



#1
2024

DOI: 10.25040/ntsh2024.01.12

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Received: 20 Dec, 2024

Accepted: 02 Mar, 2024

Published: 28 Jun, 2024

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Disclosures: The authors declared no
conflict of interest.

Author Contributions:

Conceptualization, results of
study, writing: Oleh S. Fitkalo;

Review & editing: John Arden.

Ethical approval: The bioethics
committee of Danylo Halytsky Lviv
National Medical University, protocol
№ 10 of 16.12.2019.

Funding: Conducted as part of the
research work of the Department of
Psychiatry and Psychotherapy at the
Faculty of Postgraduate Education,
Danylo Halytsky Lviv National
Medical University (Lviv, Ukraine),
under the topic of the scientific
research "Clinical Polymorphism
Features of Comorbid Conditions in
Psychiatry and Narcology,"
registration number 0119U100172



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Original research: Clinical sciences

Stress Resistance Features of Cadets under the Influence of Combat Stress

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The aim of the study: To investigate the characteristics of stress resistance among cadets under the influence of combat stress, identify the personality-psychological profile of students prone to depression, and establish the correlation with academic performance.

Materials and methods: The main group of participants in our study consisted of 45 cadets in their fourth year of training who were involved in combat operations and diagnosed with varying degrees of combat stress. The age range of the respondents was between 20 and 26.

In the study, a complex of psychodiagnostic methods was used, including the "Combat Stress Questionnaire" by Blinov O. A. (CSQ), the Beck Depression Inventory (BDI) for diagnosing depressive symptoms, and an analysis of the academic performance of cadets who participated in combat operations. All developed express methods underwent appropriate standardization and practical testing, demonstrating high effectiveness.

According to the results of the study of depression levels in cadets, the following were diagnosed: 5 (11%) cadets had a high degree of depression, 9 (20%) cadets had an average degree of depression, 18 (40%) cadets had a mild degree of depression, and 13 (29%) cadets had no signs of depression.

Conclusions: All 45 (100%) cadets who participated in combat operations were in combat stress. 71.1% of respondents showed signs of depression. The result of the impact of combat stress is damage to the soldiers' psyche, which takes the form of combat-mental trauma. The intensity of experiencing combat stress depended on the main factors: the strength and duration of the impact on the psyche and the individual psychological features of the body's response to their impact, character and level of motivation.

Keywords: Combat stress, stress resistance, depression, academic performance.

Introduction

The full-scale invasion of Ukraine by Russia on February 24, 2022, tragically and profoundly changed the lives and destinies of millions of people in Ukraine, becoming a severe ordeal for all Ukrainians. Today, we have thousands of casualties from Russian shelling and violence, and millions of Ukrainians have become internally displaced persons or refugees who have fled beyond Ukraine's borders. This is a new tragic experience and, at the same time, a new relevant reality for Ukrainian society. The war between Ukraine and separatists, which began in 2014, is not a closed topic for the younger generation, who understand well that they will be participants in this war to fight for their land.

The enrollment of adolescents directly from their school desks into the Hetman Petro Sahaidachnyi National Academy of Ground Forces confirms the motivated stance of the country's young rising generation. Students deeply empathize with what is happening in Ukraine. When entering the academy, young people understand that they will participate in the struggle against aggressors. Their motivated choice gives them confidence that they will cope with such an important task as defending their homeland.

Understandably, in extreme situations such as the ongoing war, all individuals experience a sense of stress.

Combat stress is a combination of states experienced during the process of adapting to adverse factors that threaten life in a combat situation [7]. The intensity of experiencing combat stress depends on the interaction of key factors: the strength and duration of the impact on the psyche, individual psychological characteristics of the body's response to their influence, and the nature and level of motivation. Combat stress can be divided into components: emotional stress (a combination of negative experiences with corresponding vegetative reactions), physical stress (adaptive strain on the body due to environmental factors), and general fatigue associated with their intensity [2].

