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Stress level of cadets during training under martial law depending on their temperament type

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Introduction

In the modern Russian-Ukrainian war, both the combatants and the civilian population of Ukraine are under the negative influence of events that are stressful for everyone [1]. A number of scientific studies [2; 3; 4] indicate the tension and stress of cadets' educational activities under martial law. The primary psychogenic effect of educational activity conditions is the suppression of many habitual and natural personal needs due to the specific nature of the activity itself. The variability of these needs is quite wide: from physiological (staying in adverse conditions during the dispersal of personnel, limited sleep time due to constant air alarms, increased physical exertion during practical training at training grounds, the intensity of perception and processing of large volumes of educational information in conditions of shortened training periods, etc.) to socio-psychological (restriction of the degree of personal freedom, features of interpersonal communication, an element of risk to life, etc.). The special social significance and strict regulation of educational activities force cadets to abandon of many things [5; 6; 7].

However, as it evidenced by available scientific research, those cadets who are especially vulnerable to them, depending on their personal individual psychological characteristics (temperament, character, personality orientation), feel the greater psychotraumatic impact of training conditions during wartime [8; 9]. One of the main individual psychological properties of a person is temperament [10]. There are four types of temperament: choleric (a strong but unbalanced type of nervous system; an impulsive, unstable personality prone to hysterical and psychopathic reactions under stress), sanguine (a strong, balanced, and mobile type of nervous system; a stable personality), phlegmatic (a strong, balanced, and inert type of nervous system; a stable personality), and melancholic (a weak, unbalanced type of nervous system; an unstable personality prone to anxiety, indecisiveness, panic, and activity breakdown under stress) [11]. Personality traits, depending on the type of temperament, those listed above contribute to the manifestation of stress resistance during war or, on the contrary, can lead to the appearance of stress and stress disorders. Stress resilience is a general quality of a person, characterized by the ability to resist stressful factors for the period necessary to organize new conditions in which this stressor will not be threatening. It ensures high efficiency and preserves human health [12; 13]. Stress tolerance is defined as a conscious or unconscious response to stress, during which the threat of the situation is assessed, the individual significance of various elements of the situation is determined, and one's own ability to cope with stress is determined [14; 15]. A number of scientists [16; 17] argue that a high level of stress resistance contributes to the preservation of a person's mental and physical health, and also ensures psychological well-being and working capacity, social adaptation, successful self-realization, and the ability to perform professional tasks in extreme situations. A low level of stress resilience leads to various manifestations of post-traumatic stress disorders, as well as physical, emotional, and mental exhaustion, and psychosomatic illnesses.

A large number of scientific works have been devoted to the mental health problems of the Ukrainian population during the war [1; 6; 13; 18], however, among them, there are no studies of the frequency of stress symptoms and mental health indicators in cadets during training under martial

law, depending on the type of their temperament, and not enough has been conducted to organize high-quality preventive psychological work among cadets.

The aim of the research is to investigate the frequency of stress symptoms and the level of mental health in cadets during training under martial law, depending on their temperament type.

Object, materials and research methods

Participants. The research was conducted in 2024–2025 at National Academy of Internal Affairs (Ukraine, Kyiv, NAIA). The study involved 276 male cadets studying at the bachelor's level in the specialty "Law Enforcement". To achieve the aim of the study, regardless of the year of training, we formed four groups of cadets from the 1st to 3rd years according to their temperament type: choleric (Group C, n = 58), sanguine (Group S, n = 92), phlegmatic (Group P, n = 87), and melancholic (Group M, n = 39). The cadets' temperament type was determined using H. Eysenck's method, which consists of 57 questions [19].

The criteria for inclusion of participants in the study were: the presence of a certain type of temperament in male cadets; a period of training under martial law of at least one year; voluntary participation of cadets in the study (all cadets were informed that their involvement in the study was solely for scientific purposes, and they provided informed consent for voluntary participation). The exclusion criterion was the cadets' willingness to withdraw from the study at any time of their own accord.

Research methods: theoretical analysis and generalization of literature sources, psycho-diagnostic methods, methods of mathematical statistics.

