

# The Impact of Self-Control and Texting-Related Accidents on Mindfulness and Mobile Texting while Driving Behavior

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## Abstract

Distracted driving behavior often occurs when drivers mindlessly send or receive text messages with their mobile devices. Our purpose is to examine the relationships between mindfulness, self-control, frequency of texting-related accidents, and texting while driving behavior. Results showed that observe, aware, and describe were related to texting-while-driving, and self-control mediated the relationship between mindfulness and texting-while-driving. Prior experience of accidents moderated the relationship between mindfulness and texting behavior while driving.

## What is Distracted Driving?

- In 2017, 3,166 deaths were due to distracted driving accidents, such as cell phone use and texting while on the road, or waiting at a stop light (NHTSA, 2017; NCSA, 2019).
- Distracted driving is defined as the “inattention that occurs when drivers divert their attention away from the driving task to focus on another activity instead” (NHTSA, 2010, p. 1).
- American workers spend an average of 26.1 minutes each way to get to work, and the more time spent in the road, the higher the risk of engaging in distracted driving such as checking their mobile communication devices instead of paying attention to the road (U.S. Census Bureau, 2017).

## Mindfulness and Texting While Driving Behavior

- Bolstering awareness and nonjudging facets may enable drivers to reduce their risky driving behaviors such as texting while driving (Terry & Terry, 2015).
- Self-control is inversely correlated with risky driving behavior (Quisenberry, 2015) and individuals who text frequently on the road exhibit low self-control (Panek et al, 2015).
- Self-control can potentially mediate the relationship between mindfulness and texting while driving. Experiencing accidents forces individuals to become more mindful about the dangers of texting while driving.

## Results

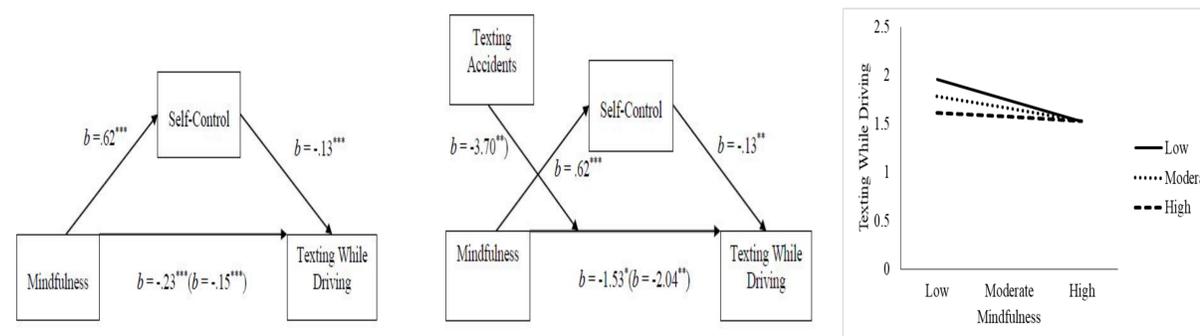
- A hierarchical multiple regression analysis was conducted to analyze *RQ1*
- *Age, experience of texting accidents, observe, and aware were inversely related to texting while driving.*
  - *Driving length was positively associated with texting while driving.*
- A mediation analysis was conducted to answer *RQ2*.
- *The indirect effect of mindfulness on texting while driving was significant.*
- A moderated mediation analysis was conducted to examine *RQ3*
- *The interaction between mindfulness and texting accidents was significant.*
  - *Texting accidents negatively moderates the relationship between mindfulness and texting and driving.*

## Research Questions

- RQ1:* Are the five facets of mindfulness inversely associated with texting while driving behavior?  
*RQ2:* Does self-control mediate the relationship between mindfulness and texting and driving behavior?  
*RQ3:* Does the frequency of texting-related accidents moderate the relationship between mindfulness and texting while driving?

## Participants and Measures

- A total of 609 working individuals participated in this study. Participants' age varied between 18 to 73 years. Participants completed:
- Five Facets of Mindfulness Questionnaire (Bayer et al., 2006)
  - Brief Self Control Scale (Maloney et al., 2012)
  - A questionnaire about their texting while driving behavior and their frequency of texting and driving
  - *Control variables:* Age, sex, length of driving, and the number of texting-related accidents



## Implications

- Incorporate mindfulness intervention protocols - *mindfulness-based cognitive therapy, relapse prevention and stress reduction* - in drivers' training programs.
- Increased self-control can moderate the relationship between drivers' mindfulness and texting while driving behavior.
- Cultivating the path model *attention -> connection -> regulation -> order -> health* to promote safe driving behavior.

## Discussion

This study was first to find support that texting-related accidents moderated the relationship between mindfulness and texting while driving. This finding will stimulate future research to better understand mindfulness, self-control, and texting while driving behavior.

