

Study of Fall From Height in Infants and Children- A Silent Epidemic Review of Mechanisms of Fall and their Prevention

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Abstract:- Background Trauma is the leading killer of children, and traumatic brain injury(TBI) accounts for over 50 of those deaths. The Centers for Disease Control and Prevention(CDC) in the US estimates that over,000 children die each time because of TBI, and numerous thousands of survivors will endure lifelong disabilities. The methodical study of nonage head injury is presently in its immaturity. lately, guidelines have been published in an trouble to regularize practice within the United States. Importantly, these guidelines were developed largely as extrapolations from adult studies combined with expert opinion. With an estimated prevalence of 230 cases per 100,000 children, traumatic brain injury continues to be a serious issue for paediatric health. Each year, between 100,000 and 200,000 new paediatric TBI cases are reported. This translates to a frequency of one case per two to three twinkles. The leading cause of death and disability in children is traumatic brain injury. Every year, reports of 3000 to 4000 paediatric deaths are made. The majority of reported death or irreversible brain injury is caused by 10 to 15 severe TBI episodes in infants and toddlers (Glasgow coma scale (GCS) score 8). The prevalence of pediatric TBI is distributed unevenly within three age groups(0- 4 times, 5- 10 times, 11- 15 times) grounded upon data from the Traumatic Coma Data Bank. Our end to take over a study on this content was to bring to light this common reality which is unexpectedly an fluently missed but a preventable cause of morbidity and mortality. Not numerous studies have been carried out on this condition which leads to a lack of knowledge. Fall from height(sundecks rooftops) is a major concern in the civic population. Cascade are one of the leading causes of injuries and deaths in children and the maturity of cascade do at home. A public health approach to the problem of injury emphasizes relating the burden, understanding the determinants, enforcing interventions and assessing them to see whether and how they work. therefore through this study, it bring to notice that this deadly condition can be averted by introductory mindfulness during construction of house itself.

I. INTRODUCTION

Trauma is the leading killer of children, and traumatic brain injury(TBI) accounts for over 50 of those deaths. The Centers for Disease Control and Prevention(CDC) in the US estimates that over,000 children die each time because of TBI, and numerous thousands of survivors will endure lifelong disabilities. The methodical study of nonage head and spinal cord injury is presently in its immaturity. lately, guidelines have been published in an trouble to regularize practice within the United States. Importantly, these guidelines were developed largely as extrapolations from adult studies combined with expert opinion. With an estimated prevalence of 230 cases per 100,000 children, traumatic brain injury continues to be a serious issue for paediatric health. Each year, between 100,000 and 200,000 new paediatric TBI cases are reported. This translates to a frequency of one case per two to three twinkles. The leading cause of death and disability in children is traumatic brain injury. Every year, reports of 3000 to 4000 paediatric deaths are made. The majority of reported death or irreversible brain injury is caused by 10 to 15 severe TBI episodes in infants and toddlers (Glasgow coma scale (GCS) score 8). The prevalence of pediatric TBI is distributed unevenly within three age groups(0- 4 times, 5- 10 times, 11- 15 times) grounded upon data from the Traumatic Coma Data Bank. Fall from height(sundecks rooftops) is a major concern in the civic population. Cascade are one of the leading causes of injuries and deaths in children and nearly 2/ 3rds of cascade do at home. A public health approach to the problem of injury emphasizes relating the burden, understanding the determinants, enforcing interventions and assessing them to see whether and how they work.

II. MATERIALS AND METHODS

System of Study and Collection of Data It's a sanitarium- grounded study on babies and children upto 16 yrs, who have come to the sanitarium with a history of fall from height. It'll involve any exigency department visit, ward admission and a PICU admission with complaints of fall.

➤ **Results:**

A aggregate of 67 children with Traumatic Brain injury(TBI) were analysed during the study period. Fall from Height(FFH) is the most common medium of TBI in the study population. Of the aggregate of 67 children with TBI, 46 had TBI secondary to FFH, meaning that 69 had a TBI secondary to FFH, and the other causes being Road business accidents(RTAs), direct head injuries and fall from

dachas and tables. Of the 46 cases with FFH, maturity(75) of the cascade have passed from Balcony with low height walls and the remaining 25 of Cascade have passed through Extensively spaced deck grills. Study analysis showed that the height of the deck walls is short, the loftiest being 4 bases and the lowest being 2 bases high walls. The average height of the deck walls was 2 ½- 3 bases. The average range of the deck grills was 10- 12 elevation.