The method of theoretical analysis and generalization of literary sources was used to conduct an analytical review of scientific sources on the outlined range of issues (27 sources from MedLine, Scopus, Web of Science, Index Copernicus databases were analyzed).

To assess the frequency of stress symptoms in cadets with different temperament types during training in martial law conditions, we used an author's questionnaire, which included typical psychosomatic symptoms of stress that are most often found in people during war: sleep disturbances, vision of bad dreams; presence of worry, anxiety, gloomy mood; increased aggressiveness, conflictuality; irritability, fits of anger; reduced productivity of activities; disorders in the cognitive sphere; disorders in the physiological sphere; decreased immunity, increased morbidity. When answering the questionnaire, cadets were asked to indicate the frequency of symptoms of stress: often, sometimes, never.

To research the indicators of mental health in cadets with different temperament types during training under martial law conditions, we applied a set of psychodiagnostic methods: the stress level test (Yu. V. Shcherbatykh), the methodology for determining the propensity to develop stress (T. A. Nemchin, J. Taylor), the test of self-assessment of stress resistance (S. Cohen and G. Williamson), the methodology for assessing nervous and emotional stress (T. A. Nemchin), the reactive anxiety scale (Ch. D. Spielberger, Yu. L. Khanin) [20].

The stress level test allows for assessing the symptoms of stress and its overall level. The questionnaire contains 4 sets of 12 symptoms each. For the presence of one of the intellectual and behavioral symptoms, the respondents scored 1 point; emotional symptoms – 1.5 points, and physiological symptoms – 2 points. The stress level was assessed by the sum of the points and was considered moderate at 6–12 points, significant at 13–24 points, severe at 25–40 points, and excessive at more than 40 points.

The methodology for determining the propensity to develop stress contains 50 statements and allows for assessing the level of anxiety and the person's tendency to develop stress. The respondents were offered a form with statements opposite which they had to put "+" if the proposed answer "No" or "Yes" coincided with the respondent's opinion, or "–" if it did not. The propensity to develop stress was assessed as follows: 15 points or less – no stress, 16–24 points – moderate stress, 25–39 – average stress, 49–50 – high stress.

The test of self-assessment of stress resistance contains 10 questions, answering which the cadets had to choose one of the proposed answers. The answers for questions 1, 2, 3, 7, 9, and 10 were evaluated as follows: never – 0, rarely – 1, sometimes – 2, quite often – 3, frequently – 4; for questions 4, 5, 6, and 8 – never – 4, rarely – 3, sometimes – 2, quite often – 1, usually – 0. If the sum was 6.8 points or less, the level of stress resistance was considered excellent; 6.9–14.2 – good; 14.3–24.2 – satisfactory; 24.3–34.2 – poor; 34.3 and more – very poor.

The methodology for assessing nervous and emotional stress includes 30 signs of this condition, divided into three degrees of severity (a – low degree (complete absence), b – average degree, and c – high degree). The data were processed by summing the points: for answers a – 1 point, b – 2 points, and c – 3 points. The nervous and emotional stress level was considered low if the cadets scored 30–50 points, average – 51–70 points, and high – 71–90 points.

The reactive anxiety scale contains 20 statements with response options, depending on how the respondents felt during testing: no, it is not true; probably true; true; quite true. The points were calculated using the formula: $RA = \Sigma 1 - \Sigma 2 + 50$, where RA is reactive anxiety, $\Sigma 1$ is the sum of the numbers on scale items 3, 4, 6, 7, 9, 12, 13, 14, 17, and 18; $\Sigma 2$ is the sum of the numbers on scale items 1, 2, 5, 8, 10, 11, 15, 16, 19, and 20. The level of anxiety was assessed as low with 30 points or less, moderate with 31–45 points, and high with 46 points or more [10].

The assessment of cadets' mental health indicators was carried out by specialists from the psychological department of the NAIA in compliance with all necessary requirements for sociological and psychological research.

