



# Ethnicity-Based Differences in Ambulance Transport Decisions in Collegiate EMS



Mir Khan, EMT ; Soumya Ajjampudi, EMT

University of Texas at Dallas University Emergency Medical Response

## Abstract

Prior research reveals differences in EMS transport utilization across ethnic groups, with greater hesitancy observed among minority populations. This study examines whether EMS transport decisions differ by ethnicity within a collegiate EMS system.

A retrospective cross-sectional analysis of 300 EMS calls from 2024 and 2025 was conducted. Patient care reports (PCRs) were reviewed for ethnicity, chief complaint, and ambulance transport decision. Calls were categorized as medical or trauma and stratified by severity according to whether patient presentations met municipal EMS upgrade criteria, medical control (MedCom) criteria, or neither. Frequency analysis was performed using SPSS.

Asian patients exhibited the highest ambulance refusal rates in high- and moderate-severity medical calls, followed by White and Hispanic patients, with the lowest rates observed among Black patients. In low-severity medical calls and trauma calls of all severity types, Asian, Black, and Hispanic patients had higher ambulance refusal rates than White patients.

Ethnic differences were observed in ambulance transport acceptance and refusal across both medical and trauma calls, with Asian patients consistently having higher refusal rates than White patients. These findings suggest differences in prehospital transport decision-making and may inform the development of culturally responsive educational initiatives within collegiate EMS systems.

## Introduction

Prior studies show that EMS utilization and ambulance transport acceptance vary across racial and ethnic groups, with minority populations demonstrating lower rates of ambulance transport compared with White patients.<sup>1</sup> These differences may reflect variations in health literacy, cultural beliefs, trust in medical systems, perceived illness severity, or prior healthcare experiences.

Existing literature has primarily focused on municipal EMS systems, with little examination of transport decision-making within collegiate EMS agencies. College campuses represent a unique prehospital environment, serving a younger population that is often navigating the healthcare system independently for the first time, a formative stage during which targeted education may help reduce disparities in care utilization.<sup>2</sup>

The objective of this study was to evaluate whether patient decisions regarding ambulance transport differ by ethnicity within a collegiate EMS system.

## Methods

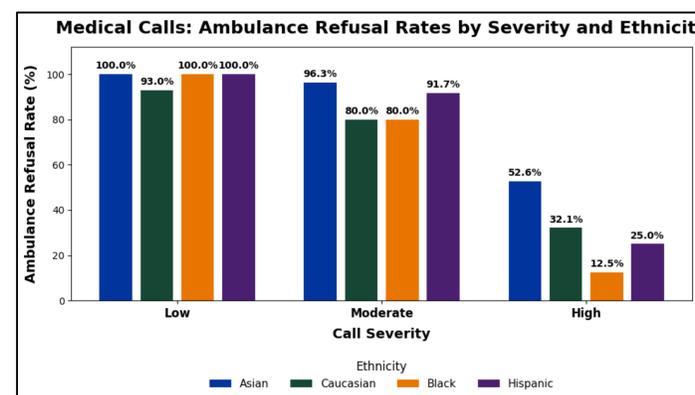
A retrospective cross-sectional analysis was conducted using 300 randomly selected EMS calls from 2024–2025. Institutional Review Board (IRB) approval was obtained, and all Patient Care Reports (PCRs) were reviewed in de-identified form following removal of protected health information.

Calls were categorized as medical or trauma and stratified by severity according to predefined agency protocol criteria. High-severity calls met municipal EMS upgrade criteria, moderate-severity calls met medical control (MedCom) criteria, and low-severity calls met neither.

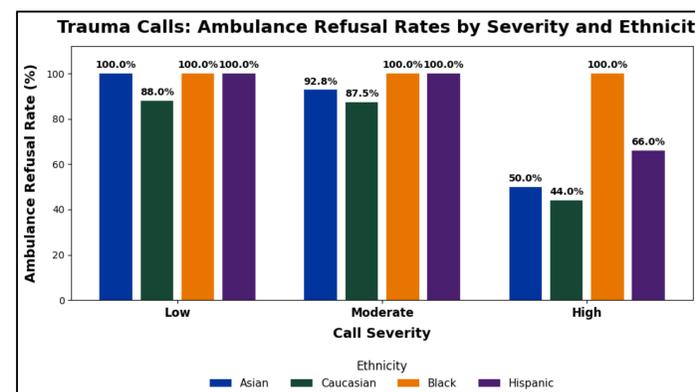
Frequency analysis was performed using SPSS version 29.0.

## Results

- Among **medical calls**, Asian patients had the highest ambulance refusal rates in moderate- and high-severity cases, followed by White and Hispanic patients, while Black patients had the lowest rates. In low-severity cases, refusal rates were higher among Asian, Black, and Hispanic patients compared with White patients.



- In **trauma calls**, Asian, Black, and Hispanic patients had higher ambulance refusal rates than White patients across all severity levels.



## Discussion/Conclusion

### Conclusions:

Ethnic differences were observed in ambulance transport acceptance and refusal across both medical and trauma calls, with patterns varying by call severity. Minority groups, particularly Asian patients, consistently had higher ambulance refusal rates than White patients, suggesting differences in prehospital transport decision-making within a collegiate EMS setting.

### Implications:

These findings support further investigation into social, cultural, and structural determinants of hesitancy toward EMS utilization among various ethnic groups and may inform campus-based EMS and student education initiatives aimed at improving understanding of emergency care and reducing disparities in EMS utilization.

### Limitations:

Limitations of this study include a limited sample size for certain ethnic groups, particularly Hispanic and Black patients, who were underrepresented relative to Caucasian and Asian patients. Additionally, call severity was stratified using agency-specific upgrade criteria, which may differ from protocols employed by other collegiate EMS agencies and may limit generalizability.

## References

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## Acknowledgments

The authors would like to thank Sheila Elliott, Nick Spray, Dr. Jennifer Painter, Priya Darbha, and the providers with UT Dallas University Emergency Medical Response (UEMR) for their continued support and assistance.

## Contact

Corresponding Contact: Mir Khan, mirsamikhan@outlook.com