



SOPHE FOCUS AREA: INJURY PREVENTION

Understanding the Problem:

Injury prevention is a broad and complex public health topic in which progress depends not only on the availability of evidence-based countermeasures but also on whether practitioners effectively communicate so that the public accepts and understands them. Unintentional injuries remain a leading cause of death in the United States, and addressing them requires coordinated effort across educational, institutional, and community systems. Three domains illustrate distinct but interrelated challenges in injury prevention: firearm safety, sport-related concussion education, and broad public literacy about preventive strategies. In each case, the gap between what research supports and what practitioners or the public actually understand or implement remains a significant obstacle to reducing preventable harm.

Looking into the Literature:

Girasek and Gielen (2003) surveyed 943 U.S. adults on their beliefs about effective strategies for preventing deaths from motor vehicle crashes, falls, drowning, fires/burns, and poisoning, finding that while most respondents could name countermeasures for several injury types, only 55% could do so for fatal falls, and that education level was the most consistent predictor of injury prevention knowledge throughout. The public overwhelmingly favored behavioral and educational approaches over engineering or environmental solutions, even when the latter had stronger scientific backing. As an example, pool fencing ranked last among drowning prevention strategies despite being one of the most evidence-supported options available. In a similar sense, Aibel et al. (2024) examined how risk perceptions shape firearm owners' engagement with injury prevention, finding that the 26.2% of gun owners who exhibited optimism bias, believing their household guns were safer for themselves than for similar others, were less likely to store firearms loaded and unlocked and more supportive of firearm injury prevention policies than owners who believed guns unconditionally increase safety. This suggests that gun owners who acknowledge some degree of risk, even if other-directed rather than personal, may represent a "movable middle" subgroup that is more open to prevention

messaging framed around collective responsibility. Additionally, Drattell et al. (2024) similarly found that while athletic trainers felt highly capable and motivated to deliver evidence-based concussion education, their greatest barriers were structural. Specifically, a lack of time, resources, and social opportunity to meaningfully engage athletes. These barriers were significantly more pronounced for ATs working in secondary schools and non-NCAA collegiate institutions. Taken together, these studies illustrate that the gap between available evidence and real-world injury prevention practice is shaped not only by individual knowledge, but by risk perception, institutional resources, and the social contexts in which prevention efforts are delivered.

From SOPHE Journals:

- [Optimism Bias Among Gun Owners: Associations With Firearm Injury Prevention Practices and Policy Support](#)
- [Barriers to Delivering Concussion Education: Identifying Opportunities for Change Through the Capability, Opportunity, Motivation, Behavior \(COM-B\) Model](#)
- [The Effectiveness of Injury Prevention Strategies: What Does the Public Believe?](#)

Summary of SOPHE's Recommendations

Health education campaigns must address the gap between public knowledge and scientific evidence by prioritizing outreach to lower-education populations who are least likely to identify effective prevention strategies, and by proactively communicating why evidence-based countermeasures work even when they are unfamiliar to the public. Firearm injury prevention efforts should segment audiences by risk perception and direct collectively framed, other-oriented messaging toward gun owners with optimism bias, who represent a meaningful "movable middle" more receptive to prevention than those who view firearms as unconditionally safe. Organizations employing health education practitioners must move beyond individual-level expectations and provide the structural supports — time, resources, institutional access, and adequate staffing — without which even motivated and capable educators cannot consistently deliver effective programming.

Key Takeaways

- The public tends to favor behavioral and educational approaches to injury prevention over engineering or environmental solutions, even when the latter are better supported by scientific evidence — a disconnect that health educators must actively work to bridge
- Effective injury prevention across all three domains requires moving beyond one-size-fits-all approaches and tailoring both messaging and structural supports to the specific risk perceptions, institutional environments, and knowledge gaps of the populations being served.