

## **Beyond the Bullet: Addressing Functional Outcomes Following Firearm Injury and Gaps in Current Understanding**

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**Introduction:** Gun violence is a leading cause of death in the United States, but its impact extends beyond loss of life. Firearm injury is associated with detrimental physical, mental, social, and economic outcomes. This narrative review aims to describe and evaluate the lived experiences of survivors of firearm injury to inform the development of effective interventions.

**Methods:** Twenty studies evaluating outcomes of traumatic injury survivors were reviewed, with twelve using quantitative methodology and eight using qualitative interviews. Nine studies examined only firearm injury survivors. The methodology of each paper was reviewed as well as patient risk factors, characteristics, and outcomes.

**Results:** Most survivors were men, with one study describing worse functional outcomes for women. Blacks and Hispanics were disproportionately affected. Low socioeconomic status was associated with an increased risk of PTSD. Quantitative studies identified themes of PTSD, substance use, return to work, weapon carriage, and chronic pain. Firearm injury survivors were more likely to develop PTSD and have issues with alcohol and substance abuse. Qualitative studies revealed themes of hypervigilance, anger, mistrust, physical and social isolation, increased substance use, and weapon carriage. These issues seemed to be exacerbated by a lack of resources and emotional support for survivors navigating the healthcare system.

**Conclusion:** Survivors of firearm injury are particularly susceptible to poor functional outcomes. Studies on firearm injury outcomes are variable in both their inclusion criteria and methodology. More investigation is needed, especially in substance use and diverse patient populations. Existing literature provides insight into areas for improvement, such as recidivism intervention, safe transportation, medical system navigation, and firearm-specific PTSD. Understanding the long-term effects of firearm injury is crucial for developing practical interventions to improve survivors' quality of life.