Table 1 Etiology of TBI

	MALE	FEMALE
FALL FROM HEIGHT	30	16
OTHER CAUSES	10	11

Table 2 Age Group

	MALE	FEMALE
< 1 YEAR	2	1
1 – 3 YEARS	14	11
3 – 5 YEARS	8	3
> 5 YEARS	6	1

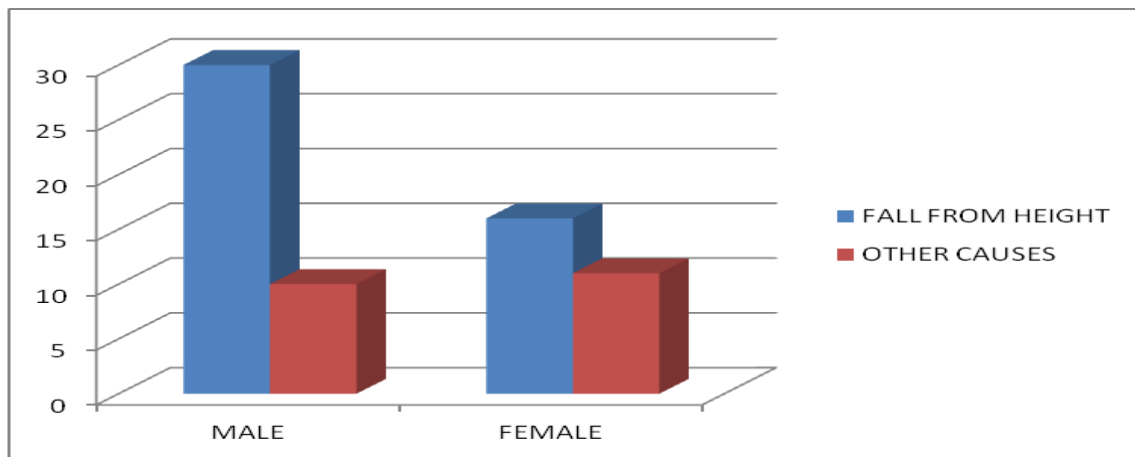


Chart 1 Represents the Fall from Hight Age Group and Sex.

