

Addressing the crises of global mental health: War, climate change, and technology

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Dear Readers,

in a world increasingly shaped by interconnected crises, the threads of war, mental health, climate change, and technology weave together to form a complex tapestry of challenges affecting global health and psychosocial well-being. These issues do not exist in isolation but rather interact dynamically, reinforcing vulnerabilities and influencing human behavior and societal outcomes. The psychological toll of war, for example, extends beyond physical devastation, embedding trauma across generations. Climate change exacerbates these effects, creating ecological instability that displaces communities and amplifies mental health crises such as anxiety and depression. Meanwhile, the rise of technology, though often seen as a tool for connection, paradoxically contributes to emotional loneliness and societal fragmentation.

To address these multifaceted challenges, it is critical to adopt a holistic perspective that integrates ethical principles, scientific collaboration, and community-based resilience strategies. International organizations, including scientific networks like the International Network for the Advancement of Medicine, Psychology, and Public Health (INAMPPH) [1], the World Health Organization (WHO), and initiatives like the "One Health" approach, play a pivotal role in fostering cross-border initiatives that prioritize shared values of dignity, equity, and sustainability. Additionally, organizations such as the Intergovernmental Panel on Climate Change (IPCC) contribute valuable insights into the intersection of environmental changes and human health, while the United Nations High Commissioner for Refugees (UNHCR) provides critical support to displaced populations affected by these crises.

Understanding the interrelations between these global challenges is the first step toward designing effective solutions. For instance, tackling the long-term impact of war requires not only addressing physical and psychological health needs but also rebuilding social structures and fostering reconciliation. Similarly, combating the mental health impacts of climate change necessitates integrating ecological and psychosocial strategies, such as promoting green spaces and supporting displaced populations. Technology's dual role as both a potential risk and a resource underscores the need for responsible digital policies that enhance connectivity while mitigating harm.

By embracing the interconnectedness of these issues, global health strategies can move beyond siloed approaches, paving the way for innovative solutions that bridge gaps across disciplines and communities. Only through such collective and ethical action can we hope to mitigate these crises and promote a stable, healthier world.

The objective of this viewpoint is to analyze the dynamic interplay between war, mental health, climate change, and technology, and to propose holistic, interdisciplinary strategies that address both their root causes and compounded effects. By exploring the roles of international organizations, scientific collaborations, and community-driven initiatives, this discussion aims to provide actionable insights for building resilience and fostering sustainable global health solutions.

At the core of this discussion lies the enduring impact of war, which extends beyond immediate destruction and reshapes the emotional landscapes of individuals and societies. The children of war veterans, for example, inherit the psychosocial legacies of conflict, manifesting in difficulties with emotional regulation, attachment, and relational stability. These patterns perpetuate through generations, creating a fragile foundation for resilience. The scars of war intertwine with other stressors—such as climate-induced displacement or economic instability—amplifying vulnerabilities and complicating recovery [2-4].

The fragile emotional stability of children exposed to these cascading effects becomes evident in the rising prevalence of anxiety among preschoolers, with significant symptoms observed in this population. Anxiety in childhood not only compromises early development but sets the stage for lifelong challenges in mental health and social integration. For children in war-torn or climate-stricken regions, exposure to trauma compounds these difficulties, embedding emotional instability into their formative years. Effective interventions targeting these children must be culturally sensitive, trauma-informed, and accessible, providing not only psychological support but also social and economic stability for their families.

Depression, often emerging later in life, magnifies these struggles by introducing additional layers of complexity. Depressive symptoms play a pivotal role in suicidal ideation, particularly when intersecting with functional limitations, unaddressed mental health needs, or substance misuse [5,6]. These insights highlight the cumulative burden of psychosocial stress, as unresolved childhood anxieties and intergenerational trauma feed into adult mental health crises. Addressing this requires a lifecycle approach to mental health care, integrating early prevention and sustained support across all stages of life. Public health initiatives must focus on breaking the cycle of trauma by promoting resilience and providing targeted mental health resources at critical life stages.

In this context, technology emerges as both a tool and a challenge. Social networking platforms promise connection but often exacerbate emotional loneliness, particularly among college students and young adults [7-10]. While online interactions may provide a semblance of community, they often fail to substitute real-world interactions, leaving individuals feeling isolated despite constant digital engagement. The algorithm-driven nature of these platforms can further polarize emotions, creating echo chambers that amplify negative experiences. Policies aimed at fostering healthier digital ecosystems must encourage balanced use of technology, promote digital literacy, and incentivize platforms to prioritize meaningful connections over engagement metrics.

