Forensic Section

Sudden and Unexpected Deaths among Women of Reproductive age – Qualitative Analysis of Risk Factors

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ABSTRACT

Introduction: Unnatural deaths in women of reproductive age (range 12-49 years) have a serious psychological and social impact on the family and community. Women of reproductive age comprise a vulnerable section of the society as they are confronted with menstrual and pregnancy related stress factors in addition to the stressors prevalent in the general population.

Aim: To analyse the socio-epidemiological and medico-legal factors involved in unnatural deaths among women of reproductive age.

Materials and Methods: This cross-sectional study was conducted on 1379 unnatural deaths of women of reproductive age subjected to medico-legal autopsy during a period of five years. Information was based on documents submitted by police at the time of autopsy and postmortem reports. Various demographic and medico-legal parameters were studied in detail.

Results: Unnatural deaths among women of reproductive age were 1415 (25.2%) cases of total autopsy. Road traffic accidents with 684 (49.6%) cases followed by poisoning in 157 (11.3%),

hanging in 133 (9.6%), burn in 114 (8.2%) and railway injuries in 108 (7.8%) cases were the leading causes of death. Nature of death was accidental in 877 (63.6%) cases followed by suicide in 434 (31.5%) cases and homicide in 68 (4.9%) cases. Dowry related deaths accounted for 247 (22.7%) deaths. Poisoning in 152 (35%) cases followed by hanging in 133 (30.6%) and burn in 71 (16.4%) cases respectively were the most common methods of suicide. Strangulation or smothering with 33 (48.5%) cases was preferred method of homicide. Road traffic and railway injuries in 727 (82.8%) cases constituted the bulk of accidental deaths. Married women with 1087 (78.9%) cases and housewives in 917 (66.5%) cases from combined families in 829 (60.1%) cases from rural background in 875 (63.5%) cases with low socioeconomic in 912 (66.1%) cases and poor education in 739 (53.6%) cases were the most vulnerable victims.

Conclusion: There is a strong association of various socio-epidemiological and medico-legal factors with respect to unnatural deaths among women of reproductive age group. To bring down the incidences of such deaths, multipronged preventive measures have been suggested.

INTRODUCTION

India is a country with dense rural population having rich yet conservative socio-cultural values where the role of women in the society is of paramount importance. The Indian society is basically a male dominated one with the men having the liberty to move out with little or no restrictions whereas women are mostly confined to indoors. Looking after the family members and children are believed to be the basic responsibilities of the women in general.

Women of child bearing age in India contribute 48.9% of total population [1]. In developing countries, pregnancy and childbirth-related complications are the leading cause of disability and death among women of reproductive age [2]. This situation is directly linked to poverty, a vast majority of poor women caught in this vicious cycle are young mothers of reproductive age, who are deprived of their basic right to be healthy [3].

Unnatural deaths in women of reproductive age (range 12-49 years) have a serious psychological and social impact on the family and community [4].

Among the unnatural deaths, bridal death, a heinous crime, is gradually engulfing and polluting the entire society. Sections 304 (B) and 498 (A) of the Indian Penal Code (IPC) have been introduced and Sections 174 Criminal Procedure Code (Cr PC) and 176 Cr PC have been modified but, instead of deterring dowry deaths, the

occurrences are increasing day by day and the number of cases coming for postmortem examination is rising [5].

Likewise, there are several other unnatural causes (poisoning, hanging, strangulation, burning, road traffic and railway injuries, drowning, electrocution, lightening and others) of mortality among women of reproductive age which are an outcome of various demographic and sociological factors the common Indian women are exposed to.

The objective of this study is to analyse the socio-epidemiological and medico-legal factors involved in unnatural deaths among women of reproductive age and suggest preventive measures for improvement of overall physical and mental health of women.

MATERIALS AND METHODS

This cross-sectional study was conducted in the Department of Forensic Medicine, MKCG Medical College, Berhampur, Odisha, India, during a span of five years from 01-01-2012 to 31-12-2016. The study is based on information in the documents (Inquest report and Dead body challan) submitted by the investigating police at the time of autopsy of the dead bodies and the facts incorporated in the respective autopsy reports. Also, detailed information regarding the circumstance of the death was also sought from the police, victim's relatives and friends. Ethical approval was obtained from Institutional

Ethical Committee of MKCG Medical College, Berhampur, Odisha, India.

