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The Role of Defence Mechanisms in Coping with Stress in PTSD Patients

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Abstract. In the context of the war in Ukraine, the risk of post-traumatic stress disorders increases, which in critical cases cause the development of chronic mental illnesses and a decline in physiological functions. In connection with the emergence of a feeling of helplessness due to the inability to act effectively in a dangerous situation, various psychological defence mechanisms are formed to overcome intrapsychic conflicts. The purpose of this stud was to investigate the dominant mechanisms in individuals with post-traumatic stress disorder who had been in regions with different scenarios for the development of hostilities since the beginning of the war, using the Plutchik-Kellerman-Conte methodology. The information was collected from people of different age categories, types of employment, educational qualification levels, and gender who were in Kyiv, Kharkiv, and Lviv during the first two months of the full-scale war and periodically moved through the territory of Central and Western Ukraine. Cases of short-term residence abroad were also considered during the study. The results of the tension of psychological defence indicate that in individuals with post-traumatic stress disorder that stayed in different regions of Central and Western Ukraine since the beginning of the war, the projection mechanism dominated (75%), and the substitution mechanisms (12.5%) and denial mechanisms (12.5%) were equally distributed. The dominance of the projection may indicate the transfer of intrapsychic conflict to the outside. In this case, the external world is perceived by the individual as the main carrier of the threat from which they need to protect themselves. Instead, denial may indicate ignoring certain aspects of reality. Respondents who are prone to substitution use the approach of transferring repressed emotions, which can be expressed in the form of anger, fear, and hostility towards more accessible objects that are no less dangerous than those that led to frustrating experiences. It was determined that the total sample tension does not exceed 50%. This may indicate the ability of patients with post-traumatic stress disorder to resolve intrapsychic conflicts that have developed at the moment. The results of the study may be of practical interest to specialists investigating the identification and generation of methods for the prevention and treatment of post-traumatic stress disorder

Keywords: stress disorders, psychological defence, intrapsychic conflicts, physiological disorders, frustrating experiences, war in Ukraine

INTRODUCTION

Post-traumatic stress disorder (PTSD) can develop as a result of exposure to a potentially traumatic life event. It is defined by three clusters of symptoms: 1 – reliving stressful events with the recovering of memories of them and a sense of fear; 2 – avoidance and numbness, provoked by the need to escape from the situation and negative feelings connected to it; 3 – excitation and reactivity, that cause nervousness or a sense of danger. Although this phenomenon is quite rare among the sample that was subjected to trauma, there are a number of many factors that are triggers for predisposition to such a disorder: personal cognitive abilities, family psychiatric history, features of the process of psychological adaptation to trauma, violent treatment of children and unfavourable conditions that occurred in childhood, the nature of the severity of trauma [1-3]. The key factor is a situation that poses a threat to the life of an individual or

their relatives since it violates the sense of security of the individual [4; 5].

PTSD can occur at any age, but there are certain factors that indicate a predisposition to the disorder. These include: gender (women are more likely to develop PTSD); childhood trauma; feelings of helplessness or extreme fear; long-term experience of a traumatic event; lack of support after the experience; excessive stress after a previous traumatic event; a history of mental illness; use of psychoactive substances [6].

Under martial law in Ukraine, every fifth person living in the conflict zone suffers from some form of mental disorder. 22% of the population in areas where fighting is taking place have signs of depression, anxiety, post-traumatic stress disorder, bipolar disorder, or schizophrenia, with 9% of the population affected by conflict having moderate or severe mental illnesses. PTSD usually begins to appear about six months after the traumatic event. However, if the stressor has a strong long-term effect (for example, being in occupation, constant situations of shelling and air alarms, etc.), the probability of rapid development of PTSD increases [7]. It is relevant today to diagnose the dominant types of mechanisms of psychological response in conditions of stress caused by military events on the territory of Ukraine to provide timely and necessary psychological assistance and to resolve and prevent intrapsychic conflicts.

According to [8; 9], various defence mechanisms are associated with certain emotions and symptoms. Some of the mechanisms are correlated with each other. In particular, a link was established between the defence mechanism by projection type, hostility and paranoid disorder (correlation coefficients are 0.11 and 0.17, respectively). Regression correlates with hostility, anxiety, phobias, and depression (power of connection – 0.53; 0.40; 0.30; 0.37). Substitution is associated with anger and aggression; compensation is associated with depressive states; repression is associated with fear and passive behaviour; intellectualisation is associated with expectation and obsessive-compulsive disorder. The compensation mechanism is most strongly correlated with a permanent depressive state (0.22) [8].

