Health Leadership and Quality of Life. 2025; 4:654

doi: 10.56294/hl2025654

ORIGINAL



Development of Resilience of Adolescent Personality after Traumatic Experience: Analysis of Factors Influencing the Formation of Posttraumatic Growth as a Result of Traumatic Events

Desarrollo de la Resiliencia de la Personalidad Adolescente Tras una Experiencia Traumática: Análisis de los Factores que Influyen en la Formación del Crecimiento Postraumático como Resultado de los Acontecimientos Traumáticos

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Cite as: Zelenin V, Ilchenko R, Medvedieva O, Sakharova K, Volnova L. Development of Resilience of Adolescent Personality after Traumatic Experience: Analysis of Factors Influencing the Formation of Posttraumatic Growth as a Result of Traumatic Events. Health Leadership and Quality of Life. 2025; 4:654. https://doi.org/10.56294/hl2025654

Submitted: 17-06-2024 Revised: 02-12-2024 Accepted: 24-06-2025 Published: 25-06-2025

Editor: PhD. Neela Satheesh [®]

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ABSTRACT

Introduction: the article investigates the impact of the traumatic war experience on resilience development among young people in Ukraine, emphasizing factors contributing to post-traumatic growth. This topic is particularly relevant in 2024, given the ongoing disruptions to educational and social systems caused by prolonged military conflict. The study addresses the urgent need for effective psychological support methods for youth during crises.

Method: a mixed-methods approach was employed, combining quantitative and qualitative data analysis. A survey targeting young people aged 14 to 20 was conducted with support from UNICEF and Teenergizer. Secondary data analysis assessed anxiety, stress levels, and social support among participants, while indepth interviews provided insights into emotional responses and coping mechanisms.

Results: the survey highlighted key stressors, including the constant threat of war, loss of social connections, and restricted access to resources. Approximately 51 % of respondents reported high anxiety levels. However, many demonstrated self-regulation skills and sought social support, facilitating resilience development. Adaptation mechanisms such as engagement in sports, peer communication, and psychological counselling significantly improved emotional well-being.

Conclusions: the findings underscore the potential for post-traumatic growth among Ukrainian youth, provided they receive adequate psychological and social support in a resource-enriched environment. The study emphasizes the importance of resilience as a foundation for sustainability during crises and advocates for targeted programs to bolster youth adaptation and reintegration.

Keywords: Resilience; Traumatic Experience; Post-Traumatic Growth; Psychological Adaptation; Emotional Stability; Self-Regulation.

RESUMEN

Introducción: el artículo investiga el impacto de la experiencia traumática de la guerra en el desarrollo de

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la resiliencia entre los jóvenes de Ucrania, haciendo hincapié en los factores que contribuyen al crecimiento postraumático. Este tema es especialmente relevante en 2024, dadas las continuas alteraciones de los sistemas educativos y sociales causadas por el prolongado conflicto militar. El estudio aborda la necesidad urgente de métodos eficaces de apoyo psicológico a los jóvenes durante las crisis.

Método: se empleó un enfoque de métodos mixtos, combinando el análisis de datos cuantitativos y cualitativos. Se realizó una encuesta dirigida a jóvenes de 14 a 20 años con el apoyo de UNICEF y Teenergizer. El análisis de datos secundarios evaluó la ansiedad, los niveles de estrés y el apoyo social entre los participantes, mientras que las entrevistas en profundidad permitieron comprender mejor las respuestas emocionales y los mecanismos de afrontamiento.

Resultados: la encuesta puso de relieve los principales factores de estrés, como la amenaza constante de guerra, la pérdida de contactos sociales y el acceso restringido a los recursos. Aproximadamente el 51 % de los encuestados declararon altos niveles de ansiedad. Sin embargo, muchos demostraron habilidades de autorregulación y buscaron apoyo social, lo que facilitó el desarrollo de la resiliencia. Mecanismos de adaptación como la práctica de deportes, la comunicación entre iguales y el asesoramiento psicológico mejoraron significativamente el bienestar emocional.

Conclusiones: los hallazgos subrayan el potencial de crecimiento postraumático entre los jóvenes ucranianos, siempre que reciban el apoyo psicológico y social adecuado en un entorno enriquecido con recursos. El estudio subraya la importancia de la resiliencia como base para la sostenibilidad durante las crisis y aboga por programas específicos para reforzar la adaptación y reintegración de los jóvenes.

Palabras clave: Resiliencia; Experiencia Traumática; Crecimiento Postraumático; Adaptación Psicológica; Estabilidad Emocional; Autorregulación.

