

## Original Research

### To study the Unnatural Deaths Among Female Children and Adolescents

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#### ABSTRACT:

**Aim:** To study the Unnatural Deaths Among Female Children and Adolescents. **Methods:** A retrospective study was conducted in the Department of Forensic Medicine and toxicology, 100 cases were evaluated in the present study. Only female's cases of children's and adolescents with the age group of 5 to 20 years were enrolled in the present study. The approval of the institutional ethics committee was taken before starting the study. **Results:** The incidences of female children death were 18% and adolescences were 15% in our of the total autopsies conducted during the one year period of this study. The most susceptible age group was between 5–10 years of age 50% deaths from this age group and RTAs (30%) were the leading cause of death followed by Drowning (17%), Burns (11%) and Poisoning (11%). In majority of the cases, the manner of death was accidental (47%) and suicidal (25%) in nature. **Conclusion:** we concluded that the majority of the victims of 'unnatural deaths belonged to the lower socioeconomic category. Suggestions relating to road safety, decreasing the stress of the modern mechanical life-style, educating the public in general and regarding. The availability, use and storage of poisonous substances in particular have been put forward, while highlighting the social evil of dowry system prevailing in India.

**Keywords:** adolescents, unnatural death, accidents

Received: 20 September, 2021

Accepted: 28 October, 2021

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**This article may be cited as:** Khan MW. To study the Unnatural Deaths Among Female Children and Adolescents. J Adv Med Dent Sci Res 2021;9(11):81-84.

#### INTRODUCTION

The World Health Organisation (WHO) defines an adolescent as a person between the ages of 10 and 19 years old. Around 1 in every 6 persons in the world is an adolescent: that is 1.2 billion people are aged 10 to 19.<sup>1</sup> Adolescents (10-19 years) constitute about one fourth (21.4% or 243 million) of India's population and young people (10-24 years) about one third (or 350 million) of the population.<sup>2</sup>

Youth - the critical phase of life is a period of major physical, physiological, psychological, and behavioural changes with changing patterns of social interactions and relationships.<sup>3</sup> During this turbulent phase of life the young individuals are exposed to various needs, demands, challenge, failure, conflicts, problems, uncertainty of career etc. leading to be the prey of stress and addictions. The NFHS-3 survey showed that 1 per cent women and 11 per cent men aged 15-19 year and 1.4 per cent women and 28.8 per cent men aged 20-24 year consumed alcohol.<sup>4</sup> Around 43 per cent adolescents indulge in substances abuse.<sup>5</sup>

Many of them fail to cope with the growing stress and develop psychiatric illnesses. The prevalence of overall psychiatric morbidity (depression, conduct disorder, social anxiety, and panic disorder) among adolescents varied from 12 to 16.5 per cent.<sup>6, 7</sup>

Severe depression and conflicts may lead to deliberate self-harm (DSH) like suicide. In India, nearly 1, 36,000 persons voluntarily ended their lives in a suicidal act as per official reports in 2011.<sup>8</sup> About 40 per cent of suicides in India are committed by persons below the age of 30 years.<sup>9</sup> Out of their enthusiasm, curiosity and lack of experience adolescents indulge in risky life styles. Road traffic injuries (1, 85,000 deaths; 29 per cent of all unintentional injury deaths) are the leading cause of unintentional injury mortality in India.<sup>10</sup>

An average of 565 adolescents and young adults between the ages of 10 and 29 years die each day as a result of interpersonal violence across the world.<sup>11</sup> Studies from India reported that 19 to 42.8 per cent of

adolescent females had experienced domestic violence.<sup>12,13</sup>

This study is aimed at describing the contribution of social conditions and violence against women towards the main causes of unnatural deaths among the females. The main objectives of the study are to ascertain the various aspects of unnatural female deaths, Analyze the probable reasons for the same and Contribution of social conditions and violence against women towards the main causes of unnatural deaths.

### MATERIALS AND METHODS

A retrospective study was conducted in the Department of Forensic Medicine and toxicology, after taking the approval of the protocol review committee and institutional ethics committee. Total 100 cases of unnatural deaths referred for autopsy in Department of Forensic Medicine and toxicology were evaluated in the present study. Only female's cases of children's and adolescents with the age group of 5 to 20 years were enrolled in the present study.

The approval of the institutional ethics committee was taken before starting the study.

Following was the inclusion and exclusion criteria of the study:

#### INCLUSION CRITERIA

Cases of the unnatural deaths

#### EXCLUSION CRITERIA

Severely decomposed and exhumed bodies

### RESULTS

The incidences of female children death were 18% and adolescences were 15% in our of the total autopsies conducted during the one year period of this study. The most susceptible age group was between 5–10 years of age 50% deaths from this age group and RTAs (30%) were the leading cause of death followed by Drowning (17%), Burns (11%) and Poisoning (11%). In majority of the cases, the manner of death was accidental (47%) and suicidal (25%) in nature.

