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PSYCHOGENICITY OF RADIATION THREATS IN POPULATION BEHAVIOR MODELS

Sergii Boltivets

State Institute of Family and Youth Policy of Ukraine, Ukraine

E-mail: boltivetssergij@i.ua

The Russian war against Ukraine, which since 2014 has been holding back the offensive of Russian troops against the countries of the European Union on its territory, is a source of both physical and mental threats to the existence of humanity as a result of Russia's nuclear aggression. Does this belong to the problems of psychology of the present and future centuries? Based on the subject of psychological knowledge, to which psychologists have included the soul, consciousness, experience, and behavior of all living beings on planet Earth over the past century, the sensitive guardianship of life is the purpose of the mental. Will the modern generation fulfill this mission in the current situation, when the war against Europe has ceased to be a vague or clear premonition, but is physically advancing along with the line of combat clashes to the borders of the European Union? I, like millions of people in Ukraine, no longer need anticipation as a conscious guess or an unconscious mental reflection to regulate my behavior, at the moment I write this article: my house is shaking and swaying from Russian bombing with ballistic missiles and strike drones, and nearby apartments are burning and crumbling to concrete rubble, with repeated Russian strikes hitting rescuers as soon as they arrived to help. Therefore, I convey to my colleagues in neighboring European countries no longer a premonition, but the reality of those threats that are approaching, but are not realized without affecting the senses of every still peaceful European person. Wars, as a rule, are preceded by a lot of talk about the impossibility of war: both the First, the Second, and now the Third World War. I remember the general euphoria from the construction of the safest Chernobyl nuclear power plant near Kyiv and its disaster in 1986, when 100-150 thousand people fled Kyiv on the roofs of cars and by all types of transport per day. I remember the general euphoria from the nuclear and strategic disarmament of Ukraine in the early 90s of the twentieth century, the disbandment of the almost million-strong army and the complete rejection of any thought of the possibility of a military confrontation. The denial of the possibility of war ended with the Russian military invasion in 2014 and the occupation of Crimea and most of the Donetsk and Luhansk regions. Further expectation of the end of the war ended with a full-scale Russian invasion on February 24, 2022, when the statehood of Ukraine was threatened, parts of Kherson, Kharkiv, Mykolaiv, Zaporizhia and other regions were occupied, the Chernobyl and Zaporizhia nuclear power plants were occupied. At the end of 2024, according to the Ukrainian semantic analysis project War of Words, more than 5,500 mentions from Russia about the possibility of using nuclear weapons were recorded (Solonets, 2024). The threats of the last century have formed a psychological law: the more they are talked about, the less they are believed in, and ultimately, when they are realized, the death and suffering of people are perceived as a surprise. Talk about threats acts as a psychological drug of self-soothing, which creates a dangerous illusion of experiencing fears in advance in order to devalue them with the aim of subconsciously neglecting them. The old army joke about the "anti-tank pill" says it even more clearly: "Do you see that there is an enemy tank?" - "Swallow the anti-tank pill quickly - and you will no longer see the tank!"

As our numerous observations show, Internet addiction in the conditions of the Russian war

in Ukraine arises and is formed as a reaction to replacing helplessness, inability to resist the blows of 250 and 500-kilogram high-explosive bombs dropped by Russian pilots on residential buildings, artillery shelling of residential areas from multiple rocket launcher systems “Grad”, “Smerch”, “Tornado”, “Uragan”, “Solntsepyok”, artillery strikes, bombing by unmanned aircraft. Understanding and feeling helplessness, inability to resist the Russian military threat encourages the search for virtual protection and the Internet, generalizing this addiction. As Bartholomew rightly noted (2016) regarding the consequences of radioactive damage: “it can be expected that for each contamination victim, 500 will seek medical screening, while another 40 will exhibit fear-induced psychogenic symptoms consistent with radiation exposure”. Frane and Bitterman (2023) noted that radiation safety is a concern for patients, physicians, and staff in many departments, including radiology, interventional cardiology, and surgery. The determination of biomarkers of radiation damage to human internal organs, carried out by Mahyoob and Zwaans (2026), raises the question of the severity of psychophysiological sensations that require psychological research.

The effect of balancing radiation threats with others related to military actions, the experience of total distrust of official factors and the search for substitute ways of responding, including religious, mystical, addictive practices, puts to the fore the need to restore this trust, combined with mutual trust and mutual assistance between citizens, who must have a clearly defined object of joint efforts in their consciousness. Public consciousness has a pronounced need to answer the question of who, what, and to what extent provides individual radiation protection for each person: children, youth, families, older people, with limited not only physical capabilities, but also a limited understanding of the changing situation. The ideal of protection, developed by the entire society, must be contrasted with the state of defenseless despair in which each person finds himself alone with himself and his radiation-affected relatives in the event of a nuclear disaster.

The threat of Russian nuclear strikes on major cities in Ukraine and other European countries, if realized, opens the way for the escape of the surviving part of the Ukrainian population and the population of the affected European countries to a radiation-free territory that will be affected by subsequent nuclear strikes, as, for example, the bombing of Syrian cities by Russia led to a surge in flight to European countries, etc.

