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FEATURES OF THE FORMATION OF BEHAVIORAL REACTIONS OF SERVICEMEN AT THE COMBAT ZONE UNDER THE INFLUENCE OF SOCIO-PSYCHOLOGICAL FACTORS

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Introduction. *The article analyzes the specifics of the formation of behavioral reactions of military personnel in combat conditions, in particular under the influence of informational and emotional stress factors that arise in the process of interaction with commanders and fellow soldiers. The relevance of the study is due to the large-scale armed conflict in Ukraine, which creates unique extreme conditions for the psychophysiological adaptation of personnel.*

The purpose. *To investigate the peculiarities of the formation of behavioral reactions of military personnel under the influence of socio-psychological factors while in a combat zone, in particular in the conditions of a modern full-scale war in Ukraine.*

Materials and methods. *To achieve the set goal, a survey was conducted of 136 male military personnel aged 21 to 50 years who were inpatients at the Military Medical Clinical Center of the Central Region after returning from the combat zone. Data collection was carried out using a specially adapted questionnaire, in which the contribution of individual factors of the combat environment was assessed on a 10-point scale. Parametric statistics methods, Spearman`s correlation coefficient, stepwise correlation-regression, one-factor variance and cluster analysis of the STATISTICA 13.3 program package were used.*

Results. *Three main groups of servicemen with different profiles of response to stress factors were identified. It was established that age characteristics, duration of stay in the combat zone and the level of functional reserves of the body are key determinants of perceptivity to behavioral destabilizing influences. In particular, older servicemen demonstrate a higher level of anxiety when expecting contact with the enemy, less trust in commanders, and greater perceptivity to shortcomings in the training of fellow soldiers. The concept of a "perfect storm" is used to describe the cumulative impact of combat, psycho-emotional, informational and motivational factors that synergistically increase the risk of maladaptive reactions. The role of commander leadership, group cohesion and moral stability as protective mechanisms is emphasized.*

Conclusions. *Therefore, perceptivity to combat stress is determined by age, combat experience, and level of psychophysiological resilience. Adaptive programs should take into account the reaction profiles of servicemen, especially in the context of their communicative interaction and trust in command.*

Key words: *combat stress, behavioral reactions, military personnel, anxiety factor, functional reserves of the body, commander`s leadership, combat zone.*

ОСОБЛИВОСТІ ФОРМУВАННЯ ПОВЕДІНКОВИХ РЕАКЦІЙ ВІЙСЬКОВОСЛУЖБОВЦІВ ПІД ВПЛИВОМ СОЦІАЛЬНО-ПСИХОЛОГІЧНИХ ФАКТОРІВ В ЗОНІ БОЙОВИХ ДІЙ

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Вступ. *У статті проаналізовано специфіку формування поведінкових реакцій військовослужбовців в умовах бойових дій, зокрема під впливом інформаційно-емоційних стрес-факторів, що виникають у процесі взаємодії з командирами та товаришами по службі. Актуальність дослідження обумовлена масштабним збройним конфліктом в Україні, який створює унікальні екстремальні умови для психофізіологічної адаптації особового складу.*

Мета. *Дослідити особливості формування поведінкових реакцій військовослужбовців під впливом соціально-психологічних факторів під час перебування в зоні бойових дій, зокрема в умовах сучасної повномасштабної війни в Україні.*

Матеріали та методи. *Для досягнення поставленої мети було проведено анкетування 136 військовослужбовців чоловічої статі віком від 21 до 50 років, що перебували на стаціонарному лікуванні в умовах Військово-медичного клінічного центру Центрального регіону після повернення із зони бойових дій. Збір даних здійснювався з використанням спеціально адаптованої анкети, оцінювання внеску окремих*

факторів бойового середовища в якій відбувалося за 10-бальною шкалою. Застосовано методи параметричної статистики, коефіцієнт кореляції Спірмена, покроковий кореляційно-регресійний, однофакторний дисперсійний та кластерний аналіз пакету програм STATISTICA 13.3.

Результати. *Виявлено три основні групи військовослужбовців з різними профілями реагування на стрес-фактори. Встановлено, що вікові характеристики, тривалість перебування в зоні бойових дій та рівень функціональних резервів організму є ключовими детермінантами чутливості до поведінкових дестабілізуючих впливів. Зокрема, старші за віком військовослужбовці демонструють вищий рівень тривожності при очікуванні контакту з противником, меншу довіру до командирів, більшу чутливість до недоліків у підготовці товаришів по службі. Концепція «ідеального шторму» використана для опису сукупного впливу бойових, психоемоційних, інформаційних і мотиваційних факторів, які синергічно підвищують ризик дезадаптивних реакцій. Підкреслюється роль командирського лідерства, групової згуртованості та моральної стабільності як захисних механізмів.*

Висновки. *Отже, чутливість до бойового стресу обумовлюється віком, бойовим досвідом, рівнем психофізіологічної стійкості. Адаптивні програми повинні враховувати профілі реакцій військовослужбовців, особливо в контексті їх комунікативної взаємодії та довіри до командування.*

Ключові слова: *бойовий стрес, поведінкові реакції, військовослужбовці, фактор тривожності, функціональні резерви організму, командирське лідерство, зона бойових дій.*

Introduction. The large-scale war that has been going on for many years in Ukraine directly affects the development of socio-psychological relations among military personnel in the combat zone. The behavioral reactions of military personnel in such conditions are shaped by extreme psychophysiological factors, combining constant threats to life, sensory overload, physical exhaustion, and disruption of biorhythms. These conditions activate both adaptive and maladaptive response mechanisms. Since such a war has not taken place in Europe, for many decades literary sources have provided extremely limited information about the peculiarities of the formation of behavioral reactions in similar circumstances, although they demonstrate a deep understanding of the psychological reactions of military personnel in combat conditions and may be useful for further scientific research in the field of military medicine.

