International Journal of Science Annals, Vol. 6, No. 1, 2023
print ISSN: 2617-2682; online ISSN: 2707-3637; DOI:10.26697/ijsa

SOCIAL AND BEHAVIORAL SCIENCES. Psychology

ORIGINAL RESEARCH

Peculiarities of the Psychological Well-Being and Social Adaptation of Young Students and Cadets in Wartime Conditions

Authors' Contribution:
A – Study design;
B – Data collection;
C – Statistical analysis;
D – Data interpretation;
E – Manuscript preparation;
F – Literature search;
G – Funds collection

Stadnik A. V. [1,2 BCDE], **Melnyk Yu. B.** [2,3 ADEF], **Mykhaylyshyn U. B.** [4 BD], **de Matos M. G.** [5 ADEF]

[1] *Kharkiv National University of Internal Affairs, Ukraine*
[2] *Kharkiv Regional Public Organization "Culture of Health", Ukraine*
[3] *Scientific Research Institute KRPOCH, Ukraine*
[4] *Uzhhorod National University, Ukraine*
[5] *Aventura Social / ISAMB, University of Lisbon, Portugal*

Received: *04.05.2023;* ***Accepted:*** *28.06.2023;* ***Published:*** *30.06.2023*

Abstract

Background and Aim of Study: *The mental health and social adaptation of young students and cadets in wartime conditions is a new and understudied problem.*
The aim of the study: to identify the particularities of psychological well-being and social adaptation of students and cadets in wartime conditions.

Material and Methods: *Our study was conducted among the students and cadets of two Ukrainian universities (KNUIA, UzhNU) in 2023, February. 327 participants were divided into 3 groups: 1) 112 cadets whose permanent disposition was changed in Ukraine; 2) 108 students who were displaced and who are in Ukraine and EU countries; 3) 107 students who did not change their place of permanent residence and who are in Ukraine in the combat zone or near it. The 28-item General Health Questionnaire (GHQ-28) to assess psychological well-being and emotional stability, and the Social Support Questionnaire (F-SozU K-22) to determine the particularities of emotional support, practical support, and social integration were used in the study. Appropriate internal consistency values (Cronbach α between 0.817 and 0.903) were found for both scales.*

Results: *Group 1 has the best general health indicator: 1.65 times better than Group 3. The levels of somatic symptoms, anxiety and insomnia are lower in Group 1 (practically the same in women and men), and higher in Group 3. The highest rates of social dysfunction are found in Group 3. Men in all groups have more pronounced social dysfunction; women in all groups have more pronounced severe depression. Group 1 total perceived social support is 1.89 times better than Group 3. Emotional support, social integration are highest in Group 1, practical support is highest in Group 2.*

Conclusions: *The lowest levels of psychological well-being and social adaptation were found in Group 3. This is probably due to uncertainty about the future, constant instability and insecurity. Teachers and psychologists are urged to consider the identified psychological and social peculiarities in the educational and clinical process when dealing with young students.*

Keywords: *psychological well-being, social adaptation, social dysfunction, anxiety, depression, somatic symptoms, wartime conditions*

DOI and UDC *DOI https://doi.org/10.26697/ijsa.2023.1.7 UDC 159.972*
Conflict of interests: *The authors declare that there is no conflict of interests*
Peer review: *Double-blind review*
Source of support: *This research did not receive any outside funding or support*

Information about the authors: ***Stadnik Anatoliy Volodymyrovych*** *(Corresponding Author) – https://orcid.org/0000-0002-1472-4224; stav1963@ukr.net; Doctor of Philosophy in Medicine, Associate Professor, Kharkiv National University of Internal Affairs, Kharkiv, Ukraine.*
Melnyk Yuriy Borysovych *– https://orcid.org/0000-0002-8527-4638; Doctor of Philosophy in Pedagogy, Associate Professor; Chairman of Board, Kharkiv Regional Public Organization "Culture of Health" (KRPOCH); Director, Scientific Research Institute KRPOCH, Kharkiv, Ukraine.*

International Journal of Science Annals, Vol. 6, No. 1, 2023
print ISSN: 2617-2682; online ISSN: 2707-3637; DOI:10.26697/ijsa

Mykhaylyshyn Ulyana Bohdanivna – *https://orcid.org/0000-0002-0225-8115; Doctor of Psychological Sciences, Full Professor; Head of the Department of Psychology, Uzhhorod National University, Uzhhorod, Ukraine.*
De Matos Margarida Gaspar – *https://orcid.org/0000-0003-2114-2350; Doctor of Philosophy in Special Education and Rehabilitation, Clinical and Health Psychologist, Full Professor, Aventura Social / ISAMB, Medical School; University of Lisbon, and FCH/ UCP, Lisbon, Portugal.*

Introduction

The current war on the territory of Ukraine, caused by Russian aggression, has become a test for all Ukrainian citizens. It particularly affects the less protected sections of the population, including student youth. The regular massive bombardment of civilian homes and public places with missiles and drones, airstrikes on infrastructure, as well as the lack of communication, water, heat, and light are significant stressors on the individual psyche and significantly complicate the learning environment. This has changed the daily life of the students, and they are being forced to adapt to the new conditions. As a result of the massive destruction, several million of people have been forced to leave their homes (Leon et al., 2022; McKee & Murphy, 2022).

