

MetroHealth Medical Center

RESEARCH DAY 2023

Abstract Submission Form

Poster Title: Nonbinary Patients in Trauma: An Emerging Population

Authors: Allison Mo, BA; Caleb Curry, BA, MPH; Avanti Badrinathan, MD; Esther Tseng, MD

Presenter's Name: Allison Mo

Location of Laboratory: MetroHealth

Category: Clinical Research

Introduction: Compared to the general population, sexual and gender minorities (SGM) experience numerous health disparities, including higher rates of mental health conditions, assault, substance abuse, poverty, uninsurance, and healthcare discrimination. SGM have long been overlooked by large healthcare databases, so little is known about SGM trauma patients, but in 2021, the Trauma Quality Improvement Program (TQIP) added a non-binary option to describe gender. We examined the demographics, injury patterns, and outcomes of nonbinary trauma patients compared to male/female patients.

Methods: We conducted a cross-sectional study using 2021 TQIP data. Using bivariate analysis, comparisons were drawn between nonbinary patients and male/female patients for age, race, ethnicity, mechanism of injury (MOI), injury intent, injury severity score (ISS), insurance, trauma center verification level, transport mode, transport times, screening performance, mortality, length of stay, hospital discharge disposition, and place of injury. To control for confounding, nonbinary patients were then propensity matched 3:1 to male/female patients, using age, race, ethnicity, ISS and insurance, with a caliper of 0.05, for the outcome of injury intent.

Results: 338 nonbinary trauma patients were identified and compared to 1,129,142 male/female patients. Nonbinary trauma patients were significantly younger, suffered more penetrating injuries, presented more often due to self-harm and assault, and had lower ISS. They were also significantly more likely to have Medicaid or private insurance, to have alcohol and drug screening performed, and to leave against medical advice or be discharged to a psychiatric hospital (all $p < 0.05$). There were no significant differences by race/ethnicity, ACS trauma center verification level, transport mode, transport times, mortality, length of stay, or place of injury. After matching, nonbinary gender was still significantly associated with higher odds of self-harm.

Conclusion: To our knowledge, this is the first study to describe nonbinary patients in trauma. We report disparities across many outcomes in this small group of patients, warranting the need for further inclusivity in clinical data collection across sex, sexual orientation, and gender identity. Changes in health policy are needed to address structural bias, violence, and mental health among SGMs.