Objectives In this study, we examined the association between risky driving behaviours of three-wheeler drivers and three-wheeler crashes in Sri Lanka.

Methods We conducted a case-control study in Kandy, Sri Lanka between August 2008 and March 2009. Cases were all the three-wheeler drivers involved in crashes in Kandy between 1 January and 31 December 2007 (n=95). We included two control groups: a control group matched to the age of the cases (n=88), and a control group matched to the sites of the crashes (n=82). We used the Manchester Driver Behavior Questionnaire (DBQ) to examine the risky driving behaviours of the drivers. Using the multivariate logistic regression analysis we examined the association between risky driving behaviours and three-wheeler crashes.

Results The DBQ revealed three types of risky behaviours of three-wheeler drivers: intentional violations, dangerous errors and violations due to drivers hurry. The violations were associated with three-wheeler crashes: intentional violations (control-1 adjusted OR (AOR)=2.18, 95% CI=1.30 to 3.64, control-2 AOR=2.38, 95% CI=1.32 to 4.26), violations due to drivers hurry (control-1 AOR=1.84, 95% CI=1.11 to 3.05, control-2 AOR=2.20, 95% CI=1.29 to 3.73). Driving errors, however, did not show an association with three wheeler crashes (control-1 AOR=0.62, 95% CI=0.34 to 1.11, control-2 AOR=0.86, 95% CI=0.55 to 1.33). Following variables also showed significant associations with three-wheeler crashes: obtaining driving license through private driving schools, carrying more than three passengers in the rear seat, daily mileage above 80 km and driving experience of less than 6 years.

Conclusion Road rule violations by three-wheeler drivers were associated with three-wheeler crashes in Sri Lanka.