Data processing. The methods of mathematical statistics were used to process the data obtained. The compliance of the sample data distribution with the Gauss' law

was assessed using the Shapiro–Wilk W test. The reliability of the difference between the indicators was determined using the Student's t-test. The reliability of the difference was set at $p < 0.05$. All statistical analyses were performed using SPSS software, version 10.0, adapted for medical and biological research.

Ethics. The procedure for organizing the research and the topic of the article were previously agreed with the Committee on compliance with Academic Integrity and Ethics of the NAIA. Also this study followed the regulations of the World Medical Association Declaration of Helsinki. Informed consent was received from all participants who took part in this study.

Research results

The results of a research of the frequency of psychosomatic symptoms of stress in cadets with different types of temperament during training under martial law are presented in Table 1.

Based on the conducted research, it was established that cadets with choleric and melancholic temperament type's exhibit stress symptoms more frequently than those with sanguine and phlegmatic types. Thus, sleep disturbances and vision of bad dreams are often and sometimes found in 29.3% and 44.8% of cholerics and in 25.6% and 48.7% of melancholics, while 56.6% of sanguine and 59.8% of phlegmatics have never experienced such symptoms. Anxiety, worry, and gloomy mood are most often expressed in melancholics – often in 41.0% and sometimes in 35.9%; often in 39.7% of cholerics and sometimes in 34.5%. In sanguine and phlegmatic people, these symptoms are not as pronounced – 29.3% and 27.6% of people, respectively, often experience them.

Increased aggressiveness and conflict are often found in 46.6% of choleric individuals and 35.9% of melancholic individuals, sometimes in 36.2% and 41.0%, respectively; on the other hand, in 43.5% and 29.3% of sanguine individuals and 23.0% and 29.9% of phlegmatic individuals, these symptoms are sometimes and never found. Irritability and fits of anger are often found in 34.5% of choleric people and 23.1% of melancholic people, while these symptoms are often found in 17.4% of sanguine people and 13.8% of phlegmatic people. Reduced productivity of activities is also most often found in melancholics (38.5%) and cholerics (27.6%); and disorders in the cognitive sphere (difficulties with concentration, memory, logical thinking, etc.) are characteristic of 20.7% of cholerics and 25.6% of melancholics. Even signs of disorders in the physiological sphere (headaches, muscle tension, back pain, increased fatigue, digestive disorders, weight gain or loss, etc.), as well as increased morbidity are most often found in cholerics and melancholics (13.8% and 12.1% and 15.4% and 12.8%, respectively). In cadets with sanguine and phlegmatic temperament types, psychosomatic stress symptoms such as restlessness, anxiety, low mood, increased aggressiveness, conflict proneness, irritability, and outbursts of anger are also observed, though much less

Table 1

Frequency of psychosomatic symptoms of stress in cadets (n = 276) during training under martial law, depending on their temperament type, %

Symptoms of stress	Frequency of occurrence	Group C (n = 58)	Group S (n = 92)	Group P (n = 87)	Group M (n = 39)
Sleep disturbances, vision of bad dreams	often	29.3	14.1	12.6	25.6
	sometimes	44.8	29.3	27.6	48.7
	never	25.9	56.6	59.8	25.7
Worry, anxiety, gloomy mood	often	39.7	29.3	27.6	41.0
	sometimes	34.5	35.9	36.8	35.9
	never	25.8	34.8	35.6	23.1
Increased aggressiveness, conflictuality	often	46.6	27.2	23.0	35.9
	sometimes	36.2	43.5	29.9	41.0
	never	17.2	29.3	47.1	23.1
Irritability, fits of anger	often	34.5	17.4	13.8	23.1
	sometimes	39.7	36.9	34.5	35.9
	never	25.8	45.7	51.7	41.0
Reduced productivity of activities	often	27.6	15.2	19.5	38.5
	sometimes	32.8	23.9	28.7	33.3
	never	39.6	60.9	51.8	28.2
Disorders in the cognitive sphere	often	20.7	14.1	10.3	25.6
	sometimes	25.9	18.5	16.1	28.2
	never	53.4	67.4	73.6	46.2
Disorders in the physiological sphere	often	13.8	9.8	9.2	15.4
	sometimes	22.4	14.1	12.6	20.5
	never	63.8	76.1	78.2	64.1
Decreased immunity, increased morbidity	often	12.1	4.3	6.9	12.8
	sometimes	20.7	14.1	14.9	17.9
	never	67.2	81.6	78.2	69.3

pronounced than in those with choleric and melancholic types. All it shows that temperament, as one of the main characteristics of the individual psychological properties of a person, is a factor that determines the occurrence and frequency of stress symptoms.