Based on this, the nuclear Russian threat to the entire population of Europe is more than obvious. This is confirmed by the capture of the Chernobyl and Zaporizhzhia nuclear power plants, as well as the attempt to capture the South Ukrainian nuclear power plant, which was repulsed by the Armed Forces of Ukraine. In this context, one of the important means of protecting the population of Ukraine from the Russian military threat in general and the radiation threat in particular is the preparation of political and legal recognition of the Chernobyl disaster as part of the single-minded policy of genocide of Ukrainians during the 20th century, which includes continuous repressions in the 20s, 30s, 40s and later - in the 70s-80s, the Holodomor of 1921-1923, 1932-1933 and 1946-1947. The responsibility of the Russian Federation should become the subject of consideration by the International Tribunal.

Recognition of the responsibility of the Russian Federation as the legal successor of the former USSR will allow for systematically reducing the possibilities of financing military actions against Ukraine through a system of individual lawsuits. The nature and extent of mental, emotional, and physical suffering in their psychophysiological reflection, which is a basic component of psychological science as a whole and is based on objectified physical data, belongs to the subject of special psychological research, which in its essence is psychological expertise. Compensation for moral (mental) damage is one of the most important components of the psychological rehabilitation of a person who has suffered as a result of radiation damage, since it satisfies the sense of justice in the structure of the highest moral experiences of a person, which reflect a person's stable attitude to social events, to other people, and to himself. Psychological examination of 131 displaced persons from the Chernobyl zone 40 years after the Chernobyl disaster, resettled at the age of majority, allowed us to identify the following models of reaction and behavior (Boltivets, 2022):

- a) frequent states of inactivity, lethargy, lack of initiative, inhibition of mental functions, dullness, low expression of emotions, tendency to reminisce (“dreaming about the past”);
- b) neglect of radiation-dangerous living conditions for the sake of preserving family contacts (reunification of relatives in dangerous zones);
- c) increased attention to radioecological factors has changed to indifference to them and to people, a desire to self-remove, not to perceive dangers as if they did not exist, to retire;

- d) hypercompensation in satisfying material needs, demonstrativeness in emphasizing one's Chernobyl status;
- e) reluctance to give birth to children (in women of fertile age), fear of pathologies in children in case of birth (in men);
- f) tendency to explain failures by reduced well-being due to radiation exposure;
- g) feeling of one's own uniqueness, transferring the image of unrecognizable integral radiation impact on one's own person, tendency to unpredictable actions, aggressiveness;
- h) heightened sense of alienation, one's own inferiority, difficulties in communication and understanding;
- i) increased personal anxiety, fear of the future (illness, loss of relatives, loss of family relationships, family warmth, feeling of one's own uselessness in the family);
- j) compensation by the type of "luxury" of better than others material security, individualism, selfishness;
- k) protest reactions of distrust of state and public information related to the consequences of the Chernobyl nuclear power plant accident;
- l) experiencing changes in one's physical and mental well-being, breaking of family ties (death of the oldest family members immediately after evacuation - great-grandmothers, grandparents); the occurrence of chronic diseases that were not there before;
- m) reduced interest in life, longing for the lost, tragic experience of losing one's native place of residence, birth.

Considering the multifactorial nature of the psychological consequences of radiation damage, we consider it appropriate to recommend specialized institutional and instrumental-psychological support for the longitudinal study of this problem in order to prevent future radiation threats and dangers as a result of nuclear bombing and the destruction of nuclear facilities.

References

- Bartholomew, R. E. (2016). The Paris terror attacks, mental health, and the spectre of fear. *Journal of the Royal Society of Medicine*, 109(1), 4–5. <https://doi.org/10.1177/0141076815625070>
- Boltivets, S., Cheliadyn, Y., Honchar T., Uralova L., & Honchar O. (2022). Obsessive-compulsive disorders of waiting for death as a result of military genocide of the Ukrainian population. *Mental Health and Human Resilience International Journal*, 6(1), Article 173. <https://doi.org/10.23880/mhrij-16000173>
- Frane, N., & Bitterman, A. (2023, May 22). *Radiation safety and protection*. StatPearls Publishing. <https://www.ncbi.nlm.nih.gov/books/NBK557499/>
- Mahyoob, R., & Zwaans, B. M. M. (2026). Urinary biomarkers for radiation cystitis: Current insights and future directions. *International Journal of Molecular Sciences*, 27(2), Article 565. <https://doi.org/10.3390/ijms27020565>
- Solonets, Y. (2024, December 4). *Kremlin blackmail: who and what are Russia's nuclear threats aimed at?* Voice of America. <https://www.holosameryky.com/a/7883694.html>

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Sergii Boltivets

PhD, Doctor of Psychological Sciences, Professor, Head of the Department of Youth Policy Development, State Institute of Family and Youth Policy of Ukraine, Ukraine.
E-mail: boltivetssergij@i.ua
ORCID: <https://orcid.org/0000-0003-4432-5272>