Title: RISK FACTORS IN ROAD CROSSING AMONG ELDERLY PEDESTRIANS AND READINESS TO ADOPT SECURE BEHAVIOR - COMPARISON BETWEEN A MAIN CITY AND A PERIPHERAL CITY

Presenting Author: Tova Rosenbloom

Authors: T. Rosenbloom 1, 2;Y. Sapir-Lavid 1;U. Eldror 1;

Affiliation
1. Research Institute of Human Factor in Road Safety, Academic Studies, College of Management, Rishon Lezion, Israel, 2. The Interdisciplinary Department of Social Sciences, Bar Ilan University, Ramat Gan, Israel,

Abstract:
Elderly pedestrians are much more susceptible to being injured or killed in a car accident (The National Authority of Road Safety, 2002). Studies identified several factors involved in this phenomenon (for example, Oxley et al., 1995), relating either to the physical health of the elderly person, such as deterioration in hearing and in eyesight, or to psychological and cognitive conditions, such as poor decision making, difficulty in processing complex information, and difficulty in risk assessment. Zakay (2001) investigated road crossing behaviors of the older population in Tel-Aviv, and found that they were unaware of the risk factors in the road, and overestimated their ability to cross the road safely. He also found that many of them wanted to attend road safety training, lacked the opportunity to do so.
The current study intends to broaden the understanding of the factors involved in the risk taking procedure of the older pedestrian, and to identify factors related to the elderly person's willingness to adopt preventive behavior in this area. Based on the Health Promotion Behavior model (HPB), which has been used extensively in public health related studies, we compared the road-crossing behaviors and attitudes of elderly people living in a main central city and in a peripheral city, in order to identify the specific needs of each area based on its socio-demographical characteristics. The willingness to adopt safe road-crossing practices is assumed to be influenced by the factors identified in the literature, such as socio-economical status, immigration and education level, and cognitive-psychological factors such as self efficacy assessment.
The current study examined both behavioral observations of and self-assessment questionnaires. Crosswalk observations, both with and without traffic lights, were performed on three locations in Tel-Aviv (representing a main city), and three locations in Beer-Sheva (representing a peripheral city). Observations included a total of 2862 pedestrians, of whom 902 were elderly (estimated to be over 65). Be'er-Sheva observations included 1181 pedestrians of which 474 were elderly, and Tel-Aviv observations included 1681pedestrians of which 428 were elderly. The questionnaires were completed by 143 elderly participants, 62 in Be'er-Sheva and 81 in Tel-Aviv, concerning the self assessment of road-crossing risks, perceived expectancy for adopting preventive behavior, perceived self-efficacy as well as the self-assessment of crossing related behaviors.
Observations results indicated an overall proclivity for red-light crossing in male pedestrians in both cities, as well as in younger pedestrians in Tel-Aviv. The overall safe road behavior index was higher for elderly pedestrians compared to younger pedestrians, for females compared to males, and for Tel-Aviv elderly pedestrians compared to Be'er-Sheva elderly pedestrians, indicating the Tel-Aviv elder people are more careful than their Be'er-Sheva counterparts. Overall, Tel-Aviv elderly pedestrians appeared more aware of their limitations than the Be'er-Sheva ones.
The questionnaire results also support this difference between the Tel-Aviv and Be'er-Sheva

elderly population, with Tel-Aviv respondents are more aware of their road-crossing risks and limitations, less prone to overestimation of the crossing abilities, and more willing to receive further road safety training, compared to the Be'er-Sheva respondents. These results indicate differences exist within the elderly population, requiring a different approach to elderly-oriented road-safety planned, based on local needs and norms.