Trauma-related stress lowers risk perceptions (e.g., arrest) and increases willingness to drive under the influence of alcohol.

Effect of Trauma-Related Stress After Alcohol Consumption on Perceived Likelihood of Negative Consequences and Willingness to Drive

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INTRODUCTION

• Alcohol-related motor vehicle crashes are a major preventable cause of death in the United States.
• Research indicates that acute trauma-related stress and acute alcohol consumption independently affect driving-related decision-making.
• The current study evaluated the combined influence of induction of acute trauma-related stress after alcohol consumption on perceived likelihood of negative consequences and willingness to drive

PARTICIPANTS AND PROCEDURE

1. 25 trauma-exposed adult drinkers
2. All participants consumed alcohol to obtain .06% blood alcohol concentration (BrAC)
3. Between-subjects design: trauma-related stress induction or neutral condition (via script-driven imagery) following alcohol consumption

MEASURES

• Two single-item questions regarding likelihood of (1) "being stopped by a police officer" and (2) "being in an accident" if they attempted to drive, given their current level of intoxication (0 to 100 analogue scale)
• Single question, "If given the option to leave the experiment, how willing would you be to drive yourself home right now at your current level of intoxication?" (0 to 100 analogue scale)

DATA ANALYTIC PLAN

• ANCOVAs* evaluated differences between individuals in the trauma-related stress condition and neutral condition on perceived likelihood of being stopped by police, being in an accident, and willingness to drive

RESULTS

• Beyond the influence of sociodemographic, trauma-, and alcohol-related covariates, individuals in the trauma-related stress condition indicated significantly lower perceived likelihood of being stopped by police (p = .008, η² = .38); significantly lower perceived likelihood of an accident (p = .049, η² = .17); significantly greater willingness to drive (p = .026, d = 1.16) relative to individuals in the neutral condition

DISCUSSION

• Findings highlight the complexity of understanding driving-related cognitions, implicate trauma-related stress as a potential mechanistic trigger for more spontaneous driving-related decision-making, and provide meaningful targets for the development and improvement of education and intervention efforts aimed at reducing incidents of driving under the influence of alcohol.

*Note: Data presented as M ± SD and n (%).

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