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

Mir Shabbar Ali , Chairman and Professor, Department of Urban and Infrastructure Engineering, NED University of Engineering and Technology, Karachi, Pakistan.[1]
Muhammad Adnan , Associate Professor, Department of Urban and Infrastructure Engineering, NED University of Engineering and Technology, Karachi, Pakistan. [2]
Muhammad Zafar Iqbal , Traffic Engineer, Department of Urban and Infrastructure Engineering, NED University of Engineering and Technology, Karachi, Pakistan. [3]
mshabbar@neduet.edu.pk [1]
adnanres@neduet.edu.pk [2]
zafariqbal@neduet.edu.pk [3]

ABSTRACT:

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