

Purpose

Alcohol-related car crashes cause over 10,000 fatalities each year (Voas & Fell, 2013). Little research has examined the decision to ride with someone who has been drinking (Hultgren et al., 2018). Studies have observed that: 1) use of a designated driver is common, 2) people frequently “switch” designated drivers, and 3) many designated drivers are still above .05% BAC.

This study seeks to assess strategies used in deciding between driving or riding after consuming alcohol. Specifically, we will evaluate how individuals decide whether they should drive or ask a friend to drive, as a function of the number of drinks consumed by each individual. The study will also evaluate the effects of car ownership, participant gender, and perceptions about alcohol impaired driving on this decision process. Finally, we will test whether the decision process used is associated with self-reported alcohol impaired driving or riding with an alcohol impaired driver.

Procedures

Participants (expected $N = 40$) will complete a single laboratory session and respond to computerized measures of alcohol use, alcohol impaired driving, and alcohol impaired driving/riding risk sensitivity. Participants will complete a task where they are presented with information regarding their own and a friend’s hypothetical drink consumption (from 0-8 drinks), before choosing which of the pair should drive. In a randomly-assigned between-groups design, we will vary whether the car available to drive is their own.

Results

An extension of the Bayesian “change-point” method (Lee, 2019) will estimate the probability of selecting self or other to drive as number of drinks changes. Chi-square and

regression analysis will test whether strategy classification differs across car ownership conditions, and is associated with drinking and alcohol impaired driving. Results can have important implications for interventions aimed at increasing the use of appropriately-selected designated drivers.