Climate change looms over all these considerations. Rising temperatures and heatwaves are not merely environmental phenomena; they affect interpersonal dynamics and mental health, fueling aggression, violence, and unrest [11-12]. These effects are particularly pronounced in communities

already destabilized by war, poverty, or displacement, where environmental stressors become tipping points for conflict. Initiatives such as the "One Health" approach, which integrates human, animal, and environmental health, offer promising frameworks for addressing the interconnected impacts of climate change. Moreover, community-driven solutions like urban green spaces and disaster-preparedness programs can mitigate some of the psychosocial stress caused by environmental crises.

The psychosocial toll of climate change underscores the urgency of integrated interventions that address both environmental and mental health dimensions. This dual approach must involve international collaboration among organizations such as the World Health Organization (WHO) and the Intergovernmental Panel on Climate Change (IPCC), as well as local efforts to build community resilience. By connecting global policy frameworks with grassroots initiatives, we can begin to address the profound challenges posed by climate change, technology, and war, creating a foundation for healthier and more sustainable societies.

The December issue of the *Journal of Health and Social Sciences* will address these topics, offering insights from the scientific community to interpret and analyze the complex phenomena of our life. This issue aims to pose critical questions and foster a deeper understanding while exploring potential solutions to pressing global challenges.

To break this cycle, a holistic framework is needed—one that integrates mental health care, environmental adaptation, and technological literacy into cohesive strategies. Early intervention programs must address childhood anxiety with culturally sensitive, accessible tools while simultaneously offering support to families dealing with intergenerational trauma. Public health systems should prioritize mental health as a core component of care, providing resources for depression, suicide prevention, and emotional resilience across all life stages [13-15].

Policymakers must also recognize the dual role of climate change as both a physical and psychosocial challenge, implementing measures that promote green spaces, reduce urban heat islands, and foster community-based adaptation. Finally, institutions and educators must guide individuals toward healthier relationships with technology, emphasizing meaningful offline connections and responsible digital engagement [6,11,12,16].

By viewing these interconnected challenges through a unified lens, global health efforts can move beyond siloed approaches to address the complexity of the human condition. Only by acknowledging and addressing the interplay of war, mental health, climate change, and technology can we foster resilience and create a more equitable, stable world.

The intertwined crises of war, mental health, climate change, and technology demand a unified, interdisciplinary response that addresses their root causes and interrelated effects. These challenges are not confined to specific domains but permeate every aspect of global health and social stability. A comprehensive strategy must prioritize early intervention and trauma-informed care, while also addressing systemic issues such as environmental degradation and the responsible use of technology. Collaborative efforts involving international organizations, policymakers, and communities are essential to foster resilience and implement sustainable solutions [17-20].

By embracing a holistic approach, we can break the cycle of vulnerability and build a framework for global well-being that is inclusive, adaptive, and forward-thinking. This viewpoint calls for the integration of mental health care, environmental policies, and digital literacy into cohesive strategies that promote human dignity, equity, and sustainability [21-23]. Only through collective action can we hope to mitigate these multifaceted crises and move toward a future that ensures psychosocial and environmental health for all.

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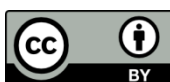
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References

