

**EDUCATION AND SCIENCE
IN THE PERIOD OF GLOBAL
CRISES AND CONFLICTS
IN THE 21st CENTURY**



COLLECTIVE MONOGRAPH

**EDUCATION AND SCIENCE
IN THE PERIOD OF GLOBAL
CRISES AND CONFLICTS
IN THE 21st CENTURY**

Compiled by
VIKTOR SHPAK

Chairman of the Editorial Board
STANISLAV TABACHNIKOV

GS PUBLISHING SERVICES
SHERMAN OAKS
2023

The collective monograph is a scientific and practical publication that contains scientific articles by doctors and candidates of sciences, doctors of philosophy and art, graduate students, students, researchers and practitioners from European and other countries. The articles contain research that reflects current processes and trends in world science.

Text Copyright © 2023 by the Publisher «GS Publishing Services» and authors.

Illustrations © 2023 by the Publisher «GS Publishing Services» and authors.

Cover design: Publisher «GS Publishing Services» ©

Authors: Liliia Avdieieva, Oleksandr Balko, Olen Balko, Kostiantyn Bakaievych, Yana Bakaievych, Olha Biliaieva, Svitlana Bobrovnyk, Victor Borodii, Alla Cherep, Oleksandr Cherep, Oksana Drevitska, Nataliia Dub, Ivan Dudar, Yaroslav Dudar, Pavel Glukhovskiy, Grygoriy Griban, Valentyna Groza, Iryna Hnatyshena, Mykhailo Humeniuk, Serhii Ihnatovych, Tetiana Illarionova, Eduard Ivashkevych, Ernest Ivashkevych, Ivan Karol, Yevhen Kharchenko, Iryna Kochetkova, Ihor Kolomak, Hanna Korpita, Yurii Kryvko, Vadym Kryzhevskiy, Volodymyr Kulish, Serhii Kulynych, Olena Kyrychko, Olena Litovchenko, Olha Liubitseva, Valentyna Moiseienko, Nataliia Mykhalchuk, Alexander Nabochuk, Vitalina Nikitenko, Oleksandr Paienok, Oksana Petrenko, Yaroslava Pushkarova, Serhii Puzik, Olha Reshetniak, Tetiana Reva, Andrii Savchenko, Iryna Shevchuk, Anatolii Shostia, Bogdan Shuvar, Ivan Shuvar, Roman Shyrshov, Oleksii Skitsko, Olena Titarenko, Pavlo Tkachenko, Vira Tymoshenko, Serhii Varych, Ganna Vasylyeva, Valerii Voitsekhovskiy, Valentyna Voronkova, Olena Welchinska, Oleksandr Yakushenko, Sviatoslav Yutskevych, Galina Zaitseva, Maksym Zakiiev, Vadym Zakiiev, Oleksandr Zaporozhets, Ihor Zavorodnii, Liudmyla Zhuravlova.

All rights reserved. No part of this publication may be reproduced, distributed or transmitted in any form or by any means, or stored in a database or search engine without the prior written permission of the publisher. The authors are responsible for the content and reliability of their articles. Citation or other use of the monograph is possible only with reference to the publication.

Publisher «GS Publishing Services»
15137 Magnolia Blvd, # D,
Sherman Oaks, CA 91403, USA.

ISBN 979-8-9895146-0-1

DOI : 10.51587/9798-9895-14601-2023-016

Scientific editors-reviewers: S. Bobrovnyk, Yu. Bondar, A. Cherep,
P. Glukhovskiy, P.Hovorov, Yu. Kuznetsov, V. Lazurenko ,
V. Moiseienko, L. Omelianchyk, R. Protsiuk, Zh.Virna.

The monograph is recommended for publication by the Presidium of
the National Academy of Sciences of Higher Education of Ukraine

**Education and science in the period of global crises and conflicts in the 21st century :
collective monograph** / Compiled by V. Shpak; Chairman of the Editorial Board S. Tabachnikov.
Sherman Oaks, California : GS Publishing Services, 2023. 331 p.