INTRODUCTION

Building resilience among young people who have experienced traumatic experiences in war is a key aspect of mental and social well-being in Ukraine. In times of conflict and instability, resilience becomes the basis for overcoming stressful situations and maintaining psychological balance. Researchers Ahmad S., Islam T. and co-authors noted that resilience under challenging conditions can enhance psychological endurance and self-regulation. (1) Scientists Burtaverde V., Ene S. and Ciriac E. show that resilience is closely related to personal traits such as self-determination and proactivity, which allows young people to better adapt to crisis conditions. (2) At the same time, the study of resilience in adolescence is particularly relevant, as this age is a period of intensive development when the personality is formed and one learns important social and emotional skills. Chen H.L. and his colleagues emphasise that during adolescence, the main coping strategies are formed, as they can affect the ability of young people to withstand future difficulties. (3)

According to the research of Erymla I., Terpstra S. and others, psychological resilience is important for protecting young people from the adverse effects of traumatic events, as it provides the ability to self-renewal and maintain mental health. (4,5) In their study, Che Y. and other authors note that a high level of resilience allows one to protect the psyche and actively develop, acquiring new skills and abilities in stressful conditions. (7) At the same time, Barton B.B. and Goldenson J. point out that building resilience among young people is especially important, as this group is more vulnerable to stress and the effects of traumatic events. (9,10) Given the growing attention to resilience in psychology, research points to the need to study this phenomenon in the context of protracted conflict and instability.

Research Gap

There are certain research gaps in resilience, especially in developing this quality among young people living in armed conflict. Most studies focus on analysing the impact of resilience on overcoming stress in mature people or non-conflict settings, while the specifics of resilience among young people remain insufficiently researched. Scholars have noted that despite the growing interest in resilience mechanisms, their study remains insufficient, particularly among young people affected by war. This gap highlights the need to explore the interaction of trauma, socio-economic instability, and personal psychological traits in shaping resilience. Methodologically, the article combines quantitative and qualitative methods for data collection and analysis. Standardised psychometric instruments assessed resilience levels, providing reliable data on anxiety, emotional burnout, and cognitive resilience. Focus group interviews offered detailed insights into personal traits and adaptive strategies. This approach enhances understanding of resilience building and ensures reliable findings, which are crucial for practical psychosocial support recommendations for 2024-2025. The findings indicate that military conflicts and the destruction of social and educational structures significantly affect the mental state of young people, underscoring the need for targeted interventions. The survey results showed that 51 % of young people experience high levels of anxiety, 45 % report a decrease in interest in learning, and 33 %

display indifference to previously exciting activities. These indicators underscore the critical need to enhance resilience as a key resource for mitigating the negative effects of stress. However, existing research often overlooks specific aspects, such as the role of resilience in maintaining educational motivation under prolonged stress or its impact on restoring emotional engagement in daily activities. This study addresses these gaps by investigating how targeted psychosocial support strategies and resilience-building interventions can directly influence young people's educational outcomes and emotional recovery. The findings, supported by prior research on psychological resilience in stress adaptation, provide a novel perspective on tailoring interventions to meet youth's unique challenges in stressful conditions.

Thus, this study contributes to understanding the mechanisms of resilience development among young people exposed to traumatic events. The findings highlight the importance of adaptive resources that help young people withstand stress and contribute to their post-traumatic growth.

Aims

The purpose of the study is to identify and describe key trends and categories of resilience observed in young people after experiencing traumatic events during the war in Ukraine. The article aims to analyse the patterns of psychological resilience among adolescents without directly linking them to specific personality traits or mechanisms. The study raises the following research questions:

- What are the observed patterns of resilience among young people who have experienced traumatic events?
- How are factors such as proactivity and self-determination associated with the post-traumatic growth observed in adolescents?
- What trends can be identified in the development of psychological resilience among young people in the context of trauma?

Literature review

When analysing current research on resilience and adaptation under stress, it is important to consider age and social and psychological factors. They determine the ability of young people to overcome traumatic events.

| Table 1. Key Aspects of Resilience Studies: Literature Review and Target Populations | | | | |
|--|--|-------------------------------|---------------------------------|---|
| Authors | Study Focus | Population | Methodology | Key Conclusions |
| Nieto M., Visier M.E., et al. (11) | Relationship between resilience, personality traits, and age-related characteristics | Adolescents | Quantitative Analysis | Adolescents face more adaptation challenges, highlighting the need for targeted rehabilitation approaches. |
| Graham E.K. et al. (12) | | Older adults and young people | Comparative Analysis | Positive correlation found in older adults; relationships in young people require further research to design effective support methods. |
| , | Resilience and value orientations in choosing a medical profession | Medical students | Survey Study | Internal motivational attitudes contribute to resilience; findings are limited to professional samples. |
| Mishra S., Shukla Y., et al. ⁽¹⁴⁾ | | Tourism professionals | C o n t e x t u a l Analysis | Identification with place enhances resilience, applicable to young people facing changes due to war. |
| Elshaer I.A. (15) | Resilience in tourism post- COVID-19 pandemic | Tourism workers | Qualitative Study | Life satisfaction is critical for individual and collective resilience. |
| | Role of social support in resilience development | Dialysis patients | Observational Study | Social support significantly fosters resilience; applicable to youth in crisis. |
| Sun J., Zhang J., et al. (17) | Functional connectomes and creativity in resilience | Various populations | Neurofunctional Analysis | Creativity enhances adaptive capacity; supports creative approaches in youth programmes. |
| Jiang G.Q., He Y.K., et al. (18) | Link between resilience and cognitive function in older adults | Older adults | Longitudinal Study | Findings on preventing cognitive exhaustion can inform youth stress management strategies. |
| Liu X., Wang C., Wang Y. (19) | Cognitive-behavioral interventions for social adjustment and resilience | Cancer patients | Intervention Study | Cognitive-behavioral therapy improves resilience, useful for coping mechanisms in young people. |
| Kapikiran G., Bulbuloglu S. ⁽²⁰⁾ | Impact of social support on resilience | Surgical patients | Survey Study | Comprehensive social support is crucial for resilience in traumatic contexts. |

