

Motorcycle Safety Usage Rates and Motorcycle Injury Severity in Sri Lanka

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Involvement of motorcycle crashes as a motorcycle occupant is the most common cause of serious head injuries among children. Use of motorcycle safety helmets has been found to be effective in reducing injuries in crashes. Beginning from 2011, wearing safety helmets for all types of motorcycles are mandatory in Sri Lanka. The objectives of this study are to investigate motorcycle safety helmet use rates and the motorcycle crashes.

The data were collected using the mobile observation covering all A-, B-, C-, and D-class roads throughout Sri Lanka during 2011 and 2012. While traveling inside vehicle head-on motorcycles were observed and recorded which included number of persons in the motorcycle and the helmet usage of all the occupants. The crash severity data were obtained from the Police headquarters, Baduraliya and Homagama Police Station while injury severity data were obtained from the, Baduraliya and Homagama Hospital.

According to observation data, the average motorcycle helmet use rate was 80.81%. Motorcycle operators and pillions in town areas travelling on A-class roads were more likely to wear safety helmets. While the safety helmet usage was low among operators and pillions traveling in rural areas on C- & D-class roadways. The helmet usage rate among children was as low as 20%, while adult helmet usage rate was 86%.

Approximately 35.2% of fatal crashes out of all fatal crashes were reported for motorcycles during 2010 and 2011. Also, motorcycles represented 41% of grievous injury crashes, 38.9% of non-grievous crashes, and 9.6% of Damage Only crashes. The comparisons between helmet use rates and injury severity in both rural and urban setting were carried out using selected A- B-, and C-class roadways. As compared to low safety helmet use in rural areas, the numbers of fatal and grievous injuries in these areas were higher.

Key words: Motorcycle crashes, Safety helmet, Crash data analysis, Observation studies

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