



Original Research Article

Medico-legal autopsy study of alleged dowry deaths - a two year cross-sectional study

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ABSTRACT

Background: In India, dowry is a rising social evil contributing to female mortality.

Aims: To evaluate the socio-demographic profile of alleged dowry victims.

Materials and Methods: Cross-sectional study of 84 alleged dowry deaths stratifying the socio-demographic pattern of alleged dowry deaths.

Results: 57.1% were from 21to30 years of age group. Maximum females were illiterate (39.3%), housewives (77.4%) and from lower socio-economic strata of society. Victims were brought dead with 50% cases involving 71-90% of total body surface area. 29.8% were hospitalized. In 88.57 % of suicidal cases, menstruation was noted. 39.29% deaths were within 1st year of marriage. In 84.84% cases, dowry was provocative factor. In 50 % cases, Asphyxia was the cause of death.

Conclusion : Domestic abuse and dowry were significant provocative factors for dowry deaths.

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1. Introduction

"Women are the architects of the society", as quoted by Harriet Beecher Stowe, an American Author. In India, women fall victims against violent crimes at high rates.¹ The purpose of dowry practice was probably to help new couples start their life in comfort which has recently grown into a social evil of bride- burning and suicides leading to social corruption.² According to National Crime Record bureau of India, total dowry deaths in the year 2007 and 2011 were 8093, 8618 respectively.³ This study enlightens the issue of dowry deaths in a metropolitan city of Maharashtra.

2. Materials and Methods

Cross-sectional study with a study period of two years conducted at the Department of Forensic Medicine and Toxicology, in a tertiary care centre in a metropolitan city. This study was approved by the Institutional Ethics Committee. Reference population included cases reported

and referred to this study centre, while study population included Unnatural female deaths within 7 years of marriage with the allegation of dowry death. 241 unnatural female deaths were examined in the study period, of which in 84 cases allegation of dowry death was observed. Various relevant socio-demographic and medico-legal aspects were stratified and analysed with the resource being Postmortem examination reports, documents of investigating agencies like police inquest Panchnama, Magistrate inquest Panchnama wherever applicable, Accidental Death Report and statements of relatives taken by police during investigation, Spot Panchnama and suicide notes if applicable. All findings were explained and portrayed in tabular form and inference was extracted. After entry, data was analysed using frequency distribution and statistical test with the help of computer generated software (S.P.S.S.16.0).

3. Results

Out of 241 Unnatural female deaths observed in the present study centre, 84 alleged dowry deaths are Analysed.

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Table 1 depicts age group distribution among alleged dowry deaths dowry victims (57.1%) belonged to the age group of 21 to 30 years of age and minimum (7.1%) belonged to the age group of 41 to 50 years of age.

Table 1: Age group distribution among alleged dowry deaths

Age Group (Years)	Frequency	Percent age
11 to 20	11	13.1
21 to 30	48	57.1
31 to 40	19	22.6
41 to 50	6	7.1
Total	84	100.0

Table 2 describes occupational status of alleged dowry deaths. Maximum number of female victims of alleged dowry are housewives (77.4%) and minimum number of professionals (2.4%) with 1 victim who was working as house help.

Table 2: Occupational status among alleged dowry deaths

Occupation	Frequency	Percentage
Professional	2	2.4
Clerical	3	3.6
House help	1	1.2
Housewife	65	77.4
Laborer	10	11.9
Tailor	3	3.6
Total	84	100.0

Table 3 shows distribution of educational status among alleged dowry victims. Maximum female victims are illiterate (39.3 %). Only (3.6%) female victims are Professionals and (2.4%) received intermediate school education.

Table 3: Educational status among alleged dowry victims

Educational status	Frequency	Percentage
Illiterate	35	39.3
Primary	7	8.3
Middle	26	31.0
High school	6	9.5
Intermediate	2	2.4
Graduate	5	6.0
Professional degree	3	3.6
Total	84	100.0

Table 4 describes socioeconomic status of alleged dowry victims according to Kuppaswamy’s classification. Maximum female victims of alleged dowry death belonged to upper lower socioeconomic class (56 %) and minimum belonged to upper socio-economic class (21.4 %).

Table 5 depicts distribution of cases on the basis of hospitalisation. Out of 84 alleged dowry victims, 29.8% female victims are hospitalised and 59(70.2%) female victims are brought dead.