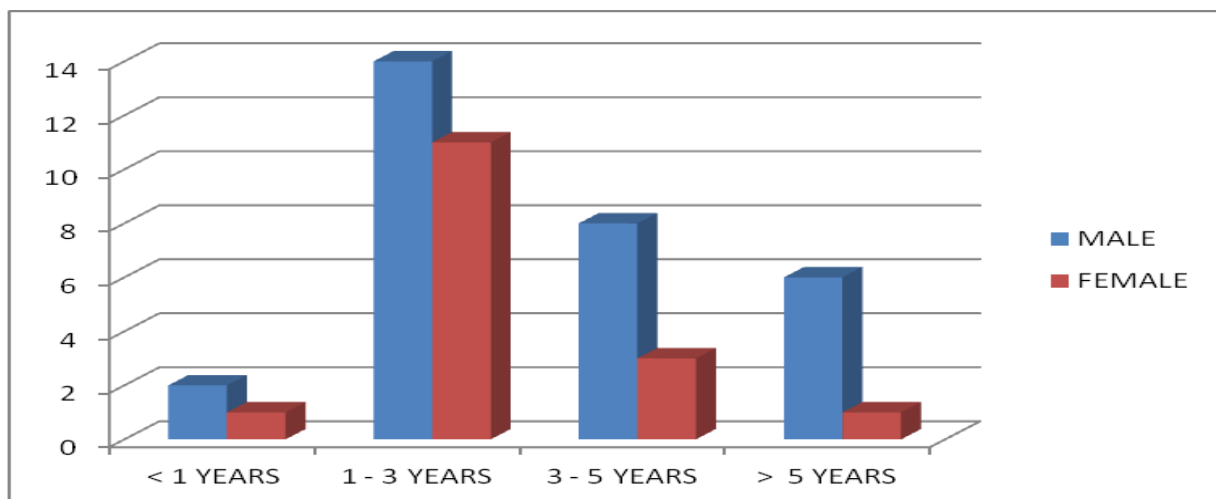


Chart 2 Represents the Age Group

Table 3 Outcome

DEAD	3
MOTOR DEFICITS	5
SEIZURE DISORDERS	2

SPEECH DELAY	1
NORMAL	35

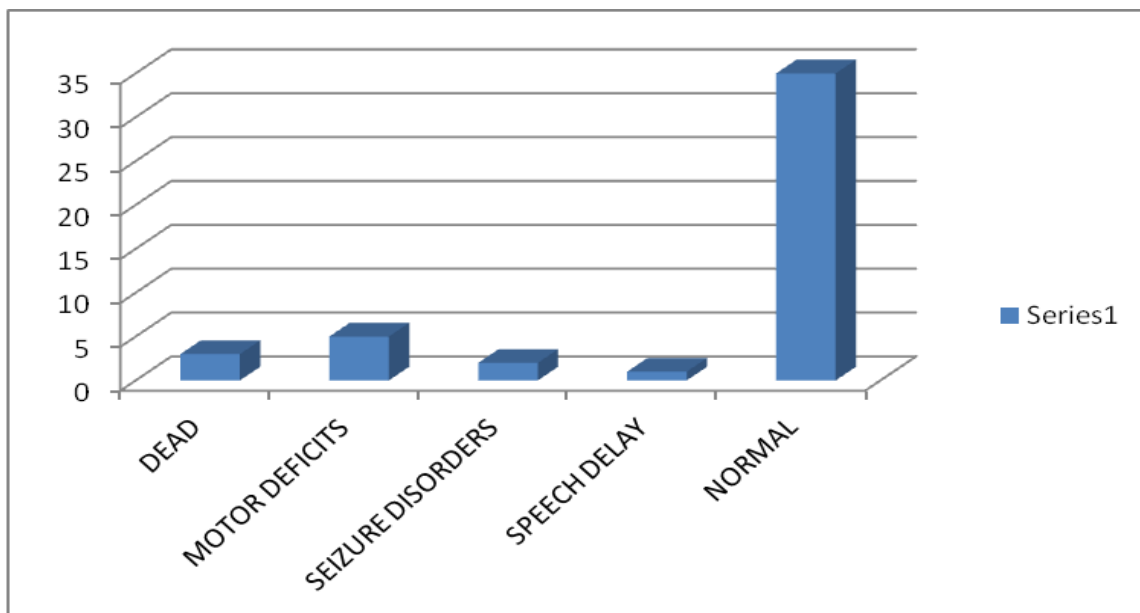


Chart 3 Represents the Outcome of Fall from Height Causes

Table 4 Neurosurgical Intervention

	DEAD	ALIVE
CONSERVATIVE	0	35
SURGICAL INTERVENTION	3	8

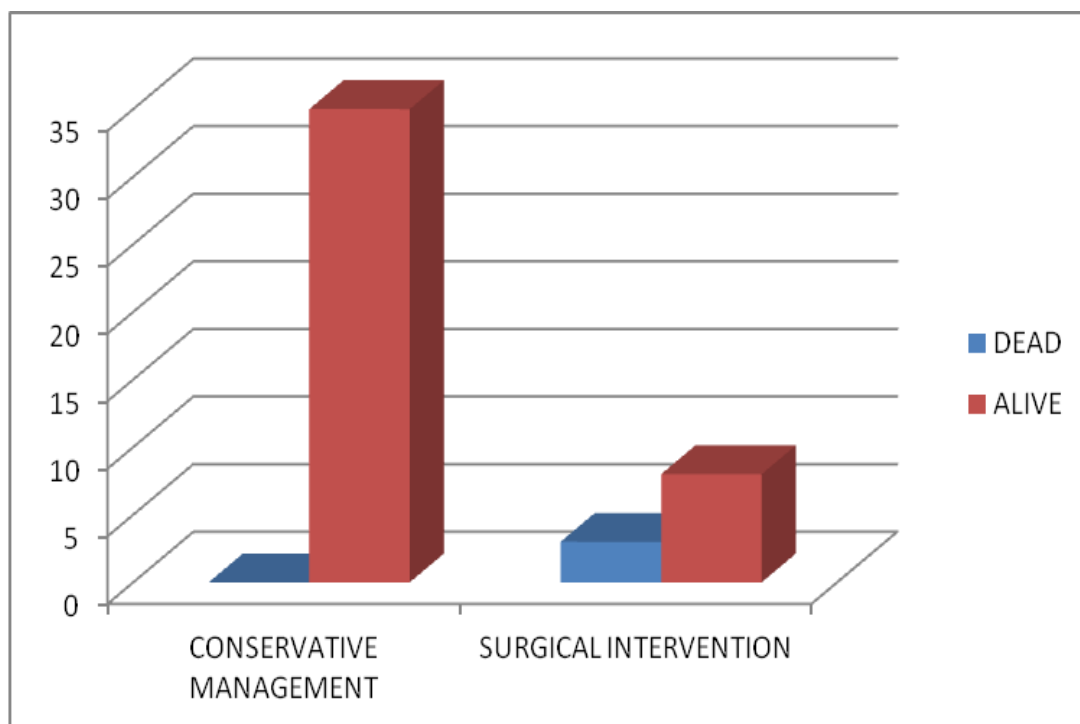


Chart 4 Represents the Neurosurgical Intervention

Table 5 GCS on Arrival

	< 8	9 - 12	>12
