عنوان مقاله:

Analysis of Child Pedestrian Accidents in Relation to Spatial and Temporal Attributes- A Case Study of Karachi

محل انتشار:

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نویسندگان:

Mir Shabbar Ali - *Chairman and Professor, Department of Urban and Infrastructure Engineering, NED University of .Engineering and Technology,Karachi, Pakistan*

Muhammad Adnan - *Associate Professor, Department of Urban and Infrastructure Engineering, NED University of .Engineering and Technology, Karachi, Pakistan*

Muhammad Zafar Iqbal - *Traffic Engineer, Department of Urban and Infrastructure Engineering, NED University of Engineering and Technology, Karachi, Pakistan*

خلاصه مقاله:

Worldwide, road traffic accidents are the second leading cause of the death among child age (1-15) years. From these accidents, injuries occurred to child pedestrian is the major cause of death. The situation in developing countries of Africa, Asia and in the Caribbean islands is much alarming because majority of the fatalities due to road accidents have been found in a group classified as pedestrians. A research indicated that approximately 20% of fatal road accidents in developing countries are under the age limit of 15years. In Karachi, the mega city of a developing country Pakistan, around 4500 child injuries are reported annually, sharing 15% of the total annual accidents. It has been reported worldwide that children are typically injured in the morning and in the mid after-noon periods as in these times chances of interaction of them with vehicles are significantly high due to their trip to and from school. This fact emphasizes the significance of spatial and temporal dimensions into the analysis of accidents pattern. The relationship between the traffic accidents and attributes that explains spatial and temporal dimensions is useful to understand, so that prevention strategies are planned accordingly. The primary purpose of this paper is to describe the child pedestrian injuries within Karachi for the data that has been obtained for past three years and relate the pattern of injuries with attributes explaining spatial and temporal dimensions. The data has been obtained from a Road Traffic Injury Research and Prevention Centre (RTIR&PC) which has been collecting records of traffic injuries in Karachi and suggesting various prevention strategies since 2006 in Karachi. The obtained data have been analysed for various attributes of spatial and time dimensions, for example, population density, number of parks and playgrounds, extent and condition of pedestrian facilities, number of schools, and time of day of different activities of children that requires travelling. Statistical techniques such as regression analysis and chi-square tests are used to ascertain the relationship of these attributes with child pedestrian accidents. It has been found out that child pedestrian accidents are significantly correlated with the spatial attributes than temporal attributes. The paper presents various reasons to explain this finding that has its premise on the differences in circumstances and safety awareness in developing countries in comparison to developed countries. In addition to this, paper suggests various ... key interventions and strategic policies that may be

کلمات کلیدی: