



## Psycho-Social Profile of Female Burn Fatalities in Victoria Hospital Mortuary, Bangalore

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### Abstract

**Background:** -Thermal injuries are one of the commonest causes of unnatural deaths in females in developing countries. However, there is a lack of adequate research into the social and psychological aspects that lead to such deaths. This study attempts to bring awareness of risk population and motivate prevention measures.

**Methods:** -A study was conducted at the Victoria Hospital Mortuary for a period of 12 months between 2017-18. Medicolegal and psychological autopsies were performed on 120 female burn victims >15years of age. The information gathered via medical records, police investigations, interviews with family and postmortem findings was analyzed and compiled to obtain the following results.

**Results:** - Most of the victims i.e., 52% of the women were illiterate and 63.3% were married for more than 7years. Suicide was the commonest manner of death (52%). Only 2 cases i.e., 1.7% of cases were booked under Dowry Prohibition Act. Only 28.3% of cases were investigated by Magistrate's Inquest. History of mental illnesses were reported only in 14.2% of victims.

**Conclusions:** -It is evident that in most cases of deaths in women due to thermal injuries, the entire narrative is not thoroughly investigated. Despite there being a plethora of information regarding the statistics as to how women die due to thermal injuries, very minimal data exist about preventive interventions. There is hope that this study inspires the concerned stakeholders to take stock and introduce measures to prevent such potential deaths among the vulnerable female population.

**Keywords:** Female burn victims; Dowry; Domestic abuse

### Introduction

Burn is a unique but significant mode of suicide and homicide everywhere in the world. Burns are the fourth most common type of trauma worldwide, following traffic accidents; falls and interpersonal violence. <sup>(1)</sup> In 2019, more than 23,000 fire-related deaths were estimated in India, which is about 20% of the global mortality burden. Additionally, 1.5 million DALYs were attributed to burns. The burden

of burns among women (aged 15–49 years) in India is three-times higher than that among men. <sup>(2)</sup>

Burn-related injuries and deaths amongst women in India are likely to be caused by kitchen accidents related to use of kerosene and flammability of garments; self-immolation or suicides; and homicides related to domestic violence. <sup>(3)</sup>

Death due to burns in married women who have been married for less than 7 years of age is investigated under the Section 176 of Code of Criminal Procedure (CrPC) by the Magistrate Inquest. This is to aid women who may die during the early intervals of their marriage due to foul play by in-laws.

Another obnoxious and ubiquitous practice that is prevalent in our Indian society is the Dowry system during marriages despite the presence of the Dowry Prohibition Act 1961. New laws have been introduced by the Government where such deaths are to be diligently investigated under the Section 304(B) of Indian Penal Code with Magistrate’s Inquest. Most of the times, the woman cannot muster the courage required to protest the abuse against her and might attempt to end her life in a wave of depression and hopelessness.

Intentional burns, encompassing self-inflicted and assault-related burns, are associated with complex psychosocial causation and significant effects on mental health.<sup>(4,5)</sup> Despite the high prevalence of pre-injury mental illness and substance abuse in patients with intentional burns, there is a scarcity of data especially in relation to assault burn injury patients who represent the severe end of the spectrum.<sup>(6)</sup>

This study intends to recognize the patterns of social and psychological factors among the victims to identify those susceptible to such injuries and reduce the incidence of mortalities by implementing stricter regulations and safeguards for these women.

**Methods: -**

Material for the present study comprises of 120 cases of female deaths due to burn injuries >15years of age brought to the Mortuary of Victoria hospital for autopsy for a period of one year between 2017-18. The decomposed and fragmented bodies, deaths due to electricity, acids or lightning were excluded. The post-mortem findings along with the data obtained from police investigation, interviews with family and friends, medical records wherever relevant has been compiled aided by a proforma with diagrammatic representation.

**Results: -** The following results were obtained at the end of a year of study.

1)Educational Qualification: - Most of the victims were observed to be illiterate i.e., 52(43.3%) followed by those with primary school education, 38 (31.7%).

**Table 1. Educational qualifications**

EDUCATIONAL STATUS	NUMBER	PERCENTAGE
ILLITERATE	52	43.3
PRIMARY	38	31.7
MIDDLE	05	4.2
HIGH	15	12.5
INTERMEDIATE	03	2.5
GRADUATE	07	5.8
POSTGRADUATE	0	0
TOTAL	120	100.0

2)Marital Status.: - It is seen here that most of the women were married for more than 7 years i.e., 76 out of 120 (63.3%) followed by those married for less than 7 years.

