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A Field Study In An Urban Area: Examining Distracted Pedestrian Unsafe Crossing Behavior

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A FIELD STUDY IN AN URBAN AREA: EXAMINING DISTRACTED PEDESTRIAN UNSAFE CROSSING BEHAVIOR

Abstract

Pedestrians are the most vulnerable road users due to the lack of safety provisions against vehicles. Unlike collisions involving motorists, drivers are safeguarded by safety mechanisms built into vehicles. Distracted pedestrians divert attention away from crossing, putting their own lives at risk. A field observational study took place over four weeks in June-July 2021 at four locations in a southeastern city to explore pedestrian behavior. The study considered environmental (e.g., occurrence of events, types of events, weather, types of intersections, and time of day) and demographic (e.g., gender, age, and the quantity of pedestrians crossing) variables' impact on behavior (distractions, looking left, impeding traffic, usage of crosswalks and lights). Overall, 2055 pedestrians were observed; 1265 men and 784 women, with 6 genders not recorded. Data were analyzed by means of chi-square. During festivals, pedestrians were less likely to look left and use crosswalks. At local events, pedestrians exhibited distracted behavior due to cellphone usage and other non-cellphone distractions. Distracted female pedestrians looked left less than males. Rain influenced distracted behavior and looking left. Pedestrians impeded traffic at three-way intersections. Distracted pedestrians in groups of two or more, were less likely to look left. The present study is among the first to contribute knowledge to environmental alterations on crossing behavior. The COVID-19 pandemic restrictions on mass gatherings and stay at home orders may have affected the results of the study; a post pandemic study is needed to verify the findings.

Key words: Environmental alterations, distracted pedestrians, road safety, pedestrians, and naturalistic observations.