



Original Article

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Program to Reduce the Number of Motorcycle Accidents During Nursing Staff Commutes: An Empirical Study

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Abstract

Purpose: According to 2018 statistics from the Ministry of Transportation and Communication of the Republic of China and the National Police Agency, Ministry of the Interior, scooter ownership in Taiwan has reached 92.6%. Scooters accidents are the most common type of accident. The average occurrence rate of accidents during the commute of the nursing staff of the hospital in this study was 0.75 cases per month for 2 consecutive years (2015–2016).

Materials and Methods: We collected data through a questionnaire and interviews. The following causes of accidents were identified: insufficient awareness of the risks associated with scooters, unfamiliarity with the concept of defensive driving, commuting during typhoons, absence of traffic signs or signals at intersections in the vicinity of the hospital, and insufficient tire pressure and tread. Fourteen intervention measures in five dimensions were adopted, namely one-stop training for defensive driving, refresher training for personnel involved in scooter accidents, Smith defensive driving challenges, safety improvements for commuters driving scooters during typhoons, scooter health checks, and regular inspections of scooters that have been involved in accidents at repair service centers.

Result: As a result of this project, the average occurrence of accidents decreased to 0.29 cases per month. The disabling injury frequency rate and the disabling injury severity rate decreased to 1.10 ($5 \times 10^6 / 4368000$) and 18.80 ($82 \times 10^6 / 4368000$), respectively, which represent success rates of 149.2% and 126.0%, respectively.

Conclusion: Increasing nursing staff knowledge of defensive driving significantly decreased the number of scooters accidents.

Keywords: Nursing Staff, Motorcycle Accident, Defensive Driving