Open access Commentary

Trauma Surgery & Acute Care Open

Addressing social determinants of health may improve emergency department utilization after firearm violence

Randi N Smith , ¹ Patrice Sarumi, ² Christine Castater ³

To cite: Smith RN, Sarumi P, Castater C. Addressing social determinants of health may improve emergency department utilization after firearm violence. *Trauma Surg Acute Care Open* 2024; 9:e001509. doi:10.1136/tsaco-2024-001509

Interpersonal firearm violence (FV) is a pervasive, preventable public health problem disproportionately affecting minoritized and marginalized youth, particularly black and Latinx populations living in socioeconomically deprived neighborhoods. 1 2 Each year in the USA, over 48 000 people die and 120 000 are injured by firearms equating to nearly 1.42 million years of potential life lost and over \$229 billion.³⁻⁵ While the distribution of costs for FV is highest during the index hospitalization, subsequent disability, lost wages, emergency department (ED) utilization and need for readmission also heavily contribute to the overall total. Understanding the root causes of FV requires a critical look into social risk factors. Unfortunately, this task has proven challenging; time, staff shortages, resource limitations, patient reluctance and trust issues, and lack of guidance are several barriers that prevent effective screening of social risks in patients impacted by FV.6

Campbell et al sought to analyze factors associated with ED utilization within 2 weeks after discharge in individuals injured by FV by assessing social determinants of health (SDOH).7 A convenience sample of 100 FV patients who required hospitalization were stratified into two groups-ED utilizers and non-utilizers—and their social risks compared. Financial strain, health literacy/ineffective communication of discharge instructions, and lack of primary care physician were among the factors that influenced return. In most cases, ED utilization did not culminate in hospital readmission which infers that addressing SDOH in the outpatient setting could have eliminated the need for return, thereby improving care and reducing hospital costs.

Beginning in January 2024, the Centers for Medicare & Medicaid Services began requiring screening for five social risk drivers that impact health and outcomes. The five categories include interpersonal safety, food insecurity, housing insecurity, transportation insecurity, and utilities. With increased frequency, it is being recognized that a complex interplay of socioeconomic and structural factors, cultural influences, and individual health behaviors exist and are key influencers of health outcomes.

Equitable healthcare delivery, therefore, requires that surgeons incorporate social care into surgical care for individuals impacted by FV and for all trauma patients. Addressing SDOH requires multilevel approaches where injured individuals receive care and resources while, in parallel, investments in communities and system-level policy changes aim to eliminate structural inequities and reduce health disparities. By implementing comprehensive SDOH screening and providing appropriate community-based interventions, healthcare providers can help mitigate the conditions that contribute to FV and improve the health, safety and well-being for all.

X Christine Castater @grannysurgeon

Contributors All authors contributed to the conception, writing and editing of the article.

Funding The authors have not declared a specific grant for this research from any funding agency in the public, commercial or not-for-profit sectors.

Competing interests None declared.

Patient consent for publication Not applicable.

Provenance and peer review Commissioned; internally peer reviewed.

Open access This is an open access article distributed in accordance with the Creative Commons Attribution Non Commercial (CC BY-NC 4.0) license, which permits others to distribute, remix, adapt, build upon this work non-commercially, and license their derivative works on different terms, provided the original work is properly cited, appropriate credit is given, any changes made indicated, and the use is non-commercial. See: http://creativecommons.org/licenses/by-nc/4.0/.

ORCID iD

Randi N Smith http://orcid.org/0000-0002-2720-5917

REFERENCES

- 1 Centers for Disease Control and Prevention. Web-based injury Statistics query and reporting system (WISQARS). 2023. Available: https://www.cdc.gov/injury/wisqars
- 2 Kravitz-Wirtz N, Bruns A, Aubel AJ, Zhang X, Buggs SA. Inequities in community exposure to deadly gun violence by race and Ethnicity, poverty, and neighborhood disadvantage among youth in large US cities. J Urban Health 2022;99:610–25.
- 3 CDC. Fast facts: firearm injury and death. firearm injury and death prevention. 2024. Available: https://www.cdc.gov/firearmviolence/data-research/facts-stats/index.html [Accessed 18 May 2024].
- 4 National center for injury prevention and control, CDC. WISQARS years of potential life lost (YPLL) report. Available: https://www.cdc. gov/injury/wisqars/index.html
- 5 Spitzer SA, Vail D, Tennakoon L, Rajasingh C, Spain DA, Weiser TG. Readmission risk and costs of firearm injuries in the United States, 2010-2015. PLoS One 2019;14:e0209896.
- 6 Andermann A. Screening for social determinants of health in clinical care: moving from the margins to the mainstream. *Public Health Rev* 2018;39:19. Available: https://doi.org/10.1186/s40985-018-0094-7.
- 7 Campbell JT, Brandolino A, Prom JL, Karra H, Danso N, Biesboer EA, Trevino CM, Cronn SE, deRoon-Cassini TA, Schroeder ME. Analysis of social determinants of health on emergency department utilization by 2 gunshot wound survivors after level 1 trauma center discharge. Trauma Surg Acute Care Open 2024(in press).



► http://dx.doi.org/10.1136/ tsaco-2023-001283

© Author(s) (or their employer(s)) 2024. Re-use permitted under CC BY-NC. No commercial re-use. See rights and permissions. Published by BMJ.

¹Emory University School of Medicine, Atlanta, GA, USA ²Grady Memorial Hospital, Atlanta, Georgia, USA ³Morehouse School of Medicine, Atlanta, Georgia, IISA

Correspondence to

Dr Randi N Smith; randi.smith@ emory.edu