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Characteristics of college students who text while driving: Do their perceptions of a significant other influence their decisions?

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ABSTRACT

Introduction: Texting while driving is a significant risk factor for automobile collisions. The use of cell phones is prevalent among young people and commonly reported when they drive.

Method: A web-based survey of 861 college student drivers determined how texting was associated with other forms of risky driving, perceptions of risk, and their driving and texting interactions with a significant other.

Results: Texting drivers were more likely to engage in other risky driving behaviors, perceived less risk in texting and driving, felt more immune to traffic risks, and had friends who text and drive. Logistic regression analyses showed that even after adjusting for risky driving behaviors and perceived risk, texting drivers were significantly more likely to do so if they saw their significant other text and drive.

Conclusions: Traffic safety campaigns need to address important social influences on this behavior.

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1. Introduction

Young adults make up the largest group of distracted drivers in fatal accidents, with approximately 11% of teen drivers in fatal auto accidents being distracted at the time of the crash (Madden & Lenhart, 2009; Twisk & Stacey, 2007; Williams, 2003). Additionally, half of all teen crashes can be attributed to distracted driving (Curry, Hafetz, Kallan, Winston, & Durbin, 2011). Teens and young adults have been documented as being involved in more crashes, being more likely to take risks on the road, and having deflated traffic accident risk perceptions when compared to older adults (Ginsburg & et al., 2008; Ryb & et al., 2006; Sarkar & Andreas, 2004).

Extensive research has convincingly demonstrated the deleterious effects on driver performance when using a cell phone (e.g., Caird, Johnston, Willness, Asbridge, & Steel, 2014; Drews, Yazdani, Godfrey, Cooper, & Strayer, 2009; Tractinsky, Ram, & Shinar, 2013), even when it is hands-free (Strayer & Drews, 2007). Indeed, simulation research indicates that using a cell phone while driving can be as impairing as having a blood alcohol level of 0.08% weight per volume (Strayer, Drews, & Crouch, 2006).

Recent estimates by the National Highway Traffic Safety Administration indicate that 71% of teens and young drivers have composed and sent SMS [Short Message Service] messages while driving, and 78% have read SMS messages while driving (National Highway Traffic Safety Administration, 2014). This problem is not limited to older adolescents. According to a







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recent study by the Centers for Disease Control and Prevention (Olsen, Shults, & Eaton, 2013), as many as 44% of high school students have admitted to texting while driving at least once in the last month.

Prevalence estimates of American college students (averaging between 18 and 22 years of age) who text while driving vary widely between 65% and 91%, and depend on how the question is asked and what time frame is used (Atchley, Atwood, & Boulton, 2011; Cook & Jones, 2011; Harrison, 2011; Hill, Rybar, Styer, Merchant, & Eastmen, 2015; Lantz & Loeb, 2013; Nelson, Atchley, & Little, 2009; Nemme & White, 2010). Naturalistic research in this country has also documented the prevalence of cell phone use in adult populations and indicates that around 34% of drivers use a cell phone while driving (Stutts et al., 2005). In a survey study among New Zealand drivers, over half of the sample reported sending or receiving cell phone messages in a typical week while driving (Hallett, Lambert, & Regan, 2012). An observational study in England also documented that over 14% of drivers were engaging in distracted driving, and that cell phone use was much more common among younger drivers (<a ge 30), with almost 3% of these drivers observed to be using a cell phone while driving (Sullman, 2012).

Regardless of how the prevalence of texting while driving is measured, it is clear that the majority of college students are engaging in this high-risk activity. Studies have shown that using a cell phone while driving is related to perceptions that one can control and compensate for the risks involved in this kind of activity, as well as having a cognitive style that manifests itself by being a multitasker and a tendency to engage in activities that make the most efficient use of one's time (Schlefore et al., 2010). Young people appear to be concerned about the social risks of being perceived as impolite or rude if they do not send or respond to a cell phone message (Martha & Griffet, 2007). Text messaging among college students has been related to feelings of internal locus of control and perceived control over the situation (Mahatanankoon & O'Sullivan, 2008). Other researchers (Skierowski & Wood, 2012) have found that texting is the preferred form of contact among peers in this group, and that periods of cell phone restriction are accompanied by significant feelings of anxiety. Further research shows that college students regard texting as an important way by which they keep in touch with friends (Harrison & Gilmore, 2012), and as an important part of a romantic relationship (Drouin & Landgraff, 2012). Recent research with young drivers indicates that texting while driving is related to a state of psychological attachment (e.g., "I would feel lost if I didn't have a cell phone") to their cell phones (Weller, Shackleford, Dieckmann, & Slovi, 2013).

Cell phone use is prevalent in young people's daily lives. It is an important means of establishing and maintaining social relationships, and related to their attitudes and subjective norms (Gauld, Lewis, & White, 2014). There is a long history of evidence in the social psychological literature pointing to the importance of one's peer group, significant others, or social circle in shaping one's behavior (Ajzen, 1991; Bandura, 1986). Social network analysts (e.g., Marsden & Friedkin, 1993) have focused on the social proximity between a person and someone significant to that person in their social environment, such that a person's behavior will be sensitive to and influenced by the behavior of their significant other. Perceived social influence is related to a variety of behaviors in college-aged people, including risky driving (e.g., Møller & Haustein, 2014). Therefore, it is reasonable to assume that a driver who texts while driving will be more likely to perceive that his/her significant other engages in this behavior and approves of it than people who do not text and drive.

The purpose of this investigation was to examine the social and normative factors that are associated with texting while driving. Specifically, we were interested in comparing the characteristics of college students who report texting while they drive to those who do not. We examined demographics, driving behavioral characteristics, attitudes, and beliefs of these two groups of drivers. In addition, we were particularly interested in the characteristics of the social circle of these drivers, and whether there was any evidence of how they perceive their social network influencing their texting and driving habits. It was hypothesized that drivers who report texting and driving will be more likely to believe that others in their social network (especially a significant other) possess similar beliefs about the risks and are prone to engage in this behavior, as opposed to drivers who report that they do not text and drive.

2. Method

2.1. Procedure

Undergraduates at a large (undergraduate enrollment = 26,658) university in the Washington, DC metropolitan area were invited to participate in an anonymous (20 min) web-based survey (using the Qualtrics Labs, Inc. software) that contained a number of items measuring their driving behaviors, perceptions, and various questions about their social network and its influence on their driving. Students were recruited through email blasts (that contained a link to the survey) that were sent to the entire undergraduate population. Fliers were also posted at various locations throughout the campus, and announcements were made in various classes. Students were informed that the purpose of this research was to examine the association between various driving behaviors and their social networks, and that there was a 1 in 25 chance to win \$50 if they participated. Data were collected between February and May, 2014. The data were then downloaded into a SPSS file for analysis.

2.1.1. Participants

A total of 990 students responded. As we were interested in students who were licensed drivers, those who said they were not a licensed driver (n = 17) or had missing data (n = 43) and those who said they never drive a car (n = 7) were eliminated.

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