ORIGINAL PAPER
ORYGINALNY ARTYKUŁ NAUKOWY

Health Prob Civil. 2023, Volume 17, Issue 3
ISSN 2353-6942

THE INFLUENCE OF SPORTS ON EMOTIONAL CONTROL IN CADETS OF THE NATIONAL GUARD OF UKRAINE AT THE BEGINNING OF THE WAR

WPŁYW SPORTU NA KONTROLĘ EMOCJONALNĄ U KADETÓW GWARDII NARODOWEJ UKRAINY NA POCZĄTKU WOJNY

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zaplanowanie badań
B. Data collection/entry
zebranie danych
C. Data analysis/statistics
dane – analiza i statystyki
D. Data interpretation
interpretacja danych
E. Preparation of manuscript
przygotowanie artykułu
F. Literature analysis/search
wyszukiwanie i analiza literatury
G. Funds collection
zebranie funduszy

Tables: 0
Figures: 2
References: 28
Submitted: 2023 May 15
Accepted: 2023 Jun 19

Summary

Background. The ability to adequately respond to various emotional situations is vital for law enforcement officers to work effectively in peacetime. In times of war, the importance of emotional control increases.
Material and methods. A survey (in Google forms) of cadets of the Kyiv Institute of the National Guard of Ukraine (n=282) was conducted. Depending on whether they played sports, the respondents were divided into 2 groups (n=171 and n=111, respectively). Spielberger's method was advocated. And the Courtlaud Emotional Control Scale.
Results. The anxiety levels of athlete cadets and those who had stopped regular training did not differ. An average level of emotional control was recorded. The anxiety control score was close to low. Significant differences were found in the anxiety and depression control scores of cadets who regularly performed physical exercise and those who did not participate in sports.
Conclusions. At the beginning of the war, the level of anxiety among cadets was high. Among cadets who play sports, there was no high level of anxiety control, aggression, or depression, as expected from athletes. This can be explained by the different intensity of emotions and their control, as well as the insufficient duration of sports training among cadets.

Keywords: emotional control, aggression, physical activity, anxiety, depression

Streszczenie

Wprowadzenie. Zdolność do adekwatnego reagowania w różnych emocjonalnych sytuacjach jest niezbędna funkcjonariuszom organów ścigania do skutecznej pracy w czasie pokoju. W czasie wojny znaczenie kontroli emocjonalnej staje się jeszcze większe.
Materiał i metody. Przeprowadzono ankietę (na formularzach Google) wśród kadetów Instytutu Gwardii Narodowej Ukrainy w Kijowie (n=282). Respondentów podzielono na 2 grupy w zależności od tego, czy uprawiają sport (odpowiednio n=171 i n=111). Zastosowano metodę Spielbergera, jak również Skalę Kontroli Emocji (*Courtlaud Emotional Control Scale*).
Wyniki. Nie było różnicy w poziomie lęku u kadetów uprawiających sport i u tych, którzy zaprzestali regularnego treningu. Odnotowano średni poziom kontroli emocjonalnej. Wynik w zakresie kontroli nad lękiem był bliski niskiemu. Znaczące różnice stwierdzono w wynikach kontroli lęku i depresji wśród kadetów uprawiających regularne ćwiczenia fizyczne i u tych, którzy nie uprawiali sportu.
Wnioski. Na początku wojny poziom lęku wśród kadetów był wysoki. U kadetów uprawiających sport nie wystąpił wysoki poziom kontroli lęku, agresji lub depresji, czego można się spodziewać po sportowcach. Można to wyjaśnić inną intensywnością emocji i ich kontrolą, jak również niewystarczającym czasem trwania treningu sportowego u kadetów.

Słowa kluczowe: kontrola emocjonalna, agresja, aktywność fizyczna, lęk, depresja

Bodnar I, Andres A, Kryzhanovskyi V, Shvets V. The influence of sports on emotional control in cadets of the National Guard of Ukraine at the beginning of the war. Health Prob Civil. 2023; 17(3): 269-276. https://doi.org/10.5114/hpc.2023.128805

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Introduction

Emotional control is a vital skill for law enforcement officers. Their professional activities take place in unique conditions characterized by high levels of tension and responsibility, active interpersonal interactions within the framework of specific subordination norms. This requires officers to have a high level of emotional and volitional regulation skills, such as empathy, emotional restraint, balance, communicative tolerance, emotional stability, etc., which are components of emotional intelligence [1].

