Suggested Reference


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The Role of Conspicuity in Bicycle Crashes Involving a Motor Vehicle
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Background
Not being seen is a key safety concern for cyclists in today’s complex traffic environments. Drivers fail to see a bicycle on the road due to its rarity, small size, slow speed and low level of perceived threat. This type of driver failure, often termed as the looked but failed to see phenomenon, is common in bicycle-car collisions, and may be addressed by enhancing the conspicuity of cyclists through the use of conspicuity aids (physical conspicuity) or through the higher level of cycling on the road (attention conspicuity).

Aims
To investigate the role of physical vs. attention conspicuity in preventing bicycle crashes involving a motor vehicle in New Zealand.

Methods
- The Taupō Bicycle Study is a prospective cohort study involving 2590 adult cyclists.
- The participants were recruited from the Lake Taupō Cycle Challenge, New Zealand’s biggest mass cycling event held each November.
- Baseline information was collected through a web-based questionnaire in 2006.
- Bicycle crash outcome data were collected through linkage to mortality records, hospital discharges, insurance claims and police reports.
- A composite measure of physical conspicuity was created using latent class analysis based on the use of fluorescent colours, lights and reflective materials, and the main colour of top, helmet and bike frame.
- Attention conspicuity was assessed based on regional differences in travel patterns and the amount of riding in a bunch.
- Cox regression modelling for repeated events was performed to assess the association between conspicuity and incidence of bicycle crashes involving a motor vehicle.

Conclusions
Conspicuity aids alone may not be sufficient in preventing bicycle crashes involving a motor vehicle in New Zealand, particularly in Auckland.

Benefits to be gained from enhancing conspicuity require attention to the transport mix. A better balance in the transport system may improve the attention conspicuity of cyclists and their safety on the road.

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