

Female Pedestrians' Vulnerability due to Different Crash Locations, a Case-Study for IRAN

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Abstract

While pedestrians' fatality stands for 23% of total mortality, the share of pedestrians' fatality distribution for various road areas is totally different from the other road users. Meanwhile female pedestrians assumed to burden more vulnerability according to some factors. This study attempts to test hypotheses related to female pedestrian casualties as per their location of death and other factors like age, day time and visibility (clothing color).

Methods

This is a cross-sectional study using death registry data from 2009 to 2014. Also the actual traffic crash records were used to link roadway function classes and Pedestrian Locations to victims' data. Then female pedestrians' mortality rates were calculated and tests of association between selected variables performed.

Results

The findings revealed that female pedestrians around intercity roadways are less exposed to fatal crashes compared to those crossing on urban roadways. But walking around minor/rural roads leads to higher exposure to death. While crossing urban and intercity roadways increases the vulnerability of female pedestrians who are respectively 65+ and 16-24 years to traffic crashes, walking through minor/rural roads increases the vulnerability of those who are under 15 years. Vulnerability of female pedestrians to crashes showed no significant differences for different day time but wearing dark clothing (mostly veils as common robe in the country) significantly increases their vulnerability.

Conclusions

As proved that female pedestrians are more vulnerable at some specified road areas and due to several factors, the above findings assist the officials to deploy pedestrian crash preventive measures at identified hazardous traffic areas and to plan more relevant awareness campaigns and education for females especially at more prone locations.

Keywords

Female Pedestrians, Vulnerability, Fatal Crash Locations, Iran.