Motorcycle Helmet Usage in a Town in Sri Lanka: An Observational Study

O. H. D. C. Gunathilaka[1] , N. Amarasingha[2]

Abstract

Most of the motorcycles fail to offer the necessary protection for the riders in the case of a crash resulting increased crash severity. Numerous reasons have been already identified for motorcycle crashes by previous researchers and several countermeasures have been proposed to provide protection for motorcycle riders. Among them, the correct safety helmet usage has been widely discussed. A safety helmet is capable to reduce the severity but not to prevent a crash. The objective of this study was to identify the helmet usage pattern in a Sri Lankan town. An observational survey on helmet wearing characteristic and riding behavior was conducted in five locations at Ambalangoda town, in March, 2016 by covering A-Class, B-Class, C-Class- and D-Class roadways.

The data on number of occupants, helmet usage patterns of the riders, pillion riders, and other occupants were collected along with their age (whether adult or child), and gender on a structured data sheet. A multiple counter was used to effectively count the helmet usage patterns and videos which were recorded at the intersections during the peak hours. Peak hours in this town are from 06:00 to 08:00; from 11:45 to 13:45, and from 16:30 to 18:30. Within peak hours data were collected in each location and spent five days for surveys to cover all five locations. The data on gender, age, helmet usage, roadway classes, and number of passengers were cross tabulated and percentages were calculated.

The observation surveys indicated that overall helmet usage was as high as 90.5%. However, out of the 7,332 users, only 2,298 (31.3%) users properly worn helmets. It is noted that the helmet usage rate was low among children, which is of particular concern. These results can be used to identify the measures to increase the helmet usage rate in Sri Lanka and some ideas were presented.

Key words: Motorcycle, Safety Helmet, Observational Survey

1. Research Student, Faculty of Engineering, Sri Lanka Institute of Information Technology, Malabe, Sri Lanka.dumindu077@gmail.com

2. Senior Lecturer, Faculty of Engineering, Sri Lanka Institute of Information Technology, Malabe, Sri Lanka niranga.a@sliit.lk