

Why are powered two wheeler riders still fatally injured in road junction crashes? – A causation analysis

ABSTRACT

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Introduction: Powered Two Wheeler (PTW) crashes continue to be a road safety concern with a plateauing of the number of associated fatalities.

Method: Forty one UK fatal or serious injury crashes involving a PTW and another vehicle at a junction were examined. Crash causation was analysed using the Driver Reliability and Error Analysis Method (DREAMv3.2). Crashes were split into two groups: Group A, where the other vehicle was travelling in the opposite direction to the PTW and commenced a right turn across the PTW's path; and Group B where the other vehicle turned right out of a side road (or entrance) across the PTW's path.

Results: Overall, the factor that led directly to the crash (phenotype) was most commonly 'too high speed' or 'too late action' for the motorcyclist and 'too early action' for the other driver. Missed or late observations were contributory factors for both PTW riders and other vehicle drivers. Some differences between groups were observed with the PTW riders in Group B more likely to have 'insufficient skills' and the other vehicle drivers in Group A more likely to have 'attention allocation' as a causation factor. For both groups the crashes occurred because the other vehicle failed to give way to the PTW with causation chains that suggest 'looked but failed to see' is still an issue in this type of crash. The excessive speed of the PTW contributed to some crashes.

Conclusions: This analysis suggests that drivers failing to give way to PTW riders at junctions is still a problem. This may relate to the 'looked but did not see' phenomenon. Causation differences were observed between the examined groups.

Practical considerations: The DREAM methodology is an effective tool in analysing crash data from police collision investigation reports. Different countermeasures may be necessary to prevent different types of junction crashes.