

Editorial

War and Stress: The Invisible Public Health Crisis

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he psychological consequences of armed conflicts represent one of the most significant, yet underappreciated, public health challenges. While the immediate casualties of war (mortality, injury, and displacement) command headlines, the chronic neurobiological and psychosocial burden on war survivors is largely missed by both policymakers and the public. This neglect constitutes a critical failure in the collective response to armed conflicts [1]. From a clinical perspective, exposure to war-related trauma initiates a cascade of physiological stress responses that extend far beyond momentary fear or grief. The hypothalamic-pituitary-adrenal (HPA) axis becomes chronically dysregulated, resulting in sustained elevations of cortisol and catecholamines [2]. This neuroendocrine imbalance is associated with a well-documented spectrum of psychiatric morbidity, including post-traumatic stress disorder (PTSD), major depressive disorder, and generalized anxiety disorder. Neuroimaging studies have further demonstrated structural and functional alterations in the amygdala, hippocampus, and prefrontal cortex among trauma-exposed individuals, which impair emotional regulation, memory consolidation, and executive function. These are considered measurable, quantifiable injuries to the central nervous system [3].

Critically, these effects are not confined to combatants. Epidemiological data consistently reveal elevated rates of psychiatric disorders among civilians in conflict zones, as well as among refugees and internally displaced persons. Meta-analyses estimate that approximately one in five conflict-affected individuals develop PTSD or depression, with prevalence rates climbing significantly in populations exposed to prolonged violence [4]. The psychological toll can also extend to military families and entire communities, where secondary traumatization, anticipatory anxiety, and chronic uncertainty produce measurable declines in mental health outcomes. Children exposed to war-related stress exhibit developmental delays, impaired cognitive function, and elevated risk of lifelong psychiatric vulnerability [5]. The result is a transgenerational transmission of stress-related impairment, perpetuating cycles of psychological harm long after ceasefires are declared [6]. The physiological mechanisms underlying this transmission are well understood. Chronic stress exposure during critical developmental windows alters gene expression through epigenetic modifications, effectively programming the stress response systems of the next generation for hyperreactivity [7]. These individuals enter adulthood with a higher vulnerability to anxiety, depression, and stress-related somatic disorders, a biological inheritance of war that no treaty can undo [8].

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Importantly, war-related stress interacts with or exacerbates existing social determinants of health. Economic instability, disrupted education, weakened healthcare infrastructure, and social fragmentation create conditions that systematically erode psychological resilience [9]. These factors compound the direct neurobiological effects of trauma, producing a synergistic burden that disproportionately affects vulnerable populations including women, children, older people, and those with pre-existing mental health problems. Healthcare systems in conflict-affected regions, already strained by violence, are rarely equipped to address this surge in psychological need. The treatment gap is staggering: in low- and middle-income countries affected by war, it is estimated that fewer than 10% of individuals with mental health disorders receive any form of evidence-based care [10]. A scientifically informed response to this crisis requires more than rhetorical condemnation of war. It demands integrating mental health services into conflict response and post-conflict reconstruction frameworks. Evidence-based interventions including trauma-focused cognitive behavioral therapy, eye movement desensitization and reprocessing (EMDR), and pharmacological treatments should be made accessible and scalable [11]. Task-shifting models, in which trained community health workers deliver basic psychological interventions, have demonstrated efficacy in resource-limited settings and should be expanded [12]. Investment in longitudinal research is essential to quantify the full scope of war-related psychological harm and to evaluate the efficacy of intervention models over time. Without such data, we cannot hope to develop targeted, effective responses.

Prevention should also be recognized as a legitimate component of mental health strategy. Every diplomatic effort that averts armed conflict is, in effect, a primary prevention intervention for psychological trauma on a population scale. The public health community has long understood that preventing disease is more effective and more economical than treating it. The same principle applies to the psychological consequences of war. At its core, war is a biosocial stressor of extraordinary magnitude. Its effects on the human nervous system are as real and measurable as its effects on infrastructure [13]. The scientific evidence is unambiguous: armed conflict produces lasting, quantifiable damage to the mental health of individuals, families, and communities. If we are serious about mitigating the consequences of armed conflicts, we should treat psychological harm not as an unfortunate byproduct, but as a primary public health priority. This means allocating resources, training healthcare providers, conducting research, and above all,

acknowledging that the invisible wounds of war demand visible action.

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