According to a study by Kanapeckaitė R. and Bagdžiūnienė D.⁽²¹⁾ psychological resilience is a mediating factor in the relationship between command characteristics and well-being among military personnel. Their findings indicate that an effective organisational structure contributes to resilience. In turn, this increases the motivation and psychological resilience of soldiers, adapting them to stressful situations. The findings suggest that structured organisational systems could help adolescents in war zones build resilience through teamwork and mutual support, but they lack specifics on adapting these systems to younger age groups. A similar mechanism is also relevant for adolescents experiencing crisis, as teamwork and group support can enhance their ability to cope with stress. Feng J. et al.⁽²²⁾ have also shown that social capital and psychological resilience play a mediating role in maintaining mental health among child caregivers. The findings of the study highlight the need to strengthen social support to maintain mental balance, which may be effective for the adolescent group as well. Strengthening social support networks for war-affected adolescents can replicate the mental health benefits observed in caregivers, but the study does not address peer group dynamics in conflict settings.

While the referenced studies provide valuable insights into resilience mechanisms, their application to adolescents in war-affected settings faces limitations. Many focus on general populations or specific groups, such as military personnel, caregivers, or athletes, without addressing the unique challenges of chronic conflict, displacement, or trauma in youth. Moreover, the contexts—such as organisational settings or team dynamics—may not directly translate to disrupted social and educational environments. These limitations highlight the need for tailored research that bridges these gaps by adapting established resilience strategies to the distinct needs and circumstances of adolescents living under prolonged stress and trauma caused by war.

The paper by Oshio A., Taku K., Hirano M. and Saeed G. (23) is a meta-analysis that explores the relationship between the Big Five personality traits and resilience. They found that extraversion, emotional stability, and conscientiousness are significantly correlated with resilience, allowing them to predict the level of adaptability in stressful situations. Personality traits like extraversion and emotional stability could be nurtured in adolescents to improve their resilience to war-related stress, though the study does not consider unique stressors such as trauma. The results confirm the importance of personality traits in the formation of resilience among young people since it is at this stage of life that active personality development takes place. Chen L.H., Kuo C.C., Ni Y.L., and Hsu S.C. (24) demonstrated that an atmosphere of gratitude in sports teams can strengthen psychological resilience, as a positive climate promotes self-soothing and reduces stress levels. Promoting a positive group atmosphere could enhance resilience in adolescents, but the study's focus on sports teams limits its application to broader youth contexts in conflict zones. Their approach can be adapted for youth groups, providing psychological support through group relationships. The study by Yildirim D., Şenyuva E. and Kaya E. (25) focuses on the resilience of Turkish nurses during the COVID-19 pandemic, finding that the level of psychological resilience is directly related to the risk of emotional burnout. Resilience training for adolescents could mitigate emotional burnout in war settings, mirroring findings in healthcare workers, though the study does not explore age-specific needs. The nurses' experience confirms the importance of providing psychological support and developing resilience skills to overcome crises, which is also relevant for young people who have experienced traumatic experiences. Meyer E.C., Kotte A. and others (26) have also investigated factors that reduce post-traumatic symptoms among veterans, indicating that personal flexibility and resilience can reduce the negative impact of trauma. Flexibility and resilience could reduce trauma in adolescents similarly to veterans, but the study's military context may not fully align with adolescent experiences of war. Although this study focuses on the military, its findings can be applied to a youth audience that needs to build resilience to overcome the effects of traumatic events.

Vizcaíno F.V., Cardenas J.J. and Cardenas M.⁽²⁷⁾ emphasise that resilience and power culture significantly impact the perception of social responsibility among entrepreneurs. The study's emphasis on resilience and responsibility in business could inform adolescent programs, but it lacks direct application to fostering youth resilience in crises. The article is relevant to the business context, and its findings on the importance of adaptive resilience can be useful in developing programmes for adolescents to foster socially responsible behaviour in crisis conditions. Lazaridou A. and Beka A.⁽²⁸⁾ investigate the relationship between personality and resilience among Greek school principals, highlighting the importance of leadership skills for psychological resilience. The article emphasises the need to build personal resilience based on leadership qualities, which can be useful for understanding the mechanisms of resilience support among young people. Leadership-based resilience strategies for school principals could guide similar approaches for adolescents, though their applicability to non-leadership contexts requires validation.

Gong Y., Shi J. et al.⁽²⁹⁾ analysed the role of personality traits and resilience in mitigating depressive symptoms among Chinese adolescents. The results highlight that psychological resilience plays a crucial role in reducing depressive symptoms, as it can serve as a basis for mental health support programmes among young people who have experienced traumatic events. Psychological resilience reduces depressive symptoms in adolescents, suggesting its importance in war-related mental health programs, but the study does not address chronic

conflict stress.