Available at: DOI : 10.51587/9798-9895-14601-2023-016

HISTORICAL SCIENCES

ЖУРАВЛЬОВА Людмила	ТЕХНО-ДИПЛОМАТІЯ У ЗОВНІШНЬО-ПОЛІТИЧНОМУ КУРСІ США ЩОДО КИТАЮ ПРОТЯГОМ 2000-Х РР.: КОСМІЧНА ПЕРСПЕКТИВА	104
--------------------	---	-----

LINGUISTICS

ГНАТИШЕНА Ірина, ПЕТРЕНКО Оксана	ІННОВАЦІЙНІ ПІДХОДИ ДО ВИКЛАДАННЯ ЕКОНОМІЧНОЇ АНГЛІЙСЬКОЇ ТА НІМЕЦЬКОЇ МОВ НА ОСНОВІ ВІРТУАЛЬНОЇ РЕАЛЬНОСТІ ТА ОНЛАЙН-РЕСУРСІВ	110
-------------------------------------	--	-----

MEDICINE

БІЛЯЄВА Ольга, КРИЖЕВСЬКИЙ Вадим, КАРОЛЬ Іван, ІЛЛАРІОНОВА Тетяна	КОМПЛЕКСНИЙ ПІДХІД ЩОДО ПРОФІЛАКТИКИ РАНОВИХ ГНІЙНО-ЗАПАЛЬНИХ УСКЛАДНЕНЬ У ХВОРИХ НА ПЕРИТОНІТ	119
Ganna VASYLYEVA	COMPREHENSIVE PSYCHOTHERAPEUTIC SUPPORT TO PATIENTS AND THEIR CAREGIVERS IN PALLIATIVE CARE	128
ВОЙЦЕХОВСЬКИЙ Валерій, АВДЄЄВА Лілія, БАЛКО Олександр, БАЛКО Олена	СУЧАСНІ УЯВЛЕННЯ ПРО ОСОБЛИВОСТІ РОЗВИТКУ СПОРОУТВОРЮЮЧИХ БАКТЕРІЙ ВІД СПОРИ ДО ВЕГЕТАТИВНОЇ КЛІТИНИ	134
ДУБ Наталія, ПАЄНОК Олександр, КРИВКО Юрій	СУЧАСНА МЕДСЕСТРИНСЬКА ОСВІТА В УКРАЇНІ	152
ДРЕВІЦЬКА Оксана	ПСИХОЛОГІЯ ТА ПСИХІАТРІЯ ІНДИВІДУАЛЬНОСТІ З ПОЗИЦІЙ КЛАСИЧНОЇ ГЕНЕТИКИ І ПСИХОГЕНЕТИКИ	156
ЗАВГОРОДНІЙ Ігор, ЛІТОВЧЕНКО Олена	СУЧАСНИЙ СТАН ПРОБЛЕМИ ПРОФЕСІЙНОГО ВИГОРАННЯ В УКРАЇНІ СЕРЕД МЕДИЧНИХ ПРАЦІВНИКІВ	162
МОЙСЕЄНКО Валентина	ЕТІОПАТОГЕНЕЗ ТА ЛІКУВАННЯ СИНДРОМУ ПОДРАЗНЕНОГО КИШЕЧНИКА	170

Ganna VASYLYEVA,
Doctor of Medical Sciences, Professor,
Poltava State Medical University,
ORCID ID: 0000-0001-6732-1632
UKRAINE

COMPREHENSIVE PSYCHOTHERAPEUTIC SUPPORT TO PATIENTS AND THEIR CAREGIVERS IN PALLIATIVE CARE

Cancer is a leading cause of death worldwide, accounting for nearly 10 million deaths in 2020, or nearly one in six deaths¹, only in Ukraine as of 1 January 2020, 1,040,137 people were diagnosed cancer (388.2 cases per 100,000 people), mortality rate – 171.8 cases per 100 thousand people². If the incidence rate continues to grow, by 2030 the number of people who will be newly diagnosed with cancer will reach 27 million, and 17 million people will die of cancer, with 75 million people on the planet carrying the disease³.

Oncological diseases are unique in that they cause significant psychological problems for the patient and his family. For most patients and their family members, oncological diagnosis is a direct synonym of doom, a kind of death sentence, and severe suffering⁴.

The progression of malignant neoplasms means that more than half of patients with malignant neoplasms are doomed to die from the progression of the disease, and the natural course of the malignant process implies the inevitable transition to the terminal phase. In the case of inpatient oncological patients, the primary and perhaps only achievable goal of providing care for this difficult category of patients is to improve the quality of life through palliative care⁵

According to the WHO definition⁶, palliative care is a type of care that enhances the quality of life of patients and their families who are facing a fatal disease by preventing and alleviating suffering by identifying and assessing

1 <https://www.who.int/news-room/fact-sheets/detail/cancer>

2 Cancer in Ukraine, 2020–2021. Morbidity, mortality, indicators of the oncology service activity. Bull Natl Cancer Register Ukr. Kyiv, 2021; 22: 136 p. (in Ukrainian)

