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Health Impacts of Hybrid Warfare

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Letter to Editor

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Dear Editor,

Military conflicts in the modern era have undergone a fundamental transformation. Contemporary warfare is no longer confined to direct confrontations between armed forces; rather, it is conducted through a complex and multifaceted approach integrating military, informational, economic, legal, and psychological strategies. This approach is widely referred to in the scholarly literature as hybrid warfare (1,2).

From a public health perspective, hybrid warfare not only results in direct casualties but also disrupts prevention, diagnosis, and treatment processes by progressively undermining the social infrastructure that supports health services. Furthermore, it exerts indirect yet enduring negative impacts on public health by weakening governance systems, eroding public institutions, diminishing social capital, and triggering economic instability (3).

Evidence suggests that in hybrid warfare, health systems shift from being "marginal victims" to "strategic targets." Direct attacks on hospitals and clinics, threats against healthcare personnel, disruption of medical supply chains, and cyberattacks on health information systems are employed to reduce societal resilience and intensify psychological and social pressures on civilian populations (4,5).

The concept of the "weaponization of health care" has been used to describe the deliberate exploitation of people's need for healthcare as a means of coercion—denying access to essential services through acts of violence or obstruction (6). This process undermines not only individual health but also the core principles of public health, particularly equity in access and continuity of care (6).

One of the most significant yet often overlooked consequences of hybrid warfare is its profound impact on population mental health (7,8). Information operations, misinformation, persistent threats, economic insecurity, and social instability contribute to increased levels of anxiety, depression, post-traumatic stress disorder, and psychological fatigue among individuals and communities (9,10).

These effects often extend beyond periods of active conflict and may result in long-term, intergenerational consequences. Mental health

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disorders, in particular, impose burdens that extend beyond the healthcare system, undermining economic productivity, social cohesion, and public trust in institutions. Additionally, healthcare workers and relief teams face a high risk of burnout and psychological distress due to continuous exposure to crisis conditions, further reducing the operational capacity of health systems (10,11).

Taken together, hybrid warfare should be recognized not only as a security threat but also as an emerging determinant of public health. Strengthening health system resilience, protecting healthcare infrastructure, and integrating health considerations into national security planning are essential to mitigating its consequences.

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