Eroglu A., Suzan O.K., Hur G. and Cinar N.⁽³⁰⁾ investigate the relationship between fear of COVID-19 and resilience among students, which indicates the importance of resilience as a mechanism for coping with fear and stress in a pandemic. The authors' study shows the relevance of adaptation resources in the youth environment and emphasises the need for systemic support for people facing stressful situations. Building resilience as a coping mechanism for pandemic fear among students highlights its relevance for war-affected youth, though systemic support for prolonged trauma remains underexplored.

Thus, scientific publications describe a wide range of factors that influence the development of resilience. However, the specific mechanisms for supporting and developing resilience among young people facing the consequences of war have not been sufficiently studied. This scientific gap necessitates additional research aimed at developing support programmes for young people living under conditions of prolonged stress and traumatic experiences.

METHOD

Description of the study

The study systematically examines the stress level among young people in Ukraine, significantly impacted by military events and their consequences since 2022. The research is grounded in the Transactional Model of Stress and Coping by Lazarus and Folkman, which views stress as a result of an individual's appraisal of a situation and their perceived ability to cope. This theoretical framework guided the choice of survey instruments, which focused on evaluating stressors, coping mechanisms, and resilience levels. Tools such as the Perceived Stress Scale (PSS) and Connor-Davidson Resilience Scale (CD-RISC) were selected to quantitatively measure these variables, ensuring alignment with the conceptual model.

Observational studies complemented the surveys to contextualize stress responses and coping patterns in real-life situations, providing a multidimensional understanding of stress and adaptation. The methodology employed a descriptive, analytical approach, clearly delineating the research framework to measure the psychoemotional state of young people aged 13 to 20. The study employed a quantitative design, collecting data through structured surveys and observational tools developed based on the theoretical model. The analytical approach ensured a systematic comparison of stress and resilience levels over time, specifically between 2022 and subsequent years, enabling the identification of adaptive changes and resilience development patterns. This framework not only ensured methodological rigour but also allowed for the assessment of the effectiveness of psychological support programmes tailored to the needs of youth exposed to prolonged traumatic events. By grounding the study in a robust theoretical model, the research provided deeper insights into the mechanisms of adaptation and resilience among young people in extreme conditions.

Data and sample

The study uses secondary data collected by UNICEF⁽⁵⁷⁾ and Teenergizer as a survey conducted among Ukrainian youth aged 14 to 20 in Ukraine and abroad. The sample includes 2,164 respondents to the UNICEF survey collected through the U-Report platform in August 2023. The survey covers various social, demographic and psycho-emotional aspects of the lives of young people affected by the war, including changes in their education, social interaction and anxiety levels. Additionally, a survey conducted by Teenergizer in September 2023 collected data from 3,357 young people, which revealed the main psychological reactions to the ongoing crisis, such as anxiety levels, frequency of seeking psychological help, and the degree of support they are willing to receive from family or friends. Comprehensive coverage allows for a deeper understanding of the social and psychological challenges faced by Ukrainian youth. It is an important resource for assessing stress levels and factors that influence the development of their resilience.

Methodology of the survey

The survey used in the study included a detailed questionnaire aimed at identifying the main factors that influence the level of stress and adaptation processes among young people. The questionnaire included questions that were divided into several thematic blocks: the emotional state of respondents, the frequency and intensity of anxiety, the level of social support, and the availability of educational resources. To ensure the objectivity of the data, Likert scales were used to determine the degree of agreement or disagreement of respondents with certain statements. Ethical aspects were taken into account to ensure the confidentiality of respondents and the voluntary nature of their participation, which was in line with international ethical research standards. The data obtained were processed using statistical methods, including grouping of results and descriptive analysis, which allowed for a qualitative interpretation of the data and provided reasonable conclusions about the level of stress and resilience mechanisms.

The study incorporated data from two independent surveys conducted by UNICEF and Teenergizer, harmonized to ensure comparability. Key indicators such as stress levels, social support, and educational resource availability

were aligned by standardizing measurement scales and categorizing responses into consistent thematic blocks. This integration allowed for a comprehensive analysis that combined the strengths of both datasets while maintaining methodological consistency and reliability.

Data analysis

The data were analyzed using literature reviews and synthesis methods to compare the results with previous studies from Google Scholar, Scopus, and WoS.

Potential data discrepancies were addressed by cross-checking overlapping variables and adjusting definitions or measurement scales for inconsistencies. Statistical techniques, such as normalization and comparative analysis, were employed to validate the findings and ensure the reliability of the conclusions drawn from the integrated data.

The study utilised Excel and SPSS software for data processing and analysis. SPSS was applied to analyse responses from the sample population, providing detailed statistical insights into anxiety levels, emotional states, and social support. Excel was employed for primary data processing and visualisation of results. Descriptive statistics were calculated to summarise the sample characteristics and ensure the reliability of the data.

RESULTS

Between 2022 and 2024, resilience has become a critical factor for adolescents in Ukraine dealing with prolonged crises caused by the war. Reports indicate that resilience contributes to psychological stability and supports biological processes essential for managing stress. With the support of organisations such as UNICEF and WHO, psychological support frameworks have been developed to align with the psycho-emotional thresholds observed in young people exposed to stressful events. In this regard, resilience in adolescents should be viewed not only as a mechanism of adaptation to traumatic events but also as a tool to protect against possible physical and mental disorders.