Table 4: Socio-economic status among alleged dowry deaths

Socioeconomic status	Frequency	Percentage
Upper (Class I)	2	1.2
Middle (Class III)	19	21.4
Upper Lower (Class IV)	45	56.0
Lower (Class V)	18	21.4
Total	84	100.0

Table 5: Hospitalisation Among Alleged Dowry Deaths

Hospitalisation	Frequency	Percentage
Yes	25	29.8
No	59	70.2
Total	84	100.0

Table 6 denotes distribution of alleged dowry victims according to the place of incidence. Out of 84 female victims of alleged dowry , in 59 female victims (70.2%) , the incidence occurred at their own /in-laws residence , while in 25 female victims 29.8% cases , the incidence occurred at places other than their own residence.

Table 6: Place of Incidence Among Alleged Dowry Victims

Place of incidence	Frequency	Percentage
Own /in-laws house	59	70.2
Other	25	29.8
Total	84	100.0

Table ?? describes the distribution of percentage of burns injury among alleged dowry deaths and survival period distribution. In maximum burns cases , victims are brought dead 36.36% and percentage of burns in maximum cases(50%) is 71-90% of Total body surface area.

(Figures mentioned in parenthesis are percentages)

Table 8 shows association of menstruating uterus and suicidal dowry deaths. Out of a total of 35 menstruating female victims , 31 (88.57 %) suffered from suicidal deaths and 4 (11.42 %) are non- suicidal deaths. Out of 49 non-menstruating female victims , 33 (67.34 %) suffered non-suicidal deaths ,16 (32.66 %) suffered from suicidal deaths.

(Figures mentioned in parenthesis are percentages)

Table 9 Shows distribution of manner of death according to provocative factors in alleged dowry deaths.

Out of 47 suicidal deaths reported, in maximum cases (36 or 76.6%) , dowry was the provocative factor, in 6 victims (12.77%), domestic abuse was a provocative factor, in 2 cases (4.26%), infertility was an important provocative factor. 1 (2.13 %) female victim each has RVD and Psychiatric condition like depression is an important provocative factor for suicide.

In maximum suicidal cases within 7 years of marriage, dowry and domestic abuse are important provocative factors and RVD and Psychiatric diseases are least provocative factors for deaths.

Table 7: Distribution of percentage of burns according to survival period

Percentage of burns		31 to 50	51 to 70	71 to 90	>90	Total
Survival period	Brought Dead	0	3(37.5)	4(50)	1(12.5)	8
	0 to 6 Hrs.	0	1(100)	0	0	1
	7 to 12 Hrs.	0	2(33.33)	4(66.66)	0	6
	13 to 18 Hrs.	0	1(33.33)	2(66.66)	0	3
	19 to 24 Hrs.	0	1(100)	0	0	1
	1 to 7 Days	1(33.33)	1(33.33)	1(33.33)	0	3
Total		1	9	11	1	22

Table 8: Association of menstruating uterus and female deaths among alleged dowry deaths

Uterus	Non-suicidal	Suicidal deaths
Menstruating	4 (11.42)	31 (88.57)
Non-menstruating	33 (67.34)	16 (32.66)
Uterus	Non-suicidal	Suicidal deaths

Out of 37 homicidal deaths within 7 years of marriage, in 2 (5.41 %) female deaths, the provocative factor for death is love affair, 9(24.32 %) female victims suffered homicidal deaths due to domestic abuse, 2 (5.41 %) female victims suffered homicidal deaths due to economical crisis like when involved in property disputes or high paying insurance policies. In 20 (54.05 %) female victims dowry is an important provocative factor for homicidal intent. 1 (2.7 %) female victim suffered homicidal death due to unemployment as a provocative factor, wherein the reason for impulsive anger of the accused is the lack of economical input from the female victim to support her family. In 3 (8.11 %) female victims, the cause of homicidal intent is not known.

In Maximum homicidal deaths within 7 years of marriage, dowry and domestic abuse are major provocative factors, whereas unemployment, love affair and economical crisis are least provocative factors for homicidal intent.

(Figures mentioned in parenthesis are percentages)

Table 10 shows distribution of marriage years according to provocative factors in Alleged dowry deaths. Maximum cases of alleged dowry deaths occurred in 1st year of marriage (39.29%). Dowry was a provocative factor in 84.84% of deaths within first year.

4. Discussion

Out of 84 female victims of alleged dowry death, maximum alleged female dowry victims were from the age group of 21 to 30 years of age and minimum were from the age group of 41 to 50 years of age.

Similar findings were noted in a study of Rajesh Kumar Verma et al,⁴ where in, maximum number of deaths (56.56%) occurred between 18-25 years of age and least (5.43%) in the age-group 31-35 years.