The aim of the study: To investigate the characteristics of stress resistance among cadets under the influence of combat stress, identify the personality-psychological profile of cadets prone to depression, and establish its correlation with academic performance.

Materials and Methods

The main group of participants in our study consisted of 45 cadets in their fourth year of training who were involved in combat operations and diagnosed with varying degrees of combat stress. Combat stress is a pre-pathological destabilizing condition that depletes functional reserves of the body, accompanied by a decrease in the level of psychological security of the individual, increasing the risk of disintegration of mental activity and stable somatic and vegetative dysfunctions. The age range of respondents was between 20 and 26.

In the study, a complex of psychodiagnostic methods was used, including the "Combat Stress Questionnaire" by Blinov O.A. (CSQ), the Beck Depression Inventory (BDI) for diagnosing depressive symptoms, and an analysis of the academic performance of cadets who participated in combat operations. All developed express methods underwent appropriate standardization and practical testing, demonstrating high effectiveness.

The Beck Depression Inventory (BDI) is a widely used method for diagnosing depression of varying severity. The questionnaire is based on clinical observations and descriptions of symptoms commonly found in patients with depressive features. It is easy to administer and does not require extensive time commitment, as it can be completed within 5 minutes, and its interpretation and scoring are straightforward. According to several researchers, the Beck Depression Inventory allows not only detecting depressive symptoms but also determining their severity [5, 7, 9].

The Blinov Combat Stress Questionnaire (CSQ) was used to assess stress intensity levels. Combat stress of low intensity corresponded to a score of 1.0–2.66 (indicating the highest level of adaptability to stress factors). A score of 2.66 to 3.91 was considered as combat stress of moderate intensity. Combat stress of high intensity, indicating the lowest level of adaptability to combat stressors, corresponded to a score of 3.91 to 5.0 [2].

Results

Based on the level of combat stress, cadets were divided into three groups:

Group I – 14 cadets (31%) with high-intensity combat stress;

Group II – 23 cadets (51%) with moderate intensity combat stress;

Group III – 8 cadets (18%) with low-level combat stress.

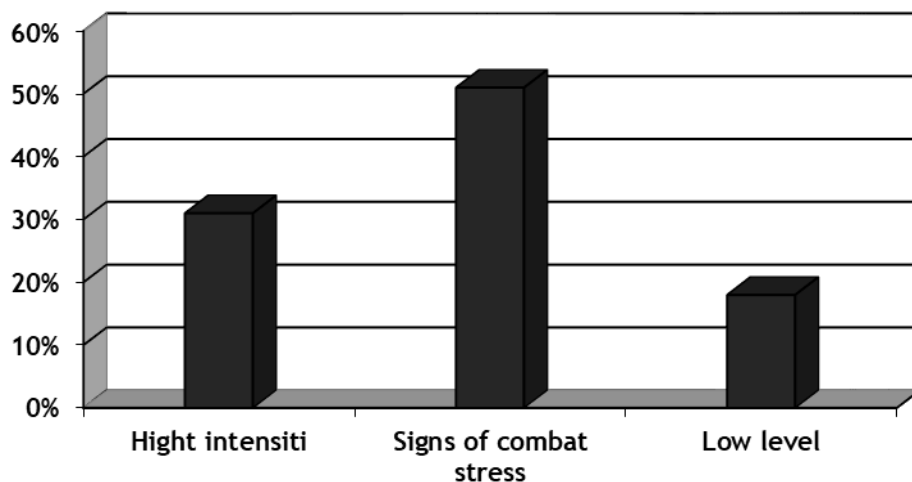


Figure 1. Indicators for diagnosing psychological consequences of combat stress

Figure 1 shows the results of the psychodiagnostic assessment of cadets using the methodology of O.A. Blinov, with the determination of stress intensity levels. Based on these results, personality profiles of students were identified in the context of assessing susceptibility to depression. Depression has a psychological nature and is based on personal vulnerability to non-constructive, repetitive experiences with an acute or chronic course.