Thus, the use of empirical methods to study the impact of combat stress on the mental health of combatants has enabled some researchers [4] to conclude that traumatic stress leads to significant mental disorders that require the development of effective rehabilitation programs. Conducting an in-depth analysis of post-traumatic mental disorders in the context of Ukrainian military realities, some researchers [2] identified the main factors contributing to the development of mental disorders, in particular the intensity of combat operations and the lack of psychological support. At the same time, some authors [3], conducting research on stress and depressive states in military personnel who participated in combat operations in eastern Ukraine, found high levels of stress and depressive symptoms in them, which indicates the need for psychological support and the introduction of correctional programs. Thus, by analyzing the impact of combat stress on the psychological training of military personnel and their readiness to perform assigned tasks, it was possible to identify specific factors of combat stress that affect psychological training in real combat conditions, as well as to establish that combat stress significantly affects the effectiveness of psychological training, which requires the adaptation of training programs [6].

A number of foreign authors also address the issue under discussion. N.T. Fear and co-authors [8] studied the impact of military service on the mental health of military personnel and their families. They found that veterans who participated in combat operations have a higher risk of developing post-traumatic stress disorder (PTSD). In addition, some foreign authors [11, 10] have studied the psychological consequences of killing in combat, including the development of PTSD, depression, and moral trauma. They found a direct link between participation in combat killings and the development of moral trauma, which is important for the development of targeted therapeutic approaches, and emphasized the importance of considering moral aspects when assessing the mental health of veterans. After conducting a systematic review of moral injury assessment tools, H.G. Koenig and co-authors [9] analyzed methods for assessing moral injury in military personnel with PTSD, highlighting its impact on mental health and identifying the risk of suicide.

Some studies [12] have examined the negative impact of stress caused by realistic military training on the cognitive functions of special operations military personnel, in particular their working memory and visual-constructive abilities. The authors concluded that the observed deterioration was not related to motivational or simulation factors, confirming the biological basis of cognitive changes. The article showed that even elite military units are vulnerable to cognitive disorders, which has significant implications for command planning in

combat conditions.

Along with valuable information about the impact of stress factors on military personnel who participated in combat operations, some important and specific issues regarding the formation of behavioral responses in these individuals during a large-scale war were not investigated. In particular, insufficient attention has been paid to the impact of stress factors of an informational nature related to the emotional state of military personnel, which is formed under the influence of unexpected situations, communication with commanders and fellow servicemen, etc. Therefore, the analysis of the most common socio-psychological influences identified by the servicemen themselves in the questionnaire survey is relevant and important from both a theoretical and practical point of view.

Objective. To investigate the peculiarities of the formation of behavioral reactions of military personnel under the influence of socio-psychological factors while in a combat zone, in particular in the conditions of the current full-scale war in Ukraine.

Methods and techniques. The study was conducted using a specially designed modified anonymous questionnaire (7 questions), which included questions about the impact of significant factors of the combat environment on a person [5]. In the process of developing the questionnaire, all questions were subject to preliminary review by groups of experienced military personnel to determine their value and informativeness. In our opinion, the anonymity of the questionnaire made it possible to obtain more objective and accurate data on the effects of individual socio-psychological influences on the individual. Perceptivity to the contribution of individual factors of the combat environment was assessed by military personnel on a 10-point scale (1 – lowest level of perceptivity; 10 – highest level of perceptivity). The set of socio-psychological questions in the questionnaire reflected the relationships within the group of military personnel, as well as evaluative judgments about their personal behavior in various situations. Since it is precisely negative impressions that have a complex effect on the speed of combat stress development, the set of questions in the questionnaire includes an assessment of negative emotions affecting the individual. Military personnel were asked to quantitatively assess their feelings on the following issues: fear of direct contact with enemy infantry in defense; fear of direct contact with enemy infantry in attack; constant expectation of possible direct contact with the enemy while performing tasks; uncertainty in the predictions of commanders, the unpredictability of real developments; incompetence of commanders (senior officers); insufficient combat training of fellow servicemen; concern about the consequences of personal mistakes (fear of making a mistake, own incompetence).

To achieve the set goal, 136 male military personnel aged 21 to 50 who were undergoing inpatient treatment were examined at the Military Medical Clinical Center of the Central Region.