The results of the research of mental health indicators in cadets with different types of temperament during training under martial law are presented in Table 2.

Assessment of the stress level in cadets with different temperament types using the Y. V. Shcherbatykh test shows that performing educational tasks in martial law conditions leads to the manifestation of moderate stress in cadets of all temperament types. However, cadets with choleric and melancholic types of temperament had a higher level of stress after returning from the training grounds than cadets with sanguine and phlegmatic types.

Thus, the differences between Groups S and C, S and M, as well as P and C and P and M are 2.9 points ($p \leq 0.05$), 2.7 points ($p \leq 0.05$), 2.5 points ($p \leq 0.05$) and 2.7 points ($p \leq 0.05$), respectively, and are statistically significant. At the same time, no statistically significant differences were found between the indicators of Groups S and P, as well as C and M ($p > 0.05$) (Fig. 1).

Assessing the tendency to develop stress in cadets with different types of temperament allows us to state that cadets with a choleric and melancholic temperament type have a higher tendency to develop stress during training and combat activities under martial law than in cadets with a sanguine and phlegmatic type. The highest level of susceptibility to developing stress was found in melancholic people (23.6 points). It was also found that cadets with sanguine and phlegmatic temperament types have the lowest indicators of stress susceptibility among the studied groups, with no statistically significant differences between them ($p > 0.05$). However, compared to choleric and melancholic cadets, their scores are statistically significantly lower ($p \leq 0.05$) by 3.6 and 3.1 points, 4.4 and 3.9 points, respectively. It should be added that the indicators of cholerics and melancholics do not differ statistically ($p > 0,05$).

The assessment of cadets' stress resilience using the method of S. Cohen and G. Williamson, in which higher scores indicate a lower level of stress resilience, showed that the best stress resilience among the studied cadet groups during the performance of training and combat tasks under martial law was observed in Groups S (15.7 points) and P (16.0 points). These indicators have no statistical differences between them ($p > 0.05$). The worst level of stress resistance was recorded in Groups C (21.7 points) and M (21.6 points), the indicators of which are also statistically the same ($p > 0.05$). On the other hand, comparing the indicators of groups of sanguine and phlegmatic cadets with the indicators of choleric and melancholic students, statistically better indicators were found for the former: the differences are 5.0 and 5.7 points ($p \leq 0.01$) and 5.9 and 5.6 points ($p \leq 0.01$), respectively.

The assessment of nervous-emotional stress in cadets during training and combat activity according to the method of T. A. Nemchin, depending on their temperament type, shows that the lowest level of nervous-emotional stress was found in cadets with a sanguine type of temperament (55.8 points), and the highest level in cadets with

Table 2

Comparative analysis of mental health indicators of cadets (n = 276), depending on their temperament type, scores

