

Psychological Support for Scientists During War: Addressing Crises and Risks Amidst the War in Ukraine

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This article investigates the severe impact of the war in Ukraine on its scientific community, drawing on detailed analyses from various studies. The conflict has resulted in significant displacement of scientists, extensive damage to research infrastructure, and a notable decline in scientific productivity. By January 2024, many scientists were forced to relocate or work remotely, with a substantial number volunteering for combat. Financial strain and reduced international collaborations have further compounded these issues. Key recommendations include establishing centralized tracking systems, developing support programs, and enhancing international collaborations to ensure the resilience and continuity of Ukrainian science during the war.

Keywords: war, Ukraine, scientists, displacement, infrastructure damage, scientific productivity, support programs, international collaboration, resilience, scientific community

Introduction

The war in Ukraine has brought unprecedented challenges to all segments of society, including the scientific community. As a professor of psychology, it is crucial to recognize the unique crises and risks faced by scientists in war zones and advocate for robust support systems within academic institutions. This article explores the psychological impacts of war on scientists and outlines policies that universities and academies should implement to support their mental well-being.

The International Organization for Migration (IOM) provides a detailed overview of its mental health and psychosocial support (MHPSS) activities in Ukraine for the period from January to June 2023. The report highlights the delivery of over 48,000 services in the first half of 2023, targeting more than 60,000 individuals since the onset of the war. Key activities include capacity building, direct counseling, and the implementation of community-based mental health programs. IOM emphasizes the importance of integrating mental health support into broader humanitarian efforts to address the comprehensive needs of affected populations.

In publication for the Science at Risk project, Nina Chala, Liudmyla Halahan, Victoriya Konstantinova, and Anastasiia Lutsenko (2024) analyze the multifaceted risks facing Ukrainian scientists during Russia's full-scale war against Ukraine. They identify major threats such as emigration, direct casualties, and professional mobility outside the scientific sector. The paper emphasizes that the war exacerbates long-standing issues like the unattractiveness of scientific careers, leading to an increased median age among scientists and significant loss of human potential.

The authors highlight the urgent need for a centralized system to track the losses of scientific personnel and the detrimental impacts on research activities. They report that as of July 2023, over 2,202 scientific officers from the National Academy of Sciences of Ukraine (NASU) could not work at their facilities, with 1,497 emigrating abroad and 705 becoming internally displaced. This displacement severely disrupts professional networks and academic continuity.

The report also underscores the interruption in funding and research projects, with many teams unable to continue their work. The decline in international collaborations, especially with Russia, has further isolated Ukrainian scientists. However, robust international support, including

expanded programs like Erasmus+ and assistance from national research agencies, has enabled some scientists, particularly women, to continue their work abroad.

To mitigate these challenges, the authors recommend establishing a centralized tracking system for scientific personnel, developing support programs for both displaced scientists and those serving in the armed forces, and regulating remote work to maintain connections with home institutions. They stress the importance of psychological support and integration programs to help scientists adapt and continue their research under these difficult circumstances.

The "Analysis of war damage to the Ukrainian science sector and its consequences" highlights the significant impact of the war on Ukraine's scientific community. By January 2024, 12% of Ukrainian scientists had emigrated or relocated internally, and 30% were working remotely. The estimated cost of restoring public research infrastructure is US\$ 1.2637 billion, with 1,443 buildings damaged or destroyed. The war has also reduced state budgets and international collaborations, leading to a drop in scientific productivity. This study, commissioned by UNESCO, aims to inform strategies for supporting the recovery of Ukraine's science sector.

Crises and Risks Faced by Scientists During War

Psychological Trauma and Stress

The constant threat of violence, displacement, and loss can lead to severe psychological trauma and chronic stress among scientists. These stressors can impede cognitive functions, reduce productivity, and affect overall mental health. The persistent fear for personal safety and the safety of loved ones can result in anxiety, depression, and post-traumatic stress disorder (PTSD).

Disruption of Research and Professional Development

War often leads to the destruction of research facilities, loss of data, and interruption of ongoing projects. This disruption can have long-term impacts on the professional development of scientists, delaying career progression and diminishing the potential for scientific breakthroughs.

Isolation and Displacement

Many scientists may be forced to flee their homes and institutions, resulting in isolation from their professional networks and research communities. This displacement can hinder collaboration, access to

resources, and the ability to continue meaningful work. The lack of a stable environment further exacerbates feelings of uncertainty and helplessness.

Economic Hardships

The economic instability caused by war can lead to funding cuts for research and salaries, creating financial stress for scientists. This economic hardship can force scientists to seek alternative means of livelihood, diverting their focus from their research and academic goals.

Policies for Supporting Scientists in War Zones

Establishing Mental Health Support Systems

Universities and academies should prioritize the mental health of their scientists by providing access to counseling services, mental health hotlines, and peer support groups. Training programs on resilience and stress management can also equip scientists with coping mechanisms to deal with trauma and anxiety.

Creating Flexible Research Policies

Institutions should adopt flexible policies that allow scientists to continue their research remotely or in safer locations. This includes providing digital access to research databases, facilitating virtual collaborations, and extending deadlines for project submissions and grant applications.

Financial and Logistical Support

Providing emergency funding and logistical support to displaced scientists can help mitigate the financial burden and enable them to continue their work. Scholarships, grants, and temporary positions at partner institutions abroad can offer a lifeline to those affected by the war.

Fostering a Supportive Community

Creating a supportive and inclusive community within academic institutions can help reduce feelings of isolation among scientists. Regular check-ins, virtual meetings, and forums for sharing experiences and challenges can foster a sense of belonging and mutual support.

Advocating for Policy Changes

Academic institutions should advocate for national and international policies that protect and support scientists in war zones. This includes lobbying for the protection of research facilities, the recognition of war-related academic disruptions, and the provision of humanitarian aid specifically for the scientific community.

Discussion

The war in Ukraine has underscored the critical need for comprehensive psychological and logistical support for scientists in war zones. By recognizing the unique challenges they face and implementing supportive policies, universities and academies can help ensure that scientists continue to contribute to global knowledge and innovation, even in the face of adversity.

The article collectively highlights the profound impact of the war in Ukraine on the scientific community, emphasizing the significant human and infrastructural losses. Halahan et al. and the UNESCO-commissioned study both report substantial displacement, with many scientists forced to emigrate, relocate, or work remotely, and some even volunteering for combat duty. The destruction of research infrastructure and the erosion of state budgets have further exacerbated the situation, hindering scientific productivity and international collaborations.

To mitigate these effects, both texts advocate for the establishment of centralized systems to track scientific personnel losses, the development of support programs for displaced and returning scientists, and the regulation of remote work. They also stress the importance of international support in sustaining Ukrainian science, highlighting successful efforts in providing funding, facilitating collaborations, and supporting scientists abroad.

In conclusion, preserving the scientific potential of Ukraine during and after the war requires coordinated efforts at both national and international levels, including financial support, infrastructure rebuilding, and comprehensive policies to support displaced and active scientists. The recommendations provided aim to ensure the continuity and resilience of the Ukrainian scientific community amidst ongoing conflict.

Conclusion

The war in Ukraine has placed immense strain on the scientific community, leading to displacement, infrastructure damage, and a significant drop in scientific productivity. Both the studies by Halahan et al. and the UNESCO-commissioned analysis underscore the urgent need for comprehensive support systems. Key recommendations include establishing a centralized tracking system for scientist displacement, developing support programs for displaced and returning scientists, and enhancing international

collaborations. Addressing these challenges is crucial to preserving Ukraine's scientific potential and ensuring the resilience of its research sector amidst ongoing conflict.

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