A total of 5626 unnatural deaths subjected to medico-legal autopsy during the stipulated time period of five years, 1415 cases were women of reproductive age. About 36 unidentified cases out of these 1415 cases were excluded from the study and remaining 1379 were chosen as the study sample.

The data collected from the study sample were recorded in a case record form. In the first part of the case record form, information on demographic details like age, habitat, marital status, socioeconomic status, type of family, educational status, place and time of death and occupation were collected, and in the second part, data on cause, manner, mode of death and association of dowry related death were collected.

STATISTICAL ANALYSIS

The data collected was analysed using Graphpad Prism 5.0 free trial version. Descriptive analytical statistics was used to report the various parameters on sudden and unexpected death of women in reproductive age. A p-value of <0.05 was taken as statistically significant.

RESULTS

In this study, it was observed that out of 5626 medico-legal autopsies conducted in a span of five consecutive years, in 1415 (25.2%) cases of unnatural deaths, the victims belonged to reproductive age group [Table/Fig-1].

In 539 (39.1%) cases of unnatural deaths among reproductive age group the victims were in the age between 26-35 years followed by 16-25 years age group with 397 (28.8%) cases. Only about 150 (11%) cases were found in the early (12-15 years) and late (46-49 years) menstrual age groups. (p<0.001, 95% CI=23.38 to 25.65) [Table/Fig-2]. A significant association between different age groups of the victims with respect to unnatural deaths among reproductive women was detected.

In majority 1087 (78.9%) of deaths, the women were married. Unmarried women accounted for 214 (15.5%) numbers of cases whereas in 78 (5.6%) cases the marital status was not known [Table/Fig-3]. There is a significant association between marital status and unnatural deaths among reproductive women.

Among the various causes of unnatural deaths in women of reproductive age, road traffic accidents top the list with 684 (49.6%) cases followed by poisoning in 157 (11.3%), hanging in 133 (9.6%), burn in 114 (8.2%) and railway injuries in 108 (7.8%) cases. About 15 (1.1%) cases the cause of death was not known (p=0.7090) [Table/Fig-4]. The data obtained is found to show an extremely statistically significant association.

Most of the cases were accidental in nature with 877 (63.6%) (p<0.001). Suicidal deaths were 434 (31.5%) in number (p<0.001) and homicidal manner was the least with 68 (4.9%) cases (p<0.001). Among the accidental and suicidal deaths 1141 (87.03%) cases were in the age group between 16-45 years (p<0.001). Most of the

Year wise distribution for consecutive 5 years	Total numbers of autopsy conducted	Number of autopsy among women of reproductive age	p-value
2012	1000	244 (24.4%)	p<0.001
2013	1039	257 (24.7%)	p<0.001
2014	1142	306 (26.7%)	p<0.001
2015	1212	304 (25.0%)	p<0.001
2016	1233	304 (24.7%)	p<0.001
Total	5626	1415 (25.2%)	p<0.001

[Table/Fig-1]: Year wise prevalence of unnatural deaths among women of reproductive age (Both identified and unidentified).
$\chi^2 = 12.749$, df = 4, p-value = 0.0126

Age group (in years)	Number of cases	p-value
12-15	48 (3.5%)	p=0.0106
16-25	397 (28.8%)	p<0.001
26-35	539 (39.1%)	p<0.001
36-45	293 (21.2%)	p<0.001
46-49	102 (7.4%)	p<0.001
Total	1379 (24.5%)	p<0.001 95% CI=23.38 to 25.65

[Table/Fig-2]: Distribution of unnatural deaths among identified women of different reproductive age group.
$\chi^2 = 603.186$, df = 4, p-value <0.001

Age group (in years)	Unmarried	p-value	Married	p-value	Unknown marital status	p-value
12-15	48 (22.4%)	p<0.001	0	0	0	0
16-25	112 (52.3%)	p<0.001	243 (22.3%)	p<0.001	42 (53.8%)	p<0.001
26-35	28 (13.0%)	p<0.001	496 (45.6%)	p<0.001	15 (19.2%)	p<0.001
36-45	16 (7.4%)	p<0.001	266 (24.4%)	p<0.001	11 (14.1%)	p<0.001
46-49	10 (4.7%)	p=0.0048	82 (7.5%)	p<0.001	10 (12.8%)	p<0.001
Total	214 (15.5%)	p<0.001, 95%CI= 13.63 to 17.52	1087 (78.9%)	p<0.001, 95% CI= 76.65 to 81.03	78 (5.6%)	p<0.001 95% CI = 4.45 to 6.95

