# Distracting and Risky Behaviours while Cycling: a Comparison of Group and Non-Group Riders in Western Australia

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## Abstract

This study used an online questionnaire to compare the risk of using mobile phones, portable audio equipment and riding under the influence of alcohol while non-group riding in Perth, WA for cyclists who participated in group riding versus exclusive non-group riders. Group riders were less likely to have possibly cycled while over the legal blood alcohol limit in the past 12 months (OR: 0.56, 95% CI: 0.34-0.92) and were less likely to ever use portable audio equipment (OR: 0.57, 95% CI: 0.34-0.94) than exclusive non-group riders, while participating in non-group riding. Group riding was not associated with mobile phone use.

### Background

The use of mobile phones, audio equipment and riding under the influence of alcohol are known to negatively affect cycling ability (de Waard et al. 2011; Hartung et al. 2015). Anecdotal evidence suggests that cyclists may be less likely to engage in these behaviours while group riding, however it is unknown whether group riders are also at reduced risk when non-group riding. In order to explore any potential safety benefits of participation in group riding, this study examined the association between group riding participation and the use of mobile phones, portable audio equipment and alcohol, while non-group riding.

### Method

This cross sectional study consisted of cyclists recruited roadside and through newletters, bicycle shops and cafes in Perth. They completed an online questionnaire including demographics, cycling information and whether they undertook risky behaviours (use of mobile phones, audio equipment and riding under the influence of alcohol) while cycling. Questions were modified from the 2013 Survey of Community Attitudes to Road Safety (Petroulias, 2014). Responses were categorised as 'never' or 'ever' engaging in each behaviour. Group riders specified whether they engaged in these behaviours while group and non-group riding separately. Participants were classified as 'group' riders if they rode as part of a group of five or more cyclists in the past month. Nearly 94% of group riders also participated in non-group riding in the previous month and were included in the analyses. Separate binary logistic regression models were used to examine the association between group riding participation and the use of mobile phones, portable audio equipment and alcohol while non-group riding, controlling for gender, age, education and frequency of non-group riding.

### Results

Participants included 365 cyclists, 187 exclusive non-group riders (51.2%) and 178 group riders (48.8%). A very small proportion of group riders reported ever using a mobile phone (2.3%), audio equipment (1.7%) or possibly riding under the influence of alcohol (0.6%) while actually group riding. For non-group riding, a similar proportion of exclusive non-group (34.2%) and group riders (32.6%) reported ever using a mobile phone. A higher proportion of exclusive non-group riders (32.6%) reported ever using audio equipment, than group riders (20.8%). A higher proportion of exclusive non-group riders (34.1%) also reported cycling while under the influence of alcohol, than group riders (20.2%).

Results of the logistic regression models indicated that group riders were less likely to have possibly cycled while over the legal blood alcohol limit in the past 12 months (OR: 0.56, 95% CI: 0.34-0.92) and were less likely to ever use portable audio equipment (OR: 0.57, 95% CI: 0.34-0.94) than exclusive non-group riders, while non-group riding. Group riding status was not associated with mobile phone use.

## Conclusions

Group riders had a significantly lower risk of riding under the influence of alcohol and using audio equipment while participating in non-group riding, compared to exclusive non-group riders. This provides early evidence that group riding participation may have greater benefits for safety than just increased conspicuity and it may be beneficial for governments to promote and support group riding.

## References

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