Study indicators	Groups of cadets			
	Group C (n = 58)	**Group S (n = 92)**	**Group P (n = 87)**	**Group M (n = 39)**
Stress level				
X ± m	11.8 ± 0.94	8.9 ± 0.71	9.1 ± 0.73	11.6 ± 0.99
t (*p*)	$t_{C-S} = 2.46$ ($p \leq 0.05$); $t_{S-P} = 0.20$ ($p > 0.05$); $t_{P-M} = 2.05$ ($p \leq 0.05$); $t_{C-P} = 2.27$ ($p \leq 0.05$); $t_{C-M} = 0.15$ ($p > 0.05$); $t_{S-M} = 2.22$ ($p \leq 0.05$)			
Propensity to develop stress				
X ± m	22.8 ± 1.32	19.2 ± 1.17	19.7 ± 1.21	23.6 ± 1.41
t (*p*)	$t_{C-S} = 2.04$ ($p \leq 0.05$); $t_{S-P} = 0.50$ ($p > 0.05$); $t_{P-M} = 2.10$ ($p \leq 0.05$); $t_{C-P} = 1.81$ ($p > 0.05$); $t_{C-M} = 0.43$ ($p > 0.05$); $t_{S-M} = 2.41$ ($p \leq 0.05$)			
Stress resilience				
X ± m	21.7 ± 1.15	15.7 ± 0.91	16.0 ± 0.94	21.6 ± 1.22
t (*p*)	$t_{C-S} = 3.32$ ($p \leq 0.01$); $t_{S-P} = 0.22$ ($p > 0.05$); $t_{P-M} = 3.64$ ($p \leq 0.01$); $t_{C-P} = 3.84$ ($p \leq 0.01$); $t_{C-M} = 0.06$ ($p > 0.05$); $t_{S-M} = 3.88$ ($p \leq 0.01$)			
Nervous and emotional stress				
X ± m	59.6 ± 1.23	55.8 ± 1.14	56.3 ± 1.15	60.1 ± 1.29
t (*p*)	$t_{C-S} = 2.27$ ($p \leq 0.05$); $t_{S-P} = 0.31$ ($p > 0.05$); $t_{P-M} = 2.20$ ($p \leq 0.05$); $t_{C-P} = 2.00$ ($p \leq 0.05$); $t_{C-M} = 0.28$ ($p > 0.05$); $t_{S-M} = 2.50$ ($p \leq 0.05$)			
Reactive anxiety				
X ± m	43.7 ± 1.11	40.4 ± 0.95	40.5 ± 0.98	44.6 ± 1.16
t (*p*)	$t_{C-S} = 2.26$ ($p \leq 0.05$); $t_{S-P} = 0.07$ ($p > 0.05$); $t_{P-M} = 2.73$ ($p \leq 0.05$); $t_{C-P} = 2.19$ ($p \leq 0.05$); $t_{C-M} = 0.56$ ($p > 0.05$); $t_{S-M} = 2.80$ ($p \leq 0.05$)			

Legend: X – arithmetic mean; m – standard error; n – sample size; t_{C-S}, t_{S-P}, t_{P-M}, t_{C-P}, t_{C-M}, t_{S-M} – value of Student's t-test between the indicators of the corresponding groups; p – level of statistical significance of differences.

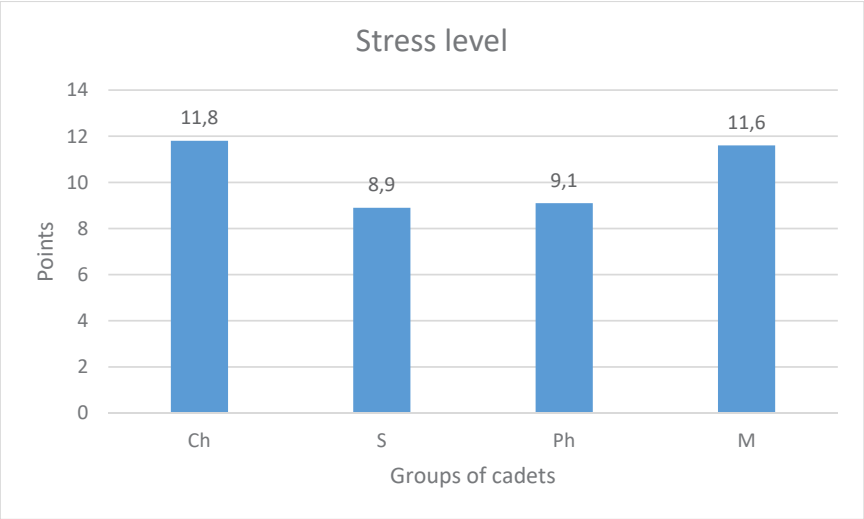

Fig. 1. Stress level of cadets, depending on their temperament type (C – choleric, S – sanguine, P – phlegmatic, M – melancholic), in points

a melancholic type (60.1 points). Cadets with a choleric type of temperament have no statistical differences with cadets with a melancholic type ($p > 0.05$), and the indicators of cadets with a sanguine type of temperament do not statistically differ from the indicators of cadets with a phlegmatic type ($p > 0.05$). However, a comparative analysis of the indicators of neuro-emotional stress in cadets of Groups S and P with Groups C and M showed statistically significant differences: they range from 3.3 to 4.3 points ($p \leq 0.05$).