[Table/Fig-3]: Reproductive age group of women by marital status.
Married: $\chi^2 = 159.551$, df = 4, p-value <0.001
Unmarried: $\chi^2 = 672.637$, df = 4, p-value <0.001

Sl.No.	Causes of Unnatural Deaths	Number of cases among women of reproductive age	p-value
1.	Road Traffic accidents	684 (49.6%)	p<0.001
2.	Poisoning	157 (11.3%)	p<0.001
3.	Hanging	133 (9.6%)	p<0.001
4.	Burn	114 (8.2%)	p<0.001
5.	Railway Injuries	108 (7.8%)	p<0.001
6.	Strangulation/Smothering	33 (2.4%)	p<0.001
7.	Drowning	33 (2.4%)	p<0.001
8.	Electrocution	20(1.4%)	p=0.7090
9.	Fall from height	15 (1.0%)	p=1.0000
10.	Lightening	19 (1.3%)	p=0.4554
11.	Snake bite	17 (1.2%)	p=0.4554
12.	Medical negligence	14 (1.0%)	p = 0.0251
13.	Others (firearm, blast, sharp cutting injuries, stab injuries sunstroke, scorpion bite, bear mauling, elephant rumpling)	17 (1.2%)	p = 0.2629
14.	Unknown/Others	15 (1.1%)	p=0.7090
	Total	1379	

[Table/Fig-4]: Distribution of various causes of unnatural deaths among women of reproductive age.
$\chi^2 = 4451.170$, df = 14, p-value <0.001

homicidal deaths 53 (78%) (p<0.001) were in the 16-45 age group. In the late menstrual phase age group between 46-49 years, an increasing order was detected as regards accidental, suicidal and homicidal manner of death is concerned with 52 (5.9%), 41 (9.4%) and 11 (16.2%) cases respectively (p<0.001) [Table/Fig-5]. There was a significant association between the nature of death and age group of reproductive women dying due to unnatural cause.

Age group (in years)	Acciden-tal	p-value	Suicidal	p-value	Homi-cidal	p-value
12-15	62 (7.0%)	p<0.001	15 (3.4%)	p<0.001	04 (5.9%)	p = 0.0032
16-25	248 (28.3%)	p<0.001	148 (34.1%)	p<0.001	14 (20.5%)	p<0.001
26-35	276 (31.5%)	p<0.001	137(31.5%)	p<0.001	22 (32.3%)	p<0.001
36-45	239 (27.2%)	p<0.001	93 (21.4%)	p<0.001	17 (25.0%)	p<0.001
46-49	52 (5.9%)	p<0.001	41 (9.4%)	p<0.001	11 (16.2%)	p<0.001
TOTAL	877 (63.6%)	p<0.001	434 (31.5%)	p<0.001	68 (4.9%)	p<0.001

[Table/Fig-5]: Distribution of manner of death in different age groups among women of reproductive age.
Accidental: χ^2 = 292.050, df = 4, p-value <0.001
Suicidal: χ^2 = 165.410, df = 4, p-value <0.001
Homicidal: χ^2 = 15.968, df = 4, p-value = 0.0031

In most of the cases, 875 (63.5%), the deceased belonged to rural habitat followed by semi-urban in 388 (28.1%) cases. Urban dwellers in the study group constituted 116 (8.4%) cases (p<0.001) which was statistically extremely significant [Table/Fig-6].

Habitat	Number of cases	p-value
Rural	875 (63.5%)	p<0.001
Semi-Urban	388 (28.1%)	p<0.001
Urban	116 (8.4%)	p<0.001
Total	1379	

[Table/Fig-6]: Distribution of cases according to habitat of victims.
χ^2 = 643.389, df = 2, p-value <0.