According to a study by the International Organization for Migration, more than 15 million Ukrainians have reported a deterioration in their mental health since the war began, and nearly one in four Ukrainians (23%) are in need of mental and psychosocial support (Nguyen, 2022).

According to the World Health Organization, approximately 22% of people living in a conflict-affected region will experience some form of mental disorder over a 10-year period, ranging from mild depression and anxiety to other more severe mental illnesses (Collins, 2023).

One of the most vulnerable categories is student youth, who are forced to hide in bomb shelters or leave areas of active hostilities. The process of adapting to new conditions is sometimes quite difficult, which significantly worsens learning outcomes. During war, young people are affected by the following psychogenic factors: physical, mental and information-psychological overload, personal and family danger, loss of income or job, loss of home and property, risk of death, etc. (Stadnik et al., 2022).

All this leads to a deterioration of psychological well-being, emotional instability and social dysfunction, and requires further research in this area.

It is impossible to develop adequate practical measures of psychological support and psychoprophylaxis without researching these particularities.

The aim of the study. To identify the particularities of psychological well-being and social adaptation of students and cadets in wartime conditions.

Materials and Methods

In February 2023 we included in the study 327 students and cadets of the Military Department of the Kharkiv National University of Internal Affairs (KNUIA) and students of the Uzhhorod National University (UzhNU). The age of the participants ranged from 20 to 27 years old. The participants were divided into the following three groups:

Group 1 included cadets of the KNUIA, whose permanent disposition was changed in Ukraine, in the amount of 112 people, including 95 (84.8%) males and 17 (15.2%) females.

Group 2 included students of the KNUIA and the UzhNU, who were displaced and who are in Ukraine and EU countries, in the amount of 108 people, including 64 (59.3%) males and 44 (40.7%) females.

Group 3 included students of the KNUIA, who did not change their place of permanent residence and who are in Ukraine in the combat zone or near it, in the amount of 107 people, including 59 (55.1%) males and 48 (44.9%) females.

The assessment was conducted online by posting psychological tests using Google forms or messengers (Telegram, Facebook, WhatsApp) for potential participants. This was due to martial law in Ukraine and the limited capabilities of the respondents. In addition, all groups were observed during remote and face-to-face classes. An individual interview was used when it was necessary.

Participation in this study was voluntary. Informed consent was obtained from all participants before the study was conducted.

The following techniques were used in the current study:

1. The 28-item General Health Questionnaire, GHQ-28 (Goldberg & Hillier, 1979).

The questionnaire is designed to assess psychological well-being and emotional stability. It considers the psychological state as an element of a more general concept – "quality of life". The GHQ-28 consists of 4 subscales: somatic symptoms, anxiety and insomnia, social dysfunction, severe depression. It allows to assess the level of general health as well as the level of somatic symptoms, anxiety, social dysfunction and depression. Responses were scored on a 4-point Likert scale (from 0 to 3): 0 – Not at all, 1 – No more than usual, 2 – Rather more than usual, 3 – Much more than usual. High scores, which characterize the pole of psychological discomfort, correspond to positive responses to those questions that reveal manifestations of psychological distress and emotional instability. Responses to the questions regarding the expression of positive emotions and psychological stability are scored in reverse order. The higher the average score on a particular scale, the greater the psychological distress.

2. The Social Support Questionnaire, F-SozU K-22 (Fydrich et al., 1999).

The questionnaire is designed to determine the characteristics of emotional and practical support, social

integration. The current study used a 22-item short form of the F-SozU. The questionnaire consists of 3 major scales: emotional support, practical support, and social integration. A certain number of statements correspond to each scale. Responses to direct questions about social support in the questionnaire are scored as follows: 1 – Not at all applied, 2 – Slightly applied, 3 – Moderately applied, 4 – Very applied, 5 – Extremely applied. Responses to negative social support questions are scored in reverse order.

The factorability of the questionnaire is examined. Several criteria are used to determine the factorability of a correlation. The result of Bartlett's sphericity test is considered statistically significant if the *p*-value is <0.05. The Kaiser-Meyer-Olkin (KMO) measure is used to test sampling adequacy and must be greater than 0.60. Cronbach's alpha is used to estimate the reliability of the instruments based on a required internal consistency of >0.70.

Results

The results of the general health assessment in cadets and students of Ukrainian universities during the war are shown in Table 1 (the GHQ-28 questionnaire was used). The mean score on the GHQ-28 was 33.8.

Table 1

Final Scores for General Health Assessment by GHQ-28 Subscales in Cadets and Students of Ukrainian Universities in Wartime Conditions (Points)

GHQ-28 subscales	Group 1*			Group 2**			Group 3***		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
Somatic symptoms	6.0	6.0	6.1	8.1	7.4	9.0	10.6	9.2	12.3
Anxiety and insomnia	6.9	6.8	7.1	8.6	9.5	7.2	10.8	9.1	12.8
Social dysfunction	6.5	6.5	6.4	8.6	9.5	7.2	11.2	12.9	9.2
Severe depression	6.5	6.5	6.7	8.1	7.4	9.2	10.1	9.0	11.3
General health	25.8	-	-	33.4	-	-	42.7	-	-

Note.

* Group 1 (112 people): cadets whose permanent disposition was changed in Ukraine, including 95 (84.8%) males and 17 (15.2%) females;

** Group 2 (108 people): students who were displaced and who are in Ukraine and EU countries, including 64 (59.3%) males and 44 (40.7%) females;

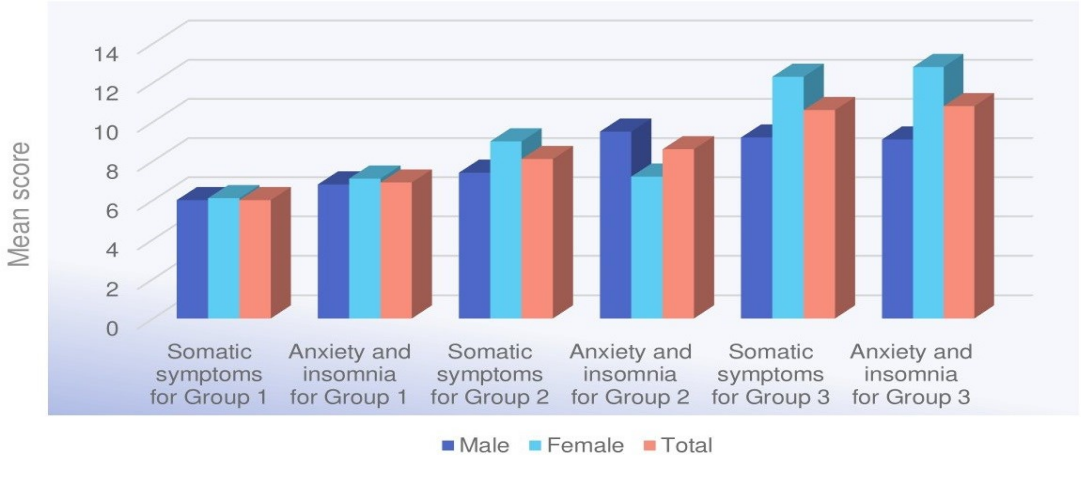
*** Group 3 (107 people): students who did not change their place of permanent residence and who are in Ukraine in the combat zone or near it, including 59 (55.1%) males and 48 (44.9%) females.

According to the GHQ-28, the total score characterizing borderline mental disorders in wartime conditions is highest among students in Group 3, amounting to 42.7 points. This may be due to the high level of psychological trauma among this category of young students. It should be noted that, considering gender, the score is higher for women (45.6 points) and lower for men (40.3 points). Other groups showed the same trend. The general health index for students of Group 2, living in regions of Ukraine where there are no active hostilities, is much lower (33.4 points). Group 1 cadets from relatively safe regions of Ukraine had the lowest overall score. It is 25.8 points, which is 1.7 times lower than the score of students in Group 3, who are under regular shelling by Russian troops.

Further elaboration of the General Health Questionnaire allows us to identify manifestations of somatic symptoms, anxiety, social dysfunction, and severe depression. The results for somatic symptoms and anxiety are shown in Figure 1.

Figure 1

Levels of the GHQ-28 Somatic Symptoms and Anxiety in Cadets and Students of Ukrainian Universities in Wartime Conditions



International Journal of Science Annals, Vol. 6, No. 1, 2023
print ISSN: 2617-2682; online ISSN: 2707-3637; DOI:10.26697/ijsa

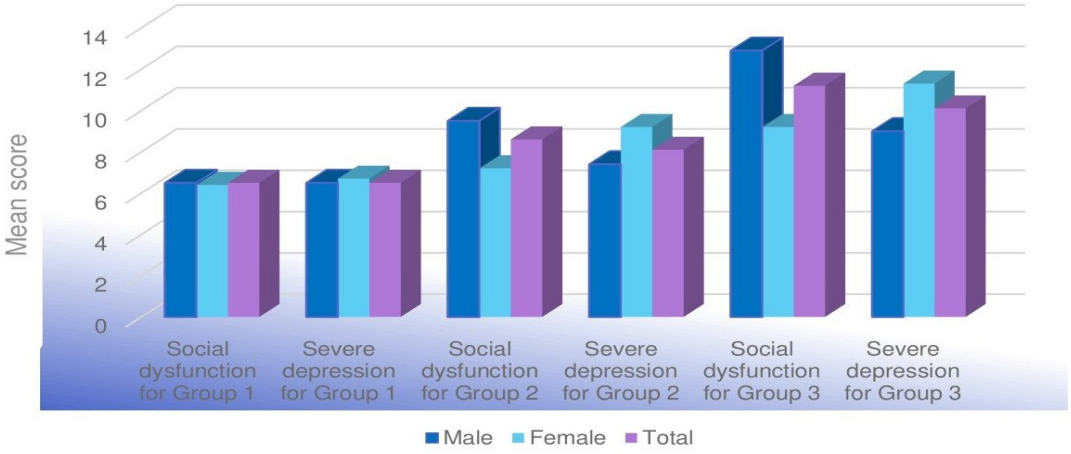
The results show that the cadets of Group 1 (located on the territory of Ukraine outside active hostilities) have a somatization score of 6.0 points, which is slightly lower than the level of anxiety (6.9 points). At the same time, these indicators do not differ significantly between men and women of Group 1 on the scales of somatization (6.0 and 6.1 points) and anxiety (6.8 and 7.1 points), respectively. In our opinion, this is explained by the normalizing influence of a mixed military team, purposeful activity, and fewer vital psychogenes.

The highest levels of somatic symptoms and anxiety are found among students in Group 3 (10.6 and 10.8 points, respectively). It should be noted that among students of Group 3 who are in the territory of active hostilities (Kharkiv region), the index of somatization (12.3 points) and anxiety (12.8 points) among female students is significantly higher than among males (9.2 and 9.1 points, respectively). In personal communication, the most common somatic symptoms were: headache, dizziness, shortness of breath, palpitations, shortness of breath, etc.

The results for social dysfunction and severe depression are shown in Figure 2.

Figure 2

Levels of the GHQ-28 Social Dysfunction and Severe Depression in Cadets and Students of Ukrainian Universities in Wartime Conditions



In Group 3 (the area of active hostilities in Kharkiv region), indicators of social dysfunction (mean score - 11.2) and severe depression (mean score - 10.1) are significantly higher than in Group 2 (8.6 and 8.1 points, respectively) and Group 1 (6.5 points for each). This indicates an extremely high level of psychogenic distress in this group. The gender feature of the study is that social dysfunction is more pronounced among men in all groups. In addition, it is highest for men in Group 3, at 12.9 points, which is almost 2 times higher than in Group 1 (6.5 points). Depression is more pronounced among women in all groups, with the highest level of depression in Group 3 at 11.3 points.

Bartlett's sphericity test reached statistical significance for the correlation matrix of the GHQ-28 (p<0.001) and the KMO measure is 0.881. This indicates a reasonable factorability of the correlation matrix. The GHQ-28 is internally consistent, as indicated by Cronbach's alpha for the four subscales: Somatic Symptoms α=0.842; Anxiety and Insomnia α=0.879; Social Dysfunction α=0.836; Severe Depression α=0.817; for the total scale α=0.903. These values indicate the homogeneity of the items in each of the dimensions of the scale.

We also noticed an interesting pattern. The hierarchy of mean scores in the study groups is the same: the social dysfunction scale ranks first, anxiety is second, depression is third, and somatic symptoms are fourth. This indicates a certain structure of preclinical psychological disorders among schoolchildren in wartime conditions, where social adaptation disorders come to the fore. Therefore, we conducted a study using the Social Support Questionnaire, F-SozU K-22, to determine the level of social disadaptation among student youth in wartime conditions.

Table 2 and Figure 3 show the results of the manifestation levels for social adaptation and support disorders (the Social Support Questionnaire, F-SozU K-22, was used).

We found that the total value of perceived social support is the highest among cadets of Group 1 who live outside Kharkiv region (64.8 points), and the lowest among students of Group 3 who are in Ukraine in the combat zone or near it (34.2 points). This is probably due to the uncertainty of the future, constant instability and danger. These students have a tendency to live one day at a time. At the same time, emotional support is the highest among cadets of Group 1 (25.7 points), while it is much lower among students of Groups 2 and 3 (17.6 and 12.3 points, respectively). This is probably due to the presence of an established team where the interaction between cadets is based on mutual assistance, mutual support, interchangeability, and low conflict. It should be noted that, in contrast to other groups, emotional support is significantly higher among women in Group 3 (13.3 points) than among men (11.5 points). This may be due to the fact that women are the ones who stay with children and elderly parents, and are usually in the same room when residential buildings are damaged by shelling.

International Journal of Science Annals, Vol. 6, No. 1, 2023
print ISSN: 2617-2682; online ISSN: 2707-3637; DOI:10.26697/ijsa

Table 2

Final Scores for the Assessment of Social Support Parameters in Cadets and Students of Ukrainian Universities in Wartime Conditions (Points)

Parameters	Group 1*			Group 2**			Group 3***		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
Emotional support	25.7	25.7	25.5	17.6	17.1	18.4	12.3	11.5	13.3
Practical support	12.9	12.6	14.2	13.7	14.2	12.9	8.2	9.2	7.0
Social integration	26.2	26.1	26.9	20.4	19.5	21.8	13.7	13.5	14.0
Perceived social support	64.8	-	-	51.7	-	-	34.2	-	-

Note.

