Differential Impact of Personality Traits on Distracted Driving Behaviors in Teens and Older Adults

Morgan N. Parr¹,², Lesley A. Ross, PhD³, Benjamin McManus¹,², Shannon M.O. Wittig¹,², Despina Stavrinou, PhD¹,²
¹ UAB Department of Psychology, ² UAB Translational Research for Injury Prevention Laboratory, ³ Pennsylvania State University Department of Human Development and Family Studies

**Objective**

- To determine the association between personality traits and self-reported engagement in distracted driving behaviors within different age ranges

**Introduction**

- Certain personalities such as, sensation seeking and impulsiveness are related to motor vehicle collisions, the leading cause of death for drivers across all ages.¹,²
- Risky driving behavior as it relates to personality has been found to peak in young adults.³
- The Big 5 Personality traits include: openness to experience, conscientiousness, extraversion, agreeableness, and neuroticism.⁴
- Higher extraversion and openness tend to place a higher value on talking or texting.⁵
- There is no prior research examining the role personality traits have on tendency to engage in distracted driving behaviors across the lifespan.

**Hypothesis:** higher scores on personality scales of extraversion, openness, and agreeableness would be associated with higher self-reported levels of distracted driving behaviors.

**Method**

- **Participants**
  - 120 drivers participated
    - 48 teens
    - 72 older adults
- **Materials/Procedure**
  - Big Five Personality measure⁶ - asked participants to rate on a five point Likert Scale from strongly disagree (1) to strongly agree (5)
  - Openness: “...Is inventive”
  - Conscientiousness: “...makes plans and follows through with them”
  - Extraversion: “...Is outgoing, sociable”
  - Agreeableness: “...Is considerate and kind to everyone”
  - Neuroticism: “...Worries a lot”
- **Questionnaire Assessing Distracted Driving (QUADD)⁷** - participants rated frequency of interaction with phone, texting, and talking on the phone while driving by indicating number of times per day the behavior was done.
  - “Interact with a cell phone (touch, talk, hold, etc) while driving?”
  - “Send a text on a cell phone while driving?”
  - “Talk on a “hands-held” cell phone while driving?”
- Association for all 5 personality traits was analyzed separately for teens and older adults using negative binomial or Poisson regressions

**Results**

- **Age Group Differences on Personality Scales**
- **Rate of Distracted Driving by Personality in Teens**

**Discussion**

- Personality traits may be important predictors of distracted driving behaviors in both teens and older adults.
- Specific factors that are associated with distracted driving seem to vary across age groups.
- It is possible that teens who are more agreeable may be more concerned for the safety of others on the road.
- The relationship of personality and distracted driving behaviors provides a unique opportunity to target specific drivers who are at a higher risk of distracted driving.
- Data driven educational campaigns may be more efficacious in identifying at-risk drivers based on personality types.

**References**

*Funds were provided by grants from the UAB Faculty Development Grant Program, the Southeastern Transportation Research, Innovation, Development, and Education (STRIDE) Center, Alabama Department of Transportation (ALDOT), and the Roybal Center for Translational Research on Aging and Mobility (NIMH). We appreciate the contributions of student assistants from the UAB Translational Research for Injury Prevention (TRIP) Laboratory and the Study of Health Aging & Applied Research Programs (SHAARP) Laboratory, as well as staff support from the Royal Center. For more information, please contact Morgan Parr (morgan14@uab.edu)*