

PSYCHOLOGICAL FACTORS OF POST-TRAUMATIC GROWTH OF VOLUNTEER VETERANS

Kravchuk Svitlana Leontiivna,

Doctor of Psychological Sciences, Docent,

Docent at the Department of Psychodiagnostics and Clinical Psychology

Taras Shevchenko National University of Kyiv

ORCID ID: 0000-0002-6951-1912

Web of Science Researcher ID: AAB-6464-2021

Scopus Researcher ID: 59810780300

The article presents the results of a theoretical and empirical study of the features of psychological factors of post-traumatic growth in volunteer veterans. The psychological content of the concept of "post-traumatic growth" is highlighted. It is shown that post-traumatic growth is manifested in an increase in the value of life, filling relationships with meaning, an increase in the sense of personal power, enrichment of spiritual life, and a change in priorities. It is highlighted that the following variables are associated with post-traumatic growth: cognitive assessment of threat, harm, and controllability of the situation; problem-focusing, acceptance, optimism, positive reinterpretation, religiosity, and cognitive processing of traumatic memories. The results of an empirical study involving 324 male volunteer veterans (164 young and 160 middle-aged) who took direct part in hostilities are presented. The following empirical research methods were applied: a post-traumatic growth questionnaire, a research questionnaire "Diagnostics of Attitudes to Life", a resilience test, a methodology "Diagnostics of Psychological Resilience of the Personality", a religious coping questionnaire (Brief-RCOPE), a dispositional hope scale, and a symptomatic questionnaire. Regression analysis revealed that the psychological factors of post-traumatic growth in volunteer veterans are meaning and purpose, hope, mental and physical health, life satisfaction, resilience, psychological resilience, positive religious coping, and close social relationships. It was shown that psychological resilience plays a significant role in the formation of post-traumatic growth. It is proposed to consider psychological resilience as a multidimensional and multilevel phenomenon that includes cognitive, affective, and conative components and represents a nonlinear and uneven dynamic process of recovery after difficult life circumstances and which is manifested in the ability to maintain a stable level of psychological and physical functioning in critical situations, to emerge from such situations without persistent impairments, and to successfully adapt to adverse changes. It is noted that psychological resilience is manifested through the following content-structural components: involvement, need for cognition, control, ability to set realistic goals and carry out activities aimed at achieving them, risk-taking, resourcefulness, flexibility, optimism, cognitive complexity, altruism.

Key words: trauma, post-traumatic growth, psychological resilience, positive religious coping, hope, veteran volunteers.

Кравчук Світлана. Психологічні чинники посттравматичного зростання у добровольців-ветеранів

В статті представлено результати теоретико-емпіричного дослідження особливостей психологічних чинників посттравматичного зростання у добровольців-ветеранів. Висвітлено психологічний зміст концепту «посттравматичного зростання». Показано, що посттравматичне зростання проявляється у зростанні цінності життя, наповненні сенсом відносин, зростанні почуття особистої сили, збагаченні духовного життя, зміні пріоритетів. Висвітлено, що з посттравматичним зростанням пов'язані такі змінні: когнітивна оцінка загрози, шкоди і контрольованості ситуації; фокусування на проблемі, прийняття, оптимізм, позитивна реінтерпретація, релігійність, когнітивне опрацювання травматичних спогадів. Наведено результати емпіричного дослідження, в якому взяли участь 324 добровольців-ветеранів чоловічої статі (164 особи молодого віку і 160 осіб середнього віку), які брали безпосередню участь в бойових діях. Застосовано такі методи емпіричного дослідження: опитувальник посттравматичного зростання, дослідницька анкета «Діагностика ставлення до життя», тест життєстійкості, методика «Діагностика психологічної пружності особистості», опитувальник релігійного копіngu (Brief-RCOPE), шкала диспозиційної надії, симптоматичний опитувальник. За регресійним аналізом виявлено, що у добровольців-ветеранів психологічними чинниками посттравматичного зростання постають сенс і мета, надія, психічне і фізичне здоров'я, задоволеність життям, життєстійкість, психологічна пружність, позитивний релігійний копінг, близькі соціальні стосунки. Показано, що психологічна пружність відіграє значиму роль у формуванні посттравматичного зростання. Запропоновано розглядати психологічну пружність як багатовимірне і різномірне явище, що включає когнітивний, афективний та конативний компоненти та являє собою нелінійний і нерівномірний динамічний процес відновлення після важких життєвих обставин та який виявляється у здатності зберігати в критичних ситуаціях стабільний рівень психологічного і фізичного функціонування, виходити з таких ситуацій без стійких порушень, успішно адаптуватися до несприятливих змін. Висвітлено, що психологічна пружність виявляється через такі змістовно-структурні компоненти: залученість, потреба у пізнанні, контроль, здатність ставити реалістичні цілі і здійснювати діяльність, спрямовану на їх досягнення, прийняття ризику, винахідливість, снучність, оптимізм, когнітивна складність, альтруїзм.