Emotional control is particularly important during wartime due to the high-stress atmosphere. Officers who can control their emotions can better cope with wartime stress and ensure the stable presence of their troops; the inability to control their emotions can threaten the success of military operations. Modern war is an extremely complex and multi-faceted stressor. This leads to the traumatization of physical and mental health of both civilians and military personnel. Prolonged exposure to stressors can cause depression, neurotic conflict, accompanied by emotional instability, outbursts, and psychosomatization of experiences, resulting in the deterioration of physical health and exacerbation of chronic illnesses [2-4]. The level of anxiety depends on subjective differences in people's reactions to stressful situations during military clashes, and not on the degree of proximity to military actions or the probability of participation in them [5]. Therefore, the lack of emotional control skills to effectively overcome physical and mental pain can lead to problems with the mental health of officers. It is, therefore, important for future officers to have a sufficient level of development of this skill, as it can ultimately mean the difference between success and failure in military operations and ensure mental and physical health.

It has been confirmed that emotional intelligence can be an important factor in the career success of cadets; thus, researchers [6] found a strong correlation between emotional intelligence and self-adaptation (R=0.647 and R2=0.418) of cadets at the Indonesian Air Force Academy. However, this study was limited to a specific population and its results cannot be generalized to other cadet populations. Therefore, further research is needed to fully understand the relationship between emotional intelligence and cadet success.

Existing data from specialized literature indicate high levels of negative emotions among military personnel, cadets, and combatants [7-10] during peacetime or in the rehabilitation phase. However, there are other data [11] that testify to the predominance of the intensity of repressed anger over released anger in war veterans. There is no universal solution to how to prepare for extreme conditions, but a correlation has been noted between the physical fitness of military personnel and their emotional control [3,5,7,8]. It is believed that sports activities can be an effective means of correcting emotions [12-20]. However, the data is incomplete and controversial.

The aim of the study is to determine the levels of anxiety and emotional control among cadets of the National Guard of Ukraine at the beginning of the war; to compare the indicators of sports cadets and cadets who did not engage in sports.

Material and methods

Subject

Anxiety was measured by the method proposed by C.D. Spielberger. When interpreting anxiety indicators, the following approximate anxiety assessments were used: up to 30 points – low, 31-44 points – moderate, 45 and above – high.

To measure a person's ability to control emotional experiences, we used the Cortlaud Emotional Control Scale modified by M. Watson and S. Greer. This tool measures the individual level of suppression of anger/irritation, depressive/bad mood/sadness, and fear/anxiety. The scale consisted of 21 statements, and the answers were

given on a 4-point Likert scale. The following categories were used to evaluate the results: 6-12 – low level of emotional suppression, 13-18 – average, 19-24 high.

Protocol

The survey was conducted in March 2022, one month after the start of the full-scale invasion of Russian troops into Ukraine. The cadets had to answer the questionnaire (in Google Forms).

The participants of the study were cadets of the Kiev Institute of the National Guard of Ukraine, totaling 282 individuals. After the attack of enemy troops, the training in the educational institution continued, and its structure changed somewhat. In our study, we divided the indicators of all cadets into 2 groups (n=171 and n=111, respectively) depending on whether they engaged in sports before the start of the full-scale invasion of Russian troops into Ukraine or never attended training sessions. The sports experience of athlete cadets averaged 3.65±1.90 years.

Ethics

The research procedures complied with the Helsinki Declaration of 1975, revised in 2000, and ethical standards for experiments on humans.

Statistical analysis

There was no normal distribution observed for any of the indicators. Therefore, the reliability of discrepancies was calculated using ANOVA. All data analyses were completed using Origin 8.1 (OriginLab Corporation, Northampton USA). The critical threshold for accepting significance was set at $p<0.05$.