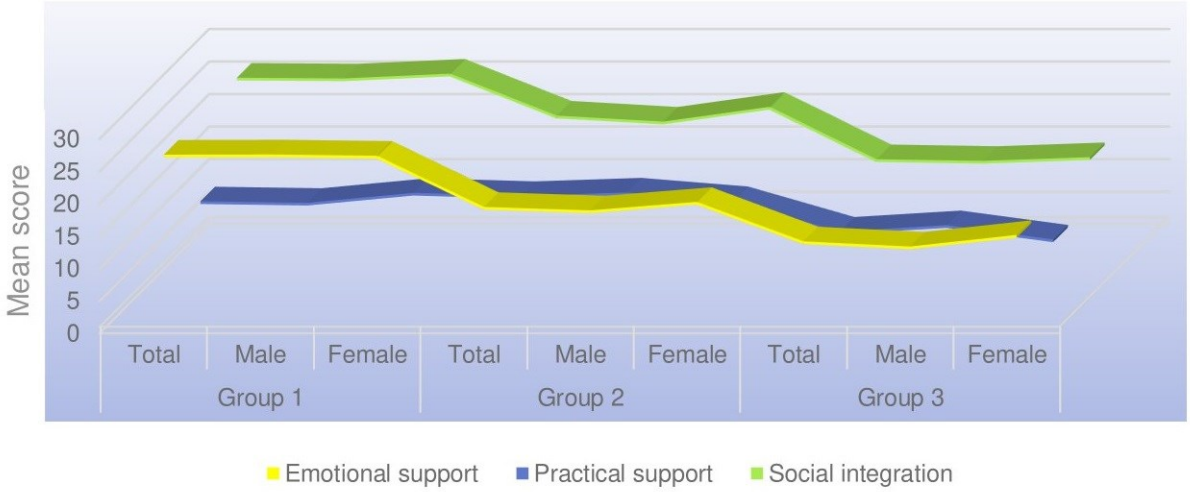
* Group 1 (112 people): cadets whose permanent disposition was changed in Ukraine, including 95 (84.8%) males and 17 (15.2%) females;

** Group 2 (108 people): students who were displaced and who are in Ukraine and EU countries, including 64 (59.3%) males and 44 (40.7%) females;

*** Group 3 (107 people): students who did not change their place of permanent residence and who are in Ukraine in the combat zone or near it, including 59 (55.1%) males and 48 (44.9%) females.

Figure 3

Levels of Social Support Parameters in Cadets and Students of Ukrainian Universities in Wartime Conditions



Practical support is the highest among students of Group 2 (13.7 points), which, in our opinion, is related to the possibility of working abroad or in the territory of Ukraine not affected by the war. The level of practical support is lowest among students in Group 3 (8.2 points), who are in the area of active hostilities, have no opportunity to earn money, and live on humanitarian aid and their own savings. In addition, they live in difficult conditions, with a lack of information due to the instability of the Internet, cellular communications, and interruptions in the supply of water, heat, and electricity. Group 1 cadets have a high level of social integration (26.2 points). This is probably due to the attention and mutual understanding of others and the existence of safe, trusting relationships within the cadet team. For students in Group 2 (20.4 points) and Group 3 (13.7 points), this level is much lower. This is probably due to their inability to adapt to new conditions (active hostilities) and communities (living abroad), part-time jobs and low wages.

The F-SozU K-22 is internally consistent, as indicated by Cronbach's alpha for the main scales: Emotional Support α=0.88; Practical Support α=0.86; Social Integration α=0.87; for the total Perceived Social Support scale α=0.90. These values indicate the homogeneity of the items in each of the dimensions of the scale.

Discussion

The peculiarities of psychological well-being and social adaptation of cadets and students in war conditions turned out to be an insufficiently studied and a relevant topic from the theoretical point of view. Since 1945, Europe has not seen such a large-scale war that would affect the lives of hundreds of thousands of students.

To ensure the objectivity of the study, two universities located in different (opposite) regions of Ukraine were selected. The study was conducted among students and cadets in various university settings.

KNUIA is located in eastern Ukraine, in the city of Kharkiv with a population of 1,421,125 people as of January 1, 2022 (Ministry of Finance of Ukraine, 2022a). This city is the second largest in Ukraine in terms of population and the first in terms of the number of student youth. There are over 30 public universities. This does not include private universities, colleges and other educational institutions for young people. KNUIA

educates students and cadets, so the research we conducted there gave us the opportunity to study a sample of students in various forms of their education.

UzhNU is located in western Ukraine, in the city of Uzhhorod with a population of 115,449 people as of January 1, 2022 (Ministry of Finance of Ukraine, 2022b). We chose this city and this university for several reasons. Uzhhorod, like Kharkiv, is a regional center with the presence of university youth. However, it is much smaller. The city was not surrounded or occupied by Russian troops as part of the territory in the Kharkiv region. It was also the least exposed to rocket and air attack during the war. It also received many internally displaced persons, including young people. UzhNU is a typical and rather large university in Ukraine, with students in 20 faculties.

In this way, we have been able to study the problem of the effects of war on the psychological well-being of young students under different conditions: among students in or near a combat zone, among students and cadets in various forms of education in a relatively non-combatant area with a large number of internally displaced persons, and among refugee students in EU countries.

In recent years, a number of studies have been conducted on the psychological problems of refugees who have been forced to leave their homes and have been displaced to other countries because of hostilities in their homeland.

The problems of Syrian refugees in Turkey (Oppedal et al., 2018), Lebanon (Abu-Amsha & Armstrong, 2018), and Germany (von Haumeder et al., 2019) have been studied. They were found to have psychological problems such as anxiety, depression, post-traumatic stress disorder (PTSD).