Ключові слова: травма, посттравматичне зростання, психологічна пружність, позитивний релігійний копінг, надія, добровольці-ветерани.

Introduction. Veteran volunteers have been exposed to a significant number of wartime stressors of varying intensity and strength, including participation in combat and military operations, injuries, death of comrades, relatives, loved ones, being under fire, physical and psychological violence, being held hostage, being in captivity, etc. Psychological trauma can also occur due to the breakdown of family relationships, significant financial losses, and loss of stability in life.

In DSM-5, trauma is defined as the result of a personal and direct experience of actual death, near death; serious injury; violation of physical dignity (rape or sexual assault); witnessing the death, serious injury, or violation of physical dignity of another person; information about misfortune with a family member or other close person (unexpected or violent death, serious injury, near death); constant contact with traumatic events.

The impact of contextual variables of military and political events is a significant test of the resilience and psychological resilience of veteran volunteers.

As a result of the impact of complex stressful events, serious traumatic situations, and life crises, a person undergoes not only pathological changes, but can also experience positive changes, which scientists define as post-traumatic growth. Suffering and grief can coexist with enlightenment and growth [9].

That is why the problem of studying the factors of post-traumatic growth in volunteer veterans is extremely important and relevant in connection with post-traumatic stress disorders and traumatic experiences caused by the Russian-Ukrainian war.

Our goal is to identify psychological factors of post-traumatic growth in volunteer veterans.

Materials and methods. According to the functional-descriptive model of L. Calhoun and R. Tedeschi [2], post-traumatic growth is a positive psychological change that occurs as a result of dealing with traumatic or very difficult life circumstances. According to scientists, post-traumatic growth appears as a qualitative transformation of the personality, that is, a process of deep self-improvement. L. Calhoun and R. Tedeschi characterize the following personal transformations in the following dimensions: 1) changes in self-perception – new opportunities; 2) personal strength; 3) interpersonal relationships; 4) changes in the philosophy of life – spiritual changes; 5) life values.

L. Calhoun and R. Tedeschi associate posttraumatic growth with cognitive attempts to reassess the individual's pre-traumatic beliefs about themselves and the world and to reconstruct their own ideas about them. Scientists suggest considering a traumatic event as a kind of shift in the initial life scheme. Researchers indicate that the greater the challenge to the individual's fundamental ideas and beliefs, the more likely the possibility of posttraumatic growth becomes [2].

According to the person-centered model of S. Joseph, the process of post-traumatic growth is carried out through the transformation of the self-concept and the renewal of the worldview [4, p. 337]. S. Joseph identifies three

main dimensions of post-traumatic growth: 1) relationships (changes for the better in relationships: greater appreciation of friends and family, increased compassion for others and the level of altruism); 2) self-view (improvement in the perception of oneself, greater understanding, recognition and acceptance of strength, courage, the ability to have deep experiences of sadness, happiness, joy); 3) philosophy of life (positive changes in the philosophy of life, in particular, the appreciation of each new day, reassessment of values) [4, p. 341].

Ukrainian scientist T. Tytarenko considers post-traumatic growth as a process of increasing antifragility, which ensures constant self-learning and more productive interaction with oneself, the world, and other people [1].