The war that has been going on in Ukraine since 2022 has caused large-scale economic, social and psychological consequences that are felt by millions of citizens. The destruction of housing and critical infrastructure has led to a deep economic crisis: job losses, reduced production capacity and significant national income losses are among the key issues that need to be addressed urgently. International humanitarian organisations, such as the International Committee of the Red Cross and the United Nations, support reducing the socio-economic burden. However, the scale of the problems exceeds their capacity. The situation with migration is particularly challenging—millions of Ukrainians, primarily women and children, have been forced to leave the country, with estimates reaching 6 to 7 million people as of 2024. This has resulted in additional emotional stress due to family separation and the loss of social connections. Adolescents, in particular, are at higher risk of developing psychological disorders because of their lower stress tolerance. Dominant emotions such as constant anxiety, fear, and uncertainty have contributed to long-term mental health challenges, which may significantly impact their future lives. In addition to the direct economic and psychological consequences, the war in Ukraine has introduced additional factors negatively affecting other aspects of life, particularly education and social inclusion. Since 2022, the education system in Ukraine has faced significant disruptions due to ongoing shelling, restrictions on movement, and widespread insecurity. The shift to distance learning in unstable internet connectivity and frequent power outages has posed severe challenges for students and teachers. These issues have led to a decline in the quality of education, exacerbated social inequalities, and limited opportunities for children and adolescents to develop resilience due to the loss of a stable learning environment.

Data collected by Teenergizer highlights the prevalence of external stressors affecting the academic performance of young people in Ukraine during the ongoing crisis. According to the survey, 49,3% of respondents reported that military operations and anxiety are the primary factors impacting their sense of stability and security, with these stressors frequently reminding them of danger. Additionally, 50% of adolescents identified the lack of electricity as a significant stressor, disrupting their ability to access educational resources, complete homework, and manage learning tasks effectively. The survey further indicates that 72,5% of respondents experienced heightened feelings of fear and anxiety, which directly interfere with their capacity to focus on daily responsibilities such as schoolwork. Furthermore, 65,4% of students reported challenges with online learning, citing that the available digital platforms were not always adapted to meet their needs in the context of crisis. These statistics provide a clear quantitative representation of the challenges faced by young people in maintaining academic engagement and emotional well-being. This leads to significant fatigue among young people (55,2%), which is the result of excessive time spent in front of screens and a lack of real interaction with peers and teachers. The lack of relevance of the curriculum to the current context (37,6%) only increases feelings of confusion and vulnerability, contributing to a decline in academic motivation and performance.

In response, UNICEF and other organisations are implementing programmes to address educational losses by providing access to educational platforms and psychological counselling. The war has also exacerbated the

isolation of many young people, making it difficult to build social skills and integrate into society, especially for those who have been internally displaced. The impact of the war on trust in social institutions, such as healthcare and education, has increased mistrust, creating risks for future social stability. These conflict-induced factors create long-term challenges beyond today's problems and can affect young people's psychological and social functioning. The main ones are shown in figure 1.

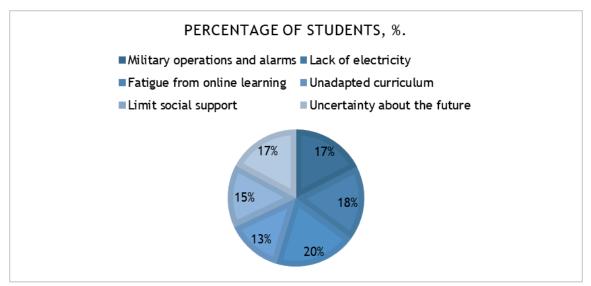


Figure 1. Factors contributing to academic stress among young people

A significant factor contributing to academic stress is limited social support (42,1 %) and uncertainty about the future (48,5 %). Young people in their teens need stable social connections, support from family and friends, and prospects for the future. The absence of such support leads to a reduced sense of security and confidence, which is especially important in times of change and crisis. The uncertainty of the future makes young people question their goals, including those related to education, career and life in general. This factor can significantly suppress the desire to develop and invest time in learning, as young people do not see a clear perspective for the implementation of their knowledge and skills in the future. These sources of influence create significant psychological pressure on young people, forcing them to look for ways to adapt to new conditions, which ultimately becomes the basis for the formation of psychological resilience - the ability to withstand difficulties and find internal resources to overcome stress. The psychological reactions to stress in young people who have experienced traumatic experiences reflect profound changes in their emotional and cognitive state, which are key to building resilience and post-traumatic growth. According to a study conducted by Teenergizer, 51 % of young people experience regular anxiety, which is a constant emotional response to the instability and threats they face. Anxiety is particularly intense among adolescents, as their psycho-emotional threshold is not yet adapted to the prolonged impact of crisis events such as war and socio-economic upheaval. A decrease in interest in learning, noted by 45 % of respondents, indicates that under stress, young people tend to abandon their usual responsibilities and interests, which may be a defensive reaction but can also contribute to developing apathetic moods. Indifference to former hobbies, demonstrated by 33 % of respondents, indicates emotional exhaustion, a consequence of adaptation fatigue and prolonged stress. Adolescents' reactions to stressful events are important for understanding how resilience is formed.

