

A study on motorcyclist's riding discomfort in Malaysia

ABSTRACT

Studies on discomfort among motorcyclists are seldom seen in literature. The current study was carried out using 957 respondents representing 481 males and 476 females ranging from the age of 18 to 24 years. It attempts to find out the overall discomfort score, the discomfort symptom score and the statistically significant differences on discomfort score among the male and female motorcyclists. A questionnaire survey was used to evaluate those discomfort symptoms. The results indicate that a majority of the male and female motorcyclists experienced discomfort in their body parts during the riding process. The motorcyclists mainly experienced discomfort on their upper body parts (neck or head, shoulder, upper back, arms and hands, low back and buttocks). The female compared to the male motorcyclists have expressed higher discomfort level in their thighs. Meanwhile a majority of both male and female motorcyclists have indicated no discomfort in their lower body parts (knees, calf leg below knee and ankles and feet). Meanwhile, the statistical tests indicate that there is a total of four significant differences ($p < 0.05$) between the male and female motorcyclists. The significant differences were on low back, buttocks, thighs and calf leg below knees. As a conclusion, the results suggest that the motorcyclists in Malaysia do suffer from the discomfort on certain body part during riding. Therefore, this study highlights that there is a lack of motorcycle's ergonomics particularly in the context of interaction between the riders and motorcycle in Malaysia.

Keyword: Motorcycle; Ergonomic; Comfort; Discomfort; Body part