Social support, resilience, and mental health in low-intensity warfare were explored among a sample of Palestinian university students living in the Gaza Strip (Veronese et al., 2022). Among these students, researchers found an increase in mental disorders in the form of anxiety, depression, and acute stress.

The role of spirituality and resilience in overcoming difficulties and adapting was studied with Yemeni refugee students in Saudi Arabia. Garoon et al. (2022) identified five basic coping and adaptation techniques used by students to improve their lives. Two techniques involved spiritual practices, and three techniques could be classified as social and psychological – optimism, building new relationships, and the role of family support.

An international study by Marchi et al. (2022) explored the problems of refugees and migrants in Europe. They found the presence of psychological stress leading to mental health problems.

Scientists regularly conducted research on the impact of war on people in various aspects of population migration (Mesa-Vieira et al., 2022), their mental health, etc.

The scale of Russian aggression against Ukraine was unprecedented since World War II, resulting in the largest mass displacement of people from their homeland in modern history (Patel & Erickson, 2022).

According to the researchers (Michalek et al., 2022), the experience of war and displacement can have profound effects on children's affective development and mental health. However, the mechanisms underlying these effects remain unknown.

Gilreath et al. (2022) studied stressors that can affect the academic performance and well-being of youth in wartime conditions. These risk factors include mental, emotional, and behavioral problems. Suicidal tendencies, substance use and abuse may manifest in the short and long term.

The problem of increased substance use and abuse in wartime has become a topical issue, particularly among nonprofessional military personnel, leading to an increase in psychiatric hospitalizations (Haydabrus et al., 2022).

We note this because it is important to consider that the adult civilian population of Ukraine was mobilized for defense and combat operations. In addition, many of the students, like their fathers, have decided to take an active part in the defense of their country. They temporarily interrupted their studies by taking academic leave.

Being in a war zone has negative psychological effects on civilians and military personnel. Rozanov et al. (2019) found that both military and civilian populations suffer from a similar set of disorders and psychological consequences caused by extreme trauma, including PTSD, depression, anxiety, addiction, somatization with chronic pain, dissociation, psychosocial dysfunction, and suicidal behavior.

It should be noted that the problem of Russian military aggression against the population of Ukraine attracted the attention of the general scientific community only after the large-scale invasion in February 2022. However, this military aggression began in 2014 with the seizure of Ukrainian territory, particularly the Donbass region and the Crimean peninsula. Moreover, it has continued all this time.

During this time, we have had the opportunity to conduct a number of psychological studies with military personnel, cadets, and students. This allowed us to study the dynamics of mental health of this category of people during military operations in Ukraine, which have been exacerbated in recent years by the emerging pandemic of coronavirus infection (Melnyk & Stadnik, 2018; Melnyk et al., 2019; 2020), as well as to continue its study in the new realities of military operations.

These studies correlate with the results of preliminary studies of Ukrainian refugee and internally displaced students that began in 2022 (Kurapov et al., 2022; Stadnik et al., 2022). The negative impact of the war in Ukraine on the mental health of student youth is based on them.

We believe that the trends identified in this study will be characteristic of refugee students regardless of their country of study. Peculiarities of students' psychological well-being and social adaptation will depend on their proximity to and involvement in the combat zone.

Taking into account the identified peculiarities of psychological state and social adaptation of cadets and students in war conditions, practicing psychologists

should choose the most rational measures of psychological assistance and psychoprophylaxis. In addition to the traditional areas of activity (diagnostics, counseling, and training), special attention should be paid to modern psycho-correctional methods of work.

One of these techniques can be the psychological transformation game "My Dao" developed by Melnyk and Stadnik (2021), which has proven to be an effective method of psycho-correctional work with students, including in the context of the war in Ukraine.

Conclusions

Based on the results of this study, it can be concluded that the closer students are to the combat zone, the greater the negative impact on their mental health.

The research conducted with the help of GHQ-28 showed that students living in the area of active hostilities in Kharkiv region (Group 3) have the worst values of the general health indicator among all groups. The high level of psychological trauma among this category of young people explains this. It is higher for women and lower for men in all groups of respondents. Group 1 has the best general health indicator: 1.65 times better than Group 3.

The levels of somatic symptoms and anxiety in cadets outside of active combat operations (Group 1) are the lowest, while those in active combat operations (Group 3) are the highest. Gender peculiarities of somatic symptoms and anxiety are their rather higher level among female students of Group 3 than among males. The levels of somatic symptoms in female and male cadets in Group 1 are practically the same. The level of social dysfunction and severe depression among students in Group 3 (area of active hostilities) is significantly higher than in Group 2 (area of Ukraine and EU countries) and Group 1 (area of Ukraine). It should be noted that social dysfunction is more prevalent among men in all groups. At the same time, it is about 2 times higher for men in Group 3 than for men in Group 1. Depression is more prevalent among women in all groups.