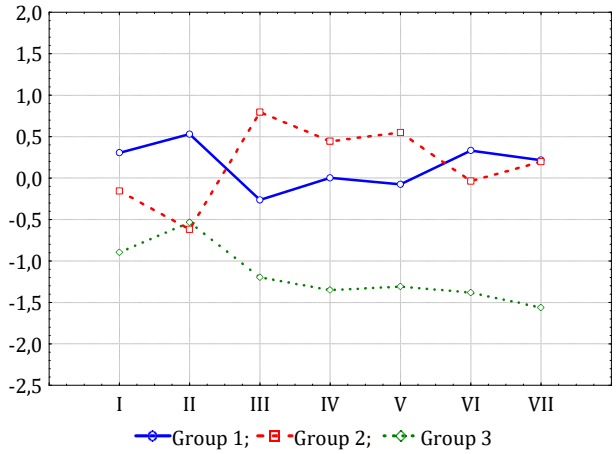
Statistical analysis of the data was performed using parametric statistics (confidence level according to Student's t-test), Spearman's correlation coefficient (rs), stepwise correlation-regression analysis, one-factor variance analysis (confidence level according to Fisher's F-test) and cluster analysis using the STATISTICA 13.3 software package (license AXA905I924220FAACDN).

Working hypothesis. The behavioral reactions of military personnel while in a combat zone significantly depend on the influence of socio-psychological factors of the combat environment, in particular, relationships with commanders and fellow servicemen, the level of combat training, and the subjective perception of threats. At the same time, the age characteristics of military personnel are a significant moderator of emotional perceptivity to combat stress, which leads to the formation of different behavioral profiles depending on individual characteristics.

Research results. The behavioral reactions of military personnel while in a combat zone are manifested on the basis of impressions and evaluative judgments during interaction with fellow servicemen, commanders, and when forming subjective feelings about their capabilities and ability to perform the duties of other representatives of military formations. For an in-depth analysis of the formation of a complex of impressions from the socio-psychological contacts of military personnel in the process of combat operations, it is necessary, first of all, to investigate the possibility of the heterogeneity of these contacts, caused by differences in psychological status and conditions for the formation of impressions in different individuals. To identify this indisputable fact, it can be assumed that the psychological profiles of impressions from the effects of combat stress factors will differ slightly among representatives of several groups of military personnel who have similar responses. Such objectification of the composition of homogeneous groups can be performed using cluster analysis.

A sufficiently large sample of respondents makes it possible to divide the surveyed contingent of military personnel into three groups. Using cluster analysis based on the assessment of individuals' impressions of their socio-psychological contacts, the entire contingent of respondents was divided into three groups. As a result, group 1 consisted of 52.1%

of military personnel with an average age of 37.1±1.15 years, group 2 consisted of 35.3% of military personnel with an average age of 32.8±1.07 years, and group 3 consisted of 11.8% of individuals with an average age of 30.0±0.52 years. Thus, three groups of military personnel were obtained, differing in the intensity of their feelings from the influence of socio-psychological and combat contacts, whose standardized profiles are presented in Fig. 1. (c.u.)



I – fear of direct contact with enemy infantry in defense; II – fear of direct contact with enemy infantry in attack; III – constant expectation of possible direct contact with the enemy while performing tasks; IV – uncertainty in the predictions of commanders, unpredictability of real development of events; V – incompetence of commanders (senior officers); VI – insufficient combat training of fellow servicemen; VII – concern about the consequences of personal mistakes (fear of making a mistake, own incompetence).

Figure 1. Standardized profiles of the perceptivity levels of military personnel who were in the combat zone to a complex of socio-psychological factors of the surrounding environment

