

ABSTRACT

Title: Investigation on Physical and Mental Fatigue among Intrastate Bus Drivers

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Abstract:

This research is a collaboration project between Prasarana Malaysia Berhad, Rapid Bus Sdn. Bhd., Universiti Tun Hussein Onn Malaysia (UTHM) and NIOSH Ergonomics Excellence Centre, Johor. It was a preliminary study on the performance of the bus drivers in Rapid Bus Sdn. Bhd. Fatigue and prevalence of Musculoskeletal disorders (MSDs) has been mentioned as main contributor to the road accidents. Even so, previous studies focus specifically on full automatic city bus drivers is still lacking. Objectives: The study attempt to determine the prevalence of MSDs and the association between workload and fatigue level. Methodology: Empirical study was conducted among full automatic city bus drivers of one of the prominent city bus provider in Kuala Lumpur. The selected depot station is operated at Cheras Selatan. From the total population of 274 bus drivers, only 82 drivers participated. The study employed Nordic and NASA-TLX validated instruments from previous studies for the data collection. The data were analyzed using statistical software as well as fatigue calculation to evaluate the level of fatigue. Results: The results indicated insignificant influence between fatigue and workload towards prevalence of MSDs due to full automatic buses with ergonomic design. The overall prevalence of MSD was 10.8% with both lower back, shoulders, hips, neck, shoulder and upper back was reported with medium to critical severity complaints compared to other body parts. Nonetheless, MSDs show insignificant contribution towards number(s) of accident occur. The study revealed 67% of the bus drivers experienced high level of fatigue based on Fatigue Severity Scale assessment. Physical demand accounted the dominant factor in workload. Conclusion: To conclude, the bus drivers are exposed to a combination of risk factors that may lead to an increased risk of developing MSDs. Thus, it is important for the bus company to be concern with the driver's health and provide the platform of cautions to reduce the number of accidents happened in the country due to fatigue and workload problems.