The predominant defence mechanisms in patients with PTSD based on previous studies were projection, rationalisation, regression, denial, and substitution [5; 8; 10-12]. In the context of the study, attention is focused on the response of individuals among the sample that showed manifestations and was diagnosed with PTSD.

The purpose of the study is to investigate, using the Plutchik-Kellerman-Conte methodology, the prevailing defence mechanisms in persons with post-traumatic stress disorder who stayed in the territories of cities where military operations were conducted during the beginning of the war.

MATERIALS AND METHODS

Information was collected in writing in anonymous form from people of different ages, genders, educational, and qualification levels and types of employment, who during the first two months of the war were in the cities of Kyiv, Lviv, and Kharkiv, periodically moved around the territory of the Central and Western parts of the country, and lived abroad for a short period of time. Considering the organisation of respondents' security, the survey was conducted offline. Among the survey participants were both civilians and those who were directly involved in military operations. The total number of respondents was 150, which were distributed according to the eight criteria. The selection of participants was limited only on territorial grounds. No errors were identified in the calculation and interpretation of the collected data. Based on this study, it is quite possible to conduct a similar survey with a different number of respondents.

Criteria were used to diagnose PTSD in civilians and military personnel who have been in regions with different scenarios for the development of military operations during the beginning of the war. Criterion A – a person has experienced a life-threatening situation or a situation of serious physical injury or the likelihood of its occurrence. Criterion B – an obsessive re-experience of a traumatic event is present. Criterion C – the desire to constantly avoid everything that is associated with traumatic events. Criterion D – impaired cognitive processes or emotional states that were not observed or were less intense before the traumatic situation occurred. Criterion E – noticeable changes in excitation and reactivity of the nervous system after experiencing a threatening situation. Criterion F – the symptoms described in criteria A-E are present for a long time (one month or longer). Criterion G – the appearance of clinically substantial disorders of functioning of the body, problems in the professional and social fields. Criterion H – the disorders described above are not caused by the action of chemicals (medicines, drugs, alcohol) and are not a consequence of an epileptic crisis.

In the next stage of the study, the results of determining the psychological defences of the Plutchik-Kellerman-Conte methodology [9; 13] were identified, which indicate the presence of a tendency to give preference to certain protective mechanisms in resolving intrapsychic conflicts [12]. The mechanism is based on receiving unambiguous responses from respondents after evaluating a series of formulated statements describing feelings, behaviours, and reactions in certain life situations. Further data processing consisted of dividing the statements into 8 blocks, each of which reflected a separate psychological defence mechanism and counting positive statements (Table 1).

Table 1. Key to the Plutchik-Kellerman-Conte test

No.	Type of psychological defence	No. of the statement	Total number of statements of the block, *N*
1	Displacement	6-11-31-34-36-41-55-73-77-92	10
2	Regression	2-5-9-13-27-32-35-40-50-54-62-64-68-70-72-75-84	17
3	Substitution	8-10-19-21-25-37-49-58-76-89	10

Table 1, Continued

No.	Type of psychological defence	No. of the statement	Total number of statements of the block, *N*
4	Denial	1-20-23-26-39-42-44-46-47-63-90	11
5	Projection	12-22-28-29-45-59-67-71-78-79-82-88	12
6	Compensation	3-15-16-18-24-33-52-57-83-85	10
7	Hypercompensation	17-53-61-65-66-69-74-80-81-86	10
8	Rationalisation	4-7-14-30-38-43-48-51-56-60-87-91	12

Statistical processing is highlighted by indicators of tension (*Ts*, *Tt*), which are calculated by the percentage of positive statements of each block (or all positive statements) to the total number of statements of the block (or the total number of statements):

$$Ts = \frac{n}{N} * 100\ \% \quad (1)$$

$$Tt = \frac{p}{92} * 100\ \% \quad (2)$$

Ts – tension of a separate type of defence, %; *n* – number of positive statements of a particular block; *N* – total number of statements of an individual block; *Tt* – total tension, %; *p* – total number of positive statements of all blocks; 92 – total number of statements of all blocks.

Based on statistical processing of sample data using analysis in Excel, the results were obtained. In particular, the relative percentage distribution of the absolute tension of the diagnosed defence types, the average tension values within the entire sample were compared, and a correlation analysis of the mutual relationship between individual defence types was performed [14].

RESULTS

Analysis of literature data shows that stress becomes traumatic when, as a result of a stressful situation, disorders in the mental field occur, by analogy with physiological disorders. In this case, the structure of the "self", the cognitive model of worldview, the affective field, the neurological mechanisms that control learning processes and the memory system change [5].