According to the F-SozU K-22, the overall level of social support during the war is highest among cadets in Group 1 and lowest among students in Group 3, who are in the area of active hostilities and live mainly on humanitarian aid and their own savings. Group 1 has total perceived social support in 1.89 times better than Group 3.

A detailed analysis of the F-SozU K-22 parameters for perceived social support showed that emotional support and social integration were highest among cadets in Group 1 (area outside of active hostilities). At the same time, emotional support was significantly higher among women in Group 3 than among men. The highest rates of practical support were found among students in Group 2 (Ukraine and EU countries). Total perceived social support is low for students in Groups 3 and 2. This is probably due to the uncertainty of the future, constant instability and danger.

The analysis of the GHQ-28 and the F-SozU K-22 confirmed the internal consistency of both the scale and its dimensions, as well as the homogeneity of the items in each of the scale's dimensions.

As this study was limited by the location and time of data collection, therefore further research is needed. Future research will examine in detail the differences between students who stayed in the country during martial law and those who continued their studies in other countries, as well as the long-term effects of the war on students' mental health.

In addition, the uncertainty of the timing of the Russian aggression on the territory of Ukraine, as well as the consequences of its impact on the state in general and on Ukrainian youth in particular, make this study an intermediate step in the amount of work that has to be done in a near future by scholars in the fields of Education, Psychology, Medicine, Sociology, and others.

Acknowledgments

The authors would like to thank the respondents for their participation in the survey.

Ethical Approval

The study protocol was consistent with the ethical guidelines of the 1975 Declaration of Helsinki as reflected in a prior approval by the Institution's Human Research Committee.

Funding Source

This research did not receive any outside funding or support.

References

Abu-Amsha, O., & Armstrong, J. (2018). Pathways to resilience in risk-laden environments: A case study of Syrian refugee education in Lebanon. *Journal on Education in Emergencies, 4*(1), 45-73. http://hdl.handle.net/2451/42480

Collins, T. (2023, March 5). *In war-torn Ukraine, a first-of-its-kind mental health center aims to heal as "part of our survival"* [Video]. USA TODAY. https://eu.usatoday.com/story/news/nation/2023/03/05/ukraine-new-mental-health-center/11306210002/

Fydrich, T., Geyer, M., Hessel, A., Sommer, G., & Brähler, E. (1999). Fragebogen zur sozialen unterstützung (F-SozU): Normierung an einer repräsentativen stichprobe (Social support questionnaire (F-SozU): Normalization on a representative sample). *Diagnostica, 45*(4), 212-216. https://doi.org/10.1026//0012-1924.45.4.212

Garoon, M. A. A., Hashim, S., & Yaacob, N. R. N. (2022). The role of spirituality and resilience among Yemeni refugee students in the Kingdom of Saudi Arabia. *International Journal of Evaluation and Research in Education, 11*(3), 1058-1065. https://doi.org/10.11591/ijere.v11i3.22377

Gilreath, T. D., Montiel Ishino, F. A., Sullivan, K. S., & Okoror, T. A. (2022). Maladaptive coping among military-connected adolescents: Examining combined risk using QCA. *Frontiers in Psychology, 13,* 948474. https://doi.org/10.3389/fpsyg.2022.948474

Goldberg, D. P., & Hillier, V. F. (1979). A scaled version of the General Health Questionnaire. *Psychological Medicine, 9*(1), 139-145. https://doi.org/10.1017/S0033291700021644

Haydabrus, A., Santana-Santana, M., Lazarenko, Yu., & Giménez-Llort, L. (2022). Current war in Ukraine: Lessons from the impact of war on combatants' mental health during the last decade. *International Journal of Environmental Research and Public Health, 19*(17), 10536. https://doi.org/10.3390/ijerph191710536

Kurapov, A., Pavlenko, V., Drozdov, A., Bezliudna, V., Reznik, A., & Isralowitz, R. (2023). Toward an understanding of the Russian-Ukrainian war impact on university students and personnel. *Journal of Loss and Trauma, 28*(2), 167-174. https://doi.org/10.1080/15325024.2022.2084838

Leon, D. A., Jdanov, D., Gerry, C. J., Grigoriev, P., Jasilionis, D., Mckee, M., Mesle, F., Penina, O., Twigg, J., Vallin, J., & Vagero, D. (2022). The Russian invasion of Ukraine and its public health consequences. *The Lancet Regional Health – Europe, 15,* 100358. https://doi.org/10.1016/j.lanepe.2022.100358

Marchi, M., Magarini, F. M., Chiarenza, A., Galeazzi, G. M., Paloma, V., Garrido, R., Ioannidi, E., Vassilikou, K., de Matos, M. G., Gaspar, T., Guedes, F. B., Primdahl, N. L., Skovdal, M., Murphy, R., Durbeej, N., Osman, F., Watters, C., van den Muijsenbergh, M., Sturm, G., … Derluyn, I. (2022). Experience of discrimination during COVID-19 pandemic: the impact of public health measures and psychological distress among refugees and other migrants in Europe. *BMC Public Health 22*, 942. https://doi.org/10.1186/s12889-022-13370-y

McKee, M., & Murphy, A. (2022). Russia invades Ukraine again: How can the health community respond? *BMJ, 376,* o548, https://doi.org/10.1136/bmj.o548

