control group, there were no statistically significant changes in basic beliefs over the same period; the indicators on the scales of "Benevolence" and "Luck" remained at a low level.

***Differences in the experimental and control groups (Mann-Whitney U)***

A comparative analysis of the indicators of the experimental (EG) and control (KG) groups was performed at the post-test stage ("After") using the nonparametric Mann–Whitney U-test for independent samples; the results of the analysis are presented in Table 6.

**Table 6**  
*Comparison of mean scores between experimental (EG, n = 247) and control (CG, n = 247) groups post-programme (Mann–Whitney U test)*

Scale	Experimental Group (after)	Control Group (after)	U-test	p-value
Well-being	4,92	3,10	875	0,00005
Activity	5,04	2,66	112	0,000001
Mood	5,48	3,83	528	0,00001
Self-development	6,81	4,25	1064	0,187 (H/3)
Personal prestige	6,61	3,87	117	0,000001
Life goals	32,28	22,51	662	0,00001
Life process	34,16	23,12	596	0,00001

Scale	Experimental Group (after)	Control Group (after)	U-test	p-value
Life effectiveness	31,45	20,80	659	0,00001
Benevolence of the world	6,32	4,16	891	0,00003
Justice	8,46	4,32	116	0,000001
Self-image	8,17	4,75	100	0,000001
Luck	8,82	4,11	102	0,000001

**Note:** \* — the differences are statistically significant ( $p < 0.05$ ) according to the Wilcoxon signed-rank test.

Statistical analysis revealed significant differences ( $p < 0.001$ ) between the groups in most key parameters.:

1. Psychoemotional status (SAN): The severity of all three indicators in the experimental group was significantly higher than in the control group: "Well-being" ( $U=875$ ,  $p < 0.001$ ), "Activity" ( $U=112$ ,  $p < 0.001$ ) and "Mood" ( $U=528$ ,  $p < 0.001$ ). Compared with the control group, the participants of the program showed an improvement in their psychoemotional state, while the control group's indicators remained at a low, close to subdepressive level.
2. In the experimental group, the level of severity of such parameters as "Goals in life" ( $U=662$ ,  $p < 0.001$ ), "Life process" ( $U=596$ ,  $p < 0.001$ ) and "Life effectiveness" ( $U=659$ ,  $p < 0.001$ ) was significantly higher. This suggests that the program participants, unlike the control group, were able to restore a time perspective and a sense of fullness of life.
3. The program participants demonstrated statistically significantly higher levels of positive core beliefs on the scales of "Justice" ( $U=116$ ,  $p < 0.001$ ), "Luck" ( $U=102$ ,  $p < 0.001$ ) and "Self-image" ( $U=100$ ,  $p < 0.001$ ) compared with the control group.

4. The experimental group recorded a statistically significantly higher level of importance of the value of "Own prestige" ( $U=117$ ,  $p<0.001$ ) compared with the control group.

Thus, we can conclude that the results of the mathematical and statistical analysis confirm that the positive dynamics in the experimental group is not accidental or caused by external factors (stabilization of the situation), since there were no similar changes in the control group. It can be said that the implementation of the program has led to a systemic effect: from stabilization of the emotional background to a profound restructuring of semantic regulation of behavior (restoration of goal setting, cognitive reframing of the image of the world and oneself), and the developed program can be considered a significant tool of work.

## Discussion

The results of the study show that participation in the psychological rehabilitation program was accompanied by positive changes in a number of indicators among the respondents in the experimental group compared with the control group. In particular, an improvement in the psycho-emotional state (SAN), a decrease in subjective social isolation, changes in the structure of life values (MTLC), an increase in life-meaning orientations (SOE) and a positive dynamics of basic beliefs (WAS) were recorded. These data are consistent with the fact that the psychological consequences of armed conflicts affect not only the level of symptoms, but also the value-semantic sphere of personality (Alexandrovsky, 2022; Bonkalo, 2023) and fit into the idea of rehabilitation as a process affecting the organization of personal functioning in general (Soboleva, 2017; Kivorkova, Soloviev, 2017). Similar conclusions are drawn in modern reviews on psychosocial support for victims of military operations, which emphasize the need to move from symptom-centered to more comprehensive, personality-oriented models of care (Andersen et al., 2022; Russo-Netzer et al., 2025).

Firstly, an improvement in well-being, activity, and mood in the experimental group in the absence of comparable shifts in the control group may indicate that programmatic intervention is associated with stabilization of the respondents' emotional state. Similar effects have been described in studies of group and short-term interventions for civilians and refugees, where participation in structured programs was accompanied by a decrease in the severity of depressive and anxiety symptoms (Farhood et al., 2014; Acarturk et al., 2022). The combination of psychotherapeutic and psychosocial approaches in the context of armed conflict makes it possible to reduce the severity of symptoms and improve subjective functioning, even if the external situation remains unstable (Andersen et al., 2022). In our study, no changes were recorded in the control group, and it can be assumed that the program was one of the significant factors of the observed dynamics, although the influence of contextual conditions cannot be completely excluded.

