

# To Investigate Unnatural Female Fatalities, Causes of Unnatural Deaths and the Role of Socioeconomic Circumstances and Violence Against Women

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## Abstract

**Aim:** Unnatural Deaths Among Female Children and Adolescents in Bihar. **Methods:** A retrospective study was conducted in the Department of Forensic Medicine and toxicology, Nalanda Medical College and Hospital, Patna, Bihar, India for 1 year. Total 50 cases of unnatural deaths referred for autopsy in the Nalanda Medical College and Hospital, Patna, Bihar, India was 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:** This study describes the causes of injury related mortality among adolescents using post-mortem data from This study describes the causes of injury related mortality among adolescents using post-mortem data from This study describes the causes of injury related mortality among adolescents using post-mortem data from. **Conclusion:** 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 lifestyle, 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:** Death, Accident, Traffic.

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## Introduction

India is passing through a major sociodemographic, epidemiological, technological and media transition. The political, economic and social changes have altered the health scenario. In the past two decades, India has witnessed rapid urbanization, motorization,

industrialization and migration of people resulting from socioeconomic growth and development. With mechanization and revolution in technology, traditional ways of living and working are being altered. Injuries are a major public health problem in India. Lack of reliable and good quality

national or regional data has thwarted their recognition. Many injuries are linked to social, environmental, cultural and biological issues in causation; recognized as man-made and behavior linked disorders and linked to sociodemographic transition. Prevention, acute and long-term care, and rehabilitation are the major challenges faced today.

If a person dies naturally, then there lies no suspicion so as to the death of the person. But in case of unnatural death, the death is caused due to circumstances which need to be explained and examined. There lies an obligation on the state to secure the health and life of every citizen of the country. If any crime is committed, the crime is against the state. If a person dies due to unnatural circumstances, the state is burdened to identify the cause of death and if there lies a suspicion as to the cause of death, the state must take appropriate steps to punish the guilty. In order to provide for the procedure in case a person dies unnaturally, Section 174 was created that lays down the procedure the police officer and the magistrate must follow in case of untimely deaths[1].

Burn injuries can be accidental, suicidal and homicidal. For details refer to the section on Injury causation. Depending on the extent and severity of burns, and the availability and accessibility to health care, the impact of burns varies from superficial burns and scalds to damage of the internal body organs. Absence of facilities in district and peripheral hospitals, combined with traditional unscientific household practices and lack of safety systems result in high mortality and disability from burn injuries. Secondary complications of burns leading to contractures, deformities and disfigurement are extremely common. Secondary infections could lead to a number of complications resulting in delayed recovery and death. Drowning in India commonly occurs in rivers, ponds, lakes and wells and can be accidental, suicidal or sometimes homicidal in nature. The entire coastal belt of India is a risk-

prone area. Owing to easy access to water bodies, the occupation of individuals, occurrence of natural calamities at frequent intervals, the risk-prone nature of young children and adolescents, drowning is common in India. Drowning as a suicidal method is also responsible for a significant number of deaths and is discussed under suicide[2].

Suicide is defined as 'the human act of self-inflicting one's own life cessation' (Shneidman 1985). Due to complex medicolegal associations and stigma, suicide has always been concealed in Indian society, severely underreported and misclassified in official reports[3].

The WHO (2002b) defines violence as 'the intentional use of physical force or power, threatened or actual, against oneself, another person, or against a group or community, which either results in or has a high likelihood of resulting in injury, death, psychological harm, mal-development or deprivation'. The types of violence are broadly classified as self-directed violence (deliberate self-harm or suicide), interpersonal violence (family and intimate partner violence and communal violence) and collective violence (social, political and economic violence). The nature of violent acts could be physical, sexual, psychological and involving deprivation or neglect. In 2000, an estimated 1.6 million people died as a result of violence globally, with an age adjusted rate of 29/100,000 population. Half of these were suicides, one-third homicides and one-fifth war-related deaths[4].