ALIVE	10	4	27
EXPIRED	3	0	0

➤ GCS not Known ** - 1

• Outcome not Known- 1

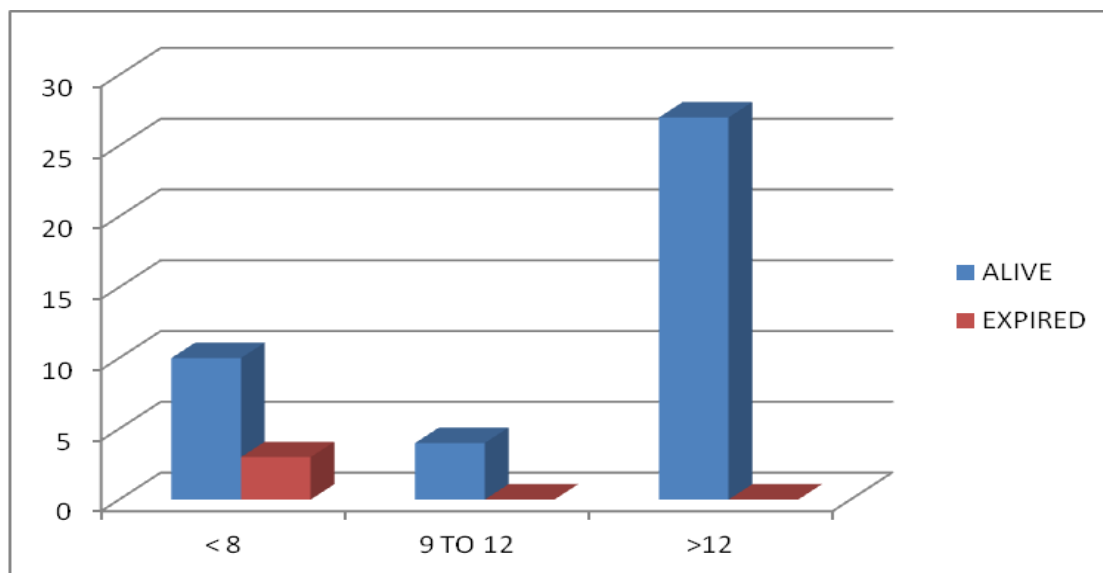


Chart 5 Represents the Alive and Expired Statistics of GCS on Arrival

Table 6 ICU Stay

	DEAD	ALIVE
< 1 DAY	0	2
1 – 3 DAYS	3	29
3 – 7 DAYS	0	9
>7 DAYS	0	1

• Outcome Not Known – 2

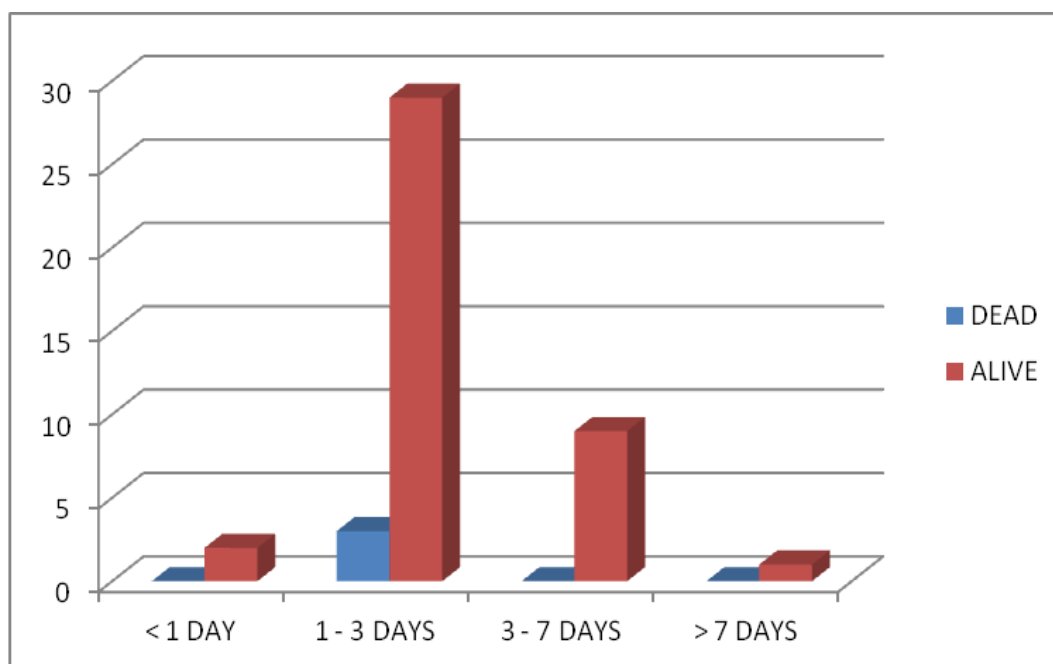


Chart 6 Represents the ICU Stay

Table 7 Height of Balcony Walls

HEIGHT OF BALCONY WALL	NO.OF CASES
< / = 2 FEET	3
2 – 3 FEET	24
>3 – 4 FEET	9
>4 FEET	