PTSD was diagnosed in 30 of the 150 people who were traumatised by military events. Symptoms [1; 15-17] were observed for at least a month. 40% of patients showed: anger, irritability, exaggerated fear reaction, excessive vigilance, sense of hopelessness. All respondents experienced obsessive and repeated disturbing memories of traumatic events. 50% showed a substantial decrease in interest in taking part in various activities. In 35% of respondents, chronic depression was identified, 25% suffered from sleep disorders and periodically had disturbing dreams related to military operations; avoided places, events, and people who reminded them of trauma; experienced flashbacks. 13% have constant hyperexcitation, the appearance of phobias, and alienation from social contacts. According to other researchers [5], patients with PTSD who took part in combat operations had similar disorders, in particular: sleep disorders (55%); neurasthenic disorders (52%); hypochondria (40%); depression (35%) difficulties in social contacts (30%); fear and phobia (30%); derealisation (25%).

Based on the relative percentage distribution of absolute tension values (*Ts*) different types of defence in the sample are dominated by projection (75%), substitution (12.5%) and denial (12.5%) are equally distributed (Fig. 1).

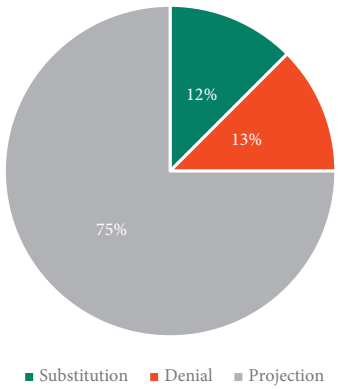

Figure 1. Relative percentage distribution of absolute tension

The last two types of defence predominate in middle-aged women. Therewith, the mechanism of denial is inherent in persons who did not change their place of residence during the war but were direct witnesses of military events. Constantly experiencing the same traumatic events, a person at a certain stage reaches such a level of tension that they can no longer perceive or evaluate phenomena that pose a threat to their self-preservation at all.

The tension of substitution dominates among people who were forcibly displaced to safe territories during the first days and therefore did not face traumatic factors physically in real time but had access to information about the course of events. The strongest emotion, in this case, was the fear of imaginary losses. Notably, such individuals very often experienced nightmares of real dangerous situations, accompanied by hyperrealisation of sensory sensations and hyperemotionality. Although these patients never directly encountered these events during wartime. Respondents showed anger, aggression, and a desire for revenge, probably to shift the focus from feelings of oppression and release emotions to safer and more accessible objects (instead of those that caused negative feelings).

The dynamics of the average tension value are traced from the sample data (*Ts*) (Fig. 2). As with the relative percentage distribution, the projection prevails. It manifests itself in 77% of people of different ages, genders, and conditions of stay. Rationalisation is next in tension (46%), while regression, displacement, compensation, denial, substitution, and hypercompensation are approximately equivalent.

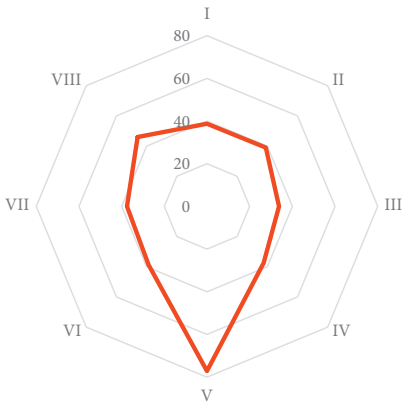

Figure 2. Average value of the tension of various defence mechanisms: I – displacement; II – regression; III – denial; IV – substitution; V – projection; VI – compensation; VII – hypercompensation; VIII – rationalisation

The dominance of the first two mechanisms coincides with the literature data [5; 8; 10; 11]. Previous studies have shown that rationalisation is the predominant mechanism for military commanders with PTSD. Patients most often used the following strategies to solve difficulties: immersion in work; cooperation with reputable people; search for people who are ready to give advice. They are capable of problem analysis of the situation and reducing the importance of the problem; do not suffer from low self-esteem; show optimism; suppress negative emotions; tend to passive cooperation with the delegation of authority to solve problem situations. Despite this, PTSD patients who have not experienced traumatic military events at all are more likely to show projection than rationalisation.

