DIRECTIONAL HEARING AWARENESS, A NEW WAY TO PREVENT ACCIDENTS FOR HELMET USERS

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Background Road traffic injuries constitute a major public health concern with consequences on mortality and morbidity, according to WHO. Globally, approximately 1.35 million people die each year as a result of traffic crashes, approximately 25% where motorcycle drivers.

Methods A video-based observational study was conducted to estimate the incidence of five unsafe bicycling behaviors in Changsha, China: not wearing helmets (A), violating traffic lights (B), riding in a direction opposite (C), holding the handlebar with one or no hands (D), and riding in a non-bicycle lane (E). Chi-square tests examined differences in unsafe bicycling behaviors and examine incidence differences between shared versus personal lane (E). Logistic regressions quantified the association between unsafe cycling behaviors and both type of riders and areas cycled in.

Results The incidences of A, B, C, D, E were 99.28% (95% CI: 99.14%-99.41%), 19.57% (95% CI: 18.50%-20.64%), 13.73% (95% CI: 13.19%-14.27%), 2.57% (95% CI: 2.32%-2.82%), and 64.06% (95% CI: 63.16%-64.96%), respectively. Compared to personal bicycle riders, shared bicyclists had higher incidence rates of A and C (AOR= 18.97, 2.08) but lower incidence of B (AOR= 0.63) (p<0.05). Across the types of cycling areas, the university, commercial and office area had the highest incidence of A, C and B, respectively (p<0.05).

Conclusion Cyclists using shared and personal bikes were observed behaving in unsafe manners frequently, especially rarely wore helmets.

Learning Outcomes It highlights the unsafe cycling behaviors in urban China, and the high incidence of not wearing helmets are needed to be interpreted.

UNSAFE BICYCLING BEHAVIOR IN CHANGSHA, CHINA: A VIDEO-BASED OBSERVATIONAL STUDY

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Background The increased risky use of bicycles in China lead to growing bicycling injuries. We report the incidence of unsafe bicycling behavior and examine incidence differences across type of riders and areas cycled in.

Methods A video-based observational study was conducted to estimate the incidence of five unsafe bicycling behaviors in Changsha, China: not wearing helmets (A), violating traffic lights (B), riding in a direction opposite (C), holding the handlebar with one or no hands (D), and riding in a non-bicycle lane (E). Chi-square tests examined differences in unsafe cycling behavior incidence between shared versus personal bicyclists and across the area cycled in (commercial, university, office, or leisure areas). Logistic regressions quantified the association between unsafe cycling behaviors and both type of riders and areas cycled in.

Results The incidences of A, B, C, D, E were 99.28% (95% CI: 99.14%-99.41%), 19.57% (95% CI: 18.50%-20.64%), 13.73% (95% CI: 13.19%-14.27%), 2.57% (95% CI: 2.32%-2.82%), and 64.06% (95% CI: 63.16%-64.96%), respectively. Compared to personal bicycle riders, shared bicyclists had higher incidence rates of A and C (AOR= 18.97, 2.08) but lower incidence of B (AOR= 0.63) (p<0.05). Across the types of cycling areas, the university, commercial and office area had the highest incidence of A, C and B, respectively (p<0.05).

Conclusion Cyclists using shared and personal bikes were observed behaving in unsafe manners frequently, especially rarely wore helmets.

Learning Outcomes By improving hearing acuity while wearing a Hearing Helmet, accidents can be reduced and save lives. Hearing Helmet is a solution for road safety on populated urban areas. That is SDG 3.6.1 and our mission too.

LEARNINGS OF FARMER BEHAVIOUR FROM THE VICTORIAN QUAD BIKE REBATE SCHEME

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Background Quad bikes are a cause of death and serious injury in Australian rural workplaces, with many incidents associated with rollovers. Since 2016, the Victorian Government has funded a rebate scheme for the farming sector to recover costs associated with fitting of a suitably designed and engineered operator protective device (OPD), or for the purchase of an approved side-by-side vehicle with rollover protection and fitted seat belts. The rebate scheme was integrated with an extensive television, print and social media campaign.

Methods An evaluation of the rebate process was carried out by the Institute for Safety, Compensation and Recovery Research (ISCRR). This included an electronic survey completed by 334 farmers and qualitative interviews (n=51) to gain insights into farmer decision-making behaviour.

Results This evaluation identified key factors in determining farmer decision-making in relation to the rebate scheme and were mapped against a health belief model. Barriers to uptake included the initial financial outlay (in particular with side-by-side vehicles). The financial benefit of the rebate scheme was identified as a primary cue to action and key enabler.

Conclusion This study found that Victorian farmer quad bike users had a strong understanding of the dangers and risks involved in quad bike usage. Farmer perception of how these risks applied to their own setting was a major decision-making factor whether to take part in the rebate scheme.

Learning Outcomes The communication a farmer received was likely to influence their perception of rebate scheme benefits, as was the types of supports given.