3 <https://www.oncology.kiev.ua/article/10652/onkologiya-v-ukraini-stan-problemi-ta-shlyaxi-rozvitku>

4 Willig C, Wirth L. A meta-synthesis of studies of patients' experience of living with terminal cancer. Health Psychol. 2018 Mar;37(3):228–37

5 Rom-Arjona, B., Atanacio, E., Crisolago, D., & Narvaez, R. A. (2023). Impact of Environment and Milieu Therapy in Palliative Care. OMEGA - Journal of Death and Dying, 0(0). <https://doi.org/10.1177/00302228231180235>.

6 World Health Organization. (2019). Palliative care. <https://www.who.int/news-room/fact-sheets/detail/palliative-care>

problems early, providing adequate curative interventions, and offering psychosocial and moral support.. Palliative care for patients with common malignant neoplasms is one of the important problems of the health system and has the following main directions - control of oncological symptoms; psychological, spiritual and emotional support of patients and their families during the illness⁷; support of families after the loss of a loved one⁸. One of the topical scientific and practical problems of palliative medicine is psychological and psychotherapeutic support of oncological patients^{9,10}.

Understanding the serious and specific problems that arise is crucial for effective care for oncological patients¹¹. Stress in late stage oncological patients is associated with various factors, such as rapid tumor progression, real or expected infirmity, patient personality traits (awareness of adverse prognosis, fear of pain, death), and poorly controlled pain syndrome, social factors (loss of employment, social status and family leadership by patients; real or perceived sense of isolation; financial difficulties associated with illness; concern for family members) treatment (repeated unsuccessful attempts of radical treatment and developed side effects), relationships with medical professionals of oncological institutions (lack of continuity at different stages of treatment)¹². Patients with malignant neoplasms have a difficult time handling psychological problems due to various factors, such as their age, the duration of the oncological disease, the severity of their symptoms, their religious beliefs, and support from relatives, etc.¹³. An incurable disease and an older person's death are perceived more calmly and seen as an inevitable part of the life cycle¹⁴. The younger the person, the more dramatic

- 7 Akechi T, Okuyama T, Onishi J, Morita T, Furukawa T. A. (2018). Psychotherapy for depression among incurable cancer patients. *Cochrane Database of Systematic Reviews*, 11(11), CD005537. <https://doi.org/10.1002/14651858.CD005537>
- 8 Miller E. M., Porter J. E., Barbagallo M. S. (2022). The physical hospital environment and its effects on palliative patients and their families: A qualitative meta-synthesis. *HERD: Health Environments Research and Design Journal*, 15(1), 268–291. <https://doi.org/10.1177/19375867211032931>
- 9 Saracino R. M., Rosenfeld B., Breitbart W., Chochinov H. M. (2019). Psychotherapy at the end of life. *The American Journal of Bioethics: AJOB*, 19(12), 19–28. <https://doi.org/10.1080/15265161.2019.1674552>
- 10 Collette N., Güell E., Fariñas O., Pascual A. (2021). Art therapy in a palliative care unit: Symptom relief and perceived helpfulness in patients and their relatives. *Journal of Pain and Symptom Management*, 61(1), 103–111. <https://doi.org/10.1016/j.jpainsymman.2020.07.027>
- 11 Miller K, Massie MJ. Depressive Disorders. In: Holland JC, Breitbart WS, Jacobsen PB, Loscalzo MJ, McCorkle R, Butow PN, editors. *Psycho-oncology*. 3rd ed. Oxford, New York: Oxford University Press; 2015. pp. 311–8.
- 12 Block S. D. (2006). Psychological issues in end-of-life care. *Journal of Palliative Medicine*, 9(3), 751–772. <https://doi.org/10.1089/jpm.2006.9.751>
- 13 Gramm J., Trachsel M., Berthold D. (2020). Psychotherapeutic work in palliative care. *Verhaltenstherapie*, 5(2020), 44–53. <https://doi.org/10.1159/000505120>
- 14 Saracino R. M., Rosenfeld B., Breitbart W., Chochinov H. M. (2019). Psychotherapy at the end of life. *The American Journal of Bioethics: AJOB*, 19(12), 19–28. <https://doi.org/10.1080/15265161.2019.1674552>

and unnatural it seems to both the patient and his loved ones a fatal disease. The longer and more painful a person is, the easier it is to perceive the news of impending death as a cure for unbearable suffering, both physical and emotional. The news of an incurable disease and imminent death always turns a sick person to a religion which, even non-believers, helps to overcome this ordeal with dignity.