In 1011 (73%) cases the education of the deceased was under matriculation, [Table/Fig-7] and most 1358 (99%) of the deceased belonged to low or medium socioeconomic group (p<0.001) [Table/Fig-8]. Housewives were the most vulnerable class with 917(66.5%) number of victims and in 308 (22.3%) cases the victimised women belonged to labourer or servant and other self-employment category. In 154 (11.2%) instances the victims were students [Table/Fig-9]. In 829 (60.1%) cases, victims had a combined family followed by nuclear family in 441 (32%) cases. In 85 (6.2%) cases the deceased used to stay alone and in 24 (1.7%) cases the family status of the victim was not known (p<0.001) [Table/Fig-10]. The data thus obtained were found to be extremely significant statistically with respect to educational status, socioeconomic status, occupational

Educational Status	Number of cases	p-value
Illiterate	283 (20.5%)	p<0.001
Primary	456 (33.1%)	p<0.001
Higher secondary	272 (19.7%)	p<0.001
Matriculate	134 (9.7%)	p<0.001
Intermediate	115 (8.3%)	p<0.001
Graduate	77 (5.6%)	p<0.001
Technical/professional	42 (3.0%)	p<0.001
Total	1379	

[Table/Fig-7]: Distribution of cases according to educational status.
χ^2 = 655.939, df = 6, p-value <0.001

SE status	Number of cases	p-value
Low	912 (66.1%)	p<0.001
Medium	446 (32.3%)	p<0.001
High	21 (1.6%)	p=0.0251
Total	1379	

[Table/Fig-8]: Distribution of cases according to socioeconomic status.
χ^2 = 864.149, df = 2, p-value <0.001

Occupation status	Number of cases	p-value
Student	154 (11.2%)	p<0.001
Housewives	917 (66.5%)	p<0.001
Labourers/Servents	72 (5.2%)	p<0.001
Self employed	236 (17.1%)	p<0.001
Total	1379	

[Table/Fig-9]: Distribution of cases according to occupational status.
χ^2 = 1305.511, df = 3, p-value <0.001

Type of family	Number of cases	p-value
No family/staying alone/ homeless	85 (6.2%)	p<0.001
Combined	829 (60.1%)	p<0.001
Nuclear	441 (32.0%)	p<0.001
Not known	24 (1.7%)	p=0.0090
Total	1379	

[Table/Fig-10]: Distribution of cases according to type of family.
χ^2 = 1201.197, df = 3, p-value <0.001

status and type of family.

Among the women of reproductive age 247 (22.7%) deaths were due to dowry related problems and rest were due to other causes

Type of Death	Number of cases	p-value
Dowry related	247 (22.7%)	p<0.001
Others	840 (77.3%)	p<0.001
Total	1087	

[Table/Fig-11]: Association of dowry related deaths among married women of reproductive age.
χ^2 = 323.504, df = 1, p-value <0.001

(p<0.001) [Table/Fig-11]. An extremely significant association is detected in this context.

Out of the suicidal deaths in women of reproductive age, those due to poisoning 152 (35%) stood out as most common cause closely followed by hanging with 133 (30.6%) cases. Deaths due to burn were the third most common cause in the list with 71 (16.3%) cases and with 65 (15%) cases railway injuries were next in the order. Drowning as a means of suicide was detected in 13 (3%) cases which was the least common cause. (p<0.001, 95% CI= 27.30 to

Sl.No.	Causes of Unnatural death	Number of cases of suicides among women of reproductive age	p-value
1.	Poisoning	152/434 (35%)	p<0.001
2.	Hanging	133/434(30.6%)	p<0.001
3.	Burn	71/434 (16.4%)	p<0.001
4.	Railway Injury	65/434 (15%)	p<0.001
5.	Drowning	13/434 (3%)	p<0.001
Total		434/1379 (31.5%)	p<0.001 95% CI= 27.30 to 32.19

[Table/Fig-12]: Distribution of suicidal deaths by various causes of unnatural deaths among women of reproductive age.
χ^2 = 171.512, df = 4, p-value <0.001

32.19) [Table/Fig-12]. There is an extremely significant association in suicidal deaths among the women of reproductive age group.

Strangulation or smothering with 33 (48.5%) cases was the most common cause of homicidal deaths in women of reproductive age and with 21 (30.9%) cases burn was next in the list. Other (firearm, blast, sharp cutting injuries, stab injuries) causes were encountered in 09 (13.2%) cases and poisoning in least i.e., 05 (7.3%) number of homicides. (p<0.001, 95% CI= 4.27 to 6.73) [Table/Fig-13]. There was an extremely significant association in homicidal deaths among the women of reproductive age group.