3)Distribution of Alleged manner of death.: - Results show that most of the incidents were alleged to be due to accident i.e., 63 out of 120 (52.5%) followed by suicide.

**Table 2. Distribution of alleged manner of death**

ALLEGED MANNER OF DEATH	NUMBER	PERCENTAGE
ACCIDENT	63	52.5
HOMICIDE	12	10.0
SUICIDE	45	37.5
TOTAL	120	100.0

4) Distribution of Cases filed under Dowry Prohibition Act: - Among 120 deceased victims, cases that were filed under the Dowry Prohibition Act were only 2 (1.7%).

5) Distribution of Investigation by Magistrate's Inquest: - The below data shows that 34 out of 120 (28.3%) cases of female deaths due to burns were investigated under the Magistrate's inquest.

6) Distribution of History of Mental illness: - This study shows that most of the victims i.e., 92 out of 120 (76.6%) had no history of mental illnesses and 17 of them (14.2%) had history of depression.

**Table 3. History of mental illness.**

Mental illness	NUMBER	PERCENTAGE
NORMAL	92	76.6
DEPRESSION	17	14.2
PREVIOUS SUICIDAL TENDENCIES	03	2.5
SCHIZOPHRENIA	03	2.5
OTHER NEUROLOGICAL DISORDERS	05	4.2
TOTAL	120	100.0

**Discussion: -**

The results obtained were compared and collated with the existing literature on the study topic. The results regarding the literacy levels of the women were like the results obtained in the study conducted by Das Gupta and Tripathi <sup>(7)</sup>.

In the studies conducted by Nagesh Kumar Rao <sup>(8)</sup> highest preponderance of female burn deaths were during first 7 years period of marriage which is incongruous with this study owing to the preponderance of early marriage in Indian women and longer period of married status despite the young age.

Shinde A.B. Keoliya A.N. <sup>(9)</sup> and Harish D et al <sup>(10)</sup> in both their studies observed similar results comparable to this study where the manner of deaths was predominantly accidental followed by suicide and homicide.

Nigam C <sup>(11)</sup> and Agnihotri, Arun <sup>(12)</sup> in their studies have discussed that most cases of death in females due to burns do not get reported under the Dowry Prohibition Act due to the same reasons' women don't report domestic violence. Only 2 cases out of 120 (1.7%) had been filed in this study in concurrence to the review literature.

Mishra P.K et al <sup>(13)</sup> in their studies reported that out of total 88 autopsies, 21 (23.86%) cases were Magistrate inquest under section 176 CrPC, as they were females who died within 7 years of marriage. Similar results could be seen in this study also. An investigation by a higher authority other than police promises a more thorough investigation and prevents oversight and negligence.

Mental health issues are still a taboo subject in a developing country like India and hence go undiagnosed and under-reported most of the times.

The 14.2% reported in this study had clinical history of depression however other illnesses such as adjustment disorder, generalized anxiety disorder, substance abuse and neurological disorders like epilepsy could also lead to accidental and suicidal immolation. <sup>(14, 15)</sup>.

### Conclusions: -

In conclusion, this study sheds light on the social variable identifiers of high-risk women prone to burn mortalities, such as illiterates. However as to the social aspects concerning family dynamics, the reticence of the affected families to disclose domestic abuse or even officially report foul play or demands for dowry is a definite deterrent in finding the exact statistic of the above.

The National Crime Records Bureau's statistics on Accidental Deaths and Suicides in India for the year 2020 shows that out of the total accidental and suicidal deaths in India, 29.1% were constituted of women which was an 8.7% increase from the year 2019. Statistics also showed that in 2020 the proportion of female victims were more in 'Marriage Related Issues' (specifically in 'Dowry Related Issues') i.e., about 5% <sup>(16)</sup>. The present measures fails to avert these incidences despite such descriptive data. Mental illness including drug abuse, though recognized as a significant social problem in the country, sadly isn't being evaluated as stringently in women as in men due to the age old patriarchal oppressive beliefs and ignorance. The study succeeds in pointing out these deficiencies, however the solutions such as one stop centers for domestic violence victims with protection orders, the stringent punishment for dowry practices, provisions for treatment under Mental Health Care Act barely seem to be making any difference as there is very little or no awareness about the same. Further studies among the youth of this generation as to the awareness and importance of these provisions with workshops cultivating it can aid in further understanding how this social scourge can be eliminated.

### List Of Abbreviations: -

1. DALYs= Disability-adjusted life years.
2. CrPC= Code of Criminal Procedure
3. IPC =Indian Penal Code

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