➤ **1 FFH from Newly Being Constructed Home with no Balcony Wall

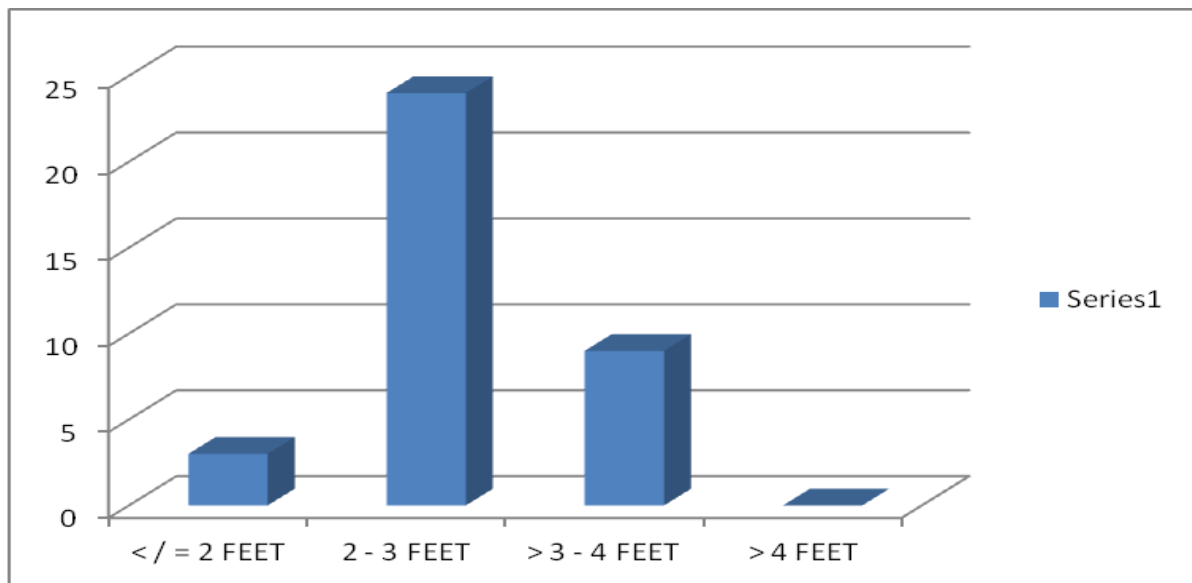


Chart 7 Represents the Height of Balcony Walls

Table 8 Width of Balcony Grills

WIDTH OF BALCONY GRILLS	NO.OF CASES
6 – 8 INCHES	0
8 – 10 INCHES	4
10 – 12 INCHES	4
>12 INCHES	1

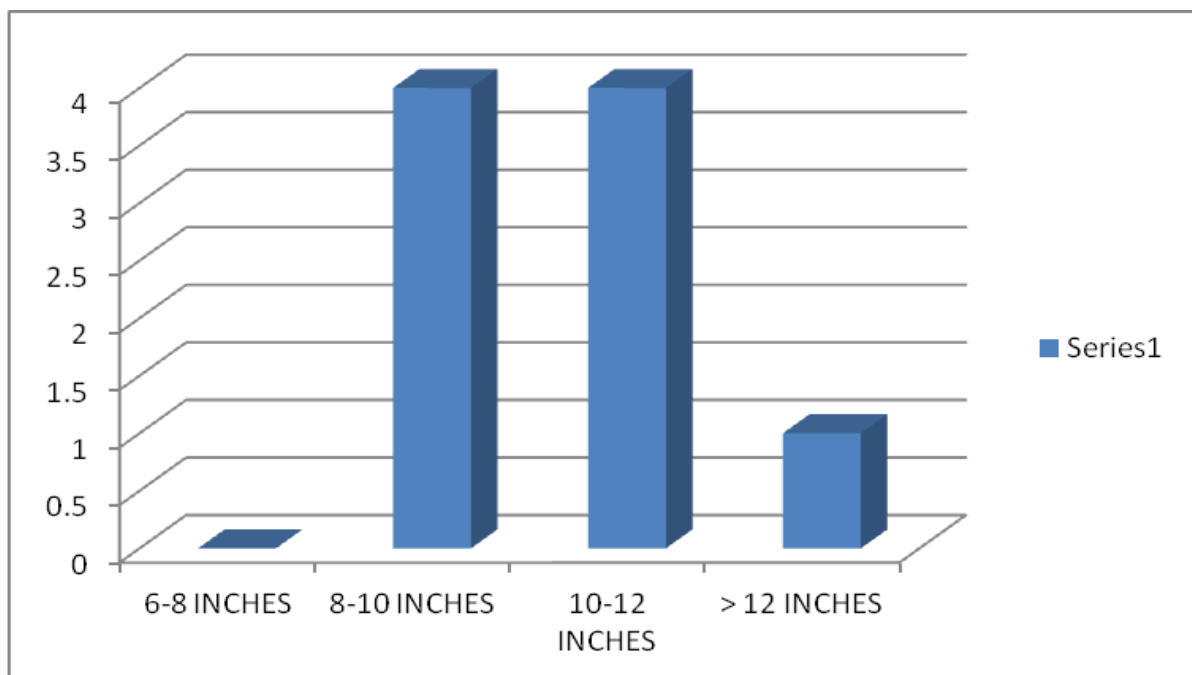


Chart 8 This Chart Represents the Width of Balcony and the Number of Cases

III. CONCLUSION

Our study provides a useful data on nonage TBI secondary to FFH and their common causes mechanisms and confirms the significance of bringing about changes in the plans of erecting constructions. We put forward and propose a plan to increase the height of the deck wall to a minimum of 5 bases and over and to space the deck grills lower wide not further than 6 elevation wide. therefore through this study, it bring to notice that this deadly condition can be averted by introductory mindfulness during construction of house itself.

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