Prevalence of risky driving behaviours on popular television series

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SUMMARY

Motor vehicle crashes are a leading cause of death among young adults. Social media and television have been shown to affect the likelihood that young adults will engage in risk-taking behaviour. We watched 216 episodes of five popular television series on Netflix and identified 333 separate driving scenes, of which 271 (81.4%) portrayed at least one risky driving behaviour. Unsafe driving (not wearing a seat belt) was the most common risky driving behaviour noted, occurring in 245 (73.6%) of driving scenes. Distracted driving (36 [18.8%]) and driving while using a cellphone (28 [8.4%]) were also noted. Popular television series model unsafe driving behaviours. Seat belts are infrequently used. As well, drivers are often distracted, looking away from the road to talk or talking on their cellphones. Television producers should be sensitive to modelling unsafe driving behaviours, particularly if the audience consists largely of young people.

Motor vehicle crashes (MVCs) are the most common cause of death from unintentional injury among adolescents and young adults.[1] This age group constitutes 13.6% of the driving population but accounts for at least 20%–30% of deaths from MVCs.[1] As well, young adults account for about 33% of all impairment-related traffic deaths.[2] Young drivers have a much higher risk of MVCs because of their inexperience, risky driving behaviours and immaturity.[2]

Social media have also been shown to increase risk-taking behaviour in youth.[3] This is because risky behaviours seen on social media tend to become normalized and accepted. This relation between social media and risky behaviour has been heavily studied with regard to sexual content, and sexual content in televised social media is strictly controlled in North America. In Canada, the Canadian Radio-television and Telecommunications Commission provides information on blocking features and parental control. However, we could find no studies measuring the frequency with which risky driving behaviours are depicted on social media or their effects on youth and young adults.

We identified 100 of the most popular television series on the Internet Movie Database as of June 29, 2017. Among the 100 series, we identified 17 that contained driving scenes and that were available for streaming on Netflix. From these series, we randomly selected 5 (*Bones*, *Homeland*, *Animal Kingdom*, *Vampire Diaries* and *Breaking Bad*) and streamed all episodes of the first, last and mid seasons. This constituted 216 separate episodes, which we watched and analyzed for risky driving behaviours.

We categorized risky driving behaviours into four categories: distracted driving, driving while using a cellphone, driving under the influence of alcohol and/or drugs, and unsafe driving. We differentiated distracted driving from driving while using a cellphone because cellphone use while driving has been shown to be highly associated with MVCs[4] and is now illegal in many jurisdictions. We defined distracted driving as any instance of the driver's turning

his/her head away from the road for two seconds or more. We chose this time frame because O'Callaghan and colleagues[4] found that any distraction lasting this length of time increased the risk of a crash 24-fold. The two behaviours that we deemed unsafe driving were driving without a seat belt (any occupant of the vehicle), and speeding or reckless/unlawful driving.

We identified 333 driving scenes in the 216 television episodes, of which 271 (81.4%) showed at least one risky driving behaviour. The most common risky driving behaviour was lack of seat belt use, which, surprisingly, occurred in 245 (73.6%) of driving scenes in the five television series (Table 1). Distracted driving and driving while using a cellphone were the next most common risky behaviours (36 [10.8%] and 28 [8.4%], respectively). Interestingly, all instances of cellphone use seen were telephone calls; we did not see any texting or drivers checking their telephones while driving.

Our findings are important because, as a group, young adults are already more prone to being involved in MVCs.[1] Young drivers are inexperienced and are more likely to engage in risk-taking behaviour than older drivers.[1] In addition, young drivers use social media more frequently than older drivers. They use devices for lengthy periods and use multiple devices at the same time.[3] As a result, adolescents and young adults may be cumulatively exposed to more than 8.5 hours of media a day and are likely more susceptible to influence by social media.[3]

According to social learning theory, people learn how to engage in various behaviours in part through observation of proximal (e.g., parents, peers) and distal (e.g., societal, media) models and thus are influenced by their observations and perceptions of how commonly others engage in the behaviour.[5] Studies investigating factors related to seat belt wearing have shown that there are correlations between one's own seat belt wearing and estimation of use by others (friends and family).[5]

Table 1. Types of risky driving behaviour observed in 5 popular television series

	Behaviour; no. (%) of occurrences *n* = 328				
				Unsafe driving	
Series	Distracted driving	Driving while using cellphone	Driving under influence of alcohol/ drugs	Not wearing seat belt	Speeding and/or reckless driving
Bones	22	9	0	80	1
Homeland	4	4	2	41	2
Animal Kingdom	1	0	2	24	3
Vampire Diaries	9	13	0	61	5
Breaking Bad	0	2	1	39	3
Total	36 (11.0)	28 (8.5)	5 (1.5)	245 (74.7)	14 (4.3)

It is particularly troubling that lack of seat belt use was so common on popular television series. As a group, young adults are less likely to wear seat belts than those in older age groups.[6] However, seat belt use is key to preventing death in MVCs. It is also troubling that cellphone use while driving and other examples of distracted driving were noted in almost 20% of our screened television episodes. Redelmeier and colleagues[6] found that talking on a cellphone while driving was associated with a risk of an MVC that was about four times higher than that among the same drivers when they were not using their cellphones.

Because social media and television are two of the biggest environmental influences that affect teenagers,[3] young adults need more role models on popular television series who promote seat belt use and discourage distracted driving through their example. Legislation to regulate risky driving behaviours on television shows could also be passed, as, unlike for alcohol use and smoking, no such legislation exists currently.

Conclusion

Popular television series model unsafe driving behaviours. Seat belt use is uncommon. As well, drivers are often distracted, as they look away from the road to talk to other occupants in the car. Finally, drivers use cellphones while driving. Further study is required, but television producers should be sensitive to modelling unsafe driving behaviours, particularly if the audience consists largely of young people.

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