In general, there are two levels of personal defence [5] and overcoming trauma. In a minor intrapsychic conflict, the first (lower) level of defence is activated, which is manifested by denial, rationalisation, displacement, and compensation. Displacement allows removing unacceptable aspects of the conflict from the field of consciousness: the average level of tension of this mechanism is 39%. It can be traced in those dominants by projection and substitution who were not direct witnesses of military operations. A high level of tension by rationalisation type was observed among the entire sample array. Respondents tried to level confusion, panic, and feelings of guilt by creating logical justifications and searching for a "cause - effect" connection to reduce the importance of the causes of their traumatic situation [12; 18].

The average level of tension in the regression indicator was 39%. A high indicator of this mechanism was detected among residents of Kyiv, who lived in the city during the first month of the war, so they witnessed military conflicts. After moving to safe territories of the country and abroad, they tried to avoid memories of traumatic events and ignored the perception of information about the war, so they tried to level the intrapsychic conflict with various, sometimes practically irrelevant, types of occupancy.

With an indicator of 38.8%, respondents were diagnosed with compensation and displacement. When intrapsychic conflict increases, the first level of defence ceases to cope with a massively traumatic experience, so the individual's psyche uses the second level. It is represented by projection, substitution, and regression. This, in turn, leads to an increase in neurotic symptoms [5]. In this case, the intrapsychic conflict is displayed on the outside.

If in persons who did not directly witness the hostilities, the dominant mechanism was manifested at the level of 83-100%, then in those who lived in war conditions, the tension of the dominant defence was about 65%. This is evidently due to the correlation of some mechanisms with each other. Excel Mathematical Statistics (the CORREL function) and an encryption table of the reliability of the obtained coefficient depending on the sample number were used to determine the correlation coefficient (Fig. 3). For the amount of data used in the study, a positive value of the correlation coefficient exceeding the value of 0.36 is considered reliable [14].

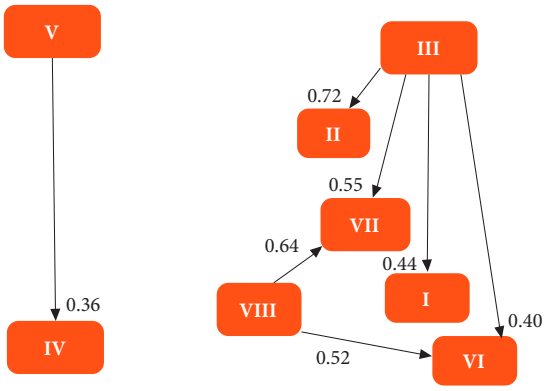

Figure 3. Correlation of various defence mechanisms: I – displacement; II – regression; III – denial; IV – substitution; V – projection; VI – compensation; VII – hypercompensation; VIII – rationalisation

As displayed in the figure, the strongest connection with other mechanisms is of the denial type. As the coefficient decreases, it correlates with regression, hypercompensation, displacement, and compensation with probability $p \geq 0.95$. Evidently, a lower level of defence is replaced by a higher one: first, there is an intrapsychic conflict ("I am not familiar with this, but I can explain it"), which is manifested to the outside world in the next step ("this is who is to blame for this/you must help me").

The dominant projection was evidently the result of the transfer of internal conflict increased with time to the outside to weaken the sense of constant uncertainty. In some individuals, this was manifested by aggression, malevolence, a defensive reaction of arrogant humour, rejection, and paranoid thinking. Notably, the last two emotions coincide with the type of projection according to the previously performed correlation analysis [8].

The average overall tension score for the PTSD sample was 44%. The absolute indicator for respondents with the substitution type exceeded 50%. In persons who directly took part in military operations, according to earlier studies [5], this indicator was at the level of 61%, which indicates real, unresolved external and internal conflicts. Simultaneously, overall tension tends to increase with the worsening course of PTSD. The value of the average indicator of total tension of less than 50% may indicate the ability of respondents to resolve external and internal conflicts in the current conditions [19].

DISCUSSION

Over the past decade, the term "psychological defence" has often been introduced into the context of various scientific and popular papers on medical, social, age-related, and educational psychology. The nomenclature of protective mechanisms is not unambiguous and personally specific [20].

A. Froyd identifies ten defence mechanisms: regression, displacement, reaction formation, isolation, destruction, projection, introjection, the struggle of the "self" with itself, conversion, and sublimation (displacement of instinctive goals). The author tries to trace their formation in the ontogenesis of the child. With their help, a person can mislead themselves about the presence or absence of danger. The essence of defence is that in its process, the perception of the threat of danger decreases, and not the danger itself. The task of a practising analyst is to determine the effectiveness of defence in the processes of personal resistance and formulate a symptom that can be observed in different people. A. Froyd divided the methods of defence in two directions: the first is the fight against an internal threat, the second – against an external one. These methods can be arranged so that each mechanism of the first group corresponds to a specific mechanism of the second group. Evidently, an effective fight against an external threat should consider this external aspect, so, accordingly, it should be based on a number of real principles [21].

