

Distracted driving among adolescents: challenges and opportunities

With advancing technology, the distractions to which drivers are exposed continue to increase. Seventy-two percent of individuals 18 years or older in the USA who own a cellphone admitted to using it while driving.¹ Of particular concern, only 28% of adolescents in the 9th through 11th grades in the USA responded that cellphone use while driving 'made a lot of difference' in driving safety.² Distracted driving involves, however, more than cellphones and is defined as any activity that detracts from the primary task of driving; it falls under the broader category of driver inattention, encompassing other factors such as fatigue and heightened emotional states. The three main types of distraction include visual (taking one's eyes off the road), manual (taking one's hands off the wheel) and cognitive (taking one's mind away from the driving task).

One critical challenge with understanding and addressing the extent of the problem of distracted driving is the limitation in available data.³ Although most states in the USA allow for mention of driver distraction or inattention as a contributing factor in police reports, inconsistencies remain in the level of detail provided including the actual type of distraction. These inconsistencies do hinder our ability to quantify the impact of cellphones, text messaging and other electronic devices in motor vehicle crashes (MVCs). Despite these limitations, distracted driving was a factor in an estimated 1 090 748 MVCs in 2009 in the USA, with an estimated 385 910 of these MVCs involving adolescents.⁴

Driver inexperience coupled with the visual, manual and cognitive distraction of cellphone use can be particularly dangerous for adolescent drivers. Cellphones play a major role in adolescents' social lives, and parents may feel a sense of comfort knowing that their children are only a phone call away. Cellphones can, however, result in slower reaction times to potential hazards, regardless if handheld or hands free.^{5 6} Texting while driving is especially dangerous because it combines the three main types of distraction.; Recently, researchers found, during unobtrusive observations, that drivers dialling a cellphone were 2.8 times more likely to crash,⁶ while a simulator study found that those engaged in texting while driving were 6 times more likely to crash than non-distracted drivers.⁷ Overall, in the USA, an estimated 1006 individuals died (138 adolescents)⁸ and 23 883 (4958 adolescents) were injured in MVCs involving cellphones in 2009.³

A potential source of influence on adolescent risky driving could be parents' distracted driving behaviour. Data show that parental driving behaviour can be predictive of adolescents' aggressive driving style.⁹ Moreover, a recent pilot study of 43 parents of novice drivers showed that, while driving, more than half the parents reported talking on their cellphone, more than a third reported reading texts and nearly 20% reported texting (D Stavrinou, personal communication, 2011).

Increased motor vehicle safety was recently identified by the Centers for Disease Control and Prevention as one of the

major public health achievements of the 20th century. Manufacturing of safer cars (eg, shatter-resistant windshields), improvement of roadways (eg, edge and centerline stripes) and changes in the drivers' behaviour (eg, seat belt use) have increased the safety of vehicular transportation. Yet, new technology can lead to changes in injury risk. It is the commitment of the injury prevention community to conduct innovative research and the translation of that research into practice which can markedly reduce injury and its consequences.

As the adolescent distracted driver problem is tackled, new opportunities for researchers, manufacturers and legislators will emerge. To set appropriate prevention priorities, improved surveillance of the frequency and nature of distracted driving is necessary. New technologies such as cellphone mitigation devices, which disable cellphones of individuals in the driver's seat, require evaluation. Determining the effectiveness of new state laws on banning texting while driving, of parental education regarding their role as models of appropriate driving practices and of driver education for teens that stress the danger of cellphone use is an important element if we are to reduce distracted driving among adolescents.

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