Following studies gave similar results- Shrivastava⁵ AK et al, Kulshreshta⁶ P et al, Sharma⁷ BR et al, Harish D et al,⁸ Ghaffar UB⁹ et al, Kumar V,¹⁰ et al, Saha KK¹¹ et al

and Agnihotri A et al.¹²

The high incidence of unnatural deaths in young emotionally charged females is most probably due to unending demands of dowry (cash/ kinds) by their husbands and/or in-laws, for which they sometimes kill or torture the bride in such a way that she commits suicide, which is consistent with other authors findings.

And brides belonging to the age group of 41 to 50 years are those who committed a late marriage, which is noted mostly among educated independent working females and hence, the incidence of allegedly dowry deaths is comparatively less. This being a comparatively emotionally mature age group, alleged dowry deaths are comparatively less.

Maximum number of female victims of alleged dowry were housewives (77.4%) which may be attributed to financial dependency of housewives and minimum number of professionals (2.4%) with 1 victim who was working as house help.

Similar findings were noted in Prajapati P et al¹³ and Kumar T N S¹³ et al studies.

Maximum female victims were illiterate (39.3 %) .Only (3.6%) female victims are Professionals and (2.4%) received intermediate school education, which results in maximum dependant female population leading to exploitation and abuse of these females. In Saha et al¹¹ and Kumar V et al,¹⁴ wherein maximum female dowry victims are illiterate and minimum female victims are professionals similar to present study.

Maximum female victims of alleged dowry death belonged to upper lower socioeconomic class (56 %) and minimum belonged to upper socio-economic class (21.4 %). Dowry is considered as an evil of lower socio-economic group due to illiteracy and ignorance. Sharma BR et al⁷ and Kumar V et al¹⁴ states similar results.

Out of 84 alleged dowry victims, 29.8% female victims are hospitalised and 59 (70.2%) female victims are brought dead. Dowry victims in most cases are deprived from

Table 9: Distribution of manner of death according to provocative factors in alleged dowry deaths

Provocative Factors		Manner of death		Total
		Homicide	Suicide	
	Not known	3(8.11)	0	3
	Love failure/affair	2(5.41)	1(2.13)	3
	Domestic abuse	9(24.32)	6(12.77)	15
	Economic crisis	2(5.41)	0	2
	Dowry	20(54.05)	36(76.60)	56
	Aids	0	1(2.13)	1
	Psychiatry	0	1(2.13)	1
	Infertility	0	2(4.26)	2
	Unemployment	1(2.70)	0	1
	Total	37	47	84

Table 10: Distribution of duration of years according to provocative factors in alleged dowry deaths

Provocative factors	<1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 6	6 to 7	Total
Not known	1(3.03)	1(5)	1(7.14)	0	0	0	0	3
Love Failure/affairs	0	1(5)	0	0	2(33.33)	0	0	3
Domestic abuse	4(12.12)	2(10)	5(35.71)	0	1(16.67)	2(40)	1(50)	15
Economic Crisis	0	1(5)	0	0	1(16.67)	0	0	2
Dowry	28(84.84)	15(75)	6(42.86)	2(50)	1(16.67)	3(60)	1(50)	56
Aids	0	0	0	1(25)	0	0	0	1
Psychiatry	0	0	1(7.14)	0	0	0	0	1
Infertility	0	0	0	1(25)	1(16.67)	0	0	2
Unemployment	0	0	1(7.14)	0	0	0	0	1
Total	33 (39.29)	20 (23.8)	14 (16.67)	4 (4.76)	6 (7.14)	5 (5.95)	2 (2.38)	84

(Figures mentioned in parenthesis are percentages)

hospital services which may be because of ignorance of their relatives to hospitalise the victims.

Out of 84 female victims of alleged dowry, in 59 female victims (70.2%), the incidence occurred at their own residence, while in 25 female victims 29.8% cases, the incidence occurred at places other than their own residence. Similar findings are noted by Dasari et al.¹⁵ Sixty one percent females (105) suffered burns in their in-laws house while the rest at other places.

Similar findings were noted by Jaswinder Singh¹⁶ et al, wherein 67.34% incidences occurred in in-laws house, while remaining occurred in other places.

In maximum burns cases, victims are brought dead 36.36% and percentage of burns in maximum cases (50%) is 71-90% of Total body surface area. With increasing percentage of body surface area involved in burns injury, the fatality rate increases.