Results

Analysis of our indicators showed a high level of situational anxiety (57.10±10.32) in cadets. The high level of these data indicated in a large number of cadets (Figure 1) that at the time of the study, the cadets were under stress; the emotional reaction of the cadets to the stressful situation was intense. Since the study was conducted at the beginning of the acute phase of the war, we can assume that this circumstance could serve as a stressor.

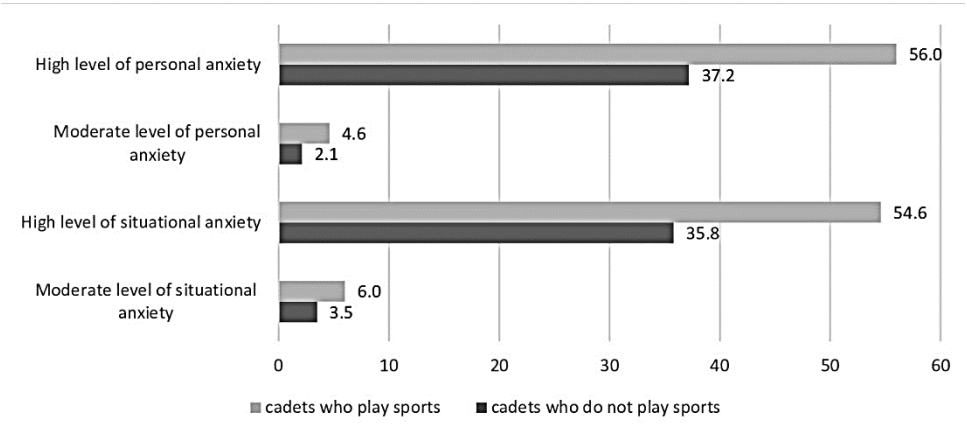

Figure 1. Distribution of number of participants by levels of anxiety

The data we obtained on personal anxiety levels (58.84±10.67) indicated that a large number of cadets were categorized as highly anxious individuals. High anxiety levels were observed in both groups of cadets:

athletes and those who had stopped regular training, with no statistically significant difference between them (personal 58.94±11.31 vs 58.70±9.64, situational 57.43±10.77 vs 56.58±9.62). Therefore, although sports are considered a strong anti-stressor, they did not reduce the emotional reaction of cadets in higher education institutions of the Ministry of Internal Affairs to such a stressor as war.

Analysis of the cadets' emotion control scores showed a moderate level of suppression across all scales, while the anxiety control score (13.61±4.07) was close to a low level. This indicates that the cadets we surveyed experience significant difficulties in regulating this emotion.

The values of aggression control indicators (Figure 2) in cadets who regularly engage in sports (15.46±4.61 points) are similar to those who have stopped training (15.98±4.45 points). However, significant differences were observed in the depression control indicators (13.59±4.74 and 15.53±4.95 points, respectively, p=0.002) and anxiety (13.07±4.13 and 14.43±3.84 points, respectively, p=0.011) of cadets who regularly perform physical activities and those who do not engage in sports.