Assessment of reactive anxiety according to the method of Ch. D. Spielberger and Yu. L. Khanin in cadets with different types of temperament after completing training and combat tasks at training grounds shows that in all studied groups, anxiety is at a moderate level. The highest level of anxiety was recorded in cadets of the melancholic temperament type (44.6 points); a slightly lower but statistically equal level ($p > 0.05$) was found in cadets of the choleric type (43.7 points); the lowest level of reactive anxiety was found in cadets of the sanguine (40.4 points) and phlegmatic (40.5 points) temperament types. Their anxiety indicators also do not have statistically significant differences between them ($p > 0.05$). Comparing the anxiety indicators of cadets of Groups C and M with those of Groups S and P, we found statistically significant ($p \leq 0.05$) differences between them: they are 3.3 and 3.2 points and 4.2 and 4.1 points, respectively. This indicates that emotionally unstable cadets with a weak type of nervous system experience anxiety more frequently and intensely under the influence of stress factors of educational activity compared to cadets with a strong type of nervous system.

Discussion of research results

Research conducted by [21] shows that stress becomes psychotraumatic if its level exceeds the protective mechanisms of the psyche, stress resistance, and individual adaptive capabilities. A psychotraumatic event disrupts the integrity of the functioning of the four spheres of personality (physical, emotional, cognitive, and spiritual), which form an integral system of personality. Psychological reactions to a stressful event occur in all people during the war, but may differ in severity and, accordingly, consequences. The level of impact of a psychotraumatic event on a person depends on the strength of the affect and personal reactions to the stressful situation – that is, the individual psychological properties of the person [10]. Individual-psychological properties affect people's behavior and activities and are manifested in temperament, character and its orientation [11]. Our attention was focused on this when we analyzed the educational activities of the cadets under stress conditions.

Stress occurs when the impact of a stressor leads to a disturbance in the mental health (in the affective, cognitive, behavioral, emotional-volitional spheres), which depends on the individual's reaction. The speed, tempo, and intensity of reactions depend on the combination of the strength of excitation, the strength of inhibition, the degree of balance, and the general mobility of the individual's nervous system – the type of temperament [13; 22].

Behavior and activity depend on temperament – the course of all mental processes and individual stable features of all substructures of the personality [11]. Individual characteristics of reactions are manifested in the following traits: sensitivity (sensitiveness) – the minimal stimulus strength required to trigger a reaction and the speed of its onset; reaction tempo – quickness of thought, inventiveness, movements, etc.; reactivity – the intensity of response to stimuli; activity (opposite – passivity) in overcoming difficult conditions and situations to achieve goals (purposefulness, persistence, etc.); rigidity (opposite – plasticity) – difficulty in adapting to new and unexpected situations, behavioral inertia, habitual patterns, and judgments; plasticity – ease of adaptation and behavioral flexibility; extraversion (opposite – introversion) – outward

orientation of activity under the influence of present events; introversion – inward orientation influenced by past and future feelings, thoughts, and images; thus, the behavior of an extrovert depends on the immediate environmental situation, while that of an introvert is determined by their inner world; emotional excitability (opposite – emotional stability) – the stimulus intensity required to trigger an emotional reaction and the speed of its onset. Therefore, each person will react individually to the same traumatic events (impacts) [23]. This is also proven by the results of our study, where, under the influence of stress factors, cadets with different types of nervous systems manifest themselves differently during their educational activities: from emotional stability and balance to pronounced anxiety and emotional excitability.