Researchers L. Calhoun and R. Tedeschi emphasize that with moderate and sometimes high levels of PTSD, gradual post-traumatic growth is more likely, and extreme manifestations of this disorder (highest/lowest scores) are less likely to contribute to growth [2].

The problem of determining readiness for forgiveness, religious coping, psychological resilience, and resilience as factors of post-traumatic growth has not been sufficiently studied in psychology.

The empirical study was conducted during 2023–2025.

324 male volunteer veterans (164 young people and 160 middle-aged people) who took direct part in hostilities participated in the empirical study. When forming the target sample of respondents, we took into account gender, age, nationality, status of the research participant, region of permanent residence before the Russian-Ukrainian war, main occupation, and faith/religion.

We applied the following empirical research methods: post-traumatic growth questionnaire (authors: R. Tedeschi, L. Calhoun, adaptation in Ukrainian: D. S. Zubovsky); research questionnaire “Diagnostics of attitude to life” (author: S. L. Kravchuk); resilience test (author: S. Maddi, adaptation in Ukrainian: O. Chykhantsova); methodology “Diagnostics of psychological resilience of the individual” (author: S. L. Kravchuk); religious coping questionnaire (Brief-RCOPE) (authors: K. Pargament, M. Feuille, D. Burdzy, adaptation in Ukrainian: S. L. Kravchuk); Dispositional Hope Scale (authors: M. Snyder, C. Harris, J. R. Anderson, S. A. Holleran, L. M. Irving, S. T. Sigmon, P. Harney, adaptation in Ukrainian: K. Muzdybayev); Symptomatic Questionnaire (author: L. Derogatis, adaptation in Ukrainian: S. Dembytskyi, Yu. Sereda).

We applied the following methods of mathematical statistics: Kolmogorov-Smirnov consistency criterion; correlation analysis using the Spearman's correlation coefficient, regression analysis.

In the course of the empirical study, according to the Kolmogorov-Smirnov criterion, all variables had z-values with significance levels of $p < 0.05$, which indicates statistically significant deviations of the distribution of variable values from normal. In view of this, the Spearman's correlation coefficient was chosen for the correlation analysis.

Direct significant correlations of post-traumatic growth with meaning and purpose ($p = 0.61$, $p < 0.001$), hope

($p=0,58$, $p<0,001$), mental and physical health ($p=0,49$, $p<0,001$), life satisfaction ($p=0,46$, $p<0,001$), hardiness ($p=0,43$, $p<0,001$), psychological resilience ($p=0,41$, $p<0,001$), positive religious coping ($p=0,39$, $p<0,001$), close social relationships ($p=0,36$, $p<0,01$) were found in veteran volunteers.

In veteran volunteers, significant inverse correlations of posttraumatic growth with depression ($p=-0,52$, $p<0,001$) and anxiety ($p=-0,49$, $p<0,001$) were also found.

Let us consider the results of the regression analysis (see Table 1).

According to the results of regression analysis, the following independent variables have the greatest positive impact on post-traumatic growth: 1) meaning and purpose (standardized Beta coefficient respectively 0,587); 2) hope (standardized Beta coefficient respectively 0,532); 3) mental and physical health (standardized Beta coefficient respectively 0,478); 4) life satisfaction (standardized Beta coefficient respectively 0,456); 5) hardiness (standardized Beta coefficient respectively 0,419); 6) psychological resilience (standardized Beta coefficient respectively 0,398); 7) positive religious coping (standardized Beta coefficient respectively 0,377); 8) close social relationships (standardized Beta coefficient respectively 0,349).

Discussion. Our results are supported by some empirical studies by other researchers. For example, according to research, post-traumatic growth is manifested in an increase in the value of life, meaningful relationships, an increase in the sense of personal power, an enrichment of spiritual life, and a change in priorities [6].

Scientists P. Linley and S. Joseph believe that the following variables are associated with post-traumatic growth: cognitive assessment of threat, harm, and controllability of the situation; problem-focusing, acceptance, optimism, positive reinterpretation, religiosity, cognitive processing of traumatic memories [9, p. 11].