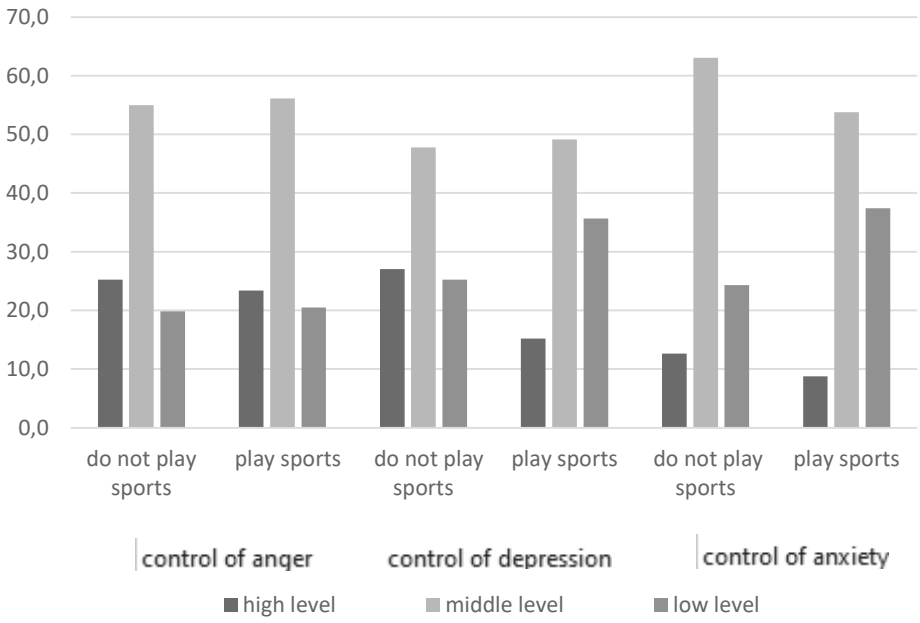

Figure 2. Distribution of number of participants by levels of emotion control

Discussion

The ability to adequately respond to various emotional situations is vital for law enforcement work in peacetime. Emotional control becomes even more crucial during wartime. Officers who can manage their emotions can set an example by remaining composed in complex, threatening, and uncontrollable situations, inspiring their military personnel to act the same. This creates a sense of unity and trust between the officer and their subordinates, which is critical for successful military operations. Officers who cannot control their emotions may lash out at their subordinates, which can damage morale and lead to disciplinary problems that threaten the success of military operations.

According to our data, the level of situational (57.10±10.32 points) and personal anxiety (58.84±0.64 points) in cadets was high. A high level of these indicators indicated emotional tension, anxiety, and nervousness that cadets subjectively experienced due to the real threat to their lives and the lives of their loved ones during the acute phase of the Russian-Ukrainian war. Personal anxiety data indicated that cadets belonged to the

category of highly anxious individuals. Such individuals are prone to perceive a wide range of situations as threats to their self-esteem, self-respect, prestige, and livelihood. Personal anxiety is particularly high when circumstances relate to the competence of these individuals. War directly relates to the sphere of competence of cadets in higher education institutions of the armed forces. Therefore, high indicators of personal anxiety in the cadet population could be explained by professional stress during wartime combined with individual and personal characteristics.

Similar, but not as high levels of anxiety were observed among military personnel and combatants. According to experts [2], 30% of military personnel had a high level of personal anxiety, and 28% had high reactive anxiety. According to other data [20], 77% of combatants experienced high levels of stress, and 13% experienced moderate levels. It was found [21] that police cadets generally have a moderate level of professional anxiety, but senior cadets have higher levels of anxiety than first-year cadets. A high prevalence of depressive symptoms was established [7] among military medical cadets. Thus, in times of war, the intensity of anxiety among cadets exceeded the data from scientific literature established during military training in peacetime. In other words, the high level of anxiety inherent in the cadet population was further exacerbated during times of war.

During wartime, soldiers are subjected to violence, death, and injury, which can be emotionally challenging. Pain and depression are strongly related and common biochemical mechanisms cause their mutual escalation [3,4]. An intense feeling of fear, together with a prolonged feeling of pain, can lead to long-term consequences, such as an overload of the immune system [22]. Officers with low emotional adaptability will find it difficult to cope with stress, which can lead to mental health problems. Overall, low emotional adaptability can have serious consequences for officers, affecting their ability to perform their job effectively (due to decreased empathy and communication) and potentially putting themselves and others at risk, leading to burnout. The high level of anxiety and low ability of cadets to recognize, understand, and change its intensity confirm the need for correction of their psychoemotional state. Therefore, it is important for officers to develop and maintain emotional adaptability. We found that the anxiety control index of cadets (13.61±4.07 points) was close to a low level. This factor predicts poorer development of adaptive reactions among cadets.