Defence mechanisms have some common features: they operate in the subconscious, and the individual is not aware of what is happening to them. They deny, distort, or falsify reality and are activated in situations of conflict, frustration, psychological trauma, and stress. The main purpose of defence is to reduce emotional tension and prevent disorganisation of behaviour, consciousness, and the psyche in general. In this case, all the mental functions of the individual are involved, but each time, one, which takes on the main part of the work to prevent negative experiences, is dominant [22].

According to Plutchik's classification, there are the following types of defence mechanisms: regression, displacement, substitution, denial, projection, compensation, hypercompensation, and rationalisation [20].

Regression is the process by which a person returns to an earlier or less mature stage of developing feelings and behaviours to avoid anxiety. Solving complex situational problems is replaced by simpler ones using more basic and familiar behavioural stereotypes. This contributes to the partial levelling of the development of conflicts. Displacement is a defence mechanism that begins with the manifestation of obsession and leads to the development of a consistent, internally coordinated attitude to break the associative connections of thoughts with actions [19; 20]. Denial is an attempt not to accept unwanted events as reality, another way to deal with troubles is to refuse to accept their existence. Remarkable is the ability in such cases to "skip" unpleasant experienced events in memories, replacing them with fiction. Projection is a psychological process that results in the internal being perceived as external. A person attributes to others their own thoughts, feelings, motives, character qualities, etc., believing that they have accepted something that happens outside, and not inside the person themselves. In essence, the projection is the "distancing" of the threat from oneself. Compensation is a defence mechanism of the psyche, which consists in an unconscious or conscious attempt to overcome real and imaginary shortcomings, restore the disturbed balance of mental and psychophysiological processes by creating an oppositely directed reaction or impulse. Hypercompensation is one of the forms of psychological defence, the implementation of which not only eliminates the feelings of inferiority but also achieves a certain result that allows taking a dominant position in relation to others. Rationalisation is a type of psychological defence that manifests itself in attempts to prove that any actions of the subject are universally correct, and therefore are not subject to criticism. Rationalisation is the most common mechanism of psychological defence [20].

Before the Vietnam War, few researchers were interested in diagnosing PTSD, treating it, and solving related problems. It took American psychiatrists and the Veterans Administration years to realise that the symptoms of PTSD in retired military personnel did not appear immediately after the end of the war, but already during civilian life, and lasted for decades. In the early 1970s, it became known that symptoms of PTSD also appeared in those who were not directly involved in combat operations. Although, not everyone who has experienced a traumatic experience develops

PTSD [15]. Trauma can greatly affect not only the immediate victims but also the people around them. It was identified that the grandchildren of Holocaust victims have much more pronounced symptoms than expected. This fact also applies to relatives of victims of military operations and persons who provided first aid on the front line, lawyers dealing with cases of traumatic events [15; 23].

Patients with PTSD, like healthy people, show psychological defence in response to a stressful situation. From the standpoint of clinical psychology, the phenomenon of defence is mutually related to adaptation to the situation. Defensive mechanisms develop in the process of ontogenesis and primarily act as liquidators of internal anxiety. In the future, they create an optimal atmosphere of correspondence between the individual and the environment in the process of familiar activities for a person without harm to physical and mental health [22].

Psychological defence can be divided according to the level of maturity [24] into protective (displacement, denial, regression) and defensive (rationalisation, projection, substitution). The first level is considered more primitive; it does not allow conflict-traumatic information to enter the mind. The second level makes this information accessible to consciousness but interprets it in the safest way possible. Defensive one is more pronounced, both in the military and in civilians with PTSD in war conditions.

In one study, the same mechanisms are dominant (both in those with PTSD and healthy people): projection, regression, and denial. However, the tension is different: in respondents with PTSD, the projection is manifested by 84%, while in healthy people – by 76%. In this case, the projection type tension (in wartime conditions) in patients with PTSD is 77%, which is even lower compared to the study [8] conducted in peacetime.

