

Motorcycle Accident and its Severity Analysis in Ampara District

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Abstract

Nearly 30% of the total traffic flow on most highways in Sri Lanka comprises of motorcycles. It is a popular mode of transport of middle income families, as well as the youth, due to the lower cost in transport and being readily available. In Ampara district, the motorcycle population keeps on increasing as the officers who works within and closer to the district, return home the same day. However, the rapid increase in motorcycles caused accidents and fatalities to increase as well. This caused motorcycle riders to be the most vulnerable road users on Sri Lankan roads as they are left unprotected in the case of a crash.

The objective of this study is to identify the risk factors involved, and to investigate the rate of the usage of motorcycle helmets. The representative sample of the motorcycles was observed using the mobile observation method in rural roads and through periodical observation, carried on in national roads and the township area of Ampara district. The accident data were obtained from police headquarters and the Ampara divisional traffic police, while injury severity data were obtained from the base hospitals of Kalmunai & Akkaraipattu, general hospital-Ampara and Ashraff memorial hospital.

In 2013 motorcycles were responsible for 33% of total accidents, by 2017 it had increased up to 45%. In Ampara district it increased up to 61% in 2017 from 54% in 2016. It can be observed that in Ampara district the cases and crashes related to motorcycle accidents keep on increasing as 31.95% was recorded in 2015 while in 2017 it had increased up to 32.15%. According to the observational data, the average helmet usage rate of the rider & pillion was 95% in national roads where they travel on A & B class roads thus proved they were more likely to wear safety helmets, on the other hand, the usage rate was 15% among riders and pillion in rural roads like C, D & E class roads. Children sitting on the tank with no helmets were observed. The riders & pillions engaged with the town area were observed with helmets in the rural area. As per the hospital data, it was revealed that around 70% of those admitted to the hospital were victims of motorcycle accidents, in which 45% were youngsters. The treatment days were averagely 265 patient-days and in which 75 cases were just admitted and treated within one day.

One major limitation in the availability of accident data is that the police accident data does not provide sufficient information on pre-crash factors contributing to accidents. The study shows that young riders are at a great risk of meeting accidents. These provide useful insights to risk factors related to the safety of motorcycle users and effective countermeasures that could be implemented to reduce motorcycle related accidents.

Key Words: Road safety, motorcycles, accident analysis, helmet use

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