Our empirical study using regression analysis found that psychological resilience is a psychological factor in post-traumatic growth. Researchers S. Lepore, T. Revenson indicate that resilience plays a significant role in shaping post-traumatic growth [8].

In our opinion, psychological resilience should be considered as a multidimensional and multilevel phenomenon that includes cognitive, affective, and conative components and represents a nonlinear and uneven dynamic process of recovery after difficult life circumstances, which is manifested in the ability to maintain a stable level of psychological and physical functioning in critical situations, to emerge from such situations without persistent impairments, and to successfully adapt to adverse changes.

We believe that psychological resilience is manifested through the following content-structural components: involvement (defined as the conviction that a person derives pleasure from life and their own activities); need for knowledge (a person is always open to new experiences and new impressions); control (the conviction that a person chooses their own path in life and their own activities); the ability to set realistic goals and carry out activities aimed at achieving them; risk-taking (the conviction that knowledge gained from positive or negative experiences contributes to the development of a person); resourcefulness; flexibility; optimism; cognitive complexity (a person is oriented towards the knowledge of complex phenomena, likes complex and difficult tasks, and shows interest in complex ideas); altruism.

Post-traumatic growth is characterized by new ways of being, personal strength, gratitude, increased spirituality, and closer interpersonal relationships [5]. Researchers note that hope, forgiveness, and general religiosity are important indicators of religious/spiritual well-being and are important resources for mental health [10].

We would like to especially note that in our study, the positive significant correlation between positive religious coping and post-traumatic growth in veteran volunteers is particularly striking. The more veteran volunteers are inclined to religious coping, the more they are inclined to positive changes.

Religious coping is defined by researchers as turning to religion when a person is experiencing life difficulties and seeks social support in a group of people with a common faith [12]. Scientists C. Lehmann, E. Steele note that religion and spirituality provide resources for overcoming difficult life situations [7]. The results of some foreign

Table 1

Coefficients according to regression analysis

Model		Non-standardized coefficients		Standardized coefficients	t	Significance
		B	Standard error	Beta		
1	(Constant)	4,241	0,248		17,120	0,000
	Meaning and purpose	0,446	0,038	0,587	5,623	0,000
	Psychological resilience	0,298	0,037	0,398	1,915	0,000
	Hardiness	0,341	0,044	0,419	2,132	0,000
	Mental and physical health	0,386	0,036	0,478	3,112	0,000
	Hope	0,412	0,042	0,532	4,493	0,000
	Life satisfaction	0,372	0,051	0,456	2,872	0,000
	Positive religious coping	0,262	0,039	0,377	1,466	0,000
	Close social relationships	0,228	0,041	0,349	0,978	0,000

$R = 0,734$; $R^2 = 0,539$; $Adjusted R^2 = 0,508$; $F = 46,01$; $Sig = 0,000$

empirical studies [3] demonstrate that religious coping of psychological stress is associated with positive outcomes for both physical and mental health. The results of some foreign studies confirm that religious coping was positively correlated with life satisfaction [12].

Some foreign empirical studies [14] show that positive religious coping plays an important role in overcoming difficult events and creating more meaningful and spiritually positive experiences. Belief in God is used as a self-sufficient religious coping strategy as a problem-solving strategy. Positive religious coping is negatively significantly associated with depression [11]. It has been empirically established that positive religious coping is associated with lower odds of hypertension [13].

Conclusions. Studying predictors of posttraumatic growth plays an important role in understanding the effects of posttraumatic stress disorder.

In veteran volunteers, psychological factors of post-traumatic growth include meaning and purpose, hope, mental and physical health, life satisfaction, resilience, psychological resilience, positive religious coping, and close social relationships.

Meaning and purpose, hope, resilience, development of psychological resilience, positive religious coping, and close social relationships have significant therapeutic potential, preventive, and rehabilitative value.

In the future, we plan to identify psychological factors of post-traumatic growth in a longitudinal study.