Patients with palliative care are generally aware of their incurable cancer. E. Kubler-Ross¹⁵ highlights five main stages of the psychological processing of oncological patients information about their disease: denial or shock; anger; «trade»; depression and acceptance. The first stage is very typical - the patient does not believe that he has a potentially fatal disease and the denial acts as a psychological protective mechanism to protect the consciousness from unbearable thoughts and experiences. The second stage is characterized by a pronounced emotional reaction, turned to doctors, society, and relatives. The third stage is an attempt to «bargain» as many days of life as possible, an attempt to make a deal with fate. At stage four, the patient understands the gravity of his situation. As a rule, depression occurs: falls into despair and horror, he gives up his hands, stops fighting, loses interest in everyday problems, leaves his usual business, distances people, closes the house and mourns his fate. The fifth stage is the most rational psychological response: patients mobilize their efforts to, despite the disease, continue to live profitably for their loved ones. Few patients survive to the final stage of acceptance. It should be noted that the above stages do not always go according to the established procedure. The patient may stop at some stage or even return to the previous. However, knowledge of these stages is necessary for a correct understanding of what is being done in the soul of a person facing a deadly disease. «Acceptance» as the end of the psychological processing by the personality of the dying person of his diagnosis, and there is that spiritual basis which allows the patient to die in peace and dignity. This is why the «principle of open diagnosis» is one of the key in the concept of psychotherapeutic support in the structure of palliative care.

The role of the psychotherapist at the stage of palliative care is to provide psychological support and assistance to the patient and his environment to cope with this difficult situation. Upon learning about the diagnosis and

15 Kubler-Ross, E. (1969) On Death and Dying. Macmillan, New York.

prognosis, oncologists often experience fear - fear of possible pain that will start or intensify in the future; fear of painful physical and mental experiences at the moment of death; fear of loneliness at the moment of death alone; fear of the uncertainty associated with the moment of death - the unknown is always frightening and especially frightens the uncertainty of those states and experiences that will accompany the death itself; regret about the loss - patients do not want to leave and abandon those who they love and with whom they are bound by the strongest ties; anxiety about the duties and unfinished deeds left behind and anxiety about relationships with others around: time to forgive, reconcile, explain, etc. Dying patients need to feel safe, calm and confident that they will not suffer at the time of death, which provides palliative care¹⁶.

Psychotherapeutic support of patients with common forms of malignant neoplasms is aimed primarily at correcting their emotional state using both psychotherapeutic measures and psychopharmacotherapy; creation of positive mood in oncological patients to carry out palliative antitumor treatment; overcoming of patients with syndrome of absence of sense of life («existential vacuum»); reduction of intensity of pain syndrome¹⁷; creation of additional psychological resources and psychological adaptation of oncological patients and their close to changed living conditions; resolution of intra-family conflicts directly or indirectly related to the disease, i.e. to help a sick person find meaning in life, to share his loneliness and support, to satisfy spiritual and religious needs and, ultimately, to improve the quality of life of patients¹⁸.

It must also be remembered that caring for the dying and accompanying them through all the stages of dying is a difficult test for those involved. The care of relatives is an important part of the comprehensive psychotherapeutic support for the dying person. Assistance to relatives during the illness of their close ones consists in support and, if necessary, in the correction of emotional disorders arising during the care of patients.

16 Dying Patients' Need for Emotional Support and Personalized Care from Physicians <https://www.jpmsjournal.com/article/S0885-3924%2802%2900694-2/fulltext>

17 Jitender S, Mahajan R, Rathore V, Choudhary R. Quality of life of cancer patients. *J Exp Ther Oncol*. 2018 May;12(3):217-221. PMID: 29790313.

18 Murakawa Y, Ootsuka K, Kusaka J, Miura K. Correlation between overall survival and quality of life in colon cancer patients with chemotherapy. *BMC Cancer*. 2023 May 31;23(1):492. doi: 10.1186/s12885-023-10989-x. PMID: 37259045; PMCID: PMC10230773.

After the loss of a loved one, relatives need psychological support more than ever¹⁹. The experience of grief after loss becomes a natural part of their existence. The reaction of grief is one of the most powerful and painful experiences of any person²⁰. The normal reaction of grief consists of four stages: shock and protest - numbness, disbelief and acute dysphoria; absorption - acute longing, search and anger; disorganization - feelings of despair and acceptance of loss and resolution²¹.

