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# Transportation Research Part F

journal homepage: [www.elsevier.com/locate/trf](http://www.elsevier.com/locate/trf)

## “I need to skip a song because it sucks”: Exploring mobile phone use while driving among young adults



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### ARTICLE INFO

#### Article history:

Received 31 July 2017

Received in revised form 28 March 2018

Accepted 13 June 2018

### ABSTRACT

**Background:** Mobile phone use while driving is a well-recognized area of concern. However, while texting/calling among young adult drivers has received much research attention, more research is needed regarding other phone functions used by young adults while driving.

**Study aim:** To explore mobile phone functions used by young adult drivers while driving. **Results:** An online survey of 17–24 year old drivers ( $N = 612$ ; 428 females) and focus groups with drivers aged ( $N = 18$ ; 8 females) revealed that mobile phone use while driving was a very common behavior, with more full licence drivers compared with Learner/Provisional drivers using their phone to make/answer calls, send/read text messages and for internet browsing. This nature of mobile phone use while driving was varied, with phones commonly used for entertainment (e.g., to play music), to connect with others (via texting and/or voice calls) and for navigation.

**Concluding remarks:** Young adults use a variety of functions on their phone while driving. It is important that young driver-targeted intervention efforts acknowledge that multiple functions of the mobile phone are used during the drive and it serves multiple purposes. Examining the inhibitors and facilitators of mobile phone use and its various functions while driving is needed, in addition to elucidating if the usage of particular mobile phone functions is similar across different driver cohorts.

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## 1. Introduction

Best estimates suggest that road traffic crashes contribute to approximately 1.25 million deaths each year, and are the most common cause of death among those aged 15–29 years ([World Health Organization, 2016](#)), despite a plethora of interventions. In Australia, land transport crashes are the second leading cause of death among persons aged 15–24 years and the leading cause of death for males in this age group ([Australian Institute of Health & Welfare, 2012](#)). During 2015, 21% of fatally-injured drivers in Australia were aged 17–25 years ([Bureau of Infrastructure, Transport and Regional Economics, \(BITRE\), 2016a](#)), despite those aged 15–24 years comprising 13% of Australia's population ([Australian Bureau of Statistics,](#)

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2015). Factors contributing to young driver road crashes, and thus, injuries and fatalities arising from those crashes, relate to age-related factors and driving inexperience-related factors (Williams, 2006).

It is clear that drivers younger in age and those with less driving experience are over-represented in road fatalities. For example, drivers aged 15–20 years accounted for 9% of all fatal crashes during 2014 in the U.S., but this age group represented 6% of licensed drivers (National Center for Statistics and Analysis, 2016, May). Similar findings are reported in Australia—for example, in Queensland in 2015, drivers aged 17–24 years contributed to 16% of road crash fatalities themselves, and were involved in 22% of all road crash fatalities (Department of Transport and Main Roads, 2017), yet comprised only 13% of the licensed population (Department of Transport and Main Roads, 2016). Regarding driving inexperience, Provisional drivers/riders were involved in 12% of all road crash fatalities in 2015 in Queensland (Department of Transport and Main Roads, 2017), despite comprising only 5% of the licensed population (Department of Transport and Main Roads, 2016). Similarly, during 2015 in the Australian Capital Territory (ACT) region, 21% of drivers in fatal crashes were Provisional licence holders, yet they accounted for only 6% of licence holders (ACT Government, 2016).

A breadth of research has identified intentional driving behaviours that further exacerbate these age-related and driving inexperience-related crash risks. These include driving in excess of posted speed limits (e.g., Jonah & Boase, 2017; Scott-Parker, Hyde, Watson, & King, 2013), driving after drinking alcohol and/or using drugs (e.g., Scott-Parker, Watson, King, & Hyde, 2014; Weiss, Kaplan, & Prato, 2014), not wearing a seatbelt (e.g., Strine et al., 2010; Weiss et al., 2014), driving while fatigued (e.g., Martiniuk et al., 2013; Paterson & Dawson, 2016), and driving while distracted (e.g., Klauer et al., 2014; Simons-Morton, Guo, Klauer, Ehsani, & Pradhan, 2014). In Australia these driver behavioral factors (drug and drink driving, distraction, seat belt use, speeding, and fatigue) are referred to as the ‘Fatal Five’ because of their identified contributions to crashes (Salmon et al., 2017). These behaviours are therefore targeted for road safety efforts (e.g., “Fatal Five,” 2017). Of particular relevance is the relatively recent inclusion (2012) of distraction, such as by mobile phones, which revised the original Fatal Four to the Fatal Five. This is consistent with the recent World Health Organization (2016) recognition that mobile phone use while driving is an increasing area of road safety concern.