As for ordinary military personnel, 75% of them are dominantly characterised by denial [5]. In this case, denial is a clear distortion of the perception of reality and is manifested by the rejection of existing pathological symptoms, refusal of psychological assistance, and passivity in the rehabilitation process. The increase in the level of tension by the type of denial in the military is due to the fact that in everyday life a person creates defence mechanisms that allow perceiving death as something distant and unreal. Once on the battlefield, a person faces a direct threat to life. As a result, the worldview is divided into two parts: safe, peaceful and military, where every step can be the last, and everyone around can be the enemy. These two worldviews mutually exclude each other, forming denial as a type of psychological defence. In patients in peacetime, the tension of denial was 66% [8], and among respondents who did not take part in combat operations, but lived in war conditions, this average indicator was lower – 38%.

In addition to denial, rationalisation is largely expressed in the military (70%). In the presented sample of average tension values, this type also ranks second after the projection and is established at 46%. One of the goals of rationalisation is to neutralise affects, alienate them. Through building hypotheses and theories, the individual tries to explain all the problems of their life by unfavourable circumstances and does not want to comprehend their own unrealisation. For military commanders and civilians who doubt the correctness of the algorithm of decisions and actions in stressful situations, this type of defence is necessary to explain their own actions, both in civilian life and in battle. This allows shifting the responsibility to circumstances or others and thus reducing the level of anxiety and emotional stress. In patients with PTSD in peacetime, the level of tension by rationalisation type was 44% [11].

Studies conducted in this paper show a correlation of denial with other types of defence: regression, hypercompensation, displacement, compensation, while projection correlates with substitution. Regression in respondents with PTSD in war conditions was manifested with an average tension of 39%, and in peacetime studies – 1.8 times higher [8]. Being in the midst of an emergency, the human psyche tends to regress to the level of an adolescent puberty crisis. The individual uses reflection to avoid anxiety by the regression mechanism. Therewith, consciousness turns to itself and analyses its mental state. It manifests itself in the ability of an individual to control the adequacy, integrity, consistency, completeness of their mental processes and the ability to direct these processes to solve the tasks set [25].

Compensation and displacement occur equally with 39% of the PTSD respondents. These indicators are equally determined in the participants of military operations. In war conditions, compensation is an attempt to adapt to peaceful life after experiencing traumatic events through the mental creation of a positive image of the world picture. Repression allowed eliminating from consciousness those experiences, events, and affects that were not neutralised through rationalisation or manifested into aggression through substitution. The type of substitution in the military can be traced with a tension of 60% [5], while in the study sample, this mechanism is established at the lowest degree (average value – 34%). The effect of this type of defence was manifested by outbursts of anger, increased irritability, which reduced adaptive capabilities and made communication difficult.

As intrapsychic conflict increases, correlative mechanisms replace each other: tension decreases by regression/compensation types, rationalisation/substitution/denial increases. The average rate of overall tension among military personnel with PTSD exceeds 50% when compared with respondents with PTSD who did not take part in combat operations, which indicates a different scale of internal unresolved conflict.

CONCLUSIONS

The predominant symptoms of PTSD patients who were traumatised by military events in Ukraine were: anger; irritability; exaggerated fear response; excessive vigilance; sleep disorders; combat-related dreams; a sense of hopelessness; constant hyperexcitation; avoidance of places, events, and people that remind of trauma; a substantial decrease in

interest in taking part in various social activities; alienation from people; obsessive and repeated memories of trauma; pseudo-reliving the disturbing events of the past (flashbacks).

After conducting a study on the mechanisms of psychological defence of such respondents, the relative percentage distribution of absolute values of tension among patients with PTSD is dominated by projection (75%), denial (12.5%) and substitution (12.5%) are evenly distributed. The denial is inherent in respondents who did not change their place of residence and were in the territory of military operations. Internally displaced persons from the first days of the war who have not directly witnessed the active phase of the military conflict are subject to substitution. The highest average value of tension in PTSD patients during the war in Ukraine is shown by projection (77%), the lower level of tension – by rationalisation type (46%), and the proportionate values are regression, displacement, compensation, and hypercompensation, denial, substitution (within 30-40%).

There is a correlation of varying strength ($p \geq 0.95$) between the types of substitution - displacement-regression - compensation - hypercompensation; projection - substitution; rationalisation - compensation - hypercompensation. Evidently, the correlation is a confirmation of the transition of intrapsychic conflict to the external level due to a successive change in the mechanisms of psychological defence. The identified dominant mechanisms of psychological defence may indicate the formation of an adaptive response in respondents with PTSD. It consists of initial detachment from the situation, subsequent acceptance with the need for explanation and understanding, and, finally, abstraction from events through the transfer of internal conflicts to the outside. The average rate of overall tension in people with PTSD is less than 50%, which may indicate the ability of the sample at this stage to resolve external and internal conflicts caused by the traumatic situation. In the papers of researchers on the study of post-traumatic stress disorders in recent years, a narrower study of the disease prevails, considering not only the symptoms but also the development of specific mental diagnoses (insomnia, depression, obesity, etc.). These studies were the result of the rapid response of the scientific community to the coronavirus crisis, but now in Ukraine, there is another cause of these mental disorders – war, which must be investigated in detail by both Ukrainian and foreign researchers to ensure the mental, psychological, and physiological well-being of the world community.