Sl.No.	Causes of Unnatural death	Number of Homicides among women of reproductive age	p-value
1.	Poisoning	05/68 (7.3%)	p<0.001
2.	Strangulation/Smothering	33/68 (48.5%)	p<0.001
3.	Burn	21/68 (30.9%)	p<0.001
4.	Others (Blunt trauma, Firearm, Blast, Sharp cutting injuries, stab injuries)	9/68 (13.2%)	p<0.001
	Total	68/1379 (4.9%)	p<0.001 95% CI= 4.27 to 6.73

[Table/Fig-13]: Distribution of homicidal deaths by various causes of unnatural deaths among women of reproductive age.
χ^2 = 29.027, df = 3, p-value <0.001

Sl.No.	Causes of Unnatural death	Number of cases among women of reproductive age	p-value
1.	Road Traffic accidents	684 (78%)	p<0.001
2.	Railway Injuries	43 (4.9%)	p<0.001
3.	Burn	22 (2.5%)	p<0.001
4.	Electrocution	21 (2.4%)	p=0.037
5.	Fall from height	20 (2.3%)	p=0.0037
6.	Drowning	20 (2.3%)	p<0.001
7.	Lightening	19 (2.2%)	p=0.2454
8.	Snake Bite	17 (2%)	p=0.3836
9.	Medical Negligence	14 (1.6%)	p=0.3836
10.	Others (sunstroke, scorpion bite, bear mauling, elephant rumpling)	17 (2%)	p=0.3836
	Total	877/1379 (63.6%)	p<0.001 95% CI= 57.86 to 63.09

[Table/Fig-14]: Distribution of accidental deaths by various causes of unnatural deaths among women of reproductive age.
χ^2 = 4810.593, df = 9, p-value <0.001

Road and railway traffic injuries constituted the bulk i.e., 684 (78.1%) cases of accidental deaths among reproductive age women (p<0.001) [Table/Fig-14]. There was an extremely significant association in accidental deaths among the women of reproductive age group.

DISCUSSION

In this study it was found that 25.2% of total deaths subjected to medico-legal autopsy in a span of five years were women of reproductive age group out of which 89% were in the age group between 16-45 years and rest were either in the early (12-15 years) or late (46-49 years) menstrual stage. In a study by Kumar A and Pandey SK in Varanasi, India, 22.25% of total unnatural deaths comprised women of reproductive age between 15-45 years [2] but in some other studies it is 14.8% [4]. Kulshrestha P et al., in a study conducted on unnatural deaths among young women in south Delhi within seven years of marriage found almost 98% falling in the age group between 15-30 years [6]. In the present study we have observed that the increasing trend of unnatural death among women of reproductive age group in the first two years has been slowly decreasing in the next three years.

In this study married women of reproductive age were found to be more vulnerable to unnatural deaths in comparision to unmarried women. Our results are similar to studies conducted by Sane MR and Ananda K in Bangalore [7] and others [8,9]. Early marriage, lesser decision making capacity in marital issues, early motherhood, repeated pregnancies and inaccessibility to family planning services affect the women's health and life expectancy [2].

In our study deaths caused due to road traffic accidents (49.6%) outnumbered poisoning (11.3%), hanging (9.6%), burn (8.2%) and railway injuries (7.8%). But in other studies by Kumar A and Pandey SK, Padubidri JR et al., and Zine KU et al., deaths due to burns is the commonest unnatural cause of death in reproductive age group females [2,4,10]. In another study by Sane MR et al., hanging followed by poisoning and burn are the common causes of death [7]. This can be explained by the fact that accidents are the commonest manner of death in this region among which road accidents tops the list [11].

The most common manner of death in our study was accidental (63.6%) followed by suicidal (31.5%) and homicidal (4.9%) with maximum incidence in the age group between 16-45 years. Our findings are similar to that of Pathak A and Sharma S conducted in Vadodara [12]. However, findings of our study are different from the studies conducted by Yusuf HR et al., in Bangladesh and Prajapati P et al., in Gujarat who found suicide in the third decade of life as the most common manner of death [13,14].

Women of reproductive age dwelling in rural areas were found to be most vulnerable and those residing in urban areas were comparatively less vulnerable to sudden and unexpected deaths. Similar observations were made by other authors [2]. This may be due to low level of education, dowry related matters and poor accessibility to health services in the rural areas.