Secondly, a decrease in social isolation and an increase in the importance of values related to communication and self-realization correlate with ideas about the special role of "everyday stressors" (isolation, loss of social roles and resources) in the formation of distress among the civilian population (Miller & Rasmussen, 2017). Research on psychosocial support for the wounded and war victims shows that effective programs necessarily include components of restoring social bonds, group support, and participation in meaningful activities (Andersen et al., 2022). Our results are also consistent with evidence on the benefits of art and group interventions when working with traumatized groups (Bosgraaf et al., 2020; Farhood et al., 2014; Peltonen & Kangaslampi, 2019), as well as with research demonstrating that autobiographical reflection on past events and working with a personal narrative help maintain a sense of integrity. The "I" of refugees and people with war experiences (Camia & Zafar, 2021). In this context, the inclusion of group work, art methods and exercises related to the discussion of the life path in the program can be considered as one of the possible mechanisms for reducing isolation and strengthening subjectivity.

Thirdly, changes in the scales of SOE and WAS indicate possible dynamics in the sphere of life meanings and basic beliefs. The increase in indicators of "Goals," "Process," and "Performance" in life, combined with increased faith in the benevolence and justice of the world, luck, and a more positive self-image, partially echoes the concept of post-traumatic growth, which emphasizes the revision of "core beliefs" as an important component of constructive adaptation (Tedeschi, 2023). Similar trends have been described in studies of meaning-centered interventions with refugees, where dealing with issues of meaning, values, and the future reduced existential emptiness and increased a sense of inner support (Costanza et al., 2022). In addition, recent data on populations in protracted conflict show that the combination of meaningful work and resilience building contributes to better mental health and crisis management (Marciano et al., 2024; Russo-Netzer et al., 2025). In our study, the selective nature of statistically significant changes (not across all subscales) indicates a high inertia of the value-semantic sphere and the potential need for longer or multi-stage programs for its deep restructuring.

The revealed gender features (a more pronounced increase in the importance of goals and "one's own prestige" for men and the values of self-realization, creativity, social contacts and justice for women) are consistent with data on the differentiated impact of extreme conditions on men and women and differences in their adaptation strategies (Novikova, 2024).

At the same time, our results are consistent with studies emphasizing the role of hope, semantic perspective, and resilience as key predictors of resilience in protracted conflicts (Marciano et al., 2024), as well as longitudinal work showing that the intensity of military experiences and repeated stressors can sustain symptoms of mental distress for a long time if adequate psychological and social resources are not involved. (Amsalem et al., 2025). In this context, strengthening goal-setting and strengthening basic beliefs related to justice and the benevolence of the world in the experimental group can be considered as a possible step towards a more stable position in relation to the life situation, however,

such interpretations require caution, given the quasi-experimental nature of the design and the absence of distant longitudinal assessments.

### ***Limitations of the study***

A number of factors require caution in interpreting the results. First, the work used only self-reporting techniques, which increases the risk of subjective bias; the inclusion of clinical interviews or behavioral indicators could enhance the validity of the conclusions. Secondly, there are no long-term follow-up measurements, so it is impossible to judge the duration and stability of the identified effects. Thirdly, although the presence of a control group makes it possible to partially separate the impact of the program from background changes, it is not possible to completely exclude the influence of external conditions (the dynamics of hostilities, socio-economic shifts).

### ***Research perspectives***

A promising area of further research is the longitudinal tracking of the dynamics of the value-semantic sphere and basic beliefs after the completion of the program, as well as a comparison of various intervention formats (individual, group, online formats). Of additional interest is a more detailed analysis of the mechanisms of change, such as the role of psychological flexibility, hope, and specific coping strategies, which are indicated (Marciano et al., 2024). Finally, expanding the sample to include other regions and categories of the civilian population could make it possible to assess the degree of universality and cultural sensitivity of the proposed rehabilitation technology.

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**Irina Vladimirovna Abakumova** – overall research management, reviewing and editing of the article, final approval of the version for publication.

**Evgeniya Nikolaevna Ryadinskaya** – development of the research methodology, preparation of the experimental programme, data analysis, preparation of the article text.

**Natalya Ivanovna Kovalchishina** – literature analysis, work with scientific sources, data collection, visualization of results, preparation of the article text.

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## **Conflict of Interest Information**

The authors have no conflicts of interest to declare.