1. Chirico F. The "International Network for the Psychology, Advancement of Medicine, and Public Health": Pioneering Progress in Medicine and Social Development. *Adv Med Psychol Public Health*. 2024;1(2):51-52. doi: 10.5281/zenodo.10632950.
2. Sampogna G, Brugnoli R, Fiorillo A. The biopsychosocial model revised for mental health. In: Fiorillo A, De Giorgi S, eds. *Social Determinants of Mental Health*. Sustainable Development Goals Series. Cham: Springer; 2024. doi:10.1007/978-3-031-70165-8_2.
3. Zhussipbek G. The human right to health: Empathy and universal human dignity versus apathetic capitalism. *Adv Med Psychol Public Health*. 2025;2(1):60-71. doi: 10.5281/zenodo.11672488.
4. Lakhan R, Sharma M. Global health: A priority that persists. *Adv Med Psychol Public Health*. 2025;2(2):78-80. doi: 10.5281/zenodo.12738127.
5. Walinski A, Sander J, Gerlinger G, Clemens V, Meyer-Lindenberg A, Heinz A. The Effects of Climate Change on Mental Health. *Dtsch Arztebl Int*. 2023 Feb 24;120(8):117-124. doi: 10.3238/arztebl.m2022.0403.
6. Rizzo A, Calandi L, Faranda M, Rosano MG, Carlotta V, Vinci E. Stigma against mental illness and mental health: The role of Social Media. *Adv Med Psychol Public Health*. 2025;2(2):125-130. doi: 10.5281/zenodo.13223184.
7. Tost H, Champagne F, Meyer-Lindenberg A. Environmental influence in the brain, human welfare, and mental health. *Nat Neurosci*. 2015;18(10):1421-1431. doi:10.1038/nn.4108.
8. Chirico F. Navigating in the global workplace: Innovative strategies for combating new approach to preventing burnout, violence, preventing and workplace enhancing psychosocial well-being. *Adv Med Psychol Public Health*. 2024;1(3):108-109. doi: 10.5281/zenodo.10897920.
9. Chirico F, Khabbache H, Rizzo A, Nucera G, Yıldırım M, Batra K, et al. Bridging ethics and spirituality in healthcare policies for a holistic response to climate change, new pandemics, and global health challenges: A call to action. *Adv Med Psychol Public Health*. 2024;1(4):170-173. doi: 10.5281/zenodo.11068942.
10. Chirico F, Rizzo A. Tackling mental health disorders, violence, burnout, workplace post-traumatic stress disorders amidst climate change, and new global challenges: The crucial role of emotional management education. *Adv Med Psychol Public Health*. 2025;2(1):5-7. doi: 10.5281/zenodo.11248392.
11. Kim SE, Kim Y, Hashizume M, Honda Y, Kazutaka O, Hijioka Y, et al. Positive Association of Aggression with Ambient Temperature. *Yale J Biol Med*. 2023;96(2):189-196. Published 2023 Jun 30. doi:10.59249/RXZX5728.
12. Kabir MH. Impact of weather parameters on the spread of dengue cases in Dhaka. *Adv Med Psychol Public Health*. 2025;2(1):35-45. doi: 10.5281/zenodo. 11619654.
13. Poudel P. Prevalence and determinants of income among people with disabilities in Nepal: A cross-sectional study. *Adv Med Psychol Public Health*. 2025;2(1):46-55. doi: 10.5281/zenodo.11652971.
14. Chirico F. The importance of moral clarity and humanity in advancing medical research. *Adv Med Psychol Public Health*. 2025;2(2):76-77. doi: 10.5281/zenodo.12737550.
15. Bhattacharya MK. Digital mapping: A transformative force in India's healthcare evolution. *Adv Med Psychol Public Health*. 2023;2(3):139-141. doi:10.5281/zenodo.13307795.
16. La Rosa VL, Commodari E. University Experience during the First Two Waves of COVID-19: Students' Experiences and Psychological Wellbeing. *Eur J Invest Health Psychol Educ*. 2023 Aug 11;13(8):1477-1490. doi: 10.3390/ejihpe13080108.
17. Magnavita N, Meraglia I. Health promotion in health surveillance. *G Ital Psicol Med Lav*. 2024;4(3):171-178. doi: 10.69088/2024/NTGR2.
18. Bruno E, Turay T, Titi T. Il futuro della salute e sicurezza sul lavoro in Italia attraverso il coordinamento degli attori pubblici e i programmi di promozione della salute scolastici tra pari [The future of occupational health and safety system in Italy through public actor's coordination and school-based peer education programs]. *G Ital Psicol Med Lav*. 2023;3(1):34-37. doi: 10.69088/2023/LFTR6.
19. Jochmannova L, Charvat M, Slukova PZ, Sucha M, Viktorova L. The decline in the provision of psychosocial Services during the COVID-19 pandemic and the barriers to moving to online forms of

- care from providers' perspectives. *G Ital Psicol Med Lav.* 2023;3(3):106-117. doi: 10.69088/2023/THDC4.
20. Batra K, Batra R, Guo Y, Attin M, Shareef B. Promise and peril of artificial intelligence: Digital monoculturalism in robotic world. *Adv Med Psychol Public Health.* 2025;2(4):210-214. doi: 10.5281/zenodo.14052827.
 21. Afolabi AA, Ilesanmi OS. Strengthening smoking cessation through routine screening, physician-delivered counseling, and treatment of tobacco-related co-morbidities in low and middle-income countries. *Adv Med Psychol Public Health.* 2023;2(3):207-209. doi: 10.5281/zenodo.13630981.
 22. Nkouaga F. Addressing racial disparities in COVID-19 compliance: A community-driven approach using the theory of planned behavior. *Adv Med Psychol Public Health.* 2023;2(3):166-182. doi: 10.5281/zenodo.13539230.
 23. Sacco A, Capitanelli I. Extreme heat and worker safety: Strategies for a data-driven and economically resilient response to climate change. *Adv Med Psychol Public Health.* 2023;2(3):136-138. doi: 10.5281/zenodo.13293860.



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