عنوان مقاله:

Utilizing Beta Regression in Predicting the Underlying Factors of Motorcycle Rider Behavior: How does the method promote the results?

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خلاصه مقاله:

Introduction: Motorcyclists have the highest proportion of casualty toll caused by accidents of the streets of Iran., and they endanger themselves and others by means of those risky behaviors. Without knowing the causes of such behaviors, health and safety education will not be effective. Since nearly enough studies have not been carried out based on accurate statistical methods in proportion to the data obtained from the questionnaires and bounded response variable to the high-risk behaviors of motorcyclists in Iran, this study aimed to predict MRBQ by ADHD and the underlying predictors using the Beta Regression, as a new strategy.Methods: The present sectional study included 311 Motorcyclists that were randomly selected using cluster sampling method in Bukan province to evaluate the relationship between the limited response MRBQ with ADHD and its subscales. New method for the analysis of beta regression was used. To do this, an unadjusted and as well as adjusted four-step hierarchical modeling was used.Results: MRBQ scores, direct and important relationships were discerned between MRBQ score and ADHD score and its subscales including (DSS score) (coefficients ranged over 0.01 to 0.6, All P<0.05). Additionally, the driving period (coefficients ranged over -0.32 to -0.48, P<0.05) and hour driving (coefficients ranged over: 0.31 to 0.34, P<0.05) and Using Helmet (coefficients: 0.26 to 0.31, P<0.05), and Sub Accident (coefficients ranged over 0.35 to 0.37, P<0.05) also turned to be significant predictors of MRBQ score.Conclusions: ADHD score and driving parameters can be taken into account when contriving actions on the motorcycle rider behaviors as measured by MRBQ

کلمات کلیدی:

Beta Regression, Bounded outcomes Variables, Motorcycle Injuries, Adulthood ADHD, MRBQ

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