A number of scientists [10; 13; 19] have identified the reactions of people of different temperament types to traumatic events: choleric (unbalanced, emotionally excitable, active, anxious extrovert) reacts strongly to influence, adapts to new and unexpected situations with difficulty, shows aggression and irritability in traumatic events, impulsively rushes into battle, cannot find the right solution to a difficult situation, therefore prone to fussiness, which does not contribute to calming down and finding optimal solutions; melancholic (weak type of nervous system, anxious introvert) sensitive to minor influences, painfully reacts to nervous overload and stressful situations, avoids them (depression may be the result), in difficult situations passive, confused, cries, seeks help and support from other people; phlegmatic (strong type, balanced, little anxious introvert) has difficulties in making quick decisions, orientation in stressful situations, the power of experiencing external manifestations is imperceptible, passively solves problems; sanguine (strong type, balanced, little anxious extrovert) quickly adapts to new conditions, stress-resistant, productively solves problems in traumatic situations, cooperates with other people, can take responsibility if necessary [24].

Therefore, the results of our research confirmed the conclusions of many scientists [10; 13; 16; 25; 26; 27; 28] regarding the high frequency of stress symptoms and low stress tolerance and other mental health indicators of cadets with choleric and, especially, melancholic temperament types. On the contrary, in sanguine and phlegmatic cadets, the indicated indicators are significantly better, which will contribute to maintaining and strengthening their health during the war, increasing the effectiveness of educational and further service activities in the conditions of martial law.

Prospects for further research

It is planned to investigate the frequency of stress symptoms and the level of mental health indicators in female cadets during training under martial law and compare them with the data obtained in male cadets.

Conclusions

The conducted studies indicate that cadets with choleric and melancholic temperaments exhibit psychosomatic stress symptoms more frequently than those with sanguine and phlegmatic temperaments. That is, cadets with a choleric and melancholic type of temperament are more likely to get stressed during training under martial law than cadets with a sanguine and phlegmatic type of temperament.

It was established that such indicators of mental health of cadets as stress level, tendency to develop stress, level of stress resistance, neuro-emotional stress, and reactive anxiety are reliably ($p \leq 0.05–0.01$) worse and more negatively expressed in melancholic and choleric cadets, compared to sanguine and phlegmatic cadets. This determines the need to take into account the individual psychological properties of cadets, in particular the type of temperament, when justifying the means of stress prevention during training under martial law, as well as for the restoration of the physical and psycho-emotional state of cadets.

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The purpose of the work is to investigate the frequency of stress symptoms and the level of mental health in cadets during training under martial law, depending on their temperament type.

Materials and methods. The research was conducted in 2024–2025 at National Academy of Internal Affairs (Ukraine, Kyiv, NAIA). The study involved 276 male cadets studying at the bachelor's level in the specialty "Law Enforcement". Four groups of cadets were formed, depending on their temperament type: choleric (Group C, n = 58), sanguine (Group S, n = 92), phlegmatic (Group P, n = 87), and melancholic (Group M, n = 39). Research methods: theoretical analysis and generalization of literature sources, survey, psycho-diagnostic methods, methods of mathematical statistics.

Results. Conducted studies show that choleric and melancholic cadets show psychosomatic symptoms of stress more often than sanguine and phlegmatic cadets. That is, cadets with a choleric and melancholic type of temperament are more likely to get stressed during training in martial law conditions than cadets with a sanguine and phlegmatic type of temperament. It was established that such indicators of mental health of cadets as stress level, tendency to develop stress, level of stress resistance, neuro-emotional stress, and reactive anxiety are reliably ($p \leq 0.05$–0.01) worse and more negatively expressed in melancholic and choleric cadets, compared to sanguine and phlegmatic cadets.

Conclusions. This determines the need to take into account the individual psychological properties of cadets, in particular the type of temperament, when justifying the means of stress prevention during training under martial law, as well as for the restoration of the physical and psycho-emotional state of cadets.

Key words: temperament, cadets, stress, mental health, martial law, war.

Мета – дослідити частоту прояву симптомів стресу та рівень психічного здоров'я у курсантів під час навчання в умовах воєнного стану залежно від типу їх темпераменту.