Other psychological reactions to stress that are important for developing resilience include feelings of helplessness and emotional burnout, typical for 29 % and 40 % of young people. Feelings of helplessness arise when adolescents see no way to control their situation, which increases their vulnerability to external stressors. Emotional burnout, which results from prolonged exposure to stressors such as war and limited social support, forces young people to seek self-healing methods and develop internal resources. Restless sleep, reported by 48 per cent of respondents, is also a common stress response, reinforcing the need to develop self-regulation skills to overcome anxious thoughts. Despite the negative impact of stressful reactions, they become the basis for building resilience, allowing young people to adapt to challenges and ensure internal balance in the face of constant instability.

Despite the negative impact, it is through emotional experiences and the search for internal resources for recovery that young people gain experience that will become the basis for their psychological resilience and ability to cope with crises in the future. The frequency of psychological reactions is shown in figure 2.



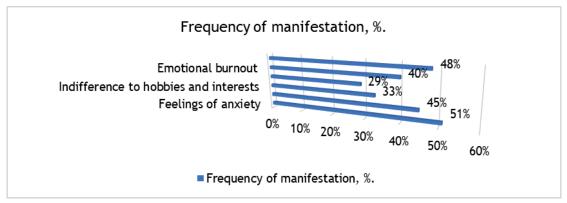


Figure 2. Psychological reactions to stress in young people

There has been a positive trend in adapting young people to stressful conditions, although the situation remains highly tense even in 2023-2024. Even though at the beginning of the full-scale war in 2022, many adolescents experienced severe emotional distress and loss of control over their lives, the gradual acquisition of experience in living in conditions of instability led to the development of psychological resilience. The dynamics of coping with stress demonstrate that even in difficult circumstances, young people adapt, indicating the development of resilience as a central factor in their ability to self-regulate and recover. Studies have shown that adolescents are more likely to turn to active coping strategies, such as social support, sports and creativity, which contribute to developing positive coping methods. Positive trends also include a growing interest in professional psychological support, which young people began to seek more often in 2023, strengthening their ability to self-reflect and control emotions.

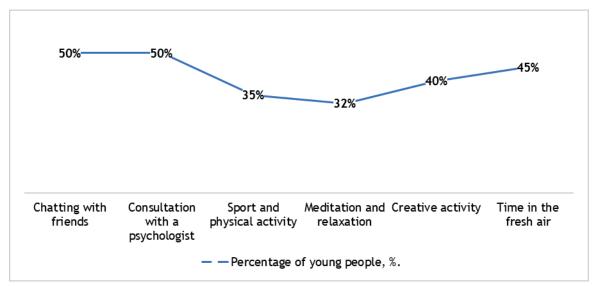


Figure 3. Coping mechanisms and sources of resilience

To a large extent, this increase in resilience results from supportive programmes and educational initiatives aimed at teaching young people self-regulation and stress management skills. Numerous self-awareness trainings, organised in Ukraine and by international organisations, teach adolescents how to cope with stress. Unique online resources are emerging to support self-development, allowing young people to gain knowledge and practice new coping strategies. Even if certain negative factors remain, which are a permanent part of the crisis, young people show a tendency to develop positive behavioural patterns that contribute to their posttraumatic growth. The process highlights the importance of developing resilience as a basis for psychological and social recovery and a means of maintaining resilience in the face of prolonged shocks. Supporting psychological resilience and developing resilience among young people affected by the traumatic events of the war has become a priority for Ukraine and the international community. Given the possible scenarios for 2025-2026, the involvement of state and international organisations in implementing support programmes is crucial. If the war in Ukraine continues, it is necessary to expand comprehensive programmes that will provide stable access to psychological assistance and educational resources for young people who remain in the conflict. Important elements in this scenario are the intensification of international programmes focused on resilience and social inclusion, including the provision of mobile psychological centres, online learning and counselling platforms,

and regular training in stress management and self-regulation skills. UNICEF, WHO, the Red Cross and the UN will continue to act as humanitarian coordinators. They will help to raise additional funding to ensure that young people receive the support they need. The envisaged scenarios include increased cooperation between Ukraine and other countries in sharing experience and training in crisis psychology, which could improve the quality of assistance at the local level. The main programmes are listed in table 2.

| Table 2. Programmes to support and develop resilience after traumatic events | | | | |
|--|--|--|--|--|
| Variable | Description | | | |
| Psychological Rehabilitation and Emotional Support | Working with trauma through psychotherapeutic techniques; creating groups for emotional exchange and support; training in stress and anxiety reduction techniques. | | | |
| Social Integration and Adaptation to Peaceful Life | Supporting return to education and community; mentoring for social adaptation and development; organising clubs and events to strengthen ties. | | | |
| Educational Programmes and Life Skills Development | Teaching resilience and self-regulation skills; trainings on setting life goals; access to online resources for positive development. | | | |

If the war ends on the horizon in 2025-2026, the focus will shift to reintegration and long-term support for post-traumatic growth. In this scenario, the key goal will be to restore educational institutions and normalise the educational process and social interaction for young people who have survived the conflict. It is important to provide psychological support during the reintegration period, which will help mitigate transitional processes and ensure a long-term effect on resilience.

