

Name: Avi Magid

Thesis:

The Role of Safety Climate in Explaining the Relationships between the Built Environment Infrastructure and Safety

Supervisor:

Prof. Orna Baron-Epel

Abstract:

Background: Previous studies have shown the association between the quality and safety of road infrastructure and the risk of road traffic crash. The association between the safety behaviors of an individual and his risk of being involved in a road traffic crash was also established in previous studies. The physical and social environment in which the individual lives, is also associated with his safety-related behaviors. The quality of road safety infrastructure is a property of the physical environment which may be associated with the individual safety behavior. Looking at a town as an environment and at the towns municipality as the authority responsible for the road infrastructure within the town may lead us to the hypothesis that the municipalities investment in safety infrastructure reflects their commitment to the residents safety, which may be associated with the residents perception of how their municipality is committed to their safety, or, in other words, the residents safety climate. This study investigates the association between the quality and safety of road infrastructure and the safety behavior of the road users. The study also explores the role of safety climate in explaining this association. The study will contribute to the understanding of the factors affecting road safety.

Objectives: (1) To examine the relationships between quality of road infrastructure and safety behaviors of road users within Israeli Arab towns. (2) To examine whether safety climate in the city hall and the town mediates the association between road infrastructure quality and safety behavior. (3) To explore the role of perceived safety as well as other demographic properties in explaining the relationships between road infrastructure quality and safety behaviors.

Methods: A sample of 29 Israeli Arab towns is randomly chosen. For each town, road infrastructure quality and safety behaviors of the road users are assessed by observations performed by trained observers. Safety climate is assessed by a residents' telephone survey as well as by personal interviews of senior municipality personnel. A regression model to predict safety behavior will be evaluated. In addition, a multi-level analysis will be performed, where individual safety behavior and residents safety climate will be the first level, and town road infrastructure and town safety climate will be the second level.