



D3 Fatal Unintentional Injuries Among Young Children — A Study From South India

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After attending the presentation, the attendees will identify with the pattern and trend of fatal unintentional injuries in young children in Manipal, South India.

This presentation will impact the forensic community by developing an understanding of the burden of fatal unintentional childhood injuries in the region and to develop preventive strategies so that human lives are saved.

Unintentional childhood injuries constitute a significant public health problem which are vastly preventable. The goal of this study is to describe the pattern and trend of accidental deaths in young children in Manipal, South India. This study is a registry based, descriptive research spanning over a period of 14 years from January 1994 to December 2007. All medicolegal autopsy case records were retrospectively reviewed and cases of fatal unintentional injuries in children aged ten years and below were studied. The information obtained from autopsy reports, police investigations, and toxicological analysis was registered in a database and analyzed. Deaths due to suicidal and homicidal manner were excluded.

During the study period, seventy-five cases of fatal accidental childhood injuries were identified. Males accounted for 68% of cases, with the male-female ratio being 2.1:1. Road traffic fatalities accounted for the greatest number of fatalities (52%), followed by those due to thermal injuries (22.7%). Flame was the cause of thermal injuries in 52.9% cases and fatal scalds were observed in 47.1% cases. Traffic fatalities, falls, and drowning were more common in school age children, while toddlers and pre-school age children were relatively at a greater risk from domestic accidents (thermal injuries and poisoning). The highest number of victims in road traffic incidents were pedestrians (64.1%) and head injuries alone were responsible for fatal outcome in 82.1% cases. The results of the study are compared with studies done elsewhere in India and abroad.

Unintentional childhood injuries constitute a significant public health problem which is vastly preventable. The study highlights on the pattern of accidental fatalities among children in Manipal, South India. To reduce the burden of unintentional childhood mortalities, priorities for school age children are traffic injuries, while for toddlers and pre-school children are thermal injuries.

Morbidity and mortality in children can be prevented by understanding common patterns of injury and educating parents and children about injury prevention. Injury risk can be reduced through injury prevention strategies, child education, and family education. Children should be taught to swim and play safely in and around water, and to stay away from fire and hot fluids. Kerosene lamps should be kept away from children. Enforcement of safety regulations by the state and educating parents about potential household poisons so that such agents are kept in secure places and out of the reach of the child, can help reduce unintentional poisonings. Age-appropriate school-based programs should also be developed to address traffic safety and can go a long way in reducing mortality in children. Although improvement in health services is the aim in management of childhood trauma, and better healthcare facilities definitely bring down the mortality rate, the main emphasis must be on prevention if more lives are to be saved.

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