According to the quantitative results of depression signs according to the Beck Depression Inventory (Figure 2), the following percentage indicators are observed among cadets: 11% (5) of cadets exhibited a high degree of depression, 20% (9) of cadets showed a moderate degree of depression, and 40% (18) of cadets had a mild degree of depression. Additionally, 29% (13) of cadets showed no signs of depression.

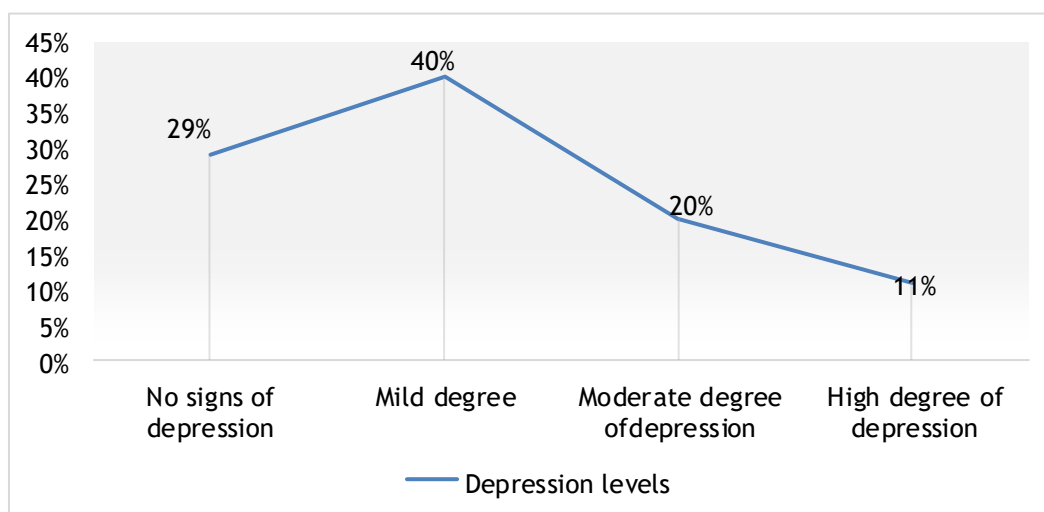


Figure 2. Indicators of diagnosing depressive symptoms using the Beck Depression Inventory

Analyzing the obtained results, it can be observed that there is a correlation between the intensity of combat stress and the level of depression. Among 14 (31%) cadets in the first group who experienced high-intensity combat stress, 9 cadets showed a moderate level of depression, and 5 cadets exhibited a high level of depression. Among 23 (51%) cadets with signs of moderate-intensity combat stress, all of them were diagnosed with a mild degree of depression (see Figure 3). Thus, it was found that the higher the intensity of combat stress, the more pronounced the symptoms of

depression. Patients with mild and moderate depression are recommended to undergo psychotherapeutic interventions with subsequent evaluation of their effectiveness within 4–6 weeks, if feasible.

