Editorial

War, trauma and pain: an invisible and enduring burden

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War has accompanied human history as one of its most persistent features. While its immediate consequences such as death, physical injury, and displacement, are tragically visible, its less apparent effects may prove equally enduring. Among these, the impact of war on chronic pain remains underrecognised, despite growing evidence that prolonged exposure to threat, loss, and instability can shape both the experience and the biology of pain (1, 2). Chronic pain conditions, including fibromyalgia and other forms of nociplastic pain, are increasingly understood as arising from the interaction between biological predisposition and environmental triggers (3,4). Stress, physical trauma, emotional loss, and sustained uncertainty, all hallmarks of wartime environments, are all well-established contributors. Yet, the integration of these factors into a coherent framework that accounts for the long-term burden of pain in populations exposed to war is still lacking (5, 6).

Living under prolonged threat: a clinical perspective from an active conflict zone

In regions experiencing ongoing conflict, exposure to trauma is rarely limited to discrete events. Rather, it often takes the form of a continuous and cumulative process (7, 8). Civilian populations may be subjected to repeated alarms, missile attacks, displacement and the constant anticipation of danger. Unlike acute traumatic events, this sustained exposure creates a chronic stress ecology, within which recovery is repeatedly interrupted (9, 10).

The effects extend beyond those directly injured. One may conceptualise "circles of trauma," encompassing not only survivors and victims, but also families, first responders, healthcare professionals and, ultimately, the broader population. In such contexts, the distinction between direct and indirect exposure becomes blurred, and the psychological burden becomes widely distributed across society (11).

A particularly complex stressor is that of ambiguous loss, in which individuals are physically absent but psychologically present, as in the case of hostages or missing persons. This state of unresolved uncertainty disrupts normal processes of grieving and adaptation, prolonging psychological distress and potentially amplifying somatic symptom expression (12).

Clinical observations suggest that chronic pain syndromes frequently worsen under these conditions. Patients with pre-existing fibromyalgia often report exacerbation of pain, fatigue, sleep disturbances, and cognitive symptoms (11). At the same time, protective factors such as regular physical activity, structured daily routines, and access to psychological therapies, are often disrupted. In a recent survey of patients with fibromyalgia conducted during ongoing conflict, a substantial proportion reported discontinuation of exercise and therapeutic interventions, alongside increased levels of pain, anxiety, and depression (12). Notably, psychological constructs such as perceived injustice and maladaptive coping strategies were strongly associated with worse symptom severity and subjective deterioration.

These findings underscore the extent to which chronic pain in wartime is not merely a comorbidity, but rather a condition shaped by the broader psychosocial environment.

Beyond fear: the overlap between trauma and pain

Post-traumatic stress disorder (PTSD) is widely recognised as a central psychological consequence of war (13-15). However, its relationship with chronic pain is complex and bidirectional. A substantial proportion of patients with PTSD report chronic pain,

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and conversely, many patients with fibromyalgia fulfil criteria for PTSD. The overlap includes shared features such as sleep disturbance, impaired concentration, and heightened physiological arousal.

Importantly, the diagnostic framing of these conditions carries implications for patient experience and social legitimacy. In certain contexts, PTSD may be more readily acknowledged than chronic pain syndromes, which are still sometimes perceived as less "objective." This discrepancy may influence both help-seeking behaviour and clinical management.

Beyond classical fear-based trauma, increasing attention has been directed toward the concept of moral injury. This term refers to the psychological distress that arises from actions, or the failure to act, in ways that violate an individual's moral or ethical framework. In military settings, this may include exposure to situations involving civilian harm, perceived betrayal by leadership, or ethically complex decision-making under extreme conditions (16). Unlike PTSD, which is primarily driven by fear and threat, moral injury is characterised by guilt, shame, and a sense of injustice (17).

These affective states are highly relevant to the understanding of nociplastic pain. Emerging evidence suggests that constructs such as perceived injustice and maladaptive cognitive-emotional processing can amplify pain perception and contribute to its chronification. In this context, moral injury may represent an additional pathway through which war-related experiences become biologically embedded, manifesting not only as psychological distress but also as persistent physical symptoms.

War at a distance: implications for societies not currently in conflict

While the most immediate effects of war are borne by those directly exposed, its broader consequences extend beyond national borders. Countries not currently engaged in active conflict may nonetheless experience downstream effects that influence population health, including the burden of chronic pain.

Economic instability, migration and the strain placed on healthcare systems can all contribute to increased psychosocial stress. The arrival of refugees and displaced individuals, many of whom carry complex trauma histories, presents both clinical and organisational challenges (20). Healthcare providers in these settings may encounter pain syndromes that are difficult to categorise within traditional biomedical frameworks, requiring greater integration of psychological and social dimensions into care.

In addition, modern patterns of information dissemination mean that exposure to war is no longer geographically confined. Continuous media coverage and digital connectivity create a form of indirect or vicarious exposure, which, while distinct from direct trauma, may still influence anxiety levels, sleep patterns, and overall well-being.

These considerations raise the possibility that the burden of chronic pain associated with war may emerge not only acutely, but also in delayed and geographically diffuse forms (22). Anticipating and addressing this burden requires a broader conceptualisation of war as a public health phenomenon with long-term implications.

Conclusion

War imposes a multifaceted burden on individuals and societies. While its immediate physical and psychological consequences are well recognised, its impact on chronic pain remains insufficiently appreciated. The convergence of sustained stress, trauma, loss, and disruption of protective factors creates conditions that are highly conducive to the development and exacerbation of nociplastic pain.

Understanding this relationship requires moving beyond traditional dichotomies between physical and psychological illness, and toward an integrated model that acknowledges the biological embedding of lived experience. Chronic pain, in this context, may be viewed as one of the most enduring, and least visible, costs of war.

Addressing this challenge will require interdisciplinary collaboration, continuity of care even under conditions of instability, and greater attention to the psychosocial dimensions of pain (24). As conflicts continue to shape the global landscape, recognising and responding to their hidden consequences will be essential for both clinical practice and public health.

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