Ukraine's national strategy, which should be backed by international support, should include programmes to build resilience and stress management skills for adolescents and training for teachers, counsellors and psychologists who can effectively support young people in the post-crisis recovery period. In this case, international organisations can focus their resources on long-term recovery projects, such as creating support centres and platforms for distance learning and psychological assistance, which can stabilise the psychosocial situation and provide young people with a solid foundation for growth.

DISCUSSION

The research was aimed at studying the adaptive capacity of Ukrainian youth to the conditions of constant stress caused by military events. The study identified key factors that facilitate or, conversely, hinder the development of adaptive mechanisms among young people. One of the most important findings is the confirmation that support from the social environment, access to educational resources and availability of psychological assistance have a significant impact on reducing stress and increasing psychological resilience. The findings provide an in-depth understanding of how young people respond to crisis situations and what is crucial for their adaptive growth. The analysis of the dynamics of changes in the level of resilience showed that compared to the beginning of the conflict in 2022, young people demonstrated a significantly higher level of adaptability, which indicates a gradual strengthening of self-regulation mechanisms and psychological resilience.

One of the important aspects that emerges from the study is the importance of social and educational factors in maintaining the psycho-emotional well-being of young people. The study participants who had regular access to social support resources, such as friends, family, psychological counselling and educational programmes, demonstrated higher levels of resilience to stress. The data also supports the role of individual characteristics, such as personality traits, in influencing the ability to adapt. Individuals with a high level of self-determination and a proactive approach to life showed higher levels of resilience, which is consistent with previous research that emphasises the importance of individual adaptation strategies.

The results of our study on the importance of social support and personal traits in the development of resilience among youth in the context of military conflict confirm the findings of Putri A.S. and Huwae A., who investigated the role of openness to experience as a personality trait and its relationship with resilience among coffee shop owners. (31) Although their sample included adult entrepreneurs rather than young people, they also emphasised the importance of social relationships in maintaining resilience to stress, which is consistent with our findings, which demonstrate the importance of social support for Ukrainian youth in the crisis.

Pauly C. et al. also found resilience to be an important mediating factor between personality traits and mental health during the COVID-19 pandemic.⁽³²⁾ Our results are consistent with their findings, especially in that a proactive personality and self-determination are key to maintaining psycho-emotional stability in the face of prolonged stress. However, in our case, the specific context of military events and cultural peculiarities may have an even greater impact on resilience, which requires further research.

It is interesting to compare with the results of Xie G.D. and co-authors, who studied the impact of childhood maltreatment on personality traits, in particular on the development of borderline personality disorder and resilience. (33). Their findings confirm that traumatic experiences can cause significant changes in personality

structure but that resilience may play a role in mitigating this impact. Our findings confirm that despite traumatic experiences, Ukrainian youth demonstrate a high level of adaptation and post-traumatic growth, which indicates the potential for resilience even in critical conditions.

Holden's study analysing resilience among veterinary students showed the importance of certain traits, such as perfectionism and emotional stability, in maintaining psychological resilience⁽³⁴⁾. This coincides with our findings, which also emphasise the importance of personal characteristics, in particular, the ability to achieve self-determination in the process of coping with stress. However, the specific impact of military events on the adaptive mechanisms of young people requires further research to confirm this impact in different contexts. (35)

Shi Y. et al. found that a proactive personality contributes to professional identity among medical students, particularly through resilience, which serves as a mediating mechanism. (36) The study demonstrated that proactivity serves as a significant factor contributing to the development of resilience among young people in the context of a military crisis, confirming the substantial impact of personality traits on adaptation processes. Additionally, the findings indicated that social support factors can significantly enhance this effect, emphasizing the importance of collective resources during crises. Durmus A. et al.'s study of nurses' work stress confirmed that resilience is a critical factor in overcoming difficult working conditions. (36) Although their study is about nursing, our results confirm that resilience helps young people adapt to stress and reduce mental burden. This confirms the general trend that resilience is a universal trait for different populations under stress, although its mechanisms may vary depending on the social context and individual characteristics.

Ma J. and Xiao Q. investigated the relationship between self-compassion and resilience and found that social support mediates this relationship. (37) Our results are consistent with their findings: young people who receive support from their social environment demonstrate higher stress resilience and adaptability levels. This factor confirms that social support is critical for overcoming traumatic events, especially in times of war.

Rawat S. and co-authors investigated how resilience affects professional achievement in athletes and emphasised its importance in maintaining high performance. (38) Similar to the results of our study, they found that a high level of resilience promotes better adaptation to stress and helps maintain mental health even in the most difficult conditions, which confirms the universality of this mechanism.

Finally, Najam U. and Mustamil N.B.M. also emphasise the role of proactive personality as a mediator between leadership style and resilience, indicating the importance of intrinsic motivation. (39) Our study confirmed that personality characteristics, particularly proactivity, are key to developing resilience, which indicates the relationship between personality traits and the ability to adapt to military conflict.