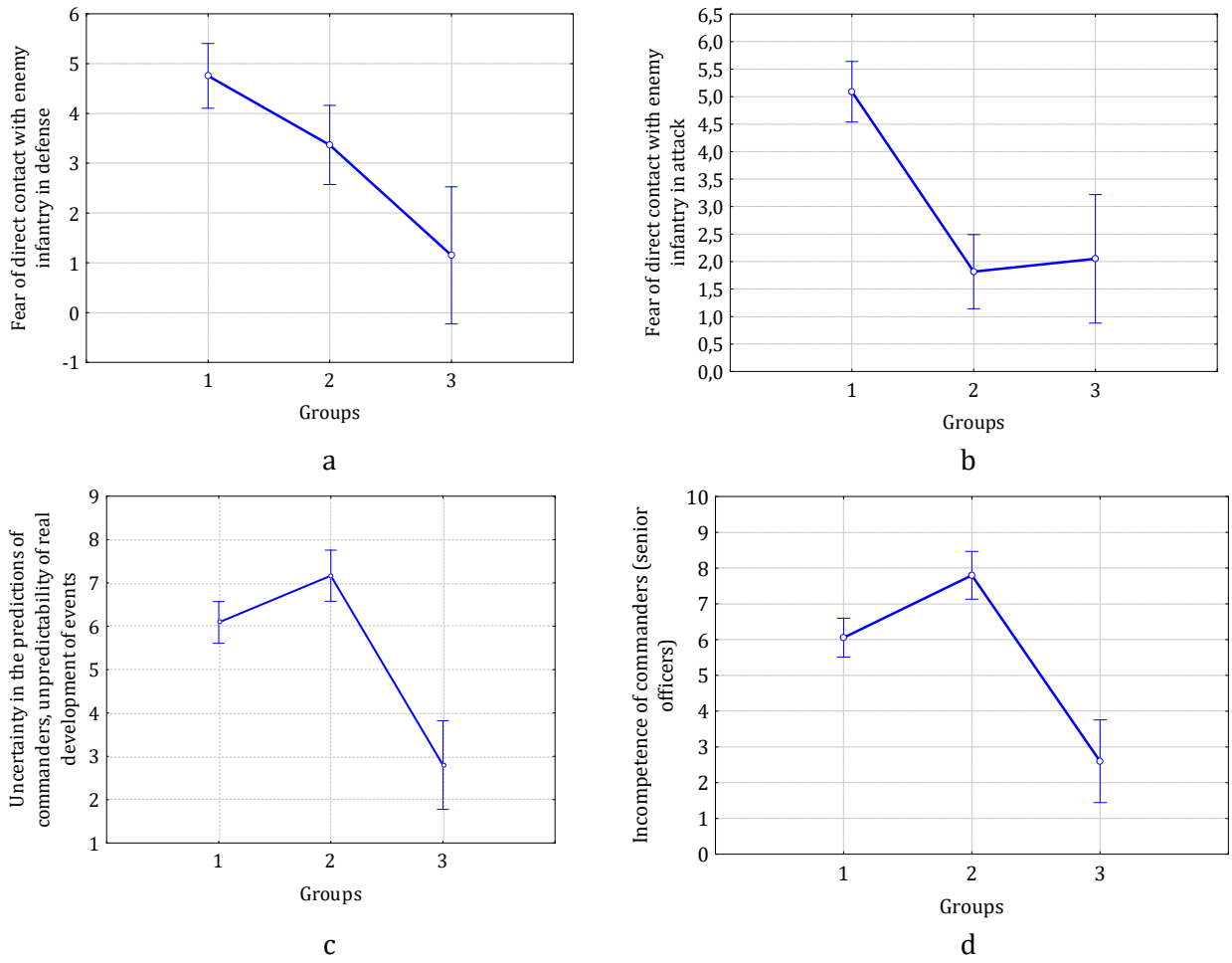
Further analysis of the identified feelings showed that these socio-psychological reactions in representatives of groups 1 and 3 significantly coincide in their content. The correlation coefficient between the profiles of answers to the questions asked for these groups is r_s= 0.79 (*p<0.05*). However, the ratings for each individual question in these groups differ significantly (*p<0.001)*. There is no significant correlation between the profiles of groups 1 and 2, but for most indicators, the difference in perceptivity to the analyzed influences can be stated at the level *of p<0.05.* The profiles of groups 2 and 3 also do not correlate, but the levels of perceptivity differ with high reliability (*p<0.001)*, except for the ratings on the question "fear of direct contact with enemy infantry in an attack," where there is no difference. Thus, according to most indicators-components of the socio-psychological factor, representatives of the selected groups differ significantly. The form of perceptivity profiles for the oldest (group 1) and youngest (group 3) military personnel has certain identical features.

A stepwise multiple correlation analysis between the group number obtained using cluster analysis and the complex of impressions from the influence of socio-psychological contacts of military personnel showed a fairly high level of association between these parameters (R=0.69; *p<0.001*). Moreover, as a result of this analysis, none of the studied impressions assessments were removed from the list of informative ones. That is, all assessments of the dependent variable (group numbers) sufficiently described the established profiles of answers to individual questions by representatives of the analyzed groups of military personnel, which indicates the dependence of answers on the age of the respondents.

For further analysis of the phenomenon of the formation of the socio-psychological factor on military personnel, it is advisable to outline the effect of each of the studied indicators – components of this factor separately. The result of a one-factor analysis of variance of the distribution structure of the factor "fear of direct contact with enemy infantry in defense" for groups 1, 2, and 3 is presented in Fig. 2a and showed the reliability of the influence of this factor at the level *of p<0.001.*

Under the influence of the stress factor "fear of direct contact with the enemy in defense," the prevailing emotion is fear of a sudden breakthrough, inability to hold position, physical destruction, or the likelihood of being taken prisoner. The intensity of this emotion ranges from 1 to 5 points. This feeling is most pronounced in representatives of the oldest group 1 (4.8±0.40 points). For other groups, the level of this feeling gradually decreases, close to a linear dependence. Moreover, a significant decrease in perceptivity (*p<0.01)* is observed between groups 1 and 2 (3.4±0.32 points); a significant decrease in this level (*p<0.002)* between groups 2 and 3 (1.2±0.04 points) also exists.

The next factor analyzed, "fear of direct contact with the enemy in an attack," evokes the corresponding emotion of encountering a prepared enemy who may have an advantage in terms of weapons or terrain. Reliable assessments of this factor depend on the plasticity of behavioral reactions, especially among younger military personnel. A one-factor analysis of variance of the relevant data showed that the effect of this socio-psychological factor is statistically significant at a high level (*p<0.001)*.



