Title: Examining the Association of Driver Behaviors while Driving and Appropriate Child Restraint Use in New Jersey

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Abstract

Introduction: Unrestrained child passengers face a heightened risk of obtaining an injury in a motor vehicle collision. Child restraint system (CRS) use can significantly reduce the risk; however, inappropriate use of CRS persists. This study examines the association between negative driver behaviors, specifically driving while intoxicated and driver non-seatbelt usage, and appropriate CRS use in New Jersey**.**

Methods: Data from New Jersey Safety and Health Outcomes (NJ-SHO) Data Warehouse encompassing crash records from 2017-2019 were analyzed. This study focused on crash records of drivers 18 years and older with a full licensing status who were traveling with at least one child passenger under 8 years old, regardless of whether they were at fault for the crash. Descriptive statistics and multivariable logistic regression were used to assess the association between driver behaviors and appropriate CRS use.

Results: Lack of driver seatbelt usage was significantly associated with lower odds of appropriate CRS use**.** Specifically, drivers who do not use their seatbelt had a 60% lower odds of appropriate CRS use than those who did**.** Conversely, driving while intoxicated did not show statistically significant association with appropriate CRS use**.**

Conclusion: Addressing negative driver behaviors, such as driver non-belted usage and driving while intoxicated, is essential for understanding child passenger safety. Future research should explore additional factors that may influence CRS usage and consider implementing interventions to promote proper CRS use among drivers. These insights can develop policies aimed at improving child passenger safety in New Jersey.