

Profile of unintentional injuries among children and young people (1-17years) admitted to a tertiary care centre at Salem - A prospective study

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Abstract

Background: Injuries are one of the major killer of children throughout the world, causing about 950 000 deaths in children and young people under the age of 18 years, each year. Current study showed that most of victims of unintentional injuries belonged to the group of 6-12 years 50 cases (47.62%). Boys outnumbered girls with ratio of 1.7:1. Streets/highway was the place of incidence in most of cases 37cases (35.24%) followed by home, workplace, school, neighbourhood. Road traffic accidents were the predominant mode of injury followed by self fall and others. Soft tissue injuries were the most common injury dealt with followed by fractures.

Key Words: Children, Salem, Unintentional injury, Young people.

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Data from National crime records bureau and few independent studies have revealed that, nearly 15-20% of injury related deaths occurs among children.⁴ The current study is about the profile of unintentional injuries among children and young people of age: 1- 17yrs, admitted in tertiary care hospital and factors related to it.

Aims and objectives

1. To study the demographic profile of unintentional injuries among children and young people (1-17years) admitted at tertiary care hospital from Nov 2017- Oct2019.
2. To find out the factors related to the unintentional injuries among the people of selected age group

INTRODUCTION

Injuries are one of the major killer of children throughout the world, about 950 000 deaths in children and young people under the age of 18 years each year.¹ Unintentional injury is defined as harmful acts occurring without any intention of causing damage to oneself or others. They account for almost 90% of these cases. More than 95% of all injury-associated deaths among children take place in low-income and middle-income countries.^{2,3} The burden of childhood injury in India has not been clearly explored.

MATERIAL AND METHODS

Study design: Prospective study

Study group: Over 2 years from 2017-2019, 105 patients with unintentional injuries of age group 1-17years admitted in tertiary care hospital were enrolled in our study.

Inclusion criteria:

1. Children and young people of age group 1-17years
2. Admitted patients
3. willing to give consent for study
4. Patients with unintentional injuries

Exclusion criteria:

1. Patients with intentional injury
2. Not willing to give consent

A detailed history collected from patient or patient attenders regarding age, sex, mode, cause of injury, number of sibling to the patient, place of incidence, socioeconomic status of patient family calculated according to modified kuppusamy scale were noted. Nature of injury sustained by the patient was also taken into the account. Data were collected in a Standardised Proforma. Descriptive statistics was used to analyse the data.

RESULTS

Current study showed that most of victims of unintentional injuries belonged to the group of 6-12 years 50 cases (47.62%) followed by 13-17 years and 1-5 years (Table:1). Boys outnumbered girls with ratio of 1.7:1 (Table: 2).

Table 1: Age incidence

Age in years	No of victims	Percentage
1-5	18	17.14
6-12	50	47.62
13-17	37	35.24
Total	105	100

Table 2: Sex incidence

Gender	No of victims	Percentage
Male	67	63.81
Female	38	36.19
Total	105	100

Streets/highway was the place of incidence in most of cases 37cases (35.24%) followed by home, workplace, school, neighbourhood. (Table: 3).

Table 3: Place of injury

Place of incidence	No of victims	Percentage
Home	24	22.86
Streets/highway	37	35.24
Workplace	18	17.14
School	16	15.24
Neighbourhood	10	9.52
Total	105	100

More than 85% of people had sibling and most of incidence of accidental fall 75% has occurred while playing with the sibling according to the history obtained. Most of victims belonged to the Socioeconomic class (according to

modified kuppusamy scale) of lower middle 48 cases (45.72%) followed by upper middle, upper lower, lower and upper class. The study on pattern of mode of injury showed that road traffic accidents were the predominant mode of injury followed by self fall and others. Most of RTA has occurred in streets followed by highway and predominantly two wheelers. Accidental poisoning and drowning among children and young people were comparatively of low incidence (Table: 4)

Table 4: Mode of injury

Mode of injury	No of victims	Percentage
RTA	40	38.09
Self fall	22	20.95
While playing	18	17.14
Burns	9	8.58
Animal bite	7	6.67
Poisoning	6	5.71
Drowning	3	2.86
Total	105	100

Pain was the main symptom in most of the cases. Other symptoms were bleeding, swelling of the parts, restricted movements of the limb and loss of consciousness. Soft tissue injury was the most common major injuries dealt with followed by fractures (Table: 5)

Table 5: Nature of injury

Nature of injury	No of victims	Percentage
Fracture	24	22.86
Open wounds	39	37.14
Multiple Injuries	27	25.72
Dislocation/sprain	6	5.71
Blunt injury abdomen	4	3.81
Chest injury	3	2.86
Head injury	2	1.90
Total	105	100

DISCUSSION

Accidental injuries are one of the leading causes of death, hospitalization and disability across the world.⁵ According to the World Health Organization Report 2002, injuries were the sixth leading cause of morbidity and mortality in childhood.⁶ This is due to rapid changes in lifestyle, urbanisation and increased motorization. Children are more prone to injuries due to their relative softness of body parts, psychological characteristics like impulsiveness, experimentation, lack of knowledge on judgment of speed, etc.⁷The present study showed that boys are most commonly injured than girls. Similar results have been observed in other studies also.^{8,9} most common in the age group of 6-12 years followed by 13-17 yrs. Similar findings were observed in other studies.¹⁰ This is the most active phase of childhood, children tend to play outside, go to school, like to explore the neighbourhood, etc, Most common place of injury was in streets/highways. But other studies have observed that the most common place of

injury as home.^{4,8,10} The most common mode of injury was road traffic accidents. This suggests that children need more attention by the parents and care takers when they go outside. In a study done by Giridara *et al.*. Accidental falls, dog bites and road traffic injuries were the three more common mode of injuries⁹ Soft tissue injuries was the most common type of injury sustained in our study followed by fractures. The limitations in our study were the sample size and not all type of injury was covered in the study. As a whole our study has thrown light on current trends in unintentional injury among children and young people of age group 1-17 years.

CONCLUSION

Unintentional injuries are one of the major causes of mortality and morbidity in children especially in a developing country like India. The main reason for unintentional injuries according to our study is inadequate care, attention and psychological support to the growing children by the parents or caretakers. This is due to development of nuclear families, both the parents working, unsafe environment for playing, etc. Creating awareness to the parents and caretakers regarding the causes and prevention of unintentional injuries, also stressing them and the policy makers to create a safe environment for the children is the need of the hour.

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