The low level of emotional control was a result of less frequent use of emotional management strategies in professional and everyday life. On the other hand, sports improve psychological health by improving mood, reducing the manifestation of anger, increasing the ability to control emotions (in order to win), and reducing anxiety. It has been shown that sports, including athletics, karate, sambo, boxing, taekwondo and other combat sports, rock climbing, kettlebell sports, and performing special exercises on obstacle courses and gymnastics wheels can be an effective means of correcting emotions [12-20,23-26]. However, according to our data, high anxiety levels were observed in all cadets and did not differ statistically between cadet athletes and those who had long ceased regular training (personal 58.94±11.31 points compared to 58.70±9.64 points, situational 57.43±10.77 points compared to 56.58±9.62 points, respectively). Therefore, regular sports training during basic combat training did not reduce the emotional reaction of cadets of Higher Education Institutions of the Ministry of Internal Affairs in extreme conditions. This does not correspond with the data of special literature [3,5,7,8,26].

Moreover, the indicators of depression and anxiety control (13.59±4.74 and 13.07±4.31 points respectively) were significantly ($p \leq 0.01$) lower in those cadets who regularly engaged in sports compared to those who stopped training (15.53±4.95 and 14.43±3.84 points respectively). Their indicators approached low values, which characterized athlete cadets as emotionally less stable; in situations of strong stress, such cadets often act impulsively or irrationally. The values of aggression control indicators in those cadets who continued to engage in sports (15.46±4.61 points) were similar to those of the cadets who stopped regular sports activities

(15.98±4.45 points). Thus, our data indicated that there was no influence of regular sports activities on the level of aggression control in cadets in extreme conditions, while the ability to control depression and anxiety deteriorated. This does not agree with the data of experts [3,5,7,8,12,26] on the relationship between a high level of physical fitness and lower symptoms of depression. According to data [12], depressive symptoms were 60% lower in soldiers with high physical fitness (odds ratio 0.40; 95% confidence interval, 0.19-0.84) compared to military personnel with low physical fitness.

Several reasons may explain this discrepancy. Firstly, our survey took place at the beginning of the Russian-Ukrainian war, when all citizens felt the sharp impact of trauma; a high-stress situation can cause significant emotional exhaustion. Secondly, the intensity of anxiety and emotional control among cadets varied, as evidenced by the large range of maximum and minimum values around the mean. The average duration of sports training for the cadets we surveyed was not great – only 3 years – meaning that some of them began regularly engaging in sports after entering higher education institutions. Therefore, these athletes did not belong to the elite class, but rather to beginners. We can assume that perhaps this is why the relevant emotional control skills, inherent in qualified athletes, had not yet been formed. There was also a group of cadets who had a lot of experience in sports training. It is worth noting that the physical activity of all cadets is already high, and that of athlete-cadets is even higher. Excessive physical activity can lead to overtraining and cause psychological symptoms that mimic depression [27], or it can serve as one of the risk factors for its development [28]. We assume that if qualified athlete-cadets suffered from chronic stress due to overtraining, it could be difficult for them to emotionally adapt to new acute traumatic events, as their ability to cope with difficult situations was exhausted.

The indicators of aggression and depression that we determined (15.66±4.55 and 14.35±4.91 points respectively) indicated a moderate (i.e. adequate) level of control of these emotions among cadets. Research results [8,9,20] confirmed that cadets and military personnel can experience depression, anxiety, and stress; these indicators can be significant. A high prevalence of depressive symptoms was found in the cohort of military medical cadets [7]. During the decompression stage after participating in military operations, a high level of physical aggression was found in 52% of military personnel, while indirect aggression was expressed at a high level in 44% of military personnel; 40% of the indicators were at an average level, and 16% were at a low level [2].

Conclusions

At the beginning of the war, the level of anxiety among cadets who were not on the front line but were studying in a higher educational institution of "power structures" was high. This can be explained by both individual and professional characteristics of the contingent.

Among cadets, a high level of control of anxiety, aggression, and depression was not observed, as might be expected from athletes. This can be explained by different intensities of emotions and their control, as well as insufficient experience in sports among cadets.

Disclosures and acknowledgements

The authors declare no conflicts of interest with respect to the research, authorship, and/or publication of this article. The research was funded by the authors.

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