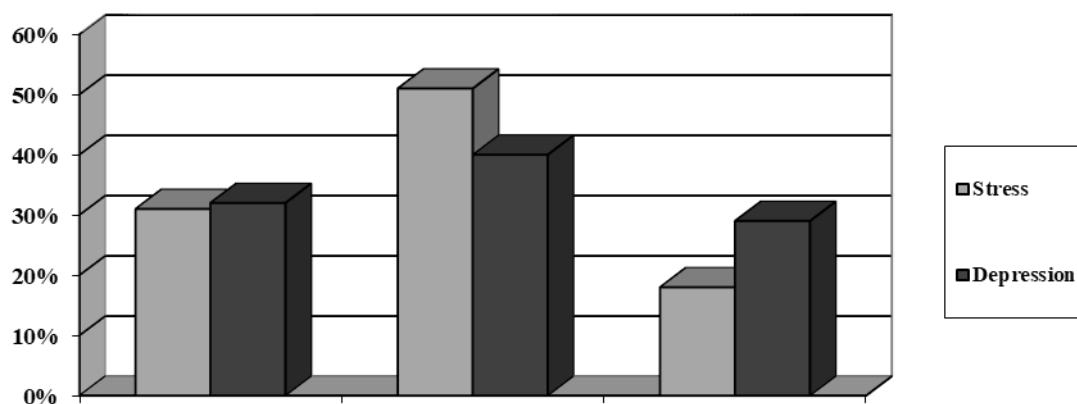


Figure 3. The presence of depressive symptoms according to the intensity of combat stress

Upon analyzing the performance of the cadets participating in the study, a low level of performance was observed, with an average score ranging from 3.1 to 3.8 among all 14 respondents initially diagnosed with high-intensity combat stress (see Figure 4).

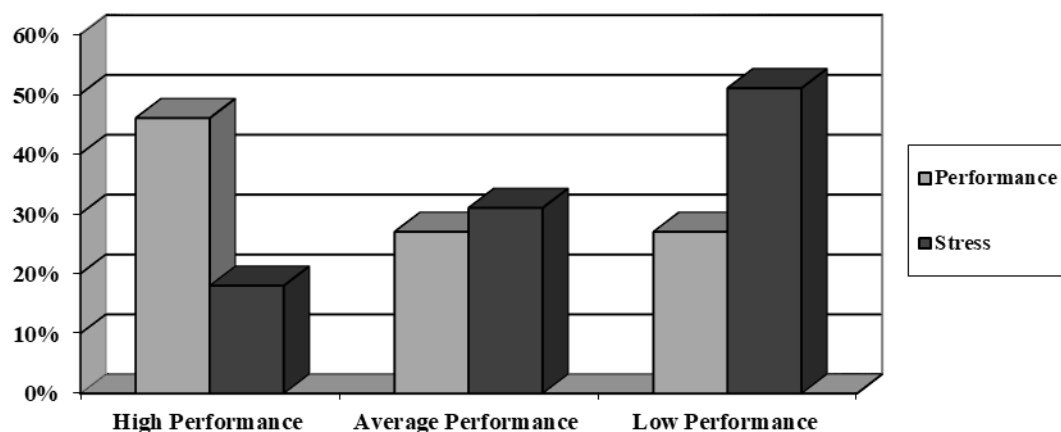


Figure 4. The success of cadets depending on the intensity of combat stress

In our study, the objective was not to examine the clinical picture of a depressive episode in the participants. However, it has been established that the intensity of combat stress (the threat to one’s own life) experienced during combat operations is a risk factor for the development of mental disorders in cadets, which directly affects their success. Difficult life situations, regardless of their form, are accompanied by emotions. The critical moment of a situation is determined by the presence of emotional tension, and the degree of its impact on an individual is determined by the strength of affect and the person’s reactions. Thus, the “affectogenic life situation,” which refers to a situation of emotional tension experienced by cadets during combat stress, led to the development of psychological trauma with depressive symptoms, which, in turn, resulted in poor performance.

In conclusion: It was found that a group of cadets who participated in the study had no direct combat experience and proved to be vulnerable to adverse factors of the combat reality, with a predominance of cognitive-affective

manifestations of depression. After engaging in combat operations, most participants showed signs of psychological traumatization, which directly affected their performance upon returning from the combat zone.

From the analysis of the processed 90 questionnaires (2 inventories), conclusions were drawn regarding each participant's psychological traumatization risk factors manifested in their individual psychological characteristics. The following spheres of personality were involved: emotional, motivational, cognitive, volitional, and behavioral, including personal perception, psychological and professional readiness, character, and level of combat motivation. The presence of relevant correlation relationships ($p \leq 0.05$) was proven between indicators that serve as indicators of psychological traumatization and indicators of personality traits.

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