REFERENCES

[1] Jakel, R.J. (2020). Posttraumatic stress disorder in the eldery. *Clinics in Geriatric Medicine*, 36(2), 353-363. doi: 10.1016/j.cger.2019.11.013.

[2] Auxemery, Y. (2018). Post-traumatic psychiatric disorders: PTSD is not the only diagnosis. *La Presse Médicale*, 47(5), 423-430. doi: 10.1016/j.lpm.2017.12.006.

[3] Bressan, R.A., Quarantini, L.C., Andreoli, S.B., Araújo, C., Breen, G., Guindalini, C., Hoexter, M., Jackowski, A.P., Jorge, M.R., Lacerda, A.L.T., Lara, D.R., Malta, S., Moriyama, T.S., Quintana, M.I., Ribeiro, W.S., Ruiz, J., Schoedl, A.F., Shih, M.C., Figueira, I., Koenen, K.C., Mello, M.F., & Mari, J.J. (2009). The posttraumatic stress disorder project in Brasil: Neuropsychological, structural and molecular neuroimaging studies in victims of urban violence. *BMC Psychiatry*, 9, article number 30. doi: 10.1186/1471-244X-9-30.

[4] Ullmann, U. (2021). Posttraumatische Belaustungsstorung. *Der Unfallchirurg*, 124(1), 15-20. doi: 10.1007/s00113-020-00930-3.

[5] Oshayev, S.A. (2004). *Features of psychological protection and coping in patients with borderline disorders who have experienced traumatic events* (PhD thesis, Mental Health Research Institute, Tomsk, Russia).

[6] Ministry of Education and Science of Ukraine. (2022). *PTSD in the conditions of war: Explanation of psychologists*. Retrieved from https://mon.gov.ua/ua/news/posttravmatichnij-stresovij-rozlad-v-umovah-vijni-rozyasnennya-psihologiv.

[7] Kozlova, A., & Zhuravel, T. (2022). *What you need to know about post-traumatic stress disorder (PTSD): Information for parents*. Retrieved from https://www.unicef.org/ukraine/stories/about-post-traumatic-stress-disorder.

[8] Hyphantis, T., Goulia, P., Floors, G., Iconomou, G., Pappas, A.I., Karaivazoglou, K., & Assimakopoulos, K. (2011). Assessing ego defense mechanisms by questionnaire: Psychometric properties and psychopathological correlates of the Greek version of the Plutchik's life style index. *Journal of Personality Assessment*, 93(6), 605-617. doi: 10.1080/00223891.2011.608759.

[9] Plutchik, R. (1995). A theory of ego defenses. In H.R. Conte, & R. Plutchik (Eds.), *Ego defenses: Theory and measurement* (pp. 13-36). New York: Wiley.

[10] Bond, M. (2004). Empirical studies of defense style: Relationships with psychopathology and change. *Harvard Review of Psychiatry*, 12(5), 263-278. doi: 10.1080/10673220490886167.

[11] Mehlman, E., & Slane, S. (1994). Validity of self-report measures of defense mechanisms. *Assessment*, 1(2), 189-198. doi: 10.1177/1073191194001002009.

[12] Proskurka, N.M., Synchuk, V.V., & Boichenko, M.M. (2019). Manifestations of psychological defenses of creative personality of technical specialization students. *Bulletin of the National Aviation University. Series: Pedagogy. Psychology*, 14, 133-138.

[13] Plutchik, R., Kellerman, H., & Conte, H.R. (1979). A structural theory of ego defense and emotions. In C.E. Izard (Ed.), *Emotions in personality and psychopathology* (pp. 229-257). New York: Plenum.