**Table 1: Age of the cases**

Age in years	Number of Cases	Percentage of Cases
5 – 10 years	50	50
10 – 15 years	28	28
15 – 20 years	22	22
<b>Total</b>	<b>100</b>	<b>100%</b>

**Table 2: Types of death**

Types	Number of Cases	Percentage of Cases
Accidental	47	47
Homicide	19	19
Suicide	25	25
Not Determined	9	9
<b>Total</b>	<b>100</b>	<b>100%</b>

**Table 3: Leading Causes of deaths**

Causes	Number of Cases	Percentage of Cases
Road Accident	30	30
Burn	11	11
Hanging	9	9
Drowning	17	17
Fall from Height	7	7
Poisoning	11	11
Stabbing	3	3
Electric Hazard	7	7
Suffocation	5	5
<b>Total</b>	<b>100</b>	<b>100%</b>

### DISCUSSION

This study describes the causes of injury related mortality among Female Children and Adolescents using post-mortem data from the hospital. Death is a compulsive phenomenon in any living objects, where there is life there is death. In the present study, we made an attempt to analyse the scenario of unnatural deaths among female childrens and adolescents. In comparison with total number of post- mortems

conducted in modern mortuary at Government General Hospital few cases of post- mortems done for teenage group, it shows medico legal teenage death rate was very less in comparison with other age group. They have only few problems and few tensions, if compare with other age groups. If compare the data of teenage deaths in this study with teenage deaths data collected by Information Centre United States of America.<sup>14</sup> So much variation is noted in manner of

deaths in both countries. In case of accidental deaths, an approximate similarity was observed between these two studies. Teenage accidental deaths in this present study group were little high (50%) than USA teen accidental deaths (51.67%). There at USA precautionary and preventive measures are more in their work sites or in journeys.

A study conducted by Gonnade U et.al at Maharashtra reported that around 73 percent of burns cases were female. Out of the 88.75 percent married victims three fourth (75%) were females.<sup>15</sup> The present study showed that 100% burns victims were female and half of them were married. In accordance to the study carried out by Kitulwatte I D et.al at a teaching hospital in Sri Lanka the present study also revealed that the suicidal death was more common in higher age group.<sup>16</sup> Meel B L carried out a study between 1996 and 2004 at Umtata General Hospital (UGH) reviewing medico-legal autopsies of subjects aged 18 years or below and reported that trauma accounted for 70.9% deaths and 29.1% deaths were due to other causes such as hanging, burns, lightning stroke, drowning, gas suffocation, falls from a height and poisoning.<sup>17</sup>

According to teenage accidents, in latter teenage phase gradual increase of exposure to outer world, journeys to different places, employment opportunities, all these factors leads to adverse effects on teenagers, so that accidental deaths were more. Both well. P.W., Aberd. M.B<sup>18</sup> described the incidence of fractures to the lower limbs in motorcycle accidents was higher than in other types of accidents. A great reduction of accidents can be effected by preliminary training and supervision. At one firm, for instance, all boys applying for employment were carefully selected, and the boys were passed through the works school where their attention was focused on tidiness, suitable clothing, machines and their dangers, adjustment of guards, shafting and its dangers, etc.

A fundamental lesson emerging from this study is that estimates of child mortality from unnatural causes may tell only a small part of the relevant story: morbidity must also be considered. Understanding child death is critical, but more crucial is the recognition that, when these deaths are the result of injury or violence, the impact has a far greater reach, transcending the individual, family, and society at large. Therefore, it is important to analyse the causes of such unnatural deaths to plan preventive strategies appropriate for the region.

#### LIMITATION OF THE STUDY

Sample size was small consisting of only one year's unnatural deaths. Analysis involving data for few more years e.g. five years could help between groups comparison more effective by meeting the requirement of adequate sample size of different subgroups and also could reflect the changing pattern over time i.e. trend. Patients' information was limited

and the study would have been better if other data regarding deceased's education, occupation, socio-economic status, addiction, chronic morbidity etc. were available.

#### CONCLUSION

We concluded that the majority of the victims of 'unnatural deaths belonged to the lower socioeconomic category. Suggestions relating to road safety, decreasing the stress of the modern mechanical life-style, educating the public in general and regarding. The availability, use and storage of poisonous substances in particular have been put forward, while highlighting the social evil of dowry system prevailing in India.

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