Bibliography:

1. Титаренко Т. М. Психологічне здоров'я особистості: засоби самопомогти в умовах тривалої травматизації. Національна академія педагогічних наук України, Інститут соціальної та політичної психології. Кропивницький: Імекс-ЛТД, 2018. 160 с.
2. Calhoun L. G. & Tedeschi R. G. Handbook of posttraumatic growth: Research and practice. New York: Psychology Press, 2014. 408 p.
3. Imperatori C., Bersani F. S., Massullo C., Carbone G. A., Salvati A., Mazzi G. Neurophysiological correlates of religious coping to stress: a preliminary EEG power spectra investigation. *Neuroscience Letters*. 2020. Vol. 728. Article e134956. <https://doi.org/10.1016/j.neulet.2020.134956>.
4. Joseph S. Growth Following Adversity: Positive Psychological Perspectives on Posttraumatic Stress. *Psychological Topics*. 2009. Vol. 18(2). P. 335–344.
5. Keagy C. D. A Qualitative Examination of Post-Traumatic Growth in Multiply Body Modified Adults. *Deviant Behavior*. 2020. Vol. 41(5). P. 562–573.
6. Khurshed M., Shahnawas M. G. Trauma and Post-traumatic Growth: Spirituality and Self-compassion as Mediators Among Parents Who Lost Their Young Children in a Protracted Conflict. *Journal of Religion & Health*. 2020. Vol. 59(5). P. 2623–2637. <https://doi.org/10.1007/s10943-020-00980-2>.
7. Lehmann C., & Steele E. Going beyond positive and negative: Clarifying relationships of specific religious coping styles with posttraumatic outcomes. *Psychology of Religion and Spirituality*. 2020. Vol. 12(3). P. 345–355. <https://doi.org/10.1037/rel0000310>.
8. Lepore S. J., Revenson T. A. Resilience and posttraumatic growth: Recovery, resistance, reconfiguration. In L. G. Calhoun & R. G. Tedeschi (Eds.), *Handbook of Posttraumatic Growth: Research and Practices*. Mahwah, NJ: Lawrence Erlbaum Associates, Inc., Publishers. 2006. P. 24–46.
9. Linley P. A., Joseph S., Harrington S., & Wood A. M. Positive psychology: Past, present, and (possible) future. *Journal of Positive Psychology*. 2006. Vol. 1. P. 3–16. <https://doi.org/10.1080/17439760500372796>.
10. Malinovic A., Fink A., Lewis A., Unterrainer H.-F. Dimensions of religious/spiritual well-being in relation to personality and stress coping: initial results from Bosnian young adults. *Journal of Spirituality in Mental Health*. 2016. Vol. 18. P. 43–54. <https://doi.org/10.1080/19349637.2015.1059301>.
11. Sarizadeh M., Najafi M., Rezaei A. The prediction of depression based on religious coping and the components of positive youth development in adolescents. *Mental Health, Religion & Culture*. 2020. Vol. 23. P. 1–13.
12. Szczeniński M., Kropiewski Z., & Szałachowski R. The mediating effect of coping strategies on religious/spiritual struggles and life satisfaction. *Religions*. 2020. Vol. 11. Article e195. <https://doi.org/10.3390/rel11040195>.
13. Tete D. K., Lee J. W., Montgomery S. B., Wilson C. M. Working Together with God: Religious Coping, Perceived Discrimination, and Hypertension. *Journal of Religion & Health*. 2020. Vol. 59(1). P. 40–58. <https://doi.org/10.1007/s10943-019-00822-w>.
14. Van Tongeren D. R., Worthington E. L., Davis D. E., Hook J. N., Reid C. A., & Garthe R. C. Positive religious coping in relationships predicts spiritual growth through communication with the sacred. *Psychology of Religion Spirituality*. 2018. Vol. 10(1). P. 55–62.

