

Abstract

There has been a dramatic increase in the usage of smartphones resulting in 2.32 billion people using smartphones worldwide. This widespread use of smartphones may have resulted in an increase of smartphone usage while driving. Road traffic accidents are considered to be leading health hazards and economic problems throughout the world. As a result, there has been a steady increase in research in the area of traffic psychology in Euro-western contexts. However, not much is known in developing countries, particularly within the African continent. It was therefore essential to assess the impact of smartphone usage while driving, considering the safety of motorists and pedestrians. The sample consisted of 298 university students with age ranges of 18 to 54 years and mean age 22.30 in Johannesburg. An online survey was used to access the participants and they completed a battery of assessments, which evaluated driving behaviours they considered to be risk, task-management strategies used to address smartphone distracted driving and compared gender groups with regards to their perceptions of risky driving behaviour and task-management strategies. In addition to descriptive statistics, inferential statistics were conducted.

The results revealed that operating a motor vehicle while intoxicated, racing another vehicle, manual usage of a smartphone while driving, not maintaining an acceptable following distance (tailgating), driving when tired, overtaking on a busy road, not wearing a safety belt and speeding over 20km/h of the speed limit as the most dangerous driving activities. Ironically, although the participants regarded texting or browsing on the smartphone as distracting driving behaviour when engaged by other motorists, they deemed it safe when they engaged in the same behaviour. The results also revealed statistically significant differences between males and females in terms of not wearing a safety belt $t(298) = -1.143, p = .035$; speeding more than 10km/hour over the speed limit $t(298) = -1.210, p = .006$ and using a cell (hands free device) while driving $t(298) = -1.719, p = .002$, thereby indicating that males were more likely to engage in risky driving behaviours than females. Statistically significant correlations were found between speeding more than 10km/hour over the speed limit and driving when tired ($r = .13, p < .05$), and between speeding more than 10km/hour over the speed limit and not maintaining appropriate following distance- tailgating, ($r = .19, p < .05$). These findings are discussed in light of previous empirical studies and suggestions for future studies are made.

Keywords

Smartphone usage, Distracted driving, Driver behaviour, Road safety, Risk perception