Measuring the level of indicators in points

Figure 2. The influence of socio-psychological factors of the combat situation on the structure of behavioral reactions of military personnel

The result of this analysis is presented in Fig. 2b, which shows that the width of the perceptivity fluctuation corridor for the analyzed factor is slightly less than that discussed previously and ranges from 2 to 5 points. That is, the lower limit of this corridor increases by 1 point compared to the previous component. The shape of the graph under consideration has changed compared to the previous one. If the difference in the levels of perception of the consequences of this factor between representatives of group 1 (5.1±0.32 points) and group 2 (1.8±0.31 points) changes significantly at the level *of p<0.001,* then there is no difference in perception between representatives of groups 2 and 3 (2.0±0.22 points). That is, only individuals in the oldest group (group 1) have the highest rating of fear in the offensive. An extreme form of stressful anticipation probably activates the development of emotional tension in representatives of group 1 due to their slightly reduced age-related physiological capabilities. The state of chronic anxiety tension, which develops as a result of an event of uncertain duration, leads to a situation where the psyche intensively expends its resources even without the presence of actual combat.

Another important stress factor is associated with direct interaction with the unit commander. Two questions were used to study this influence. The first question concerns "uncertainty in the predictions of commanders when the actual development of events is unpredictable." This situation causes destabilization in the chain of command, which is critical for combat units. In the situation under discussion, two possible events are closely intertwined: the unpredictability of certain situations and the adequacy of the commander's reactions in the current situation. Therefore, the probability of certain events occurring is superimposed on the probability of the commander's correct prediction. In this case, the total probability of the relevant situations occurring is significantly reduced in any case. The question posed involves not only an assessment of the commander's experience, but also confidence in his or her future actions. As is well known, trust is a certain conscious state of inner psychological comfort, manifested in a person's willingness to entrust certain aspects of managing the current situation that are important to them to another

person, counting on that person's loyalty to common interests. It is formed in the of military personnel in the immediate environment and depends entirely on the actions of colleagues and their attitude towards others.

A one-factor analysis of variance of the influence of the analyzed factor showed a high reliability of its manifestation ($p<0.001$). The results of the analysis are presented graphically in Fig. 2c. In this case, each study group has its own specific level of perceptivity to the influence of the specified factor. Thus, the perceptivity of representatives of group 1 is manifested at the level of 6.1±0.28 points, and group 2 – 7.2±0.24 points, which differs from the previous one with a reliability of $p<0.01$. Representatives of group 3 give the lowest rating of this factor – 2.8±0.44 points, which most likely distinguishes the perceptivity of its representatives from the corresponding ratings of groups 1 and 2 ($p<0.001$). This indicates significant differences in the assessments of perceptivity to the factor under consideration. These differences are particularly evident in relation to group 3, whose representatives are the youngest and, possibly, the least experienced, and are less critical of the commander's orders.

The second question concerning the factor under discussion relates to the assessment of a commander's military incompetence and has a slightly different psychological connotation than the previous one, as well as many components. A commander's military incompetence manifests itself in unprofessional actions in dealing with subordinates; incorrect use of weapons or equipment; inability to control oneself in extreme conditions; violation of discipline; incorrect management decisions; increased anxiety, disorganization, or mental breakdown; loss of fighting spirit, initiative, or a critical decrease in motivation, etc. Military incompetence is not only a matter of professional training, but also an integrative characteristic that includes psychological, ethical, and physical readiness to act effectively in complex, dangerous, and uncertain conditions. It leads to ineffective, dangerous, or unacceptable performance of military tasks and poses a threat to both the servicemember and the entire unit.

A single-factor analysis of variance of the assessments of the issue under discussion confirms the high level of reliability of this stress factor ($p<0.001$). The structure reflecting the distribution of the analyzed assessments is similar to that of the previous question, as shown in Fig. 2d. Here, as in the previous case, the highest ratings are given to group 2 (7.2±0.24 points). The lowest ratings were given to group 1 (6.1±0.34 points). A comparison of these ratings confirms a significant difference at the $p<0.01$ level. The lowest perceptivity to this factor is observed in group 3 (2.6±0.39 points), which significantly differs from the ratings of group 1 at the $p<0.001$ level.

Thus, the attitude of certain representatives of the unit to the commander's orders is complex and depends not only on their age and experience, but also on the unpredictability of events and the impressions of military personnel regarding the adequacy of the commander's reactions in past situations.