Similar to Sharma B R¹⁵ and Modi JP¹⁶ also states that death in burns injury may occur within 24 -48 hours, but the first week is most fatal.

Out of a total of 35 menstruating female victims, 31 (88.57%) suffered from suicidal deaths and 4 (11.42%) are non-suicidal deaths.

Out of 49 non-menstruating female victims, 33 (67.34%) suffered non-suicidal deaths, 16 (32.66%) suffered from suicidal deaths.

Strong association between menstruating uterus and suicidal deaths is observed.

The first (or menstrual) and fourth (or premenstrual) week of the menstrual cycle may be associated with many suicide attempts in women, stated by Baca –Garcia¹⁷ et al.

Out of 47 suicidal deaths within 7 years of marriage, in 1 (2.13%) female victim, the provocative factor for death is love failure/ affair of the husband, 6 (12.77%) female victims committed suicide due to domestic abuse by the in-laws and 36(76.60%) female victims committed suicide with dowry as a provocative factor. 2 (4.26%) female victims committed suicide with infertility as a provocative factor and 1 (2.13%) female victim each has RVD and Psychiatric condition like depression is an important provocative factor for suicide. In maximum suicidal cases within 7 years of marriage, dowry and domestic abuse were important provocative factors and RVD and Psychiatric diseases are least provocative factors for deaths.

Out of 37 homicidal deaths within 7 years of marriage, in 2 (5.41%) female deaths, the provocative factor for death is love affair, 9(24.32%) female victims suffered homicidal deaths due to domestic abuse, 2(5.41%) female victims suffered homicidal deaths due to economical crisis like when involved in property disputes or high paying insurance policies. In 20 (54.05%) female victims dowry is an important provocative factor for homicidal intent.1

(2.7 %) female victim suffered homicidal death due to unemployment as a provocative factor, wherein the reason for impulsive anger of the accused is the lack of economical input from the female victim to support her family. In 3 (8.11 %) female victims, the cause of homicidal intent was not known.

In Maximum homicidal deaths within 7 years of marriage, dowry and domestic abuse are major provocative factors, whereas unemployment, love affair and economical crisis are least provocative factors for homicidal intent.

Similar to Biswadeep Paul et al,¹⁸ family disputes pertaining to Dowry deaths including failure in love accounted for highest number of burns injury deaths. In 2010, according to NCRB, a total of 8391 and in 2016, 8618 dowry deaths are reported in India, while in Assam according to Crime Statistics, 121 female deaths are observed and according to National Crime Bureau, a dowry death occurs every 77 minutes.

Similar to the findings of Guntheti et al,¹⁹ where in dowry and harassment from in-laws are important provocative factors. Similar findings were noted in Dere Rajesh²⁰ et al and Meera Tet al.²¹

According to T.C.Siddaramanna²² et al, family issues are important cause of poisoning and Chakrabarthi²³ et al, more than one-third of deaths due to domestic conflict, marital disharmony, quarrel.

Another study with similar findings is Shrivastav⁵ et al, with dowry (25%) and domestic abuse (26.39%) being an important provocative factor for suicidal deaths and infertility (4.17%) and poverty (5.56%) being the provocative factors for least suicidal deaths among newly married females.

Maximum cases of alleged dowry deaths occurred in 1st year of marriage (39.29 %) with dowry as an important provoking factor in 84.84% of deaths in 1st year of marriage.

Dowry and domestic abuse were important provocative factors for death after marriage within 7 years in alleged dowry victims. Dowry was an important factor for death within first three years of marriage. While infertility is an important provocative factor in the 3rd and 4th decade of married life, when the family pressure for bearing a child increases and hence, is a trigger factor for suspicious death.

This relationship of provocative factors and duration of marriage years was studied uniquely in this study.

5. Conclusions

Incidence of dowry deaths among unnatural deaths is 34.85 % which is higher considering the fact that the study is conducted within city.

Maximum cases of alleged female dowry deaths were from younger and reproductive group which is emotionally labile.

Maximum housewives, illiterate belonging to upper lower socioeconomic class suffered death.

Maximum deaths occurred within first year of marriage and did not receive hospitalization services.

Dowry was an important provocative factor in most of the deaths along with domestic abuse and infertility.

Most of the deaths occurred at their own or in-laws residence.

Most of the alleged cases of dowry were suicidal and most of the suicides were during the menstruation phase of cycle.

Asphyxia was the cause of death in most cases and a significant number of Burns injury cases were also noted.

6. Source of Funding

None.

7. Conflict of Interest

None.

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