

The rider behavior questionnaire to explore associations of motorcycle taxi crashes in Cartagena (Colombia)

H. Ospina Mateus; L. Quintana Jiménez; F.J. López Valdés

Abstract-

Objective

This study aimed to identify the association between behavioral factors and crashes of motorcycle taxi riders using the Motorcycle Rider Behavior Questionnaire (MRBQ).

Methods

This study was a cross-sectional survey of motorcycle taxi riders in Cartagena. The MRBQ was adapted to the socio-cultural context and contained 45 items. The survey was conducted between February 2019 and May 2019. The items of the MRBQ were processed using factor analysis. Four logistic regression models were used to analyze the association between behavioral factors and aspects of demographics, operating conditions, and experiencing near-crashes, crashes, traffic tickets, and at-fault crashes.

Results

Four hundred and thirty-eight motorcyclists participated. The exploratory factor analysis extracted five elements: stunts, speed violations, traffic errors, control errors, and safety, explaining 42% of the variance. The increase in riding per week showed significant differences with stunts, speed violations, and traffic errors. Riding experiences, traffic errors, control errors, and safety were significantly associated with crashes and near-crashes. Stunts were the strongest factors related to traffic tickets. Speed violations were the strongest factors associated with at-fault accidents.

Conclusions

The study showed recent results considering behavioral, exposure, and operational conditions in a group of motorcycle taxi riders. The study recommends some practical implications for the well-being of motorcyclists and road safety.

Index Terms- Motorcycle; crash; behavior; Motorcycle Rider Behavior Questionnaire (MRBQ); motorcycle taxi riders

Due to copyright restriction we cannot distribute this content on the web. However, clicking on the next link, authors will be able to distribute to you the full version of the paper:

[Request full paper to the authors](#)

If your institution has an electronic subscription to Traffic Injury Prevention, you can download the paper from the journal website:

[Access to the Journal website](#)

Citation:

Ospina-Mateus, H.; Quintana Jiménez, L.; López-Valdés, F.J. "The rider behavior questionnaire to explore associations of motorcycle taxi crashes in Cartagena (Colombia)", Traffic Injury Prevention, vol.22, no.Supl 1, pp.S99-S103, October, 2021.