Modern research emphasises the importance of resilience as an important characteristic that affects human well-being, particularly in stressful situations. Di Fabio A. and Palazzeschi L. (40) consider resilience to support both hedonic and eudemonic well-being, emphasising that this influence exceeds the influence of personality traits and intelligence. Their research shows that resilience is a fundamental quality that can help people adapt and maintain a high level of resilience in difficult circumstances. A similar approach is demonstrated by Lazaridou A. (41), who analyses resilience and personality characteristics among preschool teachers and confirms that resilience is an important component of successful stress management and maintaining performance.

Oshio A., Taku K. and others⁽⁴²⁾ examined the relationship between the Big Five personality traits and resilience. They found that extraversion, emotional stability, and conscientiousness have a positive impact on resilience, which in turn makes it easier to adapt to stressful circumstances. These results are consistent with the findings of Zhu Y. and Li W. (43), who investigated how proactive personality affects employee resilience. They concluded that a proactive personality has two trajectories of influence on resilience: increased intrinsic motivation and increased social support. These findings are particularly relevant for adolescents, who may also develop resilience through social relationships and intrinsic motivation. (44) Orlova I. and co-authors discuss genetic predispositions that may influence resilience, suggesting that genetic factors may be considered in personalised approaches to adolescent recovery. (44) Reva M. and Demchenko Y. emphasise the effectiveness of online psychological testing in Ukraine, which can be used to assess resilience levels in adolescents after trauma. (45) In addition, the strategic management concepts explored by lastremska et al. in the context of enterprise development can be adapted to personal resilience strategies to help adolescents manage their growth after traumatic experiences. (46) Pokharel S., Pandey A., and Dahal S. discuss the psychological impacts of globalisation, which can be compared to the adaptation challenges faced by adolescents after traumatic events, highlighting the need for comprehensive social and psychological support. (47) Additionally, self-regulation skills and motivation have been shown to have a positive impact on adjustment outcomes, as evidenced by the findings of Nwikpo M. et al. who emphasise the importance of these skills for academic success and adaptability. (48) Shkola V. proposes the use of indicators to measure sustainability in businesses, which can be applied to track resilience and growth in adolescents. (49) The contribution of this study to the scientific field is to expand knowledge about the mechanisms of resilience building among young people in the context of a prolonged crisis. The findings allow us to better understand adaptation processes among young people facing stress and uncertainty. (50,51,52,53,54,55,56) Emphasis is placed on social support, educational resources, and individual adaptive

strategies. The scientific novelty of the study lies in identifying the factors that influence resilience among young people in the specific context of war. The research focuses on measuring stress, anxiety, and resilience levels to better understand the patterns of adaptation and emotional stability observed in this population.

Limitations of the Study

Limitations of the study include using secondary data collected by different organisations, which may differ in methodological approaches and representativeness. In addition, the study covered mainly young people aged 14 to 20, which does not allow us to conclude adaptive mechanisms for older age groups, which may also be vulnerable to stress factors. The role of cultural factors in building resilience also remains limited, as Ukrainian youth have specific social and cultural conditions that may affect the adaptation process. In this regard, further research could focus on comparative analysis with other countries to assess the universality and specificity of the findings and investigate the impact of different levels and types of support on the development of psychological resilience.

The study faced limitations, including the reliance on self-reported data, which may introduce bias, and the focus on a specific demographic group. These factors limit the scope of the findings to observing trends and characteristics within the studied population and may not fully represent broader adolescent populations.

CONCLUSIONS

The study revealed consistent patterns of resilience and post-traumatic growth among young people affected by the traumatic events of the war in Ukraine. Adolescents who demonstrated the ability to cope with stressful and traumatic situations exhibited adaptive skills contributing to their capacity to handle future challenges. Observations indicate that the development of stress resilience and self-regulation skills during periods of crisis is associated with positive patterns of personal adaptation and integration into society.

The involvement of international organisations and the implementation of comprehensive programmes that consider psychological, educational, and social aspects can create conditions for the formation of holistic youth resilience, which will become the basis for recovery and stabilisation in the future.

Promoting post-traumatic growth among young people is a multifaceted process that requires a systematic approach and the integration of national and international resources. In the context of prolonged shocks such as war, resilience development is integral to preparing young people for the future and ensuring sustainable recovery after the conflict. Regardless of the scenario that unfolds in 2025-2026, supporting young people through psychological rehabilitation programmes, educational initiatives, and social projects helps build the resilience and optimism essential for sustainable development. Increasing young people's resilience after traumatic experiences will not only help them overcome their difficulties. However, it will also contribute to social cohesion and the restoration of Ukraine as a strong and resilient nation in the long term.

RECOMMENDATIONS

Practical recommendations include implementing targeted resilience-building programmes in schools, providing accessible psychological support for adolescents, and fostering community-based initiatives to strengthen social ties and reduce the long-term impact of traumatic experiences.

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FINANCING

The authors did not receive funding for the development of this research.

CONFLICT OF INTEREST

The authors declare that there is no conflict of interest.

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https://doi.org/10.56294/hl2025654