References:

1. Calhoun, L. G. & Tedeschi, R. G. (2014). Handbook of posttraumatic growth: Research and practice. New York: Psychology Press, 408 p. [in English].
2. Imperatori, C., Bersani, F. S., Massullo, C., Carbone, G. A., Salvati, A., Mazzi, G. (2020). Neurophysiological correlates of religious coping to stress: a preliminary EEG power spectra investigation. *Neuroscience Letters*, 728, Article e134956. <https://doi.org/10.1016/j.neulet.2020.134956>. [in English].
3. Joseph, S. (2009). Growth Following Adversity: Positive Psychological Perspectives on Posttraumatic Stress. *Psychological Topics*, 18(2), 335–344. [in English].
4. Keagy, C. D. (2020). A Qualitative Examination of Post-Traumatic Growth in Multiply Body Modified Adults. *Deviant Behavior*, 41(5), 562–573. [in English].

5. Khursheed, M., Shah Nawas, M. G. (2020). Trauma and Post-traumatic Growth: Spirituality and Self-compassion as Mediators Among Parents Who Lost Their Young Children in a Protracted Conflict. *Journal of Religion & Health*, 59(5), 2623–2637. <https://doi.org/10.1007/s10943-020-00980-2>. [in English].
6. Lehmann, C., & Steele, E. (2020). Going beyond positive and negative: Clarifying relationships of specific religious coping styles with posttraumatic outcomes. *Psychology of Religion and Spirituality*, 12(3), 345–355. <https://doi.org/10.1037/rel0000310>. [in English].
7. Lepore, S. J., Revenson, T. A. (2006). Resilience and posttraumatic growth: Recovery, resistance, reconfiguration. In L. G. Calhoun & R. G. Tedeschi (Eds.), *Handbook of Posttraumatic Growth: Research and Practices* (pp. 24–46). Mahwah, NJ: Lawrence Erlbaum Associates, Inc., Publishers. [in English].
8. Linley, P. A., Joseph, S., Harrington, S., & Wood, A. M. (2006). Positive psychology: Past, present, and (possible) future. *Journal of Positive Psychology*, 1, 3–16. <https://doi.org/10.1080/17439760500372796>. [in English].
9. Malinovic, A., Fink, A., Lewis, A., Unterrainer, H.-F. (2016). Dimensions of religious/spiritual well-being in relation to personality and stress coping: initial results from Bosnian young adults. *Journal of Spirituality in Mental Health*, 18, 43–54. <https://doi.org/10.1080/19349637.2015.1059301>. [in English].
10. Sarizadeh, M., Najafi, M., Rezae, A. (2020). The prediction of depression based on religious coping and the components of positive youth development in adolescents. *Mental Health, Religion & Culture*, 23, 1–13. [in English].
11. Szcześniak, M., Kroplewski, Z., & Szałachowski, R. (2020). The mediating effect of coping strategies on religious/spiritual struggles and life satisfaction. *Religions*, 11, Article e195. <https://doi.org/10.3390/rel11040195>. [in English].
12. Tete, D. K., Lee, J. W., Montgomery, S. B., Wilson, C. M. (2020). Working Together with God: Religious Coping, Perceived Discrimination, and Hypertension. *Journal of Religion & Health*, 59(1), 40–58. <https://doi.org/10.1007/s10943-019-00822-w>. [in English].
13. Tytarenko, T. M. (2018). Psykholohichne zdorovia osobystosti: zasoby samodopomohy v umovakh tryvaloi travmatyzatsii [Psychological health of the individual: self-help tools in conditions of prolonged traumatization]. Natsionalna akademiia pedahohichnykh nauk Ukrainy, Instytut sotsialnoi ta politychnoi psykholohii. Kropyvnytskyi: Imeks-LTD, 160 p. [in Ukrainian].
14. Van Tongeren, D. R., Worthington, E. L., Davis, D. E., Hook, J. N., Reid, C. A., & Garthe, R. C. (2018). Positive religious coping in relationships predicts spiritual growth through communication with the sacred. *Psychology of Religion and Spirituality*, 10(1), 55–62. [in English].

Дата першого надходження рукопису до видання: 27.10.2025

Дата прийнятого до друку рукопису після рецензування: 26.11.2025

Дата публікації: 30.12.2025