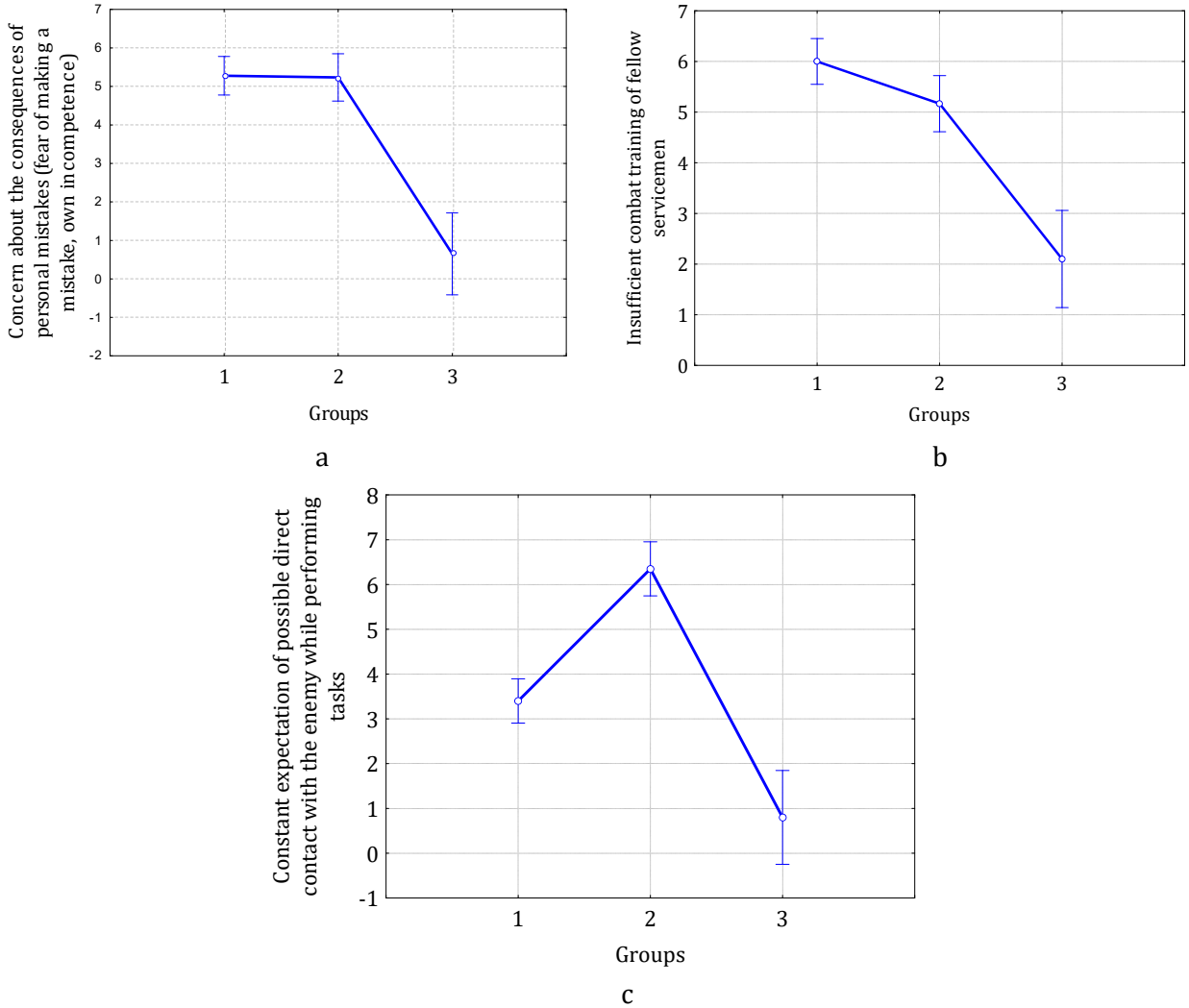
The last factor analyzed is related to the feeling of confidence in one's own actions and those of one's comrades, as well as the constant expectation of direct contact with the enemy. The interpretation of its influence is reflected in three questions. The structure of the answers to each of them is presented in Fig. 3.

First of all, it is necessary to understand the attitude of military personnel towards personal behavioral reactions caused by their own incompetence or mistakes. Here, the anxiety factor can play a significant role. One-factor analysis of variance indicates the presence of reliable shifts in the assessments of the analyzed groups under its influence ($p<0.001$). However, military personnel in the older age groups (groups 1 and 2) did not differ significantly in their assessments, which are moderate (about 5 points). In contrast, the younger group (group 3) rates its concern about this issue very low (0.7±0.04), which provides a basis for stating the influence of the anxiety factor by age parameter. This structure of the influence of the anxiety factor (Fig. 3a) provides grounds for concluding that the attitude towards one's own mistakes depends on combat experience and age.

Another issue is the component of the anxiety factor associated with the quality of communication, which assesses the impression of insufficient combat training of fellow servicemen. In the case under discussion, one-factor analysis of variance provides information about the high reliability of the influence of this component of the anxiety factor ($p<0.001$). The distribution structure of the ratings for this factor (Fig. 3b) differs slightly from the structure shown in Fig. 3a. In this case, the level of assessments of representatives of group 1 (6.0±0.30 points) significantly differs from the corresponding assessments of individuals in group 2 (5.2±0.09 points) with a probability of $p<0.03$. The greatest shift in the direction of decreasing ratings is observed in group 3 (2.1±0.18 points), which differs from the ratings of groups 1 and 2 with a probability of $p<0.001$. Since, in the case under consideration, in addition to the combat experience acquired by military personnel, there is a parallel component of the anxiety factor associated with it – age, it can be stated that the influence of this factor depends on the two

components noted: experience and age.

The last analyzed component of the anxiety factor (constant expectation of possible direct contact with the enemy while performing tasks) has slightly different characteristics of its formation. The anxiety factor in the constant expectation of possible direct contact withthe enemy is a complex psychophysiological phenomenon that is formed under the influence of a number of internal and external factors. It can be structurally broken down into those that affect the overall level of anxiety and determine the nature of a serviceman's behavioral reactions. Its development is usually associated with a number of exogenous factors: a high level of threat, insufficient information about the situation, uncertainty about the duration of stay in the waiting zone, unpredictability of orders or changes in tasks, etc. At the same time, components of the anxiety factor are formed, such as: concern and helplessness in the face of the unknown, psycho-emotional tension that does not subside even during a conditional "calm," the development of frustration due to inaction, etc. The formation of such an emotional background is closely related to the combat experience of military personnel, the lack of which is reflected in certain behavioral reactions: avoidance of certain situations or areas considered "dangerous," unjustified impulsiveness or, conversely, reduced initiative, increased aggression or irritability in interactions with comrades, etc.



