

**A RETROSPECTIVE STUDY OF PROFILE OF DOMESTIC ACCIDENTS IN CHILDREN FROM A TERTIARY CARE CENTER**Shobana Narasimhan<sup>1</sup>, Ganavi Ramgopal<sup>2</sup>, Umadevi L<sup>3</sup>**HOW TO CITE THIS ARTICLE:**

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**ABSTRACT: AIMS AND OBJECTIVES:** To determine the causes and outcome of domestic accidents in children. **METHODOLOGY:** Data of Children admitted during 2 year period, who met the inclusion criteria were collected from the case records - demographic details, socioeconomic status, type of poisoning and the outcome was tabulated and analysed using appropriate statistical methods. **RESULTS:** 94 children sustained one or more domestic injuries. Most of them were females, 71.3% were in the age group of 1-5 years and from lower middle class (36.2%). Common type of domestic injuries was due to chemicals and insecticide poisoning (19.15%), kerosene poisoning (17.1%), burns and scalds (14.2%). The outcome of most of the children with domestic accidents were non-fatal (96.8%) but 1% resulted in death and 1% had sequelae.

**KEYWORDS:** Age, Type of Poisoning, Socio Economic Status, Outcome.

**INTRODUCTION:** Accidents are a major cause contributing to morbidity and mortality in children apart from infections. An accident is defined as an unexpected, unplanned occurrence of an event which usually results in death or damage.<sup>1</sup> within the accidents, domestic accident are becoming as highlights among the researchers. Domestic accidents are one of the five leading causes of death in industrialized and developing countries.<sup>2</sup> By domestic accidents we mean, an accident taking place in the home or in its immediate surroundings and more generally all accidents that are not due to traffic, vehicles or sport.<sup>3</sup> Outcome of every domestic accident brings varying amount of distress to the victim as well as the family members.

The consequences of which may be disastrous both for the individual and the society when the accident results in permanent disability, because the victim loses his earning capacity and may not be able to lead a normal active and healthy life. People hailing from lower socio economic status [SES], lack of awareness, living in poor housing conditions and lack of proper safety measures are at higher risk of domestic accidents. Therefore, in order to prevent and control the domestic accidents, health education and promotion of household safety measures and creation of awareness among the community should be done by the physicians.

Thus, the present study was carried out to study the magnitude of domestic accidents among children in our hospital, so that appropriate measures for prevention can be under taken.

**METHODOLOGY:** Study design: Retrospective study. Source of data: From ward and PICU registers. Inclusion criteria: children admitted in the paediatrics department with history of accidents occurring in and around the home.

**Exclusion Criteria:** children met with road traffic accidents and sports injury. Methodology: Study was conducted in the Department of Paediatrics, CHRI for 2 years period.

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Data of Children who met the inclusion criteria were collected from the case records. Data included demographic details, SES, type of poisoning and the outcome. This data collected was tabulated and analysed using appropriate statistical methods. Ethical committee clearance also taken.

**RESULTS:** In the present study conducted in Chettinad hospital in 2 year period, 94 children sustained one or more domestic injuries with a incidence rate of 8.6 .We observed that most common type of domestic injuries was due to chemical and insecticide poisoning (19.15%), kerosene poisoning (17.1%), medications (10%) burns and scalds (14.2%) fall from height (9.6%), bites and sting poisoning (8.5%) showed in [Table 4].

In this study slight female preponderance was observed. Out of 94 study participants, 48.9% were male and 51.1% were female. Majority of the children (71.3%) were in the age group of 1-5 years [Table 1] and most of them belong to lower middle class (36.2%) [Table 2]. The outcome of most of the children with domestic accidents were non-fatal (96.8%) but 1% resulted in death and 1% had hypoxic ischemic sequelae secondary to podophyllin poisoning. [Table 3].

Parameter	Frequency	Percent
<b>I. Age Groups</b>		
<1 year	5	5.3
1 to 5 years	67	71.3
6 to 10 yrs	15	16.0
11 and above	7	7.4
<b>II. Sex</b>		
Male	46	48.9
Female	48	51.1

**Table 1: Descriptive analysis of Socio demographic variables of study group (N=94)**

SES	Frequency	Percent
Lower Middle	34	36.2
Upper Middle	21	22.3
Upper Lower	20	21.3
Lower	15	16.0
Upper	4	4.3
<b>Total</b>	<b>94</b>	<b>100.0</b>

**Table 2: Descriptive analysis of SES of study group (N=94)**

Outcome	Frequency	Percent
Good	91	96.8
HIE Sequae	1	1.1
Sequae	1	1.1
Death	1	1.1
<b>Total</b>	<b>94</b>	<b>100.0</b>

**Table 3: Descriptive analysis of Outcome of study group (N=94)**

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Diagnosis	Frequency	Percent
Chemical and Insecticide Poisoning	19	19.15
Kerosene Poisoning	16	17.1
Medications	10	10.1
Burns and scalds	13	14.2
Falls and Hits	9	9.6
Bites and Stings Poisoning	8	8.5
Un Known Bite	8	8.5
Mosquito repellents	5	5.3
Drowning	5	5.4
Un Known Poisoning	1	1.1
<b>Total</b>	<b>94</b>	<b>100.00</b>
<b><i>Table 4: Descriptive analysis of Diagnosis of study group (N=94)</i></b>		

**DISCUSSION:** In our study the most common age group affected was 1-5 years, Anitha nath study.<sup>4</sup> also says 49-60 months were the commonest age group, In Akbar etal study.<sup>5</sup> children of age <12 years were affected most, Choudhari et. al.<sup>6</sup> and Matanhire DN.<sup>7</sup> showed under 5 age group are at risk, In Tandon etal.<sup>8</sup> study 4-9 years group was affected.

In our study there was slight female preponderance was observed, but in various studies by Tandon,<sup>8</sup> Choudhari etal,<sup>6</sup> Matanhire,<sup>7</sup> Akbar et.al.<sup>5</sup> and Anitha nath.<sup>4</sup> there was male preponderance.

Incidence was found to be 8.6 in our study, where as in a study conducted by Tandon.<sup>8</sup> it was 14.2. In Our study, commonest cause of domestic accidents was due to chemical and insecticide poisoning as in Akbar et. al.<sup>5</sup> study where as in Tandon's study,<sup>8</sup> Choudhari etal Study,<sup>6</sup> Anitha Nath's.<sup>4</sup> and Matanhire study,<sup>7</sup> Falls were the commonest domestic accident.

Most of them in our study hailed from to lower middle class but in a study by Matanhire.<sup>7</sup> socioeconomic factors did not associate significantly with the occurrence of accidents.

The outcome of most of the children with domestic accidents in our study were non-fatal (96.8%) but 1% resulted in death and 1% had hypoxic ischemic sequelae secondary to podophyllin poisoning. In Tandon's study.<sup>8</sup> mortality was high among burns case followed by falls, Anitha Nath.<sup>4</sup> in here study showed in most of the cases outcome was not fatal.

**CONCLUSIONS:** Our study concludes that domestic accidents are more common in children and more so among females. The reasons may be the higher amount of time spent at home, greater participation in daily home activities and parent's negligence. Our study reported that chemical and insecticide poisoning was most common cause and in majority of cases the outcomes were non-fatal, with only 1% mortality.

Accidents among children can be prevented to a large extent provided the parents are educated regarding the preventive measures to be adopted. Parents can play a lifesaving role in protecting children from injuries. Protect the ones you love is dedicated to sharing information on the important steps parents can take to make a positive difference.<sup>9</sup>

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