Hand-held mobile (cell) phone use while driving has been banned in many parts of the world, including Australia (Parnell, Stanton, & Plant, 2017). However, there can also be jurisdictional differences regarding hand-held mobile phone use, such as within the United States (National Highway Traffic Safety Administration, 2014) and Canada (Parnell et al., 2017). In Australia, there are also differences across the six states and two territories, such as differential restrictions on Provisional licence holders in some areas (Scott-Parker & Rune, 2016). For example, in Queensland, Provisional licence drivers in their first year cannot use a mobile phone at all while driving (including hands-free/Bluetooth) and passengers in the car are also unable to use the loudspeaker function (Queensland Government, 2016). However, in the ACT, the laws regarding mobile phone use while driving are the same for both Provisional/full licence drivers (ACT Government, 2017). Such differences are likely a source of confusion for drivers, not only regarding the law and permitted behaviours, but also regarding the road safety implications of such behaviours. Despite the legislation, research to date suggests that mobile phone use while driving is common, especially among Provisional licence drivers. For example, a 2013 Australian community survey identified that a higher proportion of Provisional licence holders had ever used a mobile phone to make or answer calls, as well as read/send text messages while driving, compared with full licence drivers (Petroulias, 2014). In Queensland, a state-wide online survey of young Provisional drivers revealed that only seven in ten drivers reported that they never spoke on a hand-held mobile while driving (Scott-Parker, Watson, King, & Hyde, 2012a). Of concern, it has also been suggested that mobile phone use while driving is underreported (Ige, Banstola, & Pillington, 2016) meaning actual use may be higher than these numbers suggest.

The apparently common use of mobile phones while driving is particularly alarming because of the established risk for distraction associated with their use. Distracted driving is when a driver’s attention is diverted to something else other than driving, and distractions include visual (diverting eyes from the road), manual (requires hands off the steering wheel to achieve something), and/or cognitive (thinking about something else besides driving) elements (National Highway Traffic Safety Administration, 2014). Texting while driving, for example, represents a visual, manual, and cognitive distraction. It has been described as a “complex task” (Oviedo-Trespalacios, Haque, King, & Washington, 2016), with a meta-analysis of the impact of texting on driving revealing that sending a text message when driving had a negative impact on almost all aspects of driving performance (Caird, Johnston, Willness, Asbridge, & Steel, 2014).

Talking on the phone—including hand-held and hands-free options—and texting while driving appear to be the two phone functions that have received the most research attention. A systematic review by Cazzulino, Burke, Muller, Arbogast, and Upperman (2014) found that both functions were common among young drivers (although talking was more frequently reported). A nationally representative study of 8, 505 U.S. high school students identified that 44.5% had texted/mailed while driving in the prior month, with this group also more likely to engage in other risky driving behaviours, such as drink driving (Olsen, Shults, & Eaton, 2013). An online survey of 861 American college student drivers found that 60% of females and 54% of males reported texting while driving in the prior month (Beck & Watters, 2016). Similarly, Bazargan-Hejazi et al. (2017) reported that 69% of their sample of 243 U.S. college students had sent a text message while driving “at least a few times” and 71% had used the phone while driving to read a text message “at least a few times” in the prior week. However, although conducted among college samples, these two studies were not restricted to young adult drivers. Within Australia, a survey of 287 Victorian drivers found that young drivers (aged 18–25 years) were more likely to have read/sent text messages while driving (88% and 77%, respectively) compared with middle aged drivers aged 26–54 years (60% and 51%, respectively) and older drivers aged 55 years and over (5% had read

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