Measuring the level of indicators in points

Figure 3. Impact of the anxiety factor components on military personnel when communicating with comrades in combat conditions

In the case under consideration, one-factor analysis of variance also confirms the high reliability of constant expectation of possible direct contact with the enemy during the performance of tasks ($p<0.001$). That is, it can be stated that the complex structure of this component of the anxiety factor (Fig. 3c) indicates not only the influence of experience and communication effects on this result, but also the presence of certain additional components in its formation. Looking at the levels of individual assessments provides additional information about the phenomenon under analysis. Thus, the

assessments of representatives of group 1 reach a level of 6.1±0.28 points, which is significantly lower (p<0.01) than that of representatives of group 2 (7.2±0.24 points). The ratings of group 3 reach a level of 0.8±0.08 points, which is significantly less than in groups 1 and 2 (p<0.001). Based on the form of the anxiety factor and the data presented, we can assume the existence of an additional component that influences the distribution of scores for the various components of the factor under study. This hidden component can be identified by examining the indicator "duration of stay of military personnel at the combat zone" (Fig. 4).

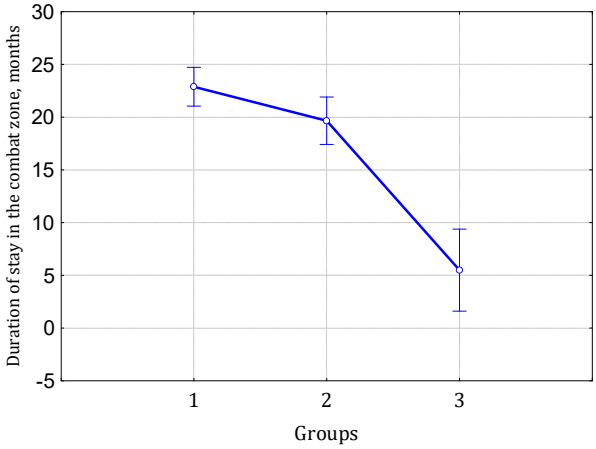


Figure 4. Distribution structure of the levels of the factor "duration of stay at the combat zone" for military personnel of different groups (1, 2, 3)

Discussion. When analyzing the data presented, several aspects should be noted. According to the results of a one-factor analysis of variance, the effect of the factor "duration of stay of military personnel in the combat zone" is significant at a high level (*p<0.001*). Considering this aspect, it can be assumed that an increase in this period leads to the depletion of the functional reserves of military personnel. Therefore, representatives of group 1, who are the oldest and have been in the combat zone (22.9±0.94 months), are the most functionally depleted group of individuals. Representatives of group 2 were in this zone for a shorter period (19.7±1.25 months), which is significantly less than the military personnel of group 1 (*p<0.04)*. Military personnel in group 3 were in the combat zone for 5.5±0.90 months, which is highly likely to be less than representatives of groups 1 and 2 (*p<0.001)*. That is, servicemen of the oldest age group (group 1) have the lowest level of functional reserves in terms of time spent in the combat zone, while younger individuals in group 2 have a slightly higher level of functional reserves of the body according to this parameter, which probably causes a corresponding deviation from the linear dependence of most components of the influence of the socio-psychological factor, illustrated in Figures 2 and 3.

It is probably advisable to further discuss the results obtained on the basis of the concept of a "perfect storm." This approach is based on the synergistic effect of many stress factors that actually exist in combat conditions. In combat psychology, the "perfect storm" refers to a combination of several powerful combat stress factors (physical, psycho-emotional, informational, socio-motivational) that synergistically cause a profound destabilization of the psychophysiological state of a military serviceman. This configuration of factors leads to a disruption of adaptive regulation, deformation of behavioral patterns, and loss of combat effectiveness. In the aspect considered in this article, the components of the harmful effect on the psyche of military personnel are a complex of: psycho-emotional factors (traumatic losses in the unit, the constant presence of fear of death, feelings of guilt or powerlessness), information factors (lack of reliable information, contradictory orders or sudden changes in tasks, loss of communication with the command), and socio-motivational factors (distrust of commanders, loss of meaning in combat operations, severed ties with family). Some researchers [13], based on an analysis of empirical data on risk factors (e.g., previous psychological trauma, intensity of combat experience, comorbidity) and protective factors (support, religiosity, resilience, commander leadership), emphasize that risk factors include biological, psychological, social, and organizational variables. At the same time, the main risk factors for the development of PTSD are a history of psychological trauma, lack of social support, high intensity of combat operations, and a high level of helplessness during an emergency. At the same time, there may be objective protective factors: effective command leadership, religious or spiritual faith, adequate military training with an emphasis on stress resistance, and a high level of motivation that enhances combat effectiveness.