Some strategies likely to reduce suicides in India are: limiting/regulating the easy availability of organ phosphorus compounds and drugs; enhancing the skills of primary care and family physicians for the recognition and treatment of mental health problems and those experiencing violence; early recognition and treatment of those with depression, alcoholism and other mood and personality problems; increasing social support systems (especially for

people in distress situations); educating media professionals to be more responsible in reporting suicide; and enhancing counseling facilities in all hospitals, educational institutions and workplaces. Strengthening and supporting programmers' to destigmatize suicide, facilitating mechanisms to decriminalize suicide by modifying existing laws, and promoting community awareness programmes on suicide prevention can also reduce the number of suicides. Broader mechanisms of social and economic security for distressed populations can be of considerable help.

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, Nalanda Medical College and Hospital, Patna, Bihar, India for 1 year, after taking the approval of the protocol review committee and institutional ethics

committee. Following was the inclusion and exclusion criteria of the study:

**Inclusion criteria:** cases of the unnatural deaths

**Exclusion criteria:** severely decomposed and exhumed bodies

Total 50 cases of unnatural deaths referred for autopsy in the Nalanda Medical College and Hospital, Patna, Bihar, India was 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 & Discussion:

This study describes the causes of injury related mortality among adolescents using post-mortem data from This study describes the causes of injury related mortality among adolescents using post-mortem data from This study describes the causes of injury related mortality among adolescents using post-mortem data from.

This study describes the causes of injury related mortality among adolescents using post-mortem data from a teaching hospital

The study describes the causes of the unnatural deaths amongst the children's and adolescents in the north Indian region.

**Table 1: Age & Sex**

Age	Number of Cases	Percentage of Cases
5 – 10 years	24	48
10 – 15 years	16	32
15 – 20 years	10	20
<b>Total</b>	<b>50</b>	<b>100%</b>

**Table 2: Modes of Death**

Modes	Number of Cases	Percentage of Cases
Accidental	24	48
Homicide	10	20
Suicide	12	24
Not Determined	04	8
<b>Total</b>	<b>50</b>	<b>100%</b>

**Table 3: Leading Causes**

Causes	Number of Cases	Percentage of Cases
Road Accident	14	28
Burn	6	12
Hanging	4	8
Drowning	8	16
Fall from Height	3	6
Poisoning	6	12
Stabbing	2	4
Electric Hazard	4	8
Suffocation	3	6
<b>Total</b>	<b>50</b>	<b>100%</b>

### Discussion

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[5]. 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 (54.34%) 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[6]. 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[7]. 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[8].

According to teenage accidents, in latter teenage phase gradual increase of exposure to outer world, journeys to different places, employment opportunities, all these factors lead to adverse effects on teenagers, so that accidental deaths were more. Both well. P.W., Aberd. M.B[9] described the incidence of fractures to the lower limbs in motor-cycle accidents was higher than in other types of accidents. A great reduction of accidents can be affected 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.

### Conclusion

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 lifestyle, 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.

### Reference

1. <https://blog.ipleaders.in/section-174-croc/>
2. Injuries in India: A national perspective, G. GURURAJ,
3. Shneidman E. Definition of suicide. New York: John Wiley & Sons; 1985.
4. WHO. In: Krug EG, Dahlberg LL, Mercy JA, et al. (eds). World report on violence and health. Geneva: WHO; 2002b.
5. Leading Causes of Death in the United States – Older Teenagers; Information Centre United States of America.
6. Gonnade U, Farooqui J M. Retrospective analysis of death due to burns in rural region. Journal of Forensic Medicine, Science and Law 2013; 22.
7. Kitulwatte I D, Edirisinghe PAS. Study on unnatural childhood deaths presented to North Colombo teaching Hospital, Sri Lanka. Med Sci Law 2013.
8. Meel BL, Unnatural deaths among children in the Transkei region of South Africa, Med Sci Law. 2008 Jul;48(3):232-6.
9. Both Well P.W. Motor Cycle Accidents: Protection from Crash Injuries. The Lancet 1960; 276:807-809.