The initial reaction of grief - shock, emotional numbness and disbelief - is replaced by irritation and longing for the deceased for several days, with irritation most pronounced within about two weeks, followed by frequent symptoms of depression, peaking four to six weeks after the death of a loved one. Painful manifestations of the reaction of grief can occur at any time, and they are provoked by people, settings or things that awaken memories of the dead person. Over time, the intensity of the experience of severe loss begins to diminish and the manifestations of depression diminish. In most people, the response to a grievous loss disappears within a year or two.

In addition to the normal reaction of grief, there is a pathological, which is divided into suppressed (inhibited), delayed (delayed in time) and chronic. Repressed grief reaction - no expected symptoms of grief at all stages, delayed (avoidance) of painful symptoms within two weeks of loss, and chronic - persistent symptoms of grief within six months of loss. Repressed and delayed reactions of grief can be characterized as “too weak” and chronic as “too strong”. A delayed reaction to grief is more likely to occur in people with avoidant attachment styles who consider the manifestation of feelings a sign of weakness or an excuse for ridicule. Chronic grief is more common in people who have expressed a relationship dependent on the deceased.

Support and mutual assistance groups, thematic meetings for relatives and family members of cancer patients have an effective psychotherapeutic effect²². Such meetings are devoted to the problem of suffering and allow for the manifestation of pent-up and sometimes unconscious feelings of bitterness

19 Fegg MJ, Brandstätter M, Kögler M, Hauke G, Rechenberg-Winter P, Fensterer V, et al. Existential behavioural therapy for informal caregivers of palliative patients: a randomised controlled trial. *Psychooncology*. 2013 Sep; 22(9):2079–86.

20 Kissane DW, McKenzie M, Bloch S, Moskowitz C, McKenzie DP, O'Neill I. Family focused grief therapy: a randomized, controlled trial in palliative care and bereavement. *Am J Psychiatry*. 2006 Jul;163(7):1208–18.

21 Grande G, Rowland C, van den Berg B, Hanratty B. Psychological morbidity and general health among family caregivers during end-of-life cancer care: A retrospective census survey. *Palliat Med*. 2018 Dec;32(10):1605–14

22 Jan Gramm, Manuel Trachsel, Daniel Berthold; Psychotherapeutic Work in Palliative Care. *Verhaltenstherapie* 28 December 2022; 32 (Suppl. 1): 44–53. <https://doi.org/10.1159/000505120>

and sorrow. Short-term psychodynamic psychotherapy and behavioral therapy techniques such as directed mourning are also effective. According to this method, the «unresolved» reaction of grief is equated with one of the variants of avoidable behavior, which is successfully corrected by the method of action of the avoided situation (exposure psychotherapy).

The problem of the provision of palliative care to patients with rhaplasized forms of malignant neoplasms imposes a huge psychological burden on the staff of medical institutions of oncological profile, who also require qualified psychological assistance and support. Professional activity of oncologists involves the action of multiple frustrating situations due to the specifics of the serviced population of patients with low-curiosity chronic diseases and provokes professional burnout²³ the prevalence of which among oncologists providing palliative care is up to 28% (1.6 times higher for women oncologists than for men)²⁴. One of the serious consequences of emotional burnout is the formation of neurotic disorders²⁵.

Currently, there is a significant increase in malignant neoplasms; however, despite the increased capacity of modern oncology for radical treatment, more than half of patients require palliative care with well-developed comprehensive psychotherapeutic support. Only such an approach will make it possible to build a palliative care program that is maximally oriented towards the patients and their families.

23 Vorona, Dariia & O., Kyrylova & I., Vostroknutov & E., Vostroknutova. (2022). Емоційне вигорання у лікарів онкологів (Emotional burnout in oncologists). 10.36074/liga-inter-18.11.2022.

24 Kohli D, Padmakumari P. Self-Care, Burnout, and Compassion Fatigue in Oncology Professionals. *Indian J Occup Environ Med.* 2020 Sep-Dec;24(3):168-171. doi: 10.4103/ijocem.IJOEM_201_19. Epub 2020 Dec 14. PMID: 33746430; PMCID: PMC7962510.

25 Rajai N, Ebadi A, Karimi L, Sajadi SA, Parandeh A. A systematic review of the measurement properties of self-care scales in nurses. *BMC Nurs.* 2023 Aug 28;22(1):288. doi: 10.1186/s12912-023-01450-2. PMID: 37635260; PMCID: PMC10463637.