Melnyk, Yu. B., Prykhodko, I. I., & Stadnik, A. V. (2019). Medical-psychological support of specialists' professional activity in extreme conditions. *Minerva Psichiatrica, 60*(4), 158-168. https://doi.org/10.23736/S0391-1772.19.02025-9

Melnyk, Yu. B., & Stadnik, A. V. (2021). The impact of psychological transformation game "My Dao" on value orientations of participants. *International Journal of Science Annals, 4*(2), 21-29. https://doi.org/10.26697/ijsa.2021.2.3

Melnyk, Yu. B., Stadnik, A. V., & Pypenko, I. S. (2020). Resistance to post-traumatic stress reactions of vulnerable groups engaged in pandemic liquidation. *International Journal of Science Annals, 3*(1), 35-44. https://doi.org/10.26697/ijsa.2020.1.5

Melnyk, Yu., & Stadnik, A. (2018). Mental health of a personality: Diagnostics and prevention of mental disorders. *International Journal of Education and Science, 1*(3-4), 50. https://doi.org/10.26697/ijes.2018.3-4.37

Mesa-Vieira, C., Haas, A. D., Buitrago-Garcia, D., RoaDiaz, Z. M., Minder, B., Gamba, M., Salvador, D. Jr., Gomez, D., Lewis, M., Gonzalez-Jaramillo, W. C., Pahud de Mortanges, A., Buttia, C., Muka, T., Trujillo, N., & Franco, O. H. (2022). Mental health of migrants with pre-migration exposure to armed conflict: A systematic review and meta-analysis. *The Lancet Public Health, 7*(5), E469–E481. https://doi.org/10.1016/S2468-2667(22)00061-5

Michalek, J., Lisi, M., Binetti, N., Ozkaya, S., Hadfield, K., Dajani, R., & Mareschal, I. (2022). War-related trauma linked to increased sustained attention to threat in children. *Child Development, 93*(4), 900-909. https://doi.org/10.1111/cdev.13739

Ministry of Finance of Ukraine. (2022a). *Population in Kharkiv on 01.01.2022.* https://index.minfin.com.ua/ua/reference/people/town/harkov/

Ministry of Finance of Ukraine. (2022b). *Population in Uzhhorod on 01.01.2022.* https://index.minfin.com.ua/ua/reference/people/town/uzhgorod/

Nguyen, A. (2022, December 18). *How war and displacement affect mental health of people in Ukraine and why we should address this.* International Organization for Migration. https://ukraine.iom.int/blogs/how-war-and-displacement-affect-mental-health-people-ukraine-and-why-we-should-address

Oppedal, B., Özer, S., & Şirin, S. R. (2018). Traumatic events, social support and depression: Syrian refugee children in Turkish camps. *Vulnerable Children and Youth Studies, 13*(1), 46-59. https://doi.org/10.1080/17450128.2017.1372653

Patel, S. S., & Erickson, T. B. (2022). The new humanitarian crisis in Ukraine: Coping with the public health impact of hybrid warfare, mass migration, and mental health trauma. *Disaster Medicine and Public Health Preparedness, 16*(6), 2231-2232. https://doi.org/10.1017/dmp.2022.70

Rozanov, V., Franciškovic, T., Marinic, I., Macarenco, M., Letica-Crepulja, M., Mužinic, L., Jayatunge, R., Sisask, M., Vevera, J., Wiederhold, B., Wiederhold, M., & Miller, I. (2019). Mental health consequences of war conflicts. In A. Javed, K. Fountoulakis (Eds.), *Advances in Psychiatry* (pp. 281–304). https://doi.org/10.1007/978-3-319-70554-5_17

Stadnik, A. V., Melnyk, Yu. B., Babak, S. A., Vashchenko, I. V., & Krut, P. P. (2022). Psychological distress among students and cadets of universities in the war conditions. *International Journal of Science Annals, 5*(1-2), 20-29. https://doi.org/10.26697/ijsa.2022.1-2.0

Veronese, G., Pepe, A., Diab, M., Abu Jamei, Y., & Kagee, A. (2022). Social support, resilience, and mental health in a low-intensity warfare context: the effects of siege on university students in Gaza.

Journal of Mental Health, 31(3), 383-391. https://doi.org/10.1080/09638237.2021.1979486

Von Haumeder, A., Ghafoori, B., & Retailleau, J. (2019). Psychological adaptation and posttraumatic stress disorder among Syrian refugees in Germany: A mixed-methods study investigating environmental factors. *European Journal of Psychotraumatology, 10*(1), 1686801. https://doi.org/10.1080/20008198.2019.1686801

Cite this article as:
Stadnik, A. V., Melnyk, Yu. B., Mykhaylyshyn, U. B., & de Matos, M. G. (2023). Peculiarities of the psychological well-being and social adaptation of young students and cadets in wartime conditions. *International Journal of Science Annals, 6(*1), 22–30. https://doi.org/10.26697/ijsa.2023.1.7

The electronic version of this article is complete. It can be found online in the IJSA Archive https://ijsa.culturehealth.org/en/arhiv