[14] Humetskyy, R.Ya., Palyanytsya, B.M., & Chaban, M.Ye. (2004). *Mathematical methods in biology: Theoretical information, programmed workshop, computer tests*. Lviv: Ivan Franko National University of Lviv.
[15] Talbott, J. (2011). Posttraumatic stress disorder and war. *The Journal of Nervous and Mental Disease*, 199(12), 909-910. doi: 10.1097/NMD.0b013e3182392729.
[16] Hornor, G. (2013). Posttraumatic stress disorder. *Journal of Pediatric Health Care*, 27(3), 29-38. doi: 10.1016/j.pedhc.2012.07.020.
[17] American Psychiatric Association. (2022). *Diagnostic and statistical manual of mental disorders* (5th ed., text revision). doi: 10.1176/appi.books.9780890425787.
[18] Boychenko, M.M. (2018). Creativity as a means of psychological protection of the individual. Flight. In *Modern problems of science. Humanities: Abstracts of reports of the XVIII International scientific and practical conference of young scientists and students* (pp. 280-281). Kyiv: National Aviation University.
[19] Kruzhkova, O.V., & Shakhmatova, O.N. (2006). *Psychological defenses of personality*. Yekaterinburg: Publishing House of the Russian State Vocational Pedagogical University.
[20] Shevchenko, V., & Ohanyan, A. (2016). Protective mechanisms and their mentality vzaymosvyaz with forms aggressively behavior. *Scientific Bulletin of V. O. Sukhomlynskyi Mykolaiv National University. Psychological Sciences*, 1, 235-239.
[21] Froyd, A. (2018). *The ego and the mechanisms of defence* (classic reprint). London: Forgotten Books.
[22] Berezin, F.B. (1988). *Mental and psychophysiological adaptation*. Leningrad: Nauka.
[23] Levin, A.P., Albert, L., Besser, A., Smith, D., Zelenski, A., Rosenkranz, S., & Neria, Y. (2011). A secondary traumatic stress in attorneys and their administrative support staff working with trauma-exposed clients. *The Journal of Nervous and Mental Disease*, 199(12), 946-955. doi: 10.1097/NMD.0b013e3182392c26.
[24] Filatov, A.T., Kocharian, A.S., & Kocharian, T.S. (1986). *Psychological protection (methodical recommendations)*. Kharkiv: Berminvody.
[25] Sidorov, P.I., & Parniakov, A.V. (2000). *Introduction to clinical psychology*. Moscow: Akademicheskiy proekt.

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Роль захисних механізмів у подоланні стресу у хворих на ПТСР

Анотація. В умовах війни в Україні зростає ризик посттравматичних стресових розладів, які в критичних випадках зумовлюють розвиток хронічних психічних захворювань та порушення фізіологічних функцій. У зв'язку з виникненням відчуття безпорадності через неможливість ефективно діяти в небезпечній ситуації формуються різні психологічні механізми захисту для подолання інтрапсихічних конфліктів. Метою цієї роботи було дослідження домінантних механізмів у осіб з посттравматичним стресовим розладом, які перебували з початку війни в регіонах з різним сценарієм розвитку бойових дій, з використанням методики Плутчика-Келлермана-Конте. Інформація була зібрана від осіб різних вікових категорій, виду зайнятості, освітньо-кваліфікаційного рівня та статі, які перебували в Києві, Харкові та Львові впродовж перших двох місяців повномасштабної війни та які періодично переміщувалися територією центру та заходу України. Випадки короткотривалого проживання за кордоном також взято до уваги під час проведення дослідження. Результати напруженості психологічного захисту засвідчують, що в осіб з посттравматичним стресовим розладом, які від початку війни перебували в різних регіонах Центральної та Західної України, домінує механізм проєкції (75 %) і рівнозначно розподіляються механізми заміщення (12,5 %) та заперечення (12,5 %). Домінування проєкції може вказувати на переведення інтрапсихічного конфлікту назовні. У такому разі зовнішній світ особистість сприймає як основний носій загрози, від якого потрібно захищатися. Натомість заперечення може вказувати на ігнорування деяких аспектів дійсності. Респонденти, схильні до заміщення, застосовують підхід перенесення пригнічених емоцій, які можуть виражатися у формі страху, ворожості, гніву, на доступніші об'єкти, які не менш небезпечними, ніж ті, що призвели до фрустративних переживань. Установлено, що загальна напруженість вибірки не перевищує 50 %. Це може свідчити про здатність хворих з посттравматичним стресовим розладом вирішити інтрапсихічні конфлікти, що склалися на поточний момент. Результати дослідження можуть мати практичний інтерес для фахівців, що вивчають питання виявлення та генерування методів профілактики й лікування посттравматичного стресового розладу

Ключові слова: стресові розлади, психологічний захист, інтрапсихічні конфлікти, порушення фізіологічних функцій, фрустративні переживання, війна в Україні