Матеріали та методи. *Дослідженні проводилося у 2024–2025 роках у Національній академії внутрішніх справ (Україна, м. Київ, НАВС). До дослідження було залучено: 276 курсантів чоловічої статі, які навчалися на бакалаврському рівні за спеці-*

альністю «Правоохоронна діяльність». Було сформовано 4 групи курсантів залежно від типу їх темпераменту: холеричний тип (група Х, n = 58), сангвінічний (група С, n = 92), флегматичний (група Ф, n = 87) та меланхолічний тип (група М, n = 39). *Критеріями включення учасників до дослідження були:* наявність певного типу темпераменту в курсантів чоловічої статі; період навчання в умовах воєнного стану не менше ніж один рік; добровільна участь курсантів у дослідженні (*усі курсанти були повідомлені про участь у дослідженні суто в наукових цілях та надали згоду на добровільну участь у дослідженні). Критерієм виключення було бажання учасників вийти з дослідження в будь-який час за власним бажанням. Методи дослідження: теоретичний аналіз та узагальнення літературних джерел, опитування, психодіагностичні методи, методи математичної статистики.* Для оцінювання частоти прояву симптомів стресу в курсантів з різним типом темпераменту під час навчання в умовах воєнного стану нами було застосовано авторський опитувальник, до якого було включено типові психосоматичні симптоми стресу, які найчастіше виявляються в людей під час війни: порушення сну, погані сни; занепокоєння, тривожність, похмурий настрій; підвищена агресивність, конфліктність; дратівливість, напади гніву; знижена продуктивність діяльності; порушення в когнітивній сфері; порушення у фізіологічній сфері; зниження імунітету, підвищена захворюваність. Відповідаючи на питання опитувальника, курсантам потрібно було вказати частоту прояву симптомів стресу: часто, інколи, ніколи. Для дослідження показників психічного здоров'я у курсантів із різним типом темпераменту під час навчання в умовах воєнного стану нами було застосовано ряд психодіагностичних методик (тест на визначення рівня стресу (за Ю. В. Щербатих), методику визначення схильності до розвитку стресу (Т. А. Немчин, Дж. Тейлор), тест самооцінювання стресостійкості (С. Коухен та Г. Вілліансон), методику оцінювання нервово-емоційного напруження (Т. А. Немчин), шкалу реактивної тривожності (Ч. Д. Спілбергер, Ю. Л. Ханін).

Результати. Проведене нами дослідження вказує, що індивідуально-психологічні властивості курсантів позначаються на поведінці та виявляються в їх темпераменті. Отримані дані засвідчують, що в курсантів-холериків і меланхоліків психосоматичні симптоми стресу виявляються частіше, ніж у сангвініків і флегматиків. Тобто курсанти холеричного та меланхолічного типу темпераменту мають більшу ймовірність отримати стрес під час навчання в умовах воєнного стану, ніж курсанти сангвінічного та флегматичного типу темпераменту. Встановлено, що такі показники психічного здоров'я курсантів, як рівень стресу, схильність до розвитку стресу, рівень стресостійкості, нервово-емоційне напруження, реактивна тривожність є достовірно ($p \leq 0,05–0,01$) гіршими та більш негативно виражені в курсантів-меланхоліків і холериків порівняно з курсантами-сангвініками та флегматиками. Емоційно нестабільні курсанти зі слабким типом нервової системи в умовах дії стрес-чинників навчальної діяльності частіше та більш виражено відчувають тривожність порівняно з курсантами із сильним типом нервової системи.

Висновки. Такі показники психічного здоров'я курсантів, як рівень стресу, схильність до розвитку стресу, рівень стресостійкості, нервово-емоційне напруження, реактивна тривожність, є більш негативно вираженими в курсантів-меланхоліків і холериків порівняно з курсантами-сангвініками та флегматиками. Це обумовлює необхідність врахування індивідуально-психологічних властивостей курсантів, зокрема типу темпераменту, для обґрунтування засобів профілактики стресу під час навчання в умовах воєнного стану, а також для відновлення фізичного і психоемоційного стану курсантів.

Ключові слова: темперамент, курсанти, стрес, психічне здоров'я, воєнний стан, війна.

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