Some domestic scientists [7] based on a theoretical analysis of scientific sources in military psychology, medicine, sociology, and extrapolation of the combat experience of the Armed Forces of the United States, Israel, and Germany, summarized the combat experience of the Armed Forces of Ukraine (AFU) in hybrid warfare (until 2017-2018). As a result of the study, the author concludes that the psyche of military personnel in combat conditions functions in circumstances of constant conflict between fear and willpower, which causes instability in their emotional reactions. The key regulators of behavior are: orders, leadership, group cohesion, awareness of the goal, and motivation. At the same time, psychological preparation for combat should include skills of self-regulation, stress resistance, and

the formation of combat spirit, and the commander should be a psychologist of action—his influence determines the unit's readiness for psychologically stressful phases of combat.

According to the data obtained, one of the powerful factors influencing behavioral reactions is age. And such regulators of behavior as orders, leaders, and group cohesion, which influence the formation of combat spirit, may not reach a sufficient level to ensure a high level of combat readiness. At the same time, 87.4% of military personnel negatively assess the orders of commanders in the range of 6-8 points. An additional powerful influence on the behavior of military personnel is the duration of their stay in the combat zone. An increase in this period leads to the depletion of the functional reserves of military personnel and changes in their behavioral reactions. These conclusions partly echo the conclusions presented in the monograph [1], where, based on a comprehensive analysis of combat stress as a multifactorial psychophysiological phenomenon, which is a type of nonspecific stress reaction according to G. Selie, it is emphasized that combat stress has a phase structure: mobilization phase, resistance phase, decompensation phase.

Based on the analysis, it can be stated that the perceptivity to the effects of stress factors in armed conflicts is significantly influenced by age, combat experience (the longer the period of stay in the combat zone, the greater the experience gained), and the depletion of the body's functional reserves, which is expressed in increased fatigue and decreased performance of military personnel. It is also important to note the presence of a significant distortion in the distribution of the levels of assessment of the impact of various aspects of their formation (which is particularly evident in Figures 2b, 2c, 2d, and Figures 3a, 3c). It can be assumed that this distortion occurs due to the functional reserves of the military personnel's organism. This is evidenced by the significantly shorter period of stay in the combat zone of military personnel in group 2 compared to military personnel in group 1. In other words, representatives of group 2 are significantly less exhausted than military personnel in group 1.

Summarizing the results of the analysis, the following should be emphasized. First, there are global causes that in most cases shape the structure of the influence of various factors of combat stress. These are age, experience, and the functional reserves of the soldiers' bodies. Second, there are more local causes that affect military personnel of individual groups or combinations thereof. These include insufficient training and knowledge, which are particularly evident in conditions of uncertainty. Other important factors include the mismatch between the psychophysiological profile and the requirements of combat tasks; mistakes made by commanders that undermine military personnel's trust in their orders; low level of moral and psychological support, insufficient motivation; the presence in the team of military personnel with excessive traumatic experiences or significant difficulties in adapting to being in a combat zone.

Further research should be developed in the direction of deepening the identification of the informational and emotional nature of the formation and compensation of behavioral shifts in military personnel at the combat zone.

Conclusions:

1. Three groups of military personnel were identified with similar assessments of their impressions, formed by stress factors of an informational nature during their stay in the combat zone. Group 1 consisted of 52.1% of military personnel with an average age of 37.1±1.15 years, group 2 consisted of 35.3% of military personnel with an average age of 32.8±1.07 years, and group 3 consisted of 11.8% of individuals, with an average age of 30.0±0.52 years.

2. The answers to the asked questions were found to depend on the age of the respondents. Multiple correlation analysis between the group number obtained using cluster analysis and the complex of impressions from the influence of socio-psychological contacts of military personnel showed a fairly high level of association between these parameters (R=0.69; *p<0.001*). It was established that the socio-psychological reactions of representatives of groups 1 and 3 significantly coincide in their content. The correlation coefficient between the profiles of answers to the questions for these groups is $r_{(s)}$=0.79; *p<0.05.* However, all levels of assessment of representatives of these groups on the questions differ significantly (*p<0.001)*. For the vast majority of levels of perceptivity to stress factors, other combinations of the analyzed groups differ significantly.

3. The concept of the "perfect storm" not only has an integral and synergistic effect on the behavioral reactions of military personnel, but also develops increased perceptivity to the effects of certain informational stress factors, which include the level of functional reserves of their organism and the duration of stay in the combat zone.

4. The emerging fear of contact with the enemy in defense and attack differs significantly among representatives of the analyzed groups. While in the first case the average values of sensations in groups 2 and 3 differ significantly, in the second case the levels of such fear are equally low. However, individuals in the older age group (group 1) have equally high levels of fear due to their reduced

physiological reserves.

5. It was found that the reaction of representatives of the analyzed groups to the unpredictability and unprofessionalism of the commander's orders is complex and depends not only on their age and experience, but also on the unpredictability of events and the impressions of military personnel regarding the adequacy of the commander's reactions in past situations. At the same time, 87.4% of military personnel (groups 1 and 2) negatively assess these orders in the range of 6-8 points.

6. A significant deviation from the linear structure of the distribution of the components of the anxiety factor indicates not only the influence of experience and communication effects on this result, but also the presence of certain additional components in its formation. One such component is the level of functional reserves of the bodies of servicemen from different groups, which depends on the duration of their stay in the combat zone.

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