In this study we found that about most (54%) of the deceased women of reproductive age was either illiterate or educated upto primary level only. Our findings were in agreement with a similar study done by Mohanty S et al., where 53% of victims were illiterates [15]. In a study conducted by Kulshrestha P et al., 50.42% victims were illiterate [6]. Obviously, educated women were less vulnerable to unnatural death as they were aware of their rights and privileges and also self confident to deal with the adversities in life.

In our study victims belonging to the lower socioeconomic class constituted 99% of the cases. In another study by Kulshrestha P et al., in South Delhi [6] about 70% victims belonged to families with income less than Rs. 2000/- per month. Poverty therefore plays a vital role in overall health of a women and is directly proportional to the average family income and social status.

In our study housewives (66.5%) followed by self employed (17.1%) women were the commonest victims. Housewives were the most common victims in other studies conducted by Mohanty S et al., in Berhampur and Agnihotri A in Allahabad in India [15,16]. This can be attributed to the fact that the Indian women population is mostly confined to the indoors engaged in household tasks.

In this study we found that 60.1% victims belonged to a combined family, 32% were from combined family and 6.2% victims were staying alone. Shaha KK et al., Mohanty S et al., and Arora P and Srivastava AK also found victims of joint family to be more affected than victims from nuclear families [5,15,17]. Again this can be explained by the fact that most of the Indian families as such were joint families. The women staying in it were under pressure by the senior members of the family to follow and practice the cumbersome conservative and orthodox rituals. Moreover, the husbands were mostly dominating and seldom understand the needs of the wives in general. Hence the interests of the women were neglected and they sacrifice their wishes in the lager interest of the family.

Dowry related deaths accounted for 22.7% of total cases in this study. In another study done by Verma RK et al., in Allahabad, India, the percentage of death of females within seven years of marriage out of total female mortality was found to be 25.58% which is slightly higher than our findings [18]. Dowry deaths are deaths of women who are murdered or driven to suicide by continuous harassment and torture by husbands and in-laws in an effort to extort an increased dowry. Such deaths are prevalent in India, Pakistan, Bangladesh and Iran.

Poisoning (35%) was the leading cause of suicide in this study followed by hanging (30.6%) and burn (16.4%). With 3% cases drowning remained at the last. In another study by Padubidri JR et al., the preponderant method of suicide was poisoning, followed by hanging, burns and drowning which are in total agreement with our findings [4]. Easy availability of cheap quality poisons, ineffective implementation of legislations for storage and distribution makes poisoning the most common method of suicide in this region while violent and painful methods like hanging, burn and drowning fall behind.

Among the preferred methods of homicide in women of reproductive age group in this study, strangulation and smothering top the list followed by burn. In study by Padubidri JR et al., two-thirds of the homicidal deaths were due to assault caused by blunt-force trauma, ligature strangulation and sharp-force trauma and one-third of the homicidal victims died due to burns [4]. Our findings are also contrary to the study of Chang J et al., done on pregnancy-associated homicide where overall, firearms were the leading mechanism followed by cutting/piercing and strangulation [19]. In another study by Mohanty S et al., conducted in this region on homicide, sharp cutting followed by blunt trauma were the leading causes [20].

Accidental deaths in our study were mostly due to traffic injuries on road and railway track which is similar to the findings of other authors. Our study findings are similar to study by Chakrabarty P et al., [21].

LIMITATION

The study was confined within a particular geographical area. The study was based on information in the documents (Inquest report and Dead body chalan) submitted by the investigating police at the time of autopsy of the dead bodies and the facts incorporated in the respective autopsy reports. Scene of crime was visited only in very few cases.

CONCLUSION

Accidental deaths due to road traffic accidents are the leading causes of unnatural deaths among women of reproductive age. Suicidal and homicidal deaths are next in order of frequency. Poisoning and strangulation are the most common methods of suicide and homicide respectively. Dowry related deaths accounted for good number (22.7%) of unnatural deaths. Married housewives living in combined families hailing from rural background with low socioeconomic and poor education status are most vulnerable.

In order to improve the overall health of women of reproductive age, measures like strict enforcement of traffic rules, effective implementation of legislations relating to storage, transport and distribution of poisons, provision of poison control centers at target points, especially in rural pockets, ensuring round the clock emergency healthcare at the remotest areas, improvement of overall socioeconomic and educational status of women by effective implementation of various schemes and programmes